

## Appendix 1 – Planting Dictionary

Are you puzzled by all the strange words you come across while reading about planting? Don't be surprised – there's some arcane terminology in the silviculture field, and a lot of it isn't scientific. Planters have invented or co-opted all sorts of words and expressions to communicate planting-related concepts. This dictionary should solve some of your questions about terminology.

**Acceptable Microsite** – A specific spot best suited for the survival and growth of the planted tree. General descriptions of acceptable and unacceptable microsites are usually listed in the planting contract, or provided at the pre-work conference.

**Acceptable Natural** – A natural tree of a preferred and/or acceptable specific which is of sufficient size and quality to be treated the same as a planted tree. The forester will usually define what constitutes an acceptable natural (or “good natural”) at the pre-work conference. As an example, they might say that pine and spruce which are a minimum of 15cm in height with good form and vigour, and having a single leader, are considered to be acceptable naturals, while existing trees of any other species would not be considered acceptable.

**Acceptable Species** – In a regen survey, this refers to any species that may legally contribute to stocking.

**Aerial Fertilizing** – In some areas, especially on the coast, a forester may use a helicopter to spread fertilizer across a cut-block that has already been planted in the past. This usually doesn't happen for several years after a block has been planted, and may commonly happen around the time that a block has reached free-to-grow status (therefore, planters don't really ever see this happening). There are no legal requirements to fertilize blocks at this stage, but some foresters/companies do it as an investment into the future forest, in hopes that it will reach maturity more quickly.

**Aerial Pruning** (aka. high topping) - In some areas, standing mature trees that are immediately beside a cut-block that has just been harvested are particularly susceptible to being blown over, since they are now exposed to higher wind activity. A tree with lots of branches has more cross-section, and thus is more likely to be blown over than a tree with very few branches. Logging companies will

sometimes use a helicopter with a “topper” attachment that hangs underneath, and the machine will go around and “top” all the mature wood around the edges of the new block, which basically means that the machine cuts the top ten or twelve feet of the tree off and lets it fall down to the forest floor. For many types of coniferous trees (especially pine), the majority of the living branches with needles are at the very top of the tree, so by “topping” the tree the likelihood of it being blown over by wind is significantly reduced, and hopefully there are still enough branches left further down to sustain photosynthesis, so the tree doesn’t necessarily die.

**Air Pocket** – When planting a tree, the soil should completely surround the roots, and be touching the roots so that nutrients found within the soil can flow into the roots. If the hole that the seedling was planted in appears to be closed from the surface, there is still a chance that the roots are not completely encased in dirt. If that is the case, then the seedling has an “air pocket” where the dirt is not touching the roots. An “underground” air pocket used to be considered a fault under BC’s provincial standard FS 704 quality assessment system, but since 2012, so long as the top of the hole is closed (as a moisture seal), an air pocket is no longer considered to be a fault.

**Allocation** – The number of trees that are expected to be planted on a block. This is part of the block’s prescription.

**Alternate Leaf Arrangement** – A pattern of leaves on a stem, twig, or branch, where the base of each leaf grows at staggered intervals from the stem.

**Ambi Planting** – Stands for ambidextrous planting, ie. Being able to plant with both hands. This may sound odd, since all planters use both hands when planting – one hand holds the shovel and the other puts the trees in the ground. However, most people consistently hold the shovel in their dominant hand, and use their weaker hand to place the trees in the ground. An ambi planter, on the other hand, is comfortable working with the shovel in either hand. It is difficult to learn ambi planting unless you do so from the beginning of your career, although a few experienced planters have managed to learn the skill part-way through their careers. There are very large advantages to learning as an ambi planter. For one thing, it means that you’ll wear out your shoulders/elbows/wrists more evenly, instead of destroying just one side of your body over a period of years. In certain situations (tough ground), it can be slightly advantageous to quickly shift your shovel to the other hand. If planting multiple species, it can be very advantageous to be able to have one species on one side of your bags and another on the other side, and use two drawbags, because on some contracts you are asked to plant each species in specific types of microsites rather than a random mix. Finally, if you injure one side of your body, and you’re ambidextrous, you can probably switch sides and keep working instead of having to take a couple days off. The drawback with learning to plant ambi is that it is slower, which makes a lot of rookies abandon attempts to become ambi. For an experienced planter, only the most motivated of individuals can learn ambi planting. The easiest way for a vet to learn this skill is to plant your first bundle of every bag-up with your “opposite” hand, so it gradually becomes comfortable over time, and it doesn’t feel like you’re taking a big immediate hit on your production earnings.

**Amphetamines** – A type of drug that is a stimulant. Some planters take amphetamines regularly to give them a boost of energy while planting, so they can work harder and make more money. Common types include “ephies” (ephedrine) and “bennies” (benzedrine), or “dexies” (Dexedrine). All three have the tendency to “wake up” and energize the planter. Ephedrine is a mild stimulant, while Benzedrine is somewhat stronger, like a concentrated form of caffeine. Both are also called “diet pills” because some physicians prescribe them for weight loss. Ephedrine has sometimes been available over the counter, in some forms, in Canada. Like caffeine, these drugs will make your pulse beat faster and you may become flushed and slightly excited. Both are bronchodilators, which means that your lungs “open up” and the alveoli are able to absorb more oxygen. Like caffeine, these drugs can make you feel warm, and jittery. Dexedrine is probably more potent than ephedrine and Benzedrine, because it does not make the user feel as shaky or jittery, and it also significantly increases concentration (it is often used with attention deficit disorder – ADD – patients). There are a few major drawbacks with using stimulants to enhance your planting performance. First, the drugs only work for a short time, and once they wear off, the user feels even more tired and worn out. This leads to the need to take more just to feel normal, and can lead to addiction. Also, these drugs often take more than 12 hours to be flushed out of your bloodstream, which means that even though the planter seems to go to sleep at night (sometimes with a bit of difficulty), the sleep that does come is not the “deep sleep” required to truly rest your body. Another problem with amphetamines is that they are diuretics, which means they increase the tendency to urinate. Dehydration is therefore a significant factor to be aware of when taking amphetamines. The combination of the increased heart rate with dehydration on a hot day, when the planter is working at the peak of their abilities, could possibly result in something as serious as collapse, heat stroke, or heart attack. The use of stimulants stronger than caffeine is therefore strongly discouraged.

**Anchor Points** – Advantageous positions from which to start or finish construction of a control line in fire suppression. These locations usually have natural features which help prevent the spread of a fire.

**Angiosperm** – A plant which has its seeds enclosed in an ovary; a flowering plant.

**Apical Bud** – See “terminal bud.”

**Area Planting** – When a planter works in their assigned piece, they usually try to follow some sort of defined pattern to cover the ground most efficiently. Some planters follow the edge of the ground that is already planted, which means they are following lines of trees which have already been planted (line planting). These lines do not necessarily have to be straight, and may curve around quite a bit to follow topography, obstacles, or existing planted seedlings. Anyway, as the planter is working and following a line of trees, they might eventually come to a group of obstacles that are difficult to work around. In that case, the planter may make a slight diversion and fill a small section all at once, rather than passing several consecutive lines through it, to improve efficiency. For instance, if a number of large (two foot thick) cottonwood trees have fallen all over a block, and are

all laying across the ground, a couple feet in the air, it will be very hard to keep crawling over the fallen trees. Seen from above, the ground may be exposed in a number of odd-shaped squares and triangles, depending on where the cottonwood trees have fallen across the block. Therefore, a planter may choose, after crawling over a log and into a small triangle that holds a couple bundles of seedlings, to plant that entire small area, so after they leave, they don't have to climb back into it a second time on the next pass through. If the planter is jumping from "triangle" to "triangle" or some sort of similar pattern, then the planter is "area planting," rather than doing just one straight line of trees to the back. The obstacles or boundaries do not need to be as blatant as in the above example. Some planters will just do a form of line planting in which they plant a swath of trees that is several seedlings wide. The width of that swath may increase when the ground is good, and decrease when the going gets tough, if the planter is being lazy or "creaming out" their piece. Technically, this type of approach should still be called line planting, whether it is a "double line" or "triple line" or greater (depending on width). However, many planters often mistakenly call this area planting, or call it area planting (on purpose) just make it sound more legitimate when they're trying to justify to other planters why they aren't following a line straight to the back of the piece.

**Aspect** – The compass direction (N/S/E/W) that a hillside is facing.

**Assisted Migration** – Refers to the movement of planting material from its seed collection site to planting sites where the current or predicted climate matches the climate of the recent past where the seed was collected.

**B Train** – Trucker slang for a pair of trailers that are attached to each other by means of a "fifth wheel."

**Back-Bagging** – Carrying trees in your back pouch on a set of three-baggers. This is harder on your lower back than carrying trees in the side bags. Someone with a really heavy load of trees, from completely filling all three (or four) pouches, may have a hard time walking around and keeping their balance in heavy slash. This is the origin of the phrase, "that back-bagger swagger."

**Back-Cut** (aka. Double-Shovel) – The back-cut is a move designed to eliminate underground air pockets. Once a seedling has been planted, you can put the shovel in the ground about six inches away from the tree, straight up and down. Then, if you pull the handle of the shovel toward you with your foot resting on the kicker of the shovel to hold it in place, the tip of the blade (which is underground) will pivot away from you toward the roots of the tree, hopefully closing any air pockets. Double shoveling is probably a waste of time in any decent crumbly mineral soil, especially sandy soils, but can be useful in areas with heavy clay, because kicking the top of the hole shut doesn't necessarily eliminate air pockets in this kind of ground. Some BC Ministry contracts specify that every single tree must be back-cut, although this is rarely enforced in the field.

**Backfill** – To plant your trees in an assigned piece in a logical and efficient manner whereby you attempt to plant the sections at the back (or furthest away from your cache) first, so you don't have to walk over planted ground later to finish a hole.

**Bag Out** – To finish planting the trees in your planting bags.

**Bag Up** (aka. Bagging Up) – To fill your empty planting bags with seedlings in preparation for going out on a "run," ie. going out to plant those seedlings. The process of planting out those trees is sometimes also referred to as a "bag up" or a "bag out." Some examples, in context, would be, "Let's go plant a couple of bag ups" or "That was a fast bag out."

**Bags** (aka. Planting Bags) - Planting bags are a set of three or four large vinyl pouches, sewn together on a belt or waist strap. Each pouch is large enough to hold about a five-gallon water jug, or a third to a half a box of trees (on average). Shoulder straps are attached to the belt, to help distribute the weight you are carrying, so that all the weight is not resting on your hips (although many women forego using the shoulder straps as they can be uncomfortable when clasped across the chest area). Most people will keep one side pouch known as the "drawbag" open all the time with loose trees (the left side for right-handed people, and vice versa), and will keep the other side pouch closed with full bundles. The back bag can be used for carrying trees too, although many people try to avoid that because the weight is harder on the planter's back. If you don't carry trees in your back bag, it is a good place to keep your plot cord and a small bottle of water.

**Balsam** – Refers to one of two types of trees. Balsam fir (*Abies balsamea*) grows from eastern Alberta all the way to Newfoundland, but not really in BC. Balsam poplar (*Populus balsamifera*) has a similar range, although there's a bit of it in northeastern BC. Balsam fir is a conifer, and balsam poplar is a low-density deciduous. Both are fairly low-value trees, but each grows quickly as is used occasionally in the lumber industry.

**Bama Socks** – These are a special type of heavy padded sock which only goes up to the ankle, but they are not elasticized or loose, and you don't have to worry about them slipping off your feet. They look like a type of mini-slipper. They are very good socks to wear in conjunction with other socks because the padding will minimize blistering of your feet.

**Bambi Bucket** – A "power fill" bucket that is used in some fire-suppression operations. This bucket is attached to a helicopter via a long-line, and can be filled very quickly from a very small water source through the use of a pump system controlled by the helicopter.

**Bareroot** – Seedlings usually come in one of two types, either bareroot or plug stock. Bareroots do not have any significant amount of dirt around the roots of the tree. The roots are usually not trimmed, and thus can appear to be quite uneven. Bundles of bareroot trees are frequently just tied together with a piece of string or held with an elastic, rather than wrapped in a plastic bundle wrapper.

**Bark** – The outer covering of the trunk and branches of a tree, similar in concept to the skin of a human.

**Barney Style** – Giving instructions to someone in extremely simple and complete terms, to make sure there are no misunderstandings. Comes from the “Barney And Friends” show, which was targeted at children.

**Beach** – Slang for a really nice piece, probably sandy.

**Bear Spray** (aka. Pepper Spray or Mace) – A chemical spray which contains oleoresin capsicum at high concentrations. It is similar to a spray of liquefied cayenne pepper, but really hot. Bear spray comes in small pressurized containers that throw a fairly tightly—directed spray for a distance of approximately 8-14 feet if there isn’t much wind. The spray isn’t nearly as “pointed” as a stream of water from a garden hose, but it is much more narrow than a spray of paint from a spray can. The spray, even fine particles carried by the wind, causes intense irritation of the eyes and sinuses. One standing joke is that grizzly bear poop often smells like cayenne pepper, ie. they got sprayed then ate the person who sprayed them. Most bear spray is slightly coloured, ranging from red to orange to a deep yellow. The spray can certainly startle a cautious bear, even if the animal isn’t hit by the spray. There are mixed opinions about the effectiveness of bear spray, but it’s certainly better than having nothing at all, and easier to carry around than a large rifle. Be aware that since the contents of a canister of bear spray are under pressure, helicopter pilots will always insist that it is carrier under the machine or in the cargo bay. If a canister were to accidentally discharge inside the helicopter while airborne, the pilot and all passengers would likely be blinded, and you would likely crash and die. People have occasionally gotten significant skin burns when canisters accidentally discharged against their legs. It is not very common for planters to carry spray, but for employees such as checkers or surveyors who frequently work alone in remote areas, bear spray seems like a useful precaution.

**Bearanoia** – That feeling one develops after starting to become nervous about running into bears in the bush.

**Bend & Break** – See “Snap & Hinge.”

**Berm** – A raised area that is sometimes found alongside block roads, or along main line roads. The berm is essentially a pile of dirt that was pushed to the sides when the road was built. Sometimes it can be small, only a couple feet wide and a foot high, and in other places, it can extend for ten or fifteen feet back from the road, and can be several feet high. Sometimes the berm replaces the ditch, and in other places, it’s behind the ditch. In some areas, after planting is complete, the berm is pulled back onto the road (this is called road reclamation) and then the area that the road formerly occupied is also planted.

**Biogeoclimatic Classification** – An ecosystem classification based on vegetation, soils, topography, and climate. Broad classifications are named after confider species that are predominant in the ecosystem, ie. IDF stands for Interior Douglas Fir zone.

**Billy Pugh** – A safety basket that is hung beneath a helicopter to move people in and out of remote and inaccessible locations. It is not used to move planters into blocks, but they are occasionally used for emergency evacuations of critically wounded personnel in emergency situations on the coast.

**Bingo Fuel** – This is supposed to be a purely military term, meaning that an aircraft is down to the minimum amount of fuel remaining to be able to make a safe landing at the closest airfield if the aircraft heads there immediately. However, some commercial and civilian pilots will use it occasionally to allude to a situation when they're running quite low and have to divert for fuel.

**Biodegradable Flagger** – A type of flagging tape, usually corn or starch based, that dissolves and decomposes after a relatively short period of time (several days to a year) and thus is much more environmentally friendly than traditional polyethylene (plastic) flagger.

**Birddog Aircraft** – The aircraft carrying the person (usually called an Air Attack Officer) who directs the actions of the water bomber.

**Black Water** – Runoff from toilet facilities that contains a mix of human feces, urine, and the water used in flushing these materials.

**Blading** – A type of site prep where a bulldozer lowers its blade and plows most of the surface slash into piles or rows. Planters then plant in the cleared, bladed areas.

**Block** (aka. Cutblock) – The section of land that a company has logged and which needs to be reforested.

**Block O'Clock** – Usually, planters work until a set time, but sometimes a crew will plan to stay slightly late to finish a block. Proper planning should avoid situations like this, but sometimes it's inevitable that it's more efficient to stay slightly late to wrap up an area. Planter1: "Did the boss say what time to be back at the trucks today?" Planter2: "It's block o'clock, we're staying until it's done."

**Block Sweep** – When a crew leader double-checks all roads and former cache locations on a block that is finished, to ensure that no garbage/trees/gear has been left behind.

**Blowdown** (aka. Deadfall, Windfall, Windthrow) – Mature trees, as individual trees or groups, which have been knocked over by wind.

**Bobtail** – Trucker slang for a tractor truck that isn't pulling a trailer.

**Body Job** – Trucker slang for a truck that has the cargo compartment attached to the truck, rather than on a separate trailer. Examples include 5-ton trucks, cube vans, etc.

**Bonsai** – A small tree, produced in a container, which mimics the shape and proportions of a full grown tree.

**Boot Mark** – The impression left in the dirt by a planter’s boot, especially from kicking the ground hard beside a newly planted seedling. In some areas, foresters want to see trees planted very “tightly” so they are less likely to be knocked out of the dirt by frost-heave. However, other foresters believe that this leads to unnecessary root compaction (which may be bad for the seedling), and these foresters are likely to say, “I don’t want to see bootmarks beside your trees.”

**Boot Stomp** – A method of closing a hole after the seedling is planted, by kicking the ground with quite a bit of force, rather than by doing something less forceful like a hand close. The boot stomp can theoretically lead to root compaction, which might slow the growth of a seedling in the long term.

**Borrow Pit** – This is the hole dug in the ground when heavy equipment needs dirt for various purposes, such as road-building. You’ll see sporadic large borrow pits along some roads, where an excavator dug up some dirt to build a better base for the road. They’ll usually fill up with water. Try not to fall into them.

**Bolt** – Short logs or sections of a large log, usually less than eight feet long.

**Bough** – A main branch of a tree, ie. one that is attached directly to the trunk.

**Bowser** – A tanker truck or a tank on a trailer, typically used to carry fuel (or sometimes to carry water), ie. “Hey Jim, did the logging supervisor get back yet, or is he still down at the fuel bowser?”

**Box-End** (aka. Box End Sticker, Box-Top) – Some companies use box-ends as a means of verifying tree tallies from the planters. As a planter finishes planting a box of trees, they rip the unique box-end sticker from the box, and hands this in to the crew leader at the end of the day as “proof” that the box was planted (this is more of an accounting protocol than any sort of proof). Usually every tree box will have a sticker on it that identifies what kind of trees are in the box, and how many are in the box. These days, the stickers are always on the side of the box (the box end) rather than on the box top, although a few decades ago they were commonly attached to the top flap (and of course, they got ripped and torn off frequently when boxes were stacked on top of each other). In poor weather, the rain sometimes makes stickers rip off the boxes and disintegrate, which is a weakness of using a sticker system for inventory (although to be fair, most nurseries use vinyl stickers nowadays, so this is rarely a problem anymore).

**Bräcke Mounds** – A type of site prep mound. I haven't seen or heard of these mounds since the late 1990's, although I'm sure there are probably still some out there. They were basically like huge donaren mounds (mini-mounds), but maybe four times as large. They ran in straight lines, like donaren mounds. The problem with them was that the equipment that made them usually dug deep enough to dig up significant clay caps when the soil was upturned, so these mounds often had problems with being hard-packed, or with frost-heave. The term came from the name of the manufacturer of the heavy equipment used to make the mounds. Unfortunately, a search of google images is not helpful at all, and usually shows the wrong kind of equipment.

**Branch** – This has multiple meanings. The obvious one is that a branch is a part of a tree, but branches also refer to side roads that split off from the mainline on a system of logging roads.

**Breadcrumbs** – A series of signs or markings that allows other people to see a trail that someone has left. For example, if a supervisor goes into a block a few days ahead of the crews, he/she may leave a breadcrumb trail consisting of a number of short pieces of flagging tape on the ground to help show a tree deliverer the best path to drive an ATV into a back section of a block.

**Breakup** (aka. Spring Breakup) – The time of year when the temperatures grow warm enough (in the spring) that frost comes out of the ground, and off-road vehicles may no longer be able to travel across frozen ground through the woods. The same problem occurs on many logging roads. This is why many areas have logging in the summer (once the roads and ground have dried out and firmed up) and winter (when the roads and ground are frozen), but not in the spring and fall shoulder seasons.

**Broadcast Burns** – Up until the late 1990's, it was common practice in BC to set fire to most of the blocks in the fall, to burn off the slash so the planters could get at the dirt more easily. That practice has been mostly discontinued, for a couple of reasons. First, many people living in rural areas complained about the smoke that was created by these fires. Second, foresters are starting to realize that some essential nutrients are destroyed when the block is burned, and it would be better for the biomass to be allowed to decay naturally and provide nutrients for the seedlings. The term broadcast burn arose because the fire was broadcast over a large area. Under ideal conditions, the edges of the block were lit on fire with special accelerants and fuels, and then the fire would creep in towards the center of the block and eventually run out of fuel and put itself out, while the burning crew walked the edges to make sure that the forest surrounding the block didn't catch on fire. As you can imagine, the timing for this type of activity was crucial, to take advantage of decent weather conditions that allowed the slash to burn, but at the same time not being so dry as to present a high risk of starting a forest fire.

**Browse Barrier** – A browse barrier is comprised of both a stake and a seedling protector (cone). Stakes are typically pounded into the ground immediately adjacent to seedlings that are susceptible to being eaten by ungulates, and then a cone is placed over both the stake and the seedling, and tie-

strapped into place so it can't be knocked over by storms. Cedar is the species that is most typically staked.

**Brushing** – Brushing is another type of silviculture activity which involves taking care of the seedlings several years after they are initially planted. Brushers use special saws similar to large whipper-snippers, but with a metal blade similar to a skill saw instead of just a piece of plastic cord. These saws can clear out large weeds and brush around the seedlings, so the young trees do not have to compete so much for the nutrients and sunlight needed to develop. Brushing contracts are quite often performed by planters during the “off-season” since brushing can take place just about any time in the year when the ground isn't heavily covered in snow. Some of the planters that work in the silviculture industry year-round will plant on the coast during the early spring (February through April) then plant in the Interior during the conventional spring/summer seasons (May through August) and then spend the Fall working with saws on brushing and spacing contracts, until heavy snows hit in November or December.

**Brush Mat** – A brush mat is a square of a special type of plastic, sort of like a heavy plastic tarp, which is usually two to four feet across. There is a small slit or hole cut in the middle of the brush mat. This mat is laid on the ground over a seedling so the tree is sticking through the hole in the middle, then the four corners of the mat are stuck into the ground with large “staples”. The brush mat stays on the ground and prevents grasses and brush from growing up in the immediate vicinity of the seedling, giving it a couple years of a head start in growth in its immediate micro-environment, with reduced competition from other plants. After several years, the brush mat basically dissolves. Brush mats are typically only used in high-competition sites.

**Bucker** – A logging term which means cutting the branches off a fallen tree to strip it, then cutting it into sections of the desired length. Bucking is fairly dangerous work, and many buckers get injured by branches snapping unexpectedly under pressure while being cut.

**Bud** – Rounded or conical structures found at the tips of or along stems or branches, usually covered tightly in protective scales and containing either a preformed shoot or inflorescence. A bud found at the tip of a stem is called a terminal bud, and one found on the side of the stem is called a lateral or auxiliary bud.

**Buggy Whip** (aka. Whip) - A pole and flag attached to a truck, so the flag waves above the truck and ostensibly makes it more visible to other traffic. These whips are generally at least 8-10 feet long, and are commonly required in mine sites or other areas where very large vehicles (dump trucks and heavy equipment) with limited visibility outside the cab are better able to see low vehicles around them.

**Bullbucker** – The supervisor in charge of fallers and buckers at a logging site.

**Bump** – To move a heli sling or a tree cache for a short distance, to put it into a more convenient location.

**Buncher** – See “Feller Buncher.”

**Bundle** – Boxes of trees usually arrive with all the trees separated into small groups, and wrapped in plastic. Each bundle of trees typically has between 10 and 20 trees, although numbers outside those extremes are not unheard of. For example, if a shipment of trees has 225 seedlings in each box, it might be arranged so that each box has fifteen bundles of fifteen trees each. Within any given shipment of a specific type of trees, all the bundles will be the same size. In the early 1990’s, the most common bundle size was probably twenty trees, although now the most common size is probably fifteen trees per bundle.

**Bung** – A stopper, especially for the hole through which a cask, keg, barrel, or drum is filled or empties. It comes from the Middle English word “bunge” which meant a hole. Water and fuel drums and barrels traditionally have a bung hole so that the drum can be emptied or filled. The bung is the part that screws into this hole and makes the container watertight.

**Bung Wrench** – This type of specialty tool is a one-armed wrench that has four thick tines on the end, and is therefore suitable for closing a bung really tightly, or loosening it, to minimize the chance of small-scale leakage.

**Bungie** – A type of rubber fastener cord with hooks at each end. The bungie cord will often stretch to almost twice its normal length if you pull hard on it. It is frequently seen in use to hold down tarps, or hold boxes on the quad.

**Burl** – A round, knotted growth on a tree trunk. Some burls can grow to several feet in diameter, and there’s one in front of the WFP office in Port MacNeill (“one of the world’s largest tree burls”) which is probably about ten feet across. Apparently there’s one in Holberg which is about twelve feet in diameter (google it, Amusing Planet World’s Largest Burl).

**Burn Pit** – What’s left over after a slash pile has been burned. It’s not really a “pit” though, as it’s probably only a few inches deeper than the surrounding block, if at all. It’s more likely to just be a roundish area with a few inches of ash.

**Burnpile** – This is a terrible term. It is slang for a “burned slash pile.” But once a slash pile has burned, there is nothing left so there is no pile there anymore, so why call it a pile? I think it should be called a “burned pit.” Look at the definition for “burns” which goes into more detail about this type of feature.

**Burns** – On many blocks, large piles of slash are left behind after logging. These can either be created when machines strip branches off the trees at the road (road-side processing), or when the branches

and scrap wood is left all over the block (stump-side processing). The foresters will frequently use machines to clean up the blocks by bull-dozing most of the slash into large piles, often along the edges of the road. In the winter before the block is planted, these slash piles may be burned to free up a little bit more space on the block. In this case, the planter may notice dozens of “burns” on a block, which are areas of maybe five to ten meters in diameter, where the slash piles used to sit. These burned areas are great to plant in, since the hot fires usually burned down to clear mineral soil with just a few inches of ash on top of the dirt. Interestingly, trees planted in burns usually grow much faster than the rest of the trees on the block, probably because of the large amount of carbon at the microsite, from the ashes. These “burns” can be referred to as burn pits. Check out the definition for broadcast burns though, because those are an entirely different type of “burn.”

**Bush** – See “Shrub.”

**Bush Camp** (aka. Tent Camp) – Planters working on various contracts rarely have the luxury of semi-permanent accommodations. What typically happens is that a tent camp is set up in the bush near the blocks to be planted. A decent tent camp includes a kitchen tent, a mess tent (dining area), first aid tent, shower tents, drying tent (with heaters, for drying wet clothes), and outhouses. This type of camp can usually be set up by a couple dozen planters in just three or four hours. Planters then set up their own individual personal tents to sleep in, wherever is most feasible. This tent camp may only remain in use for a few days, or sometimes can be used for as long as a couple months on a really long contract. When it is time to move on, the entire camp can be dismantled and packed up in a matter of hours. Technically, a bush camp can have slightly more permanent dwellings, such as wooden buildings or semi-portable (ATCO) trailers, but when planters talk about a bush camp, they usually have the mental image of a tent camp.

**Bush Tire** – A tire with a tread that is specifically designed to maximize traction in challenging off-road conditions, ie. in mud, sand, and loose gravel.

**Butt** – The fat bottom or flared end of a log or tree trunk. I like big butts and I cannot lie.

**Butt Line** – This is an imaginary (but flagged, so it’s not really imaginary anymore) line that cuts across the back of a piece. If there is a large piece on a block which can be accessed by roads on both sides of the block, a crew leader or checker might flag a line through the middle of the plantable area to cut that area into two logical pieces. Planters would then work the piece from both roads, each using the flagged butt line as the “back” of their pieces. This phrase is not related to the “butt” of a tree trunk.

**Cable Yarding** – Pulling trees or logs off a block by using a giant grapple-yarder pulley system, composed of incredibly strong steel cables. This type of system is in common use on steeper slopes, where ground skidding with traditional heavy machinery may potentially be too dangerous for the equipment and operators.

**Cache** – A cache is a temporary storage area for boxes of trees. There are different types of caches. On the block, a planter may have a personal cache or block cache, which might consist of two or three boxes of trees under a small silvicool tarp, which is just enough to keep him or her busy for a few hours until the crew leader brings more trees. When dealing with summer hot-lifted trees, which cannot be stored in a reefer unit, larger caches are frequently used. A field cache may consist of a clearing in the bush on the side of a road, with some large tarps suspended to keep the sunlight off the trees, and such a cache may often contain fifty to a hundred or more boxes. Some crew leaders will set up a field cache beside the block they are about to plant, and bring enough boxes to it to finish the block, then spend the next couple days moving trees from the field cache to planters' individual caches across the block. Another type of cache, even larger than the field cache, is the "main cache." This is often located near the camp, and may have as many as a thousand boxes or more under a whole series of large suspended field tarps, again hung to keep sunlight off the boxes. In the summer, the trees will therefore come out of the nursery and will be transported in a reefer to the camp, where they are unloaded into the main cache, and from the main cache the crew leaders move trees into a field cache and then into personal caches, or perhaps directly from the main cache to the individual caches. Spring trees are not hot-lifted, and therefore are usually just kept in the reefer until they get moved out to personal caches on the blocks. To be very clear, cache comes from a French root, and is not spelled "cash."

**Cache Slut** (aka. Cache Monkey) – Someone who hangs out at the cache for long periods, not planting, and waiting for other people to hang out with. These people are bad for motivation, and hurt production of people around them. Motivated planters don't want to share a cache with a cache slut.

**CamelBak** – The brand name for a special type of water storage bag. A lot of the popular CamelBak products are designed like backpacks, to be worn on the back (unlike Dromedary bags).

**Camp Costs** – Most companies charge the employees a certain amount per day to stay in the bush camps. This money goes to subsidize the cost of the food that the planters eat, and help defray the wages of the cooks. Camp costs are not usually directly related to the real cost of the food and wages, and wear and tear on camp equipment such as showers and heaters and so on. Usually, those costs are higher, and the company has to subsidize some of this extra overhead expense. Camp costs usually range anywhere from twenty to thirty dollars per day, although higher and lower numbers certainly are not unheard of. There are a few companies that do not charge anything for camp costs, but of course, the bills still have to be paid, so instead, the tree price that the planters earn is probably a bit lower. The drawback with a system of "free" camp costs is that the best planters, who put in more trees, will indirectly pay more for camp costs than slower planters, which is not good since a company should try to reward the high producers. Nothing in life is truly free. For instance, if the overall cost of running a camp on a particular contract amounts to being equivalent to one cent for every tree planted on that contract, and the price paid to employees therefore went down by one cent, then a highballer who planted 3500 trees per day would indirectly be paying \$35.00 per day in camp costs, while a slow planter putting in only 1500 trees per day would indirectly be paying \$15.00 per

day in camp costs. If you ever end up staying in a fancy logging camp (effectively a permanent larger camp in the bush, with things like saunas and games rooms and satellite television and permanent bunking structures, plus laundry and other amenities), you may end up paying as much as \$50 to \$75 per day to stay in the camp. However, planters rarely get this kind of opportunity in the Interior (it is more common for coastal planting), and when it does occur, the company will usually subsidize the cost so that the planters don't have to pay so much per day. Visit [www.replant.ca/campcosts](http://www.replant.ca/campcosts) for more economic theory behind the system.

**Canopy** (aka. Crown Canopy, Crown Cover) – The cover formed by the leafy upper branches of the trees in a stand or forest.

**Cant Dog** – See “Peavey Hook.”

**Cardinal Directions** – The four main points of a compass, ie. North, South, East, and West.

**Care Package** – A package full of treats, often sent to a planter through the mail by friends or family members. Some of the best things to get in a care package include candy, chocolate, letters, insect repellent, clean socks, and drugs.

**Carousel** – A mechanism used in helicopter operations which has multiple hooks on it. Typically, carousels used in planting operations in northern Alberta have anywhere from four to eight hooks on them. So long as the combined weight of all the slings doesn't exceed the lifting capacity of the helicopter, the carousel allows a pilot to pick up several slings at once, and drop them in different locations. This device is especially useful when it is useful to set up a number of small caches in a diverse number of locations on a block, rather than one large cache in a central area.

**Cartography** – The study of maps, or the art and technique of making maps.

**Cat** – Slang for a dozer/bulldozer, coming from the fact that Caterpillar makes most of the bulldozers that are in common use in the forest industry.

**Catkins** – A cluster of single-sexed flowers on a spike. They tend to be produced on woody shrubs and trees such as oak, alder, birch, poplar, beech, hornbeam, sweet chestnut, hazel and willow.

**Caulks** (aka. Corks) – Caulks (pronounced corks) are a type of metal spike that are attached the bottom of a pair of boots, so that the wearer can easily walk across slippery wood and other soft materials with a reduced risk of slipping. The spikes dig into the wood somewhat, so your foot will not slip. Although technically it is these spikes which are the caulks, common usage has resulted in any pair of boots that have the spikes to be referred to as caulks. Lots of planters who work in wet ground will buy the big orange and black chainsaw boots, which have steel toes, Kevlar fronts, and caulk spikes. This type of boot is what a planter usually envisions when someone says, “Have you seen my caulks?”

**Cedar Flagging** – See “Senescence.”

**Cedar Ski** – When a large cedar tree is logged, or falls down in a windstorm, long pieces of slash that look like surfboard or snowboards sometimes remain on the block. These pieces of slash are especially slippery when wet, but they’re also dangerous because on a slope, they’ll occasionally start sliding down a hill quickly if you step on them. These are mostly a safety concern for people who work in challenging coastal areas.

**Cell** – Terminology used by meteorologists and pilots to describe a distinct adverse weather system, such as a large cloud formation or thunderstorm passing through an area on an otherwise relatively clear day. Pilots are not allowed to fly near thunderstorms due to the risk of lightning, so you might hear a pilot say something like, “We have a cell to the west of the blocks right now that looks like it might pass over the planters, so we might have to shut the machine down for an hour until that’s gone by.”

**Cellulose** – An important structural component of the cell walls of plants. Cellulose is a polysaccharide, and is the most abundant polymer on Earth.

**Centage** – A colloquial term for the price per tree, ie. “What’s the centage of this block?”

**Chain Drag** – A type of drag scarification where the heavy equipment drags extremely large and heavy chains around the block, to break up slash and cones. See also “Drag Scarification.”

**Chaps** – Chaps are a type of chain saw PPE, which are half-pants with special Kevlar webbing that is strong enough to catch and bind up a chain saw. This webbing ensures that a person is unlikely to cut themselves with a saw. Chain saw chaps, like the chaps that cowboys often wear, only have the protection on the front, with an open back side (like leather cowboy chaps). This makes them lighter and cooler to wear, and doesn’t significantly increase the risk of injury, since most people use their saws in front of their body. However, any unnecessary safety risk at all is unacceptable, and chaps are no longer legal for chain saw work in BC industry (full wrap-around Kevlar pants are mandatory).

**Checker** – Checkers are people who assess the quality of the trees that planters plant. There are two types of checkers – internal and external. Internal (or company) checkers work for the same company that the planters do. External (or implementation) checkers work for the licensee or government body that the planting company is working for. Checkers play a critical role for planters. When they check the trees, it is their feedback which determines whether or not the company get paid in full. There are various systems of monitoring quality standards, and in almost all of these systems, a company will get paid in full for a planting quality somewhere between 90% to 95% or higher. If the quality drops below a specified point, the payment percentage starts to decrease. To determine the quality percentage, the checkers have a set of rules to decide whether or not each individual tree in

their plot samples is acceptable, depending on characteristics such as depth, placement, lean, straightness of roots, distance from other seedlings, etc. External checkers not only determine the amount that a company is paid, they also act as the enforcement officers, who levy fines against the company for poor stock-handling or breaking other rules. For this reason, external checkers are often feared or disliked by planters. Internal checkers perform the same roles as external checkers, although the difference is that the internal checker is working for the same company as the planter. In this respect, they are working together as a team. The internal checker will assess the quality by trying to use the same system and methodology as the external checker, and therefore can provide feedback to the planters and crew leaders if the trees are expected to be rated as being of poor quality, before it is too late. Once an external checker has assessed a block, it is usually too late to fix problems. However, if an internal checker finds quality problems, they can usually be fixed before the external checker makes the final call. It is important to note that in BC, only the company can be financially penalized for poor quality/density, but in all other provinces, the planting companies are not restricted from passing these penalties on to their workers.

**Chicken** – See “Prairie Chicken.”

**Chigger** – See “Tick.”

**Chlorosis** – A loss of green pigmentation in plants. It is typically caused by insufficient sunlight or desiccation, or by an iron deficiency in soils that are rich in limestone. Seedlings that are starting to look yellowish and sickly are described as being chlorotic.

**Chocks** – Wedges that can be placed in front of and behind the wheels of a parked vehicle, to prevent it from rolling if the transmission or braking system fails.

**Christmas Trees** – Besides the obvious holiday-related definition, there are two other definitions. The less common one is that a Christmas Tree is a collection of piping equipment located at the center of an old oil lease, which slightly resembles a metal Christmas tree. More likely, however, the term “Christmas tree” is probably slang that refers to juvenile conifers, probably between about five and ten years old, of about the right size to be used as a household Christmas tree. An example use of this term would be something like, “When you get to the back of your piece, the boundary will be really clear because you’ll run into a Christmas tree plantation.”

**Citizens’ Band** – An old 40-channel system of radio public VHF radio communications, commonly used by truckers. Many truckers now use the LAD1 radio frequency (153.230 MHz). The CB channels were much lower frequencies than modern VHF radios for forestry cover, down in the 27-40 MHz range. Modern VHF radios usually cover from approximately 150-174 MHz.

**City Tire** – A type of tire that is designed specifically for use on pavement, and which does not provide good traction on mud or gravel roads.

**Class Four** – The class four is a special type of driver’s license in many provinces. Most provinces in western Canada (and the Maritimes) use a system whereby a class five license is the normal type of full driving license that most Canadian adults use, which is good for personal and non-commercial use, or commercial use of up to ten persons in a vehicle. However, the class four allows a person to drive a group of more than ten persons and up to twenty-four persons, for commercial use. For companies which transport groups of people around in large vans or crummies or buses then, the driver must have a class four driver’s license. The exact number of people vary – for instance, in some provinces, the maximum number of passengers that can be transported without a class four may be as low as six or as high as twelve. Also, the upper limit of the number of passengers that can be driven is usually twenty-four, but in a few provinces is significantly lower. The class four driver’s license therefore often called the taxi license or chauffeur’s license or bus driver’s license, depending on the province. To obtain a class four license, you have to take slightly more difficult driving and written tests than for a normal class five license, plus you must pass a medical examination. In Ontario, the class four license is referred to as a “Class F” license.

**Claimed Density** (aka. Theoretical Density) – A measure of the number of trees per area that is based upon the planters’ tallies. If the planters record their tallies correctly, the claimed density will match the true planting density. If the planters do not record their tallies correctly, then the claimed density will not match the true planting density accurately.

**Claw** – This slang term refers to a medical condition that planters often experience at the start of the season, and sometimes right through the spring. In the morning, you may wake up and find that your shovel hand is so tight feeling that you cannot clench your fingers to make a fist. This comes from gripping the shovel handle tightly all day, and usually feels worst early in the morning or in cold weather. It is not so much painful as just inconvenient.

**Clay** – This is the finest of the three fine soil textures, more fine than silt and especially more fine than sand. Clay is sticky, moldable, and hard when dry. It’s the most nutrient-rich of the three fine soil textures, and has the highest water holding capacity. Unfortunately for planters, it’s not easy to plant in. You’ll find it a bit more difficult to drive your shovel into clay, and you’ll also have problems closing holes.

**Clear (or Cleared)** – To pull off to the side of a radio-controlled forestry road. Some people clarify how they are clearing by adding information such as “Finlay 36 up, pickup cleared to the side” or “Pickup clearing the Kluskus onto the Corkscrew, up at zero.”

**Clear Fuel** – Unmarked fuel, or fuel that has not been dyed. Vehicles using public roads are legally required to use clear fuel. See also “Marked Fuel.”

**Clearcut** – A silviculture block or harvest methodology that removes an entire stand of trees from an area covering a total of one hectare or more, and greater than two tree heights in width, in a single unbroken harvesting operation. Some larger blocks can have residual patches of mature trees that

are purposeful left unharvested in the middle of the block; this does not disqualify the block as technically being a clearcut (especially if more than 50% is openly harvested).

**Clevis** – A forked or U-shaped metal connector. It is fastened by means of a bolt or pin passing through the ends of the connector. You'll sometimes see a clevis on a tow rope, attaching a hook to the end of a chain, or some sort of similar configuration.

**Client** – The Client is the entity that a planting contractor works for. Examples of possible Clients include the Ministry of Forests, BC Timber Sales, private mills, publicly traded logging corporations such as West Fraser or Canfor, private woodlot owners, municipalities, etc.

**Close** – Has multiple meanings. The first relates to “closing a hole that a seedling is planted in,” ie. doing a hand-close or a boot-close or a shovel-close. The second means “to finish a piece” or “to finish a block,” ie. “My piece closed at 3:30pm, then we managed to close the block at 4:40pm.”

**Clusterfuck** – A situation where multiple things are going wrong.

**Cobble** (aka. Cobble Stone) – A type of rock, which is rounded and usually between about two and eight inches in diameter, and moderately round. Cobble stones are usually found in areas which used to be river bottoms, where the water and anything it was carrying gradually wore away all the sharp edges of any rocks in the water.

**Cognitive Behavioural Therapy** (aka. CBT) – A type of psychotherapeutic treatment (talk-based therapy), done in sessions with a mental health counselor, that helps people learn how to identify and change destructive or disturbing thought patterns that have a negative influence on behavior and emotions. CBT helps you become aware of inaccurate or negative thinking, so you can view challenging situations more clearly and respond to them in a more effective way. It is often found to be an effective and relatively easy tool to assist with mental health disorders such as depression, PTSD, and eating disorders. CBT is becoming increasingly prevalent in society, which is being recognized as the planting industry attempts to do a better job of responding to mental health challenges within the workforce.

**Coke Can** – Slang for the largest type of plug seedling found in western Canada, the 615. So named because the plug is almost the same size as a can of pop (6cm wide and 15cm long).

**Come-Along** – A hand operated manual winch, with a ratchet, which is used to pull objects. The drum of the device is usually wrapped with steel cable or wire rope. This type of device uses the leverage principle to help provide pulling force.

**Company Checker** – See "Internal Checker."

**Compartment Map** – A medium scale map used by some licensees. This type of map is larger than a single block map, in that it usually encompasses a series of blocks in close proximity, although it may not cover as broad of a region as some overview maps. See also the definition for Overview Map.

**Cone** – A reproductive structure found on a shrub, bush, or tree. Seed cones bear seeds, and pollen cones bear pollen.

**Cone-Picking** – A form of silviculture work. During a cone-picking project, a group of people will work in a camp to harvest cones from trees, to provide seed for nurseries. Typically, a special helicopter will be used which has a harvesting mechanism. The chopper will target trees in a certain area that has been pre-determined by the nursery to have desirable genetic traits. The chopper picks a tree top that is suitably full of cones, then uses a special device that cuts the top of the tree right off, and flies it back to the cone-picking camp. There, the workers will lubricate their hands to protect against the pitch or sap in the trees (usually with tubs of margarine or a cheap substitute), and use their fingers to pick all the decent cones off the tree top and put them into buckets. Traditionally, enough cones are harvested over a period of a few weeks or months to provide the nursery with enough seed to last for several years.

**Conk** (aka. Fruiting Body) – A hard, plate-like, spore-bearing structure which is composed of wood-decaying fungi. Conks are often found on stumps, logs, or tree trucks. There are many different types of wood-decay fungi that can cause heart-rot, root-rot, or butt-rot in a living tree. Conks grow with a horizontal orientation, so if they are growing on a living tree, they will appear flat (perpendicular to the truck), but when they grow on a tree that has already fallen and started to rot, they will appear to be oriented parallel to the trunk.

**Conifer** (aka. Coniferous) – A species of trees that has cones. Common conifers include spruce, pine, fir, cedar, hemlock, yew, and balsam fir, although there are dozens of other lesser-known species. Conifers have needles instead of broad leaves. Conifers are commonly synonymous with “evergreen” trees, although that is technically not quite a valid correlation. For example, tamarack/larch trees have needles and cones, but they are a group of trees which actually shed their needles each winter, so technically they are a conifer but not an evergreen.

**Conifer Release** – A brushing treatment on an established stand, designed to target the cutting of deciduous competition. A conifer release treatment is usually done around the free-to-grow date.

**Container Stock** (aka. Plug Stock) – Seedlings grown with root systems encased in a package of dirt, rather than as bare roots. They are called this because of the containers that they are grown in. Container stock is more of an eastern term, and the seedlings are usually called plugs in western Canada.

**Contract** – An agreement to plant a large number of trees for somebody, such as a timber company (licensee) or a provincial government’s forestry division. Many planting camps will work on a

number of contracts throughout a given season, while occasionally a camp will just work on one big contract all summer and thus not have to keep moving camp. Typically, in my experience, contracts may last anywhere from three or four days to eight or ten weeks, although two to four weeks seems to be the most common. Of course, the amount of time required to complete a contract varies depending on the number of planters working on it, and their production capabilities. Some contracts are more enjoyable and/or lucrative for the planters than other contracts, depending on the quality expectations, payment per tree, conditions of the ground to be planted, and dozens of other factors.

**Contract Spacing** (aka. Target Spacing) - This is a specific calculation/definition of the average spacing between trees needed to attain the correct density on a block or contract. For example, if the prescribed density is 1400 stems/Ha, the TITD (average spacing) needs to be 2.9m between trees. This is also sometimes called the Target Inter-Tree Distance or "target spacing."

**Coppice Growth** – The thin trees that are produced by stump sprouting.

**Courtesy Shorts** – Shorts worn over tights so your co-workers don't have to stare at your junk.

**Cowbells** – A certain type of planting harness which features three "hooks" rather than silvicool bags. Cowbells are often used in eastern Canada when planting small trays of thirty-six to sixty-four seedlings per tray. These trays are small enough to hang directly on the hooks on the harness system. These harnesses have a plastic wedge behind each of the three hooks, to prevent the trays from rubbing against the planter's body and causing chafing. These plastic wedges are the same shape as cowbells (literally bells that dairy farmers put on their cows so it's easier to find them when they've wandered off in the woods), hence the name.

**Cream** – Cream is what planters call "very nice land". If you have a creamy piece, the section of land that you are expected to plant may be relatively free of slash and other obstacles, with very nice clean or sandy dirt near the surface. Of course, the price that you are getting paid per tree is just as important as the condition of the ground. It is possible to have a fairly rough piece, but if the price is really high, the planter may still smile and refer to it as a creamy piece, especially in relation to the rest of the block.

**Cream Spoon** – A shovel with a very short blade, often because it has been worn down after years of use.

**Creamer** – A somewhat derogatory term applied to a planter who tries or who appears to selfishly try to always select creamy pieces for himself or herself, rather than trying to help make sure that the nice land is shared equally among everybody on the crew. Of course, sometimes your crew leader or crew boss will put you in a really nice piece on purpose, in which case you shouldn't feel guilty about taking advantage of the opportunity to make some easy money.

**Crew Blue** – Refers to a large blue water jug that is shared by a group of planters. Usually, each planter is responsible for bringing their own water jug, but the crew leader will often make sure that there is also a large backup water jug available in case of a really hot day, when everyone starts to run out of water. But really, planters need to bring their own water jugs. The crew blue is a good backup though, in case someone's water jug accidentally gets broken.

**Crew Leader** (aka. Foreman, Crew Boss) – The crew boss looks after a small group of planters, perhaps from five to fifteen employees. Significantly larger crews were common in the past (I had a crew of thirty my first year as a crew leader), but are not seen as often nowadays. The crew boss will hire the planters on the crew, and then be responsible for the direct supervision of his or her planters while they are in the field, which includes assigning land, delivering trees, checking quality, submitting payroll information, and dozens of other related tasks. He or she may have help in this job from internal checkers or dedicated tree runners.

**Critter Piles** – Slash piles that were left intentionally unburned (when the rest of the piles on block were torched) to remain as habitat for animals of all sizes. That reminds me, I need to tell the story about Greg burning a slash pile and a bear crawling out of it while he was standing on it.

**Crop Tree** – A tree of a species that is listed as being preferred or acceptable, and which exhibits sufficient form and vigor that the tree is expected to have a future value during eventual harvesting activities. It is fairly common in northern Interior BC for most coniferous species such as pine, spruce, and Douglas fir to be considered to be crop trees if they're in good shape, but it's also common for balsam fir and deciduous trees to be ignored as not being valuable enough to be crop trees. These rules are not hard and fast though, and can vary from contract to contract and region to region. A planted seedling or a naturally occurring germinant can grow to be considered a crop tree within a plantation. However, one convention that [rightfully] confuses many planters is that some foresters make a distinction in a plantation between crop trees (which they define as originating as planted trees) versus naturals (naturally occurring regen). The context is usually in a fill plant, when a forester would prefer for a planter to space off a planted seedling instead of a naturally occurring tree of the same health and vigor (if the distinction is obvious), all other things being equal. In other plantations, a distinction arises when obvious planted trees (possibly because of size or positioning in site prep) are referred to as crop trees, and other trees (generally smaller, and obviously grown from regen) are referred to as naturals. Expect some confusion around this term, and if a forester is using it in a context which doesn't exactly make sense to you, ask for clarification.

**Crop Tree Release** – A silviculture technique used to enhance the growth and vitality of individual desirable trees, while also improving other resources such as wildlife habitat, timber value, and opportunities for public recreation. CTR accelerates the growth of desirable crop trees by selectively cutting or killing less desirable competing trees and vegetation in younger, overstocked forests. Enhancing opportunities for crown expansion is important because availability of sunlight is often the most limiting factor for tree growth.

**Crown Canopy** – See "Canopy."

**Crown Cover** – See "Canopy."

**Crown Fire** – A fire that advances through the crown fuel layer (canopy), although this usually happens in conjunction with a simultaneous surface fire.

**Crown Modification** – See "Wind Firming."

**Crown Shyness** – A phenomena observed in some tree species in which the crowns of mature trees do not touch each other, forming a canopy with channel-like gaps. If you look at such a canopy from straight above or straight below, you may see a pattern almost reminiscent of stained glass or of a jigsaw puzzle, with each tree standing individually and not intertwined with its neighbours. This phenomenon is most prevalent among trees of the same species, but also occurs between trees of different species. This phenomenon is sometimes referred to as canopy disengagement or intercrown spacing.

**Crummie** (aka. Crummy) – A type of vehicle which is a bit of a cross between a regular truck and a bus. Some crummies are normal crew cab pickups that have an extra metal seating area (the "sin bin") attached on the back of the truck, and other crummies are simply short busses. A special class of driver's license (usually a Class 4 or better, or Class F in Ontario) is required to be allowed to drive a crummie.

**Culturally Modified** - An object which has been historically modified by First Nations or other historical occupants of an area. Possible examples could include cedar trees that had bark strips removed for use in canoes, old surveyor blazes or trail markings, grave markings, markings to indicate ceremonial sites, and many more.

**Cut Bank** (aka. Cut Slope) – Cut banks are usually formed when roads are built through blocks and material has to be removed in order to create the road. The "cut" is the exposed soil that is visible when some of the earth is removed. So if the road is built across the face of a mountain, the road builders are going to cut into the mountain slightly to provide a stable base for the road, and the "cut bank" is what you'll see on the upper side of the road.

**Cut Block** (aka. Block) – The section of land that a company has logged and which needs to be reforested.

**Cut Permit** (aka. Cutting Permit) – A permit obtained from the government for a forest company to allow the harvesting of a group of blocks in a specific area. Numbers assigned to each permit are used as identifiers for cut blocks.

**Cut Plug** – See "Sliced Plug."

**Cut Side** – The side of a trench which is not built up with a strip of flipped over dirt and organics. Some trenches are two-sided (two flip sides) and thus do not feature a cut side.

**Cut To Length** – A type of harvesting operation whereby logs are cut into shorter sections (perhaps sixteen feet long) before being picked up and shipped to a mill.

**Cutoff** – The last day of a pay period.

**Cycle** – Slang used when working with multiple helicopter loads. For example, if a dozen loads of trees need to go into a block, and only three nets are available to carry those loads, you can “cycle” the nets or keep reusing them to get all the trees in. Each time the helicopter goes in with a load of trees, it must bring back an empty net from the previous load. At the same time, a third net is being loaded out at staging while this is happening. So long as the helicopter always picks up an empty net with each load of trees going into the blocks, and brings that net back to staging, you can get the work done with just three nets.

**Cypress** – A conifer family that includes sequoias, redwoods, junipers, and others. This family is notable because it contains the largest, tallest, and stoutest individual trees in the world.

**D-Handle** – A type of planting shovel, which is characterized by having a grip at the top of the handle which is shaped like a letter D facing downward. This is by far the most common type of shovel used in the planting industry today, although in the 1990’s, many planters (especially in Ontario) also used staff shovels. In 2004, the modified D-handle (called the Ergo-D) started to attract a lot of attention, and became commonly available. The Ergo D-handle is aligned at a tilt, and this ergonomical design is apparently better for the wrist and may reduce the possibility of tendonitis. However, a major drawback is that it is not suitable for people who are learning to plant ambidextrously.

**Danger Tree** – This term refers to any standing tree, whether alive or dead, which has a fairly significant chance of falling over at some point in the near future, especially when affected by wind or a ground disturbance. A danger tree is more likely than a stable tree to be dangerous to someone working under it. Of course, there is a wide variety of degrees of “danger” with any standing tree, depending on how likely it is to fall over, so you can think of the danger of a tree falling on you as being “various shades of gray.” In BC, there is a course which has been developed to allow qualified personnel to assign specific danger ratings to various trees, and this danger rating is based upon an assessment of a very wide number of factors.

**Dark Figure** – A safety term, referring to a numerical/statistical difference between the number of incidents that were reported and the number that actually occurred.

**Dart** – Slang for cigarette.

**Dart Rate** (slang) – The number of cigarettes a person is smoking.

**Dart Rate** (official) – A safety term, referring to a numerical/statistical difference between the number of incidents that were reported and the number that actually occurred. The dart rate is often expressed as the number of lost or restricted days per 100 employees.

**Deactivation** – This is the process of preventing easy access across a road. Mills often deactivate a road, so trucks cannot access or use it, by putting obstacles such as piles of dirt, piles of logs, or water bars at the entrance to the road. This is a fairly effective way of keeping hunters and recreational ATV users off the blocks. Unfortunately, it is also a pain in the ass for planters because it makes access a lot harder, and unfortunately, roads are often deactivated or reclaimed before we plant the blocks. Planters will therefore have to walk or use quads to access sections of cut blocks where roads have been removed. The terms “deactivation” and “reclamation” are often used interchangeably, but there is a significant difference between them. A “deactivated” road usually still has a functional road surface for most of the road, but can’t be actively used by trucks because of specific obstacles. A “reclaimed” road is usually very difficult to use (by quad) or even walk on, because it usually has been torn up or had a significant amount of stumps, slash, and other debris raked back onto the road by heavy equipment. Deactivated roads might possibly have future road activity, and the surface is usually still fairly hard-packed, so the intent is usually that planters will not plant any trees in the surface of such a road. Planters are usually asked to stay a couple meters off the edge of the road for deactivated roads that might be used in the future.

**Deadfall** – See “Blowdown.”

**Dead Walk** – Any time spent walking across the block when the planter is not actively planting. The location of the planter’s personal cache or other factors (poor access/layout) may lead to this inefficient situation. A planter can usually avoid dead-walking through logical piece management, ie. planting the back first (back filling).

**Deciduous** – A type of tree which typically has broad leaves instead of needles. Common deciduous species and species-groups include Trembling Aspen, Balsam Poplar, Cottonwood, Birch, Maple, Oak, Elm, Chestnut, and various types of fruit trees.

**Decking Site** – A location on or near a block where trees/logs are brought for further processing and/or sorting.

**Deck** – See “Log Deck” (cut trees) or “Sleeve” (package of rolls of flagging tape).

**DEET** – This is the abbreviation for the chemical (Diethyl-meta-Toluamide) used in most insect repellents.

**Degrees Decimal** – A representation of degrees of latitude or longitude in a decimal format rather than the more traditional degrees/minutes/seconds format, ie. 54.7543° instead of 54°, 45', 26" or 54d 45m 26s.

**Degrees DMS** – A representation of degrees of latitude or longitude in the traditional format of degrees, minutes, and second.

**Deliverables** – Tangible or intangible goods or services that need to be produced at various stages while a project is being delivered to a Client. Deliverables can include things during mid-contract, such as daily production numbers emailed to the client, or at the end of a contract, such as a complete collection of seedlot maps.

**Den** – The home of an animal. It is sometimes used for sleeping, but more often used for long-term hibernation (for animals such as bears) or for maternity purposes, ie. giving birth to younger animals.

**Desiccation** – The process of becoming dried out. The roots of seedlings are moist, and it is suggested that planters store them in cool draw-bags to minimize the effects of desiccation on the roots.

**Diaper Drop** – A specific way of rigging up a heli sling of trees such that when the helicopter lets go of the sling, instead of becoming detached, with the sling full of trees sitting on the ground, one of the four clasps of the net remains hooked to the helicopter's long line. As the helicopter lifts, three corners of the net drop down and the trees tumble out like a diaper opening, but the fourth corner remains attached and the helicopter can move the empty net to another location. This eliminates the need to have someone at the drop point to unload the trees and then hook the empty net back onto the long-line.

**Dimension Lumber** – Lumber used in carpentry, wood-working, etc., but mostly in construction and framing. The "dimensional" adjective refers to the fact that it is usually described in terms of the dimensions in inches, ie. a 2x4x8 refers to a two-inch by four-inch piece of lumber that is eight feet long. Some of the most common types of boards are 2x4's, 2x6's, and 1x5's, but there are a lot of other combinations available, usually in eight-foot lengths but sometimes available in 10-foot, 12-foot, or even 16-foot.

**Direct Award** – A type of contract in which the licensee contacts a specific planting company and presents a contract to them, and asks them to name a price. If the price is satisfactory to the licensee, the planting company is awarded the contract. By allowing the planting company to name what they consider to be a fair price, rather than competing by bidding on the open market against other companies, a company can build a long-term relationship with a licensee which will be more favorable to the planting company and the planters. In addition, although the licensee may end up paying slightly more for the work than would have been the case with one tendered out to the lowest bidder, the quality of work performed is often higher, and thus advantageous to the licensee in the

end. The old saying, “you get what you pay for” is probably applicable when considering whether a contract should be tendered out for bidding on the open market, versus being negotiated with a specific planting contractor who will want to provide a higher level of service in return for the likely potential for repeated contacts in future years.

**Directional Obstacles** – A requirement (when doing an obstacle plant) which states that your planted seedlings must always be on some particular side of the obstacles that you’re using. As cows are too dumb to tell directions, obstacle planting in cattle country does not require the use of directional obstacles. However, any time that obstacles are required due to temperature-based weather phenomena (ie. protection from chinooks or from late-afternoon heat), trees will have to be planted on one specific side of the obstacle (often northeast to east for chinooks, or north to northeast for protection from direct sunlight).

**Disc Trenching** – A type of site preparation in which a skidder drives around the block with a pair of furrow blades attached to the back of the machine. As the machine travels over the block, the blades cut a path through the surface of the ground and flip it over, exposing a strip of soil behind each blade. The best place to plant the tree is not in the low strip of exposed soil, which is cold and wet and therefore not conducive to growth. Rather, the tree is often placed up on the side of the berm (flipped over part), somewhere around the “hinge” between the ground the berm, or even right up on the berm. The exact placement varies from location to location, and depends also on what the forester thinks will make the seedlings grow the fastest. Although the majority of foresters will want the tree high in the trench because the slightly higher temperature will help the tree grow faster, there are exceptions. For instance, in 100 Mile House, a crew may plant trenches on blocks that are covered with cows. Planters may be asked to put the trees in the bottom of the trenches, where the cows don’t step, which therefore keeps the seedlings from being trampled.

**Dispersed Piles** – Slash piles that are scattered across a block, rather than being found only alongside the roads. If the loggers are doing road-side processing, it is typical for all of the piles to be roadside. If they’re doing stump-side processing, machines will often clean up the slash and leave it in place scattered throughout the middle of the block.

**Divot** – The small depression formed by a planter’s heel when they are kicking the ground very hard while closing the hole that a seedling has just been planted in.

**Dog Fucker** – A lazy planter.

**Donaren Mounds** – A type of site preparation which creates mounds that are often quite fast for a planter to plant. To make donaren mounds, a pair of hydraulic operated scoops is attached to the back of a skidder. The skidder then drives systematically across the block. As it goes, the scoops will scoop out a hole to accumulate some dirt, then when the hydraulic pressure builds up sufficiently a few seconds later, the scoop flips over and creates a mound. These mounds are not as large as those created by backhoes, and because they are created in parallel lines on the back of a skidder following

some sort of logical pattern, they are easy to plant. They can almost be planted the same way that disc-trenching is planted, by going up one row of mounds and then back down the next. Well ordered rows of donaren mounds in sandy soil can provide the opportunity for some high tallies. The name comes from the manufacturer of the equipment used to make the mounds.

**Donkey** (aka. Steam Donkey, Donkey Engine) – A type of engine used commonly in logging operations in the past, although not in common use at the present time. The Donkey was used for yarding, hauling, and loading logs.

**Donkey Dicks** – Slang for a very large plug seedling, usually a 415D or 512A.

**Dormancy** – This is the period in a tree's life cycle when growth and development are temporarily stopped. This minimizes metabolic activity and therefore helps an organism to conserve energy. Dormancy tends to be closely associated with environmental conditions. Organisms can synchronize entry to a dormant phase with their environment through predictive or consequential means. Predictive dormancy occurs when an organism enters a dormant phase before the onset of adverse conditions. For example, the photoperiod (length of daylight hours) and decreasing temperature are used by many plants to predict the onset of winter. Consequential dormancy occurs when organisms enter a dormant phase after adverse conditions have arisen. This is commonly found in areas with an unpredictable climate. Interestingly, it is typical for temperate woody perennial plants to require chilling temperatures to overcome winter dormancy. This seems odd, as one would expect that dormancy would cease when temperatures rise AFTER a cold period. However, in a tree such as white spruce, the tree requires exposure to low temperatures for an extended period before it can resume normal growth and development. This "chilling requirement" for white spruce is satisfied by uninterrupted exposure to temperatures below seven degrees Celcius for four to eight weeks, depending on physiological condition. A tree that doesn't get this cold stretch is said to experience "eternal summer" and, if no cold stretch is experienced for a couple years, the tree can die.

**Double Plant** – To unknowingly plant two trees very close to each other. Planting under the minimum spacing occurs when a planter is accidentally spacing trees too close to each other, but double plants occur when the planter doesn't even notice a tree that was already planted beside the seedling currently being planted.

**Double-Shovel** – See "Back Cut."

**Double Tap** – A procedure whereby someone unloading gear from the back of a truck signals to a driver that the gear has been removed and the back door or gate of the pickup has been closed properly, and it is thus safe for the driver to continue moving forward. This procedure is especially useful in dark, stormy mornings on the coast, when it's hard to see if someone has pulled all of their gear out of the truck, but the driver doesn't want to roll the window down for a better look.

**Down** – Terminology used to indicate a specific direction of travel on a lot of radio-controlled logging roads. A vehicle heading “down” is assumed to be heading “down the mountain,” ie. towards the mill/town and away from the bush. You can also think in terms of the kilometer boards, if the numbers are going down (decreasing) then you’re going down the road. Radio controlled roads seem to be switching to a system of “up” and “down” instead of loaded/empty.

**Drag Scarification** – A form of site preparation. To do this, a skidder drives back and forth across a block with a huge steel drum or drums (sometimes solid steel, other times hollowed out steel which is filled with water to give added weight). The heavy steel drums crush and pulp most of the slash and debris on the block, making it easier for someone to walk around on the block, and also slightly arranging the slash into rows or tracks. One of the biggest benefits of drag scarification, for the forester, is that it also breaks up the cones and spreads them around the block, so that the seeds in the cones end up being well-distributed and the natural regeneration that arises from the cones will augment the planted trees, helping to increase eventual density. For this reason, foresters will often plant blocks that have been dragged at much lower densities than planters are used to (perhaps 1000 to 1200 stems per hectare, rather than 1800 to 2000 stems per hectare found in many other situations), knowing that the natural regeneration will bring up the eventual numbers, and therefore save the forester some money.

**Draw-Bag** (aka. Feeder Bag) – The side pouch on a set of planting bags, which the planter will use to pull loose trees from. Most right-handed planters will use their left pouch as their drawback, while left-handed planters will use their right pouch as the draw-bag. The draw-bag does not have to be kept closed, because you are using it. However, the pouch on the other side (the side reserve bag) and the back pouch (the back reserve) should each have the insert strings pulled shut if they contain trees, except when you are transferring more bundles to your draw-bag.

**Drip Line** – The imaginary line at the edge of a forest that indicates that furthest that rain can fall when drops fall off the tips of branches of the forest after a rain storm. Essentially, it measures the extent to which the canopy (cover layer of branches in the forest) extends beyond the base of the trees. Planters are often expected not to plant past the drip line when reaching the end of a block, or when planting up to a residual tree patch in the center of the block. The terminology is confusing. Planters often wonder why seedlings should not be planted under the drip line, assuming that the impact of rain falling from the heavens should not be any worse for seedlings than drops that are falling fifty feet from the canopy. The important thing is that the drip line concept is not so much directly related to the raindrops, but is rather a good indicator of the edge of the forest canopy. New seedlings just need to be planted to the edge of the canopy, rather than right up to the base of the big trees.

**Dropped Tree** – Sometimes, when planters put too many loose trees into their drawback (overstuffing), these trees have a tendency to drop out onto the ground as the planter bends over and moves around. A dropped tree that is discovered on a block can result in a small fine – most forestry contracts specify a dropped tree fine of \$2 per tree. If a whole bundle falls out of someone’s bags,

then it adds up to \$30 or \$40 in fines. Even worse would be when the dropped tree or trees are found in a pay plot. Even though they aren't planted, they can be considered to be part of the plot, and therefore count as fault trees which can also raise your excess. In the end, however, the biggest drawback of dropping trees on the block is that the checkers get annoyed when dropped trees are discovered. You should be careful not to let trees fall out of your bags. This happens to planters most frequently at the start of their bag-up, while their bags are most full. It is always a good idea to quickly scan the ground around your cache just before going into your piece, and make sure you haven't dropped any loose trees at your cache.

**Dromedary Bag** – The brand name for a type of water storage bag. Unlike the CamelBak (which has shoulder straps to wear on the back), the Dromedary bags are generally meant to be carried or slung over one shoulder.

**Dry Box** – A storage compartment (usually made of wood or aluminum) found in the back of a lot of open-back pickups. This allows people to keep tools and equipment dry and secure. These boxes can usually be locked to prevent theft.

**Dry Tent** – This is a large tent that is erected in some camps, which is specifically designed to act as a giant drying area for wet clothing. Years ago, camps would have a dry tent with a wood-burning air-tight stove, which was of limited use. Someone would have to stay up all night to tend to the fire, and only the clothes within a dozen feet or so of the stove would dry properly. Nowadays, it is more common to see propane or kerosene burning heating devices in the dry tents, which can throw off enough heat to dry the clothes of a camp of several dozen people overnight. The tent is quite a sight when it is in full operation after a rainy day, with several rope clotheslines strung between the rafters, and steam pouring out the vents as the clothes dry. Just be careful not to put your clothing or boots too close to the heater, and have them melt or catch on fire!

**Duct Tape** – A special type of tape, usually of a silvery-grey colour (although many other colours are available). This tape is wide and sticky, and is exactly the right kind of tape to be useful to planters for dozens of reasons. For many years, planters who didn't like wearing gloves (which restricted movement of their fingers in their drawbags) would instead put a few pieces of tape onto the tips of their fingers, to minimize cuts and scraping while putting fingers into the ground. This practice has almost disappeared in the past ten years, due to the wide availability of much better thin NitriDex gloves which are great for planting. However, duct tape is still a good general-purpose fix-it material. Just remember that it is spelled "duct" as in air-conditioning ductwork, not "duck" as in the bird. There are dozens of types of duct tape available, and experienced planters can often tell you about the pros and cons of different brands (stickiness to the fingers, ease of ripping off the roll, etc.).

**Due Diligence** – Reasonable steps taken by a worker or manager to satisfy a legal requirement, especially with respect to performing duties in a manner that is safe and will not result in liability in the event of an incident or accident.

**Duff** – Duff refers to organic materials in various stages of decomposition on the floor of the forest. There is some disagreement about the exact definition of what should be included as duff. Some people think duff refers to all three of the LFH layers, whereas many others think of duff as being just the litter and generally undecomposed organics situated above the FH layers. Most commonly, planters seem to think of duff as being composed of dry feathery moss or dry humus material, maybe with a bit of surface litter thrown in. In that case, planters should not plant in duff, because the tree roots are supposed to be planted in either mineral soil or smearable humus and fermenting organic soil. Even if it was acceptable to plant trees in duff, it would be hard to get them tight, so your quality would suffer, since having a loose tree is a fault. I would also recommend that you shouldn't confuse duff with the humus layer. Well decomposed organics often stay moist, and in my mind, these organics would often be located underneath a duff layer. Humus, a more accurate silviculture term for well-decomposed organics, is likely to stay moist, and therefore is a more suitable planting medium in some areas of western Canada (however, even humic layer planting is not permitted in some areas). I believe that the main reason for the confusion over this definition is because in the 80's and early 90's, the term "duff" also included the humus layer. At that time, just about every contract in British Columbia stipulated that trees needed to be planted in 100% pure mineral soil, if such soil existed.

**Duff Shot** – A tree planted in duff.

**Dummy Locking** – A procedure whereby a lock on a gate is left in a position which appears to a casual user to be locked, but is actually unlocked. Sometimes, someone will dummy-lock a gate to make it faster for the next person to get through, but with the hopes of keeping most members of the curious public out of the area.

**Dunnage** – The pieces of cardboard or wood slats or other packing materials that are sometimes included in a truckload delivery of trees. The dunnage is used for a few different purposes, but primary either to act as spacers when a small amount of air flow is needed between boxes, or to help ensure that boxes in the bottom of the load are less likely to be crushed by the weight of the boxes above them.

**Dynablast** – A specific brand of propane powered water heater. Some camps may have a propane tank hooked up to a Dynablast unit, along with a pump by a water source that delivers water to the Dynablast. This system provides warm water for showers.

**Ecosystem** – The total inventory of planters, animals, environmental influences, and their interactions within a particular habitat.

**Egress Route** – An emergency escape route, or exit path, which employees are directed to follow after they finish working in an area (or during an emergency). The term is often used when alternative routes/paths are more difficult to follow or may be hazardous.

**Empty** – Terminology used to indicate a direction of travel on a lot of radio-controlled logging roads. An “empty” vehicle refers to an empty logging truck, which is assumed by default to be heading away from the mill/town and further into the bush. Sometimes the driver will add the direction (up or down) just to clarify direction, especially if headed in a direction that most other road users wouldn’t expect (ie. empty down).

**Ephedrine** – A type of pseudo-amphetamine. It is a white, odorless powdered or crystalline alkaloid made from plants of the genus Ephedra (especially Ephedra sinica) or made synthetically. It is used as a bronchodilator (to dilate or open up the alveoli in the lungs) to treat bronchitis and asthma. “Diet pills” commonly contain ephedrine, because in addition to being a safe and common bronchodilator, it has mild side effects that cause the metabolism to race (heart rate increases, body burns food more quickly), and also acts as an appetite depressant. Some planters take ephedrine because it has essentially the same effect as drinking a cup of coffee. A huge drawback, however, is that planters who do this will eventually rely on the pills to feel normally alert, and another side effect is dehydration, which obviously is very bad for anyone planting trees. I recommend, as do many other experienced veteran planters, that you avoid taking stimulants in hopes of increasing your production numbers.

**Ergonomics** – The study of the design of equipment that fits the human body in order to prevent musculoskeletal disorders and repetitive strain injuries.

**Escape** (aka. Escape Burn) – This happens when slash piles are being burned and the fire accidentally spreads into the block, or when a block is being broadcast burned and the fire accidentally spreads into the surrounding mature forest or an adjoining block.

**Establishment Brushing** – A brushing treatment that is typically intended to eliminate herbaceous competition. It’s called establishment brushing because it takes place while the stand is initially being established. It usually takes place within five years of planting (or occasionally, immediately before planting).

**Establishment Survey** – A defined type of forestry survey specific to Alberta, which assesses certain specific aspects of the health of a plantation. Refer to the online “Reforestation Standards of Alberta” (RSA) guidelines for additional information.

**Excavator Mounds** (aka. Hoe Mounds) – These mounds are made by an excavator or back-hoe. The machine sits in one spot and reaches around itself several times, scooping mud out of holes and turning it upside down to form new mounds. Once it has done this, it moves further along the block, continuing to make new mounds behind itself. Excavator mounds can be fairly big, depending on how big the machine’s bucket is. It is hard to plant excavator mounds in any sort of defined pattern, since they are arranged randomly across the block.

**Excess** – Foresters have target densities that they want to see on the blocks. For instance, on a particular block, they might expect to see 1800 seedlings planted on each hectare of land (target densities in BC usually range between 800 and 2400 stems/Ha). The way that the quality and plotting system is designed, if there are more trees planted than targeted, this is called excess (which is determined by a fairly complex formula based on plot results). Planters are generally allowed to have a certain amount of excess without any penalties, but once they exceed that point, small financial penalties start to apply which ends up reducing the tree price.

**External Checker** – See "Implementation Checker."

**Extraction** – To pull planters out of a block (usually used when working with helicopters).

**Evergreen** – A slang term that is often used interchangeably (and incorrectly) with coniferous trees. Evergreens retain their leaves (needles) all year round. However, there are a few species of conifers (tamarack/larch) which lose their needles annually in the winter, and are therefore not included in the definition of "evergreen."

**"F" Layer** – See "Fermenting Layer."

**Fall Flagging** – See "Senescence."

**Faller** – Someone who cuts trees with a chain saw. In the old days, this person might have been referred to as a lumberjack. A faller is a logger, although some loggers use heavy equipment to cut the trees so they wouldn't necessarily also be qualified as a faller.

**Falling Boundary** – The boundary of an intended block, usually marked by a series of mature trees having obvious paint marks or ribbons on them. These marked trees are left standing as being the first row of trees "outside" of the cut-block.

**Falling Corner** – Fallers use these locations to help orient themselves on the block. An example of use might be when a skidder operator says over the radio, "Fred, I'm just starting to clean up the section southwest of falling corner 11." The locations of falling corners will be marked on the block maps, and when you go to that location on the block, you'll see the corner marked quite prominently with ribbon or paint on a tree on the woodline.

**Farmer's Blow** – To blow one's nose without Kleenex, which means that the phlegm shoots out onto the ground. It's fairly disgusting to do this in front of other people.

**Fat Truck** – See "Off Highway Load."

**Fault Tree** – A tree which has some sort of quality problem, and thus cannot be considered to be a good tree if it falls into one of the plots. Problems that might lead a tree to be considered as being

faulted include being too deep, too shallow, leaning too much, bent roots, in poor soil, or any of several other problems.

**Feather** – To plant more trees among existing trees, but sparsely. For example, when you finish a block and you maybe only have a couple part boxes left of that seedlot, and no other blocks available to hold the trees, you might be able to “feather them in” across the block. They would need to be spread out quite well, so there are no extremely high plots when the checker comes in afterwards.

**Feeder Bag** – See “Drawbag.”

**Feller Buncher** (aka. Buncher) – A tracked piece of logging equipment that grabs trees by the base of the tree, cuts them from the stump with a rapidly rotating toothed disc, and then lays the trees down on the ground.

**Fen** – A type of bog, especially a low-lying area, which is wholly or partially covered with water and dominated by grass-like plants, grasses, sedges, and reeds.

**Fermenting Layer** – Of the three LFH layers, the fermenting layer is the middle layer. This layer is composed of partially decomposed materials. You can identify it as a sort of peat moss layer but with partially identifiable components still visible. The litter layer is on top of the fermenting layer, and the fermenting layer is on top of the humus layer.

**Fert** (aka. Fertilizer Pack, Tea Bag) – A small package of fertilizer which is intended to be buried beside a seedling as it is being planted. The fertilizer usually comes in a material and size which makes it look exactly like a traditional tea-bag (ie. Red Rose or Earl Gray). It is common for there to be certain rules surrounding the proper planting of fertilizer packs, ie. they should usually be just underneath the surface and not visible from above, so that as the chemicals leech out of the pack over time, they sink downward into the soil toward the roots of the seedling. It is also common for there to be a rule that the fert must not actually touch the root of the seedling, although many fertilizer pack manufacturers have stated that this is mostly important with bare-root seedlings, and not very critical when planting plug stock. It is generally recommended that ferts be planted between four to six inches away from the seedling, and the planter will get paid extra (piece rate) for the additional effort of planting the fertilizer. Most planters are not particularly fond of planting ferts, because they add complexity to the job. Ferts are really annoying to work with on rain days, or any time that they get wet.

**Field Conditions** – Current and long-term characteristics of any particular block, which can include the terrain, soil or ground conditions, drainage, slope & aspect, vegetative cover, slash load, operating conditions, access to or from remote locations, weather/climate, and any other conditions that may affect work carried out on the block.

**Fill Plant** – If a block has already been replanted in a previous season, a forester may find that a significant number of the seedlings did not survive. The forester may then decide to pay a crew to go back into the block again to add additional seedlings. If the planters are expected to only plant new seedlings in the spots where the previous seedlings died, instead of covering the entire block (a re-plant), it is considered to be a fill plant. Essentially, the planters are “filling in the gaps.”

**Finger** (measure of depth) – Some foresters or checkers use the term “finger” as a unit of measurement, ie. the top of the plug must be covered with dirt, but the depth of the dirt can be no more than two fingers above the top of the plug.

**Finger** (section on a block) – A finger refers to a part of a block that is a long, thin section cut away from the rest of the block. Planters will hope that they can carry enough trees in a bag-up to enable them to plant their way all the way to the back of the finger, so they won’t have to walk in later with more trees to finish the back of the finger (dead-walking is very inefficient).

**Fifth Wheel** – In trucking, this term refers to the large steel receptacle on the back of a tractor truck into which a reefer or dry trailer is attached. It’s called a wheel because it is round and it is about the same size as a tire.

**Fines** – Financial performance penalties assessed against a company or piece-rate worker for poor performance in areas such as quality of workmanship, density, species mixing, stock-handling, and other metrics.

**Fire Hours** – Sometimes, during stretches of extremely warm weather, crews will switch their work hours to try to take advantage of [relatively] cooler temperatures. For instance, instead of working from 7am to 5pm, a crew may work from 5am to 2pm. Switching back and forth to/from fire hours tends to mess up everyone’s sleep cycles when living in bush camps, so it typically only makes sense to do this when you are looking at extended heat waves lasting for at least 4-5 days or longer.

**Fish Bearing** – A classification of stream indicating one that has sufficient quality and quantity of water flow to support fish.

**FIST** – A type of crew-cab truck commonly used in planting operations. The FIST technically refers to the Fibreglass Insulated Seedling Transport mounted onto the back of a crew cab. When packed properly, a FIST can usually hold about sixty standard size boxes of seedlings.

**Five by Five** – Communications slang which means, “I hear you loud and strong, your transmission is clear.” The first number indicates intelligibility on a scale from 1 (very low) to 5 (very high), and the second number indicates strength of signal on a scale from 1 (very low) to 5 (very high).

**Flag** – To hang flagging ribbons up, perhaps to mark a boundary, or also to throw flagging tape pieces onto the ground roughly beside planted trees, so other planters can spot the trees more easily.

For example, “Fred, don’t forget to flag your next line because I’m going to have to put another planter into your piece with you in a few minutes.”

**Flagging** (aka. Flagging a Line) – The act of using flagging tape to mark a line or boundary, either by tying it to brush, throwing it across vegetation, or dropping it on the ground.

**Flagging Tape** (aka. Flagger, Flagging Ribbon or just Ribbon) – This is light plastic ribbon which comes in dozens of different colours. Planters and crew leaders use small strips of this tape to mark locations on the blocks. A two foot long piece of flagging tape tied to a stick at chest level is usually visible from hundreds of feet away. Many people use this tape to mark boundaries on blocks when there is no easily identifiable division between pieces. There are generally two types of flagging tape with varying thicknesses. “Summer Weight” tape is light and easy to tear, and a single roll may have a hundred meters of ribbon. The drawback with summer weight flagging tape is that it fades quickly and starts to become very difficult to see after a year or so. “Winter Weight” tape is thicker and more difficult to tear, so planters avoid using it when flagging trees or temporary boundaries. However, winter weight tape will retain most of its colour and integrity for two or three years, so it is used for more permanent boundary marking, such as block layout, or by planters/management who are marking the boundaries of a hole that will need to be finished the following season.

**Flare Stack** – A chimney or pipe at an oil and gas installation which is used to vent and burn off natural gas and related products. Flare stacks are usually built well above head level, generally at least twenty feet and sometimes more than a hundred feet above ground level, for safety reasons. These flare stacks are quite common in Alberta and northeastern BC, and their flickering light and shadows casts an eerie feeling over the night landscape in these locations.

**Flat Deck** – A type of truck that features a flat wooden deck (possibly with side rails) rather than a traditional pickup bed. Such a truck can usually be used more easily for transporting different types of equipment, especially motorized items such as ATV’s and snowmobiles, due to the larger surface area that what is usually found in the back of a pickup bed. If you’re using a flat-deck truck to transport equipment, make sure that everything is secured properly to avoid headaches from compliance officers that may want to pull you over for an inspection.

**Flip Side** – The side of a trench which is created when dirt that is excavated from the bottom of the trench is flipped over to the side. This is almost always the side that a forester will want the trees planted in (unless they want the trees in the bottom of the trench).

**Float** – To use some sort of trailer or low-bed to move logging equipment or other types of heavy equipment to a new location. The alternative is to “walk” the equipment there (drive the machinery slowly under its own power).

**Foamie** – A large sponge mattress that a planter can sleep on. Foamies can come in different thicknesses, often from two to four inches thick. A foamie cannot be rolled up as tightly as an

inflatable air mattress for transportation, and you will not be comfortable when your foamie gets wet because it is, after all, just a giant sponge. However, a thick foamie is often more comfortable than an air mattress, and you do not have to worry about the risk of it being punctured and becoming useless. A foamie usually costs about \$25 to \$50, and is very helpful in ensuring a good night's sleep.

**Foreman** – See “crew leader.”

**Foliage** – The sum total of leaves on a particular plant or group of plants. For example, the fall foliage of the hardwood forests is very colourful just before the leaves begin to drop.

**Four Bagger** – A set of planting bags with four pouches for carrying trees.

**Four Stroke Engine** (aka. Four Cycle Engine) – A type of internal combustion engine in which the piston completes four separate strokes while turning the crankshaft (intake, compression, combustion, exhaust). A four-stroke engine is usually somewhat more complex than a two-stroke, and heavier. An advantage to a four-stroke engine is that oil is added separate in a sump or reservoir, rather than needing to be mixed directly into the fuel before the fuel is added. Examples of four-stroke engines include trucks, cars, generators, ATV's, and some types of water pumps.

**Four Track Driving** – Driving on a gravel road in a manner in which vehicles coming at each other are travelling sufficiently away from the centerline of the road that they can pass each other without swerving. This type of driving is only possible on wide logging roads. It is called “four track” because the tire tracks of both vehicles are distinct and separate from those of oncoming traffic.

**Four Wheeler** – Has multiple meanings. For a planter, it is usually slang for a four-wheel ATV. For a trucker, it is slang for a car or pickup, ie. any “regular” vehicle not used in heavy trucking.

**Free Growing** – A stand of healthy trees of a commercially valuable species which is not impeded to an unacceptable level by vegetative competition. Once the stand is free growing, a license holder is free of any further financial responsibility for the stand (in the eyes of the government).

**Free Growing Survey** – This survey is typically the final assessment that a licensee completes on an opening. It is completed to determine if a licensee has met its silviculture obligations for the opening, and to report spatial data and silviculture and inventory information to the Ministry of Forests, Lands, and Natural Resource Operations (MOF).

**Free Growing Tree** – A survey definition, which refers to a tree that meets the following criteria: Healthy, “preferred” or “acceptable” species, well-spaced, and at least the minimum height and minimum size relative to competing vegetation within the effective growing space.

**Freshet** (aka. The Melt, Spring Melt) – The spring thaw, usually characterized by some flooding, which is caused by snow and ice melting and flowing into rivers.

**Free-To-Grow** - Once a stand has reached free-to-grow status, it has reached the stage at which acceptable well-spaced trees have met the criteria for free-growing declaration as described in the standards unit. Basically, this means that the trees are at the point where active forest management no longer needs to be performed, and they can be left to finish growing to maturity by themselves.

**Frost Heave** – In some places, especially when soils are saturated with water, it's possible for the soil to expand and buckle a bit when it freezes. This is because water expands when frozen. When this happens, it's occasionally possible for recently planted seedlings to be partially popped up out of the ground, and they become shallow. The best solution is to make sure your trees are planted to a proper depth, and to make sure that the holes are closed.

**Frost Pocket** – Frost collects in depressions first, because cold air sinks. At certain times of the year, in certain temperatures, it may be possible to see frost collecting in puddles or depressions on the blocks, while slightly higher soils around these pockets remain frost-free. Even a foot of difference in the height of the ground can often make a difference about whether or not there is frost present in the morning.

**Fruit** – A mature plant ovary that contains seeds.

**Fruiting Body** – See “Conk.”

**FS 704** – The BC Ministry of Forests system which is used to record and calculate planting quality. Checkers will record their plots in books of FS 704 forms.

**Full Duplex** – A type of radio communications system where send and receive functions can occur simultaneously. This isn't the case with the VHF radios that are common in the planting industry (only one person can transmit at a time), but cell phones are a good example of full-duplex devices.

**Fungus** (pl. Fungi) – Part of a kingdom of living organisms which is separate from plants and animals. The fungi kingdom includes yeasts, moulds, and mushrooms. The cell walls of fungi contain a material called chitin (a derivative of glucose), unlike the cell walls of plants (which contain cellulose).

**Furrows** – See “Trenches.”

**Gallery** – The burrowing patterns made by beetles when you peel the bark off a conifer.

**Gardening** – Slang used to describe any planting techniques whereby a planter makes a newly-planted seedling look especially pretty, but which may not be efficient in terms of production-oriented planting. Planters that do too much gardening will take an excessive amount of time to remove debris from a microsite and to tidy around the hole after planting the seedling. In the long

term, the extra effort involved in gardening the seedling is not beneficial. A planter can make more money by meeting the basic planting requirements without going to the extreme of gardening. The industry (as a whole) benefits by having workers who can maintain an optimal production pace. Even though gardening might seem to be great for an individual tree, all stakeholders will benefit more in the long term by seeing “adequate” quality on large numbers of trees, rather than by having “excellent” quality on low numbers of trees.

**Gates** (aka. Faller’s Gates) – A warning sign at the entrance to an area where active falling or logging is taking place. People are not allowed to pass through/by a faller’s gate until they talk to a faller via radio and obtain permission. The faller will drop the tree that they are currently working on and pause until the outsider has gone safely through the area, to ensure that a tree isn’t accidentally dropped onto someone.

**Georeferencing** – The process of embedding coordinate/location data in various types of digital maps that allows users to see their own position on the map, through the use of mobile apps such as Avenza’s PDF Maps. PDF files and TIFF files are the two filetypes that are most frequently georeferenced.

**Germinant** – A young tree that has just sprouted and is starting to grow in the wild.

**Ghost Line** – A randomly planted line of trees which was not intended as an deliberate boundary line, and which does not follow the edge of a cutblock or of an existing patch of planted seedlings.

**Girdling** – A type of silviculture activity designed to kill undesirable trees. Usually, girdling targets trembling aspen or balsam poplar stands, with maybe a few cottonwood and willow, or birch and other hardwoods thrown in. When a tree is girdled, a strip of bark is removed from around the base of the trunk, below the lowest live branch. Since the bark protects the cambium (the layer that allows for transfer of nutrients between the leaves and the roots), elimination of the bark will effectively cause the tree to eventually starve to death. Once that happens, the tree dies, and may topple over a year or so later. Workers girdle trees by hand, with the aid of specially shaped knives or machetes. The reason for killing these trees is often to eliminate the major competitors for a young stand of coniferous trees, and open up the overhead coverage to allow the coniferous trees to get more sunlight. Typically, stands that are girdled contain trees that are between five and fifteen years old – it is rare that more mature trees are girdled. There are two schools of thought which support the use of girdling. The first is when a stand needs to be cleared of competition, but for some reason, the forester does not want all the weed trees knocked down immediately (perhaps a lot more surveys have to be done in the following year, and the forester wants people to be able to move around the block more readily). The second is that girdling kills the tree slowly, starving the roots. This means that the tree cannot send up additional shoots and start growing all over again from the surface. If an aspen tree is cut, new shoots will sometimes start growing right away (a process called suckering), and a few years later, the aspen stand has managed to re-establish itself.

**Goat Trail** – Slang for a very poorly maintained, older road or trail.

**Gong Show** – A disorganized and poorly-managed contract.

**Good Catch** – A safety reporting designation that recognizes when a potential hazard is reported before it causes a safety incident. Some companies now classify all near-misses (actual safety incidents) as good catches, in an attempt to paint reporting in a more positive light. I agree with the sentiment that reporting should be encouraged, however, I do not agree with the logic that a “lucky incident,” such as getting hit in the face by a bungee cord that snaps, should be called a good catch rather than an incident. If something goes wrong, it should be classified as such.

**Good Samaritan Act** – This BC Act ensures that if a person is rendering emergency first aid to another individual, he or she is not liable for any actions that may cause further harm to the victim, or which may fail to lessen harm, so long as any first aid treatment is not considered to be gross negligence. The exception to this Act occurs if the first aider is employed expressly (solely) for the purpose of rendering medical aid, but the act covers first aiders whose primary job is some other activity, such as planting trees.

**Granny Lane** – Trucker slang for the right lane of a pair of lanes on a divided highway, ie. the slow lane.

**Grapple**– A very large jaw-shaped pair of clamps which is attached to the lead cable of a yarder. The yarder operator drops the grapple down onto logs that have been fallen across a slope, and when the slack is pulled in, the grapple lifts up and the jaws close around the log underneath it. The operator is then able to pull the log in to the yarder, where another piece of equipment picks it up and moves it out of the way.

**Grapple Anchor Point** – A strong stump or tree that is cut off a couple feet above the ground level. A series of deep notches are then cut into the stump, all the way around the stump. This grooved horizontal notching is then used to anchor a grapple cable.

**Grapple-Yarder** – A yarder that is using a grapple rather than chokers and a ground crew.

**Grass Mat** (aka. Mat) – The root systems of grasses that become intertwined in the top few inches of surface soil. In some areas, foresters require planters to screef through grass mat, so the root system of the grass doesn't pose significant competition for a planted seedling (grass can easily choke out a young seedling). A common contract requirement may state, “In areas with grass mat, planters are expected to perform a 20x20 screef down to mineral soil.” The 20x20 refers to a 20cm square area with no grass roots remaining, that the seedling gets planted in. If you've ever laid sod, the bottom half is mostly grass mat and soil, and the top half is the grass.

**Green Trampoline** – When a block is first logged, there will be major amounts of branches left lying on the ground. In some cases, heavy equipment operators will try to clean this mess up somewhat by consolidating it into slash piles, before the planters get to the block. In other areas, the branches are just left in place to decay. Either way, within about a year, all the needles will have fallen off so it isn't as hard to see the ground. However, on the fresh block, when the branches are still covered with needles, it can be difficult to plant or even just to walk around, because of this bouncy layer of branches. So the "green trampoline" refers to a thick layer of branches with green needles, immediately after logging.

**Greener** (aka. Rookie) – An inexperienced (first year) planter.

**Greening Up** – The process by which the cut blocks go from having lots of exposed soil in the spring (May) to being covered with green grasses and other small plants later in the summer (July). Once a block has greened up, it usually becomes a bit more challenging for the planters.

**Grey Water** (aka. Waste Water) – A water/slurry mixture which is run-off from kitchen or shower facilities, and thus may contain soaps, shampoos, food particles, etc.

**Ground Fire** – A fire that burns within the ground fuel layer, underneath where a surface fire would burn.

**Ground Skidding** – Pulling trees or logs off a block by using heavy machinery or skidders. The machinery hooks onto the logs with cables or lanyards, and pulls them out to landings (or roadside) for further processing. Ground skidding is typically only used on flat blocks or shallow to moderate slopes. If the slope gets to be too steep for the safety of the equipment and operators, grapple-yarding (cable yarding) is the preferred alternative.

**Ground Truth** (aka. Ground Check, Ground Assessment, Ground Verification) – To verify facts in the field, or on the ground. For example, a forester may say "here are a set of old maps with some survey estimates that may or may not be correct, but we haven't gone out to ground truth them (to check their accuracy)."

**Grounding** – This has multiple meanings. The most common is with respect to electrical, to provide an outlet for current to travel in case of a problem (the current flows to the earth). An example of this would be that a truck should be grounded at a fueling station before fuel is added to a tidy tank, so static electricity cannot cause an explosion. Another definition refers to heavy equipment, where a standard safe work procedure is to always "ground the blade" or "ground the bucket" when someone is passing by the equipment, to minimize any danger to the passer-by.

**Gully** – A small geographical feature on a cut-block where there is some sort of depression in the block, usually caused by a creek or river (or seasonal water run-off) over a period of many years. Sometimes, these areas cannot be logged easily, but usually they will have the trees cut out of them.

But the problem is that they are usually steep and ugly, and difficult to plant. If you get a gully in your piece, your production for the day will probably be affected negatively.

**Gymnosperm** – A type of vascular plant which has seeds that are not enclosed in an ovary. Examples include conifers, cycads, Ginkgo, and Gnetales. A gymnosperm is a contrast to an angiosperm (which has seeds and ovules that are enclosed within an ovary). Gymnosperm seeds develop either on the surface of scales or leaves, often modified to form cones, or at the end of short stalks (in Ginkgo).

**“H” Layer** – See “Humic Layer.”

**Hagglund** – A special type of tracked vehicle, originally developed in Sweden, which is useful in conditions where conventional roads don’t exist. These vehicles can travel across cutblocks if the stumps aren’t too high, or through some swampy/boggy areas (if not too soft), going places that a pickup truck could never drive. They can be used to carry passengers or large loads of tree boxes.

**Half Duplex** – A type of radio system in which two-way communication occurs, but the transmit and receive operations cannot take place at the same time. The VHF radios that are used so commonly in tree planting operations are a good example of a half-duplex system. You need a full-duplex system to be able to send/receive simultaneously.

**Hammer** – A logging tool. It’s a special hammer with a stamp on the end, which is often left sitting on a sign on the side of a logging road when active hauling operations are taking place. When log truck drivers get to it, they stop and use the hammer to beat that special stamp mark into the end of a bunch of logs. When the load arrives at the mill, an inspector (a scaler) can tell exactly which area the logs came from. I don’t know if this is to sort the wood by the source location, or maybe to verify distances that the logs travelled, or maybe for something else. Anyway, you’ll sometimes hear log truck drivers on the radio saying, “Down from the Hammer,” which means that they’re pulling away from the hammer location and heading toward the mill.

**Hammer Lane** – Trucker slang for the left lane of a pair of lanes on a divided highway, ie. the fast or passing lane.

**Hand Bomb** – Moving boxes of trees manually, by hand, rather than having some sort of mechanical assistance. Be gentle!

**Hand Closing** – To close the hole after planting a seedling, by squeezing the dirt with your hand (rather than kicking the hole shut).

**Harvesting** – To close the hole after planting a seedling, by squeezing the dirt with your hand (rather than kicking the hole shut).

**Heavy** – Radio slang for a logging truck, used occasionally by log truck drivers so other road users know that they aren't a pickup truck, ie. "Empty heavy up at 38 Finlay." In the oil patch, it's usually a slightly different connotation, ie. a tanker truck or similarly large truck with a heavy load on it.

**Hectare** – A measure of area commonly used to measure the size of planting blocks, and used as a reference size in density. One hectare equals 10,000 square meters. It doesn't have to be square, but if it was, it would be the same size as a square that is exactly 100 meters on each side. A hectare is equivalent to 2.47 acres.

**Hectare Planting** – A form of planting where the planters are not paid a specific price per tree. Instead, they are paid a certain dollar amount for a certain amount of ground being covered. So long as the planter meets minimum stocking requirements for the piece, he or she is paid for the work, no matter how many trees it actually took. If a planter plants his or her trees closer together than intended, the same amount of money is made, therefore, it is in the planters' best interests to take lots of density plots on themselves to try to ensure that they exceed the minimum stocking requirements (but without planting too many trees). Hectare planting was initially developed as an alternative payment system that would be used to combat stashing. In such a system, stashing was pointless because it didn't matter how many trees were claimed, just how much ground was covered. Nowadays, hectare planting is done very infrequently, although most other areas of silviculture (brushing, spacing, girdling, thinning, etc.) are paid by the area completed.

**Helipad** – A strong wooden platform built (by loggers) on a block, able to accommodate the landing of a helicopter. Helipads are usually only seen on steep blocks, where the roads and block are not suitable for a helicopter to set down. Helipads are fairly common in some of the more rugged areas on the coast.

**High Boy** – Trucker slang referring to a flat-deck trailer, hauled behind a tractor trailer, that is used for regular cargo transport rather than for moving heavy equipment.

**High Centered** – A vehicle that is stuck because there is so much contact between the ground and the bottom of the vehicle that some or all of the tires no longer have contact with the road surface, and thus spin uselessly.

**High Lead Logging** – A type of cable logging which uses a grapple yarder type of set-up.

**High Side** – The position on a mature tree where the ground meets the tree adjacent to the highest ground, ignoring any root flare, obstacles, vegetation, and loose matter that has accumulated at the base of the tree.

**Hi-Top** – Hiking boots or work boots which are greater than six inches in height, used for ankle support. This type of footwear is required on some work sites.

**High Top** – A logging term which means to cut the top off a tree. Mature trees can be high topped for several reasons. For example, a grapple yarder might be hooked up to a mature tree in the woodline, as an anchor point, and that anchor tree is high-topped to lower the center of gravity and make it less susceptible to being pulled over. Also, mature trees standing on the edge of cut-blocks are more susceptible to being knocked down by the wind. Some companies will use a helicopter with a high-topper attachment hanging beneath to go around the edge of the block and high-top all those trees to minimize blowdown. In that case, the tops of the trees, which look sort of like Christmas trees, will end up being dropped down to the ground around the edge of the block.

**Highball** – To put in a lot of trees. Every camp or crew usually has a few consistent highballers that plant the fastest, and record big tallies day after day. A true highballer is a planter who puts in high production numbers every day, no matter what the weather or block difficulty or other challenges.

**Highway Load** – A logging truck that is loaded to meet legal weight limits imposed by the Department of Transportation on vehicles using provincial highways. If the logging trucks don't have to use the provincial highway system, perhaps because they can travel on private gravel logging roads all the way from the blocks to the mill, they can be loaded more heavily than legal weight limits (this would be called an "off-road load" or an "off-highway load").

**Hinge** – Used when referred to disc-trenching. The trenching machine cuts a swath of sod and some of the near-surface dirt out of the block as it travels across the block, and flips this strip over to the side. The hinge is the area which is the swivel-point along this line of sod. The hinge is usually roughly "in the middle" when looking at the height/depth of a trench, at it is along the top of the mineral soil layer. A forester will usually tell planters to plant the seedlings "high in the trench" or "high on the flip," or they might also say "plant along the hinge." In a few very dry and arid regions, they might even say to plant the trees lower, either "below the hinge" or "in the bottom of the trench."

**Hoe Mounds** (aka. Excavator Mounds) – See "excavator mounds."

**Hoedad** – A wooden-handled tool, very similar to a mattock, which was often used [rather than a shovel] to plant trees in the 1970's and 1980's. Imagine a tool that looks like an axe, but the metal part is oriented ninety degrees to how the head of an axe is oriented, ie. horizontally rather than vertically when the tool is held upright. So it's also similar to a shovel, except that the blade juts out at a ninety degree angle from the wooden shaft of the tool, rather than extending further along the same axis as the shaft. You can google an image of a hoedad to understand it better.

**Hoedads, the** – A famous workers' co-operative group based out of the Pacific Northwest in the US, which ran from 1971 to 1994. Hundreds of American tree planters worked for the Hoedads during their existence. The inception of Dirk Brinkman's crew in British Columbia, which was the catalyst for the creation of the Canadian tree planting industry as we now know it, happened just one year before that.

**Hog Fuel** – Wood residue and waste products that are processed to produce a mix used for fuel, often to heat boilers or buildings. The hog fuel might include sawdust, chips, fines, planer shavings, and probably even has some dirt mixed in.

**Holdover** – A fire that remains dormant and undetected for a considerable amount of time after it starts, particularly lightning-caused fires. Some fires can smoulder all winter under the snow after initial ignition in the Fall, and then flame up again in the spring.

**Hole** – Trees are planted in holes, ie. an opening in the ground. However, there is another type of hole that planters need to be aware of, which refers to a section of a block. When planting a block, if some of the ground is not planted, that unplanted piece becomes known as a “hole”. Holes are bad if they do not eventually get planted. The best way to envision a hole is to think about where the planted seedlings are, and to mentally envision them as all having grown ten feet high, with large branches. When you do this, it becomes much easier to understand the dynamics of a hole, because it will turn into an obvious open space on the block as time passes.

**Homogeneous** – Consistently similar. For example, in a block with a mix of 50% pine and 50% spruce trees being planted, a homogenous mix would mean that plots thrown almost anywhere would usually contain half pine and half spruce seedlings. If the mixing wasn't very homogeneous, you'd be more likely to see some plots of predominantly spruce or predominantly pine.

**Honey Pit** – Slang for the toilet pit in a dug outhouse.

**Hookaroon** – A woodworking or logger's tool that is used for stacking, dragging, and rearranging wood. It minimize the need to bend over to rearrange the wood, which makes it easier to process firewood, etc. It looks somewhat like an axe that has a spike instead of an axe-head. It is very similar in appearance to a pickaroon, except that the spike on the hookaroon has a pronounced hook, unlike that of a pickaroon which is either straight or just slightly curved.

**Hot-Lift** – Trees that are grown from seed in the spring will be ready at the nursery in June and July. When these trees are being harvested, they are lifted from the trays in the nursery, bundled, and placed into boxes. These boxes then end up in the field a very short time later. The trees have not been frozen over the winter, and therefore they are still fully alive and in the growing stage during transportation. Since trees produce moisture and heat as they grow, if the seedlings are kept in the closed boxes or in an enclosed space, they will quickly heat up and die, unless exposed to open air. For this reason, these hot-lifted trees need to be spread out and have the boxes opened for air circulation, so the trees do not overheat.

**Hot-Spot** – A spot that is burning long after visible evidence of wildfire has disappeared. Sometimes, slash piles are burned in the fall, and the following March, there are still hotspots where the piles had

been, where logs are still smouldering underground. When the logs are dug up, they can burst back into flame upon exposure to oxygen.

**Humic Layer** (aka. Humus) – A layer of brown or black material, called humus, which results from decomposition of plant and animal matter. This layer is often moist, and forms the organic portion of soil. Planters will usually find it as a thin black layer of “peat moss,” sitting on top of the mineral soil (if there is any mineral soil in the area). In the LFH spectrum, the humic layer is the bottom of the three layers, and is completely decomposed.

**Hump** – To carry something on foot, ie. if there are no roads in a block, and the ATV is unable to drive across the block, the crew leader may have to hump some boxes into the block to set up a cache.

**Humping** – Carrying gear or boxes of trees across a block on foot.

**Humus** – See “Humic Layer.”

**Hundred Pounder** – A hundred pound propane tank. This term is misleading. A hundred pounder tank, when full, weighs more than a hundred pounds (the internet suggests about 170 pounds, but that seems incorrect). A hundred pounder theoretically holds 100 pounds (or 23.6 US gallons) of propane. Propane cylinders are required by law to be filled to a maximum of 80% of rated capacity. We measured some full tanks once and they were only around 130 pounds, which leads me to think that they're filled with 80% of 100 pounds rated capacity, and the empty tanks are probably about fifty pounds apiece. I guess I need to go weigh some tanks to figure this out for certain.

**Hurry Up And Wait** – Used to describe the fact that planters are expected to be ready for work (or certain tasks) at a specific time, but then, due to the chaos that is inherent in tree planting, something else goes wrong and so the planters need to sit and be patient after the appointed time. For example, on the first day of the season, we might tell everyone that they need to be at the office at 8am sharp for the vehicle convoy to depart for another town, but then it's discovered that one of the trucks has a flat tire that needs to be changed. So at 8am, when most people are ready to go, they'll sarcastically say “hurry up and wait” to refer to the fact that there was a sense of urgency to be ready on time, but being on time didn't matter because something else went wrong. It's very important in tree planting for each individual to be ready on time, because otherwise, the person who is late can often cause delays for an entire crew.

**Implementation Checker** – A checker that works for the Client, either directly or as a contractor/consultant. This checker's role is often to ensure that quality standards are meeting minimum requirements, and to implement or audit the set of quality checks that determine the final payment on a planted block. It is usually best if quality problems are solved at the contractor level, before an implementation checker discovers any issues.

**In** – Terminology used to indicate direction of travel on a lot of radio-controlled logging roads. A vehicle heading “in” is assumed to be heading “in to the mill,” ie. towards the mill/town and away from the bush. In some places, “in” is designated for vehicles heading towards the closest log dump or log sort. This term seemed to be most commonly used in coastal logging operations.

**In-Land Cache** – A cache that is set up in the middle of the block, in an area with no road access or discernible quad trail. A crew leader or tree deliverer will find these caches to be quite inconvenient, since the boxes of trees will either have to be moved in to the cache by ATV or carried in by hand. However, planters often find these to be very convenient, especially if the distance from the road to the back of their piece is quite far and would require a very large bag-up.

**Influence Tree** – A tree, when assessing the quality of a plot, that falls outside of the plot circle but which still has an influence on trees within the plot (such as a tree within the plot falling closer than the minimum spacing to the influence tree).

**InReach** – This is a special type of satellite-based communications device, originally developed by a company called DeLorme, which was then bought out by Garmin in 2016. InReach devices can “pair” to a smartphone using Bluetooth, providing the phone with the ability to send simple (text-only) SMS texts via satellite, even when the phone is not within a mobile cellular coverage area. An InReach device usually also has a simple data entry frontpiece, which allows the user to send/receive texts even without a smartphone paired to the device. These devices have become indispensable to reforestation workers in remote areas with no mobile coverage. They allow managers and crew bosses to communicate with their head office when working in remote locations, and they have also proven to be especially useful when doing helicopter work at distances which exceed the transmission range of handheld VHF radios.

**Insects** – There are a lot of insects that planters could be concerned with. None of them are particularly important to planters, although several of them are annoying at times. Don’t be mad though – remember that insects are critical to maintaining the planetary ecosystem, and human life therefore depends on them. Despite this, being attacked by flies, mosquitoes, no-see-ums, wasps, and hornets is not fun. Some people are scared of spiders. If you are one of those people, get used to spiders, because you will see a lot of them. You will also see a lot of other “bugs” that don’t really have major effects on you: butterflies, moths, dragonflies, beetles, water bugs, ladybugs, and dozens of others. Some beetles have an effect on planters that you may notice in your travels – the mountain pine beetle (and to a much lesser extent the spruce beetle) have decimated forests in the Interior region of British Columbia and parts of Alberta, and killed thousands of square kilometers of timber.

**Insert** – See “Silvicool Insert.”

**Insertion** – To move planters into a block (usually used when working with helicopters).

**Intermediate Cut** – A harvest entry made prior to the final harvest, which leaves enough trees such that the area remains fully stocked on a technical level.

**Internal Checker** (aka. Company Checker) – A checker who works for a planting contractor, who is hired to help ensure that planters are meeting quality standards and that problems are corrected before a forester or implementation checker comes in to discover quality issues.

**Inventory** – In the harvesting industry (logging), inventory refers to timber that has been cut and processed and is sitting roadside in a block, waiting to be trucked to the mill. So when a forester tells you that your next block has inventory on it, they mean that there will be log decks that the planters will have to work around.

**Inverter** – A small device which plugs into the cigarette lighter or into a power point in a vehicle, and allows you to plug normal household devices into it. The device converts the voltage from the vehicle's battery (12v) to normal household current of 110/120v, and allows for traditional two-prong or three-prong North American plugs to be used. Most cheap inverters only allow up to 100 watts of power (power = voltage x current). This is barely enough to power a medium laptop. Some inverters will allow 300 to 500 watts, allowing you to plug in multiple laptops and electronic devices, although these models are considerably more expensive. To give you a perspective of how much power various devices consume, a toaster usually needs around 1200 watts and a hair dryer needs around 1500 watts. By comparison, a medium laptop usually only needs about 90 watts, and you only need 5-6 watts to charge a phone. Modern high-end gaming laptops often require as much as 180w to 240w, so those machines definitely won't run on a 100 watt power source, and might damage your equipment.

**J-Roots** – When you plant a seedling, the tree will eventually grow to be straight up and down, as it grows toward the sky (thanks to a process called Phototropism). Just as the part of the tree that is above ground likes to be straight, the central root system would like to start its life going straight down into the ground (although eventually it will umbrella and spread across the surface of the ground around the tree). If you don't plant your roots so they are straight up and down, they are said to be "j-roots" because they resemble the shape of the letter J. If you get caught planting J-roots, your life will become painful. Replanting a section to fix this kind of problem is very time-consuming, because every single tree has to be dug up and replanted. At least if you have other types of faults, like leaning trees, it is quite easy to cover the ground quickly and through visual checks be able to get away with fixing only the trees that are not straight. My advice for planters has always been that if there is one fault to be extremely paranoid of, watch out for J-roots. Use your fingers to tuck the roots down and straighten them out!

**Jackpot** – This term comes from the logging industry. It refers to a mess of partially fallen trees which are leaning on each other, so they're particularly dangerous and nasty. This term is sometimes used synonymously with schnarb, although not really in a correct manner.

**Jake Break** – A type of compression release brake (engine brake) that helps tractor truck drivers slow down the truck without wearing the normal service brakes. Diesel engines regulate power based upon the volume and timing of fuel injected into the combustion chambers. This is done by retarding the turbocharger to attenuate the speed. It creates braking force by releasing compressed air into the cylinders. It's called a "Jake" break because they were initially developed by the Jacobs Vehicle Systems company.

**Jerry Can** – The jerry can refers to a container used to hold gasoline or other types of fuel. I have no idea where the name came from, but it may be slang that originated in WWII. These cans can be easily recognized by their red shape, and by the bright yellow spouts used to pour the gas out of the container. Be careful that you understand what kind of fuel is contained in the jerry can. Most camps have at least three types of fuel on hand – gasoline, diesel, and "mixed gas" which is a mixture of two-stroke oil and gasoline to be used in chain saws. Red jerry cans should only be used for gasoline. Yellow jerry cans should only be used for diesel. And blue jerry cans should only be used for kerosene (but be careful to differentiate these from blue water jugs, which have a different shape and design).

**Juvenile Tree** – The definition of a juvenile tree is very vague. It's known as the stage between being a seedling and being a mature tree, but the shift from being a seedling to a juvenile takes place over time, with no clear way of differentiating between the two, and the same problem happens in the gradual shift between being a juvenile and a mature tree. I often think of a planted tree to still be considered a seedling for a full year after it has been planted, and then for trees of many species to slowly pass from the juvenile to adult/mature stage of their life anywhere between perhaps fifteen and thirty years of age in British Columbia, or even slightly older. I'm sure that some foresters would argue this, but I've never seen a really scientific definition so I don't think you'd really get called out for assuming the same.

**Karst** – An area of irregular limestone in which erosion has produced fissures, sinkholes, underground streams, and caverns. This can occasionally lead to sinkholes on blocks, which a planter can fall into. This happens extremely rarely in the Interior, although coastal planters are often warned to keep an eye out for sinkholes.

**Kastinger** – A brand of high-end work boots.

**Kestrel** – A small handheld electronic device which measures wind speed in various ways, ie. current speed, average speed, peak speed, etc. Crew leaders use it when planting in areas with significant overhead hazards, to help assess when a crew needs to be shut down due to the risk of trees blowing down or branches blowing off onto workers.

**Kevlar** – A trademark brand for a certain type of aramid fiber. This fiber, used in bulletproof vests and chain saw pants, is an extremely long, tough fiber. When woven into the proper type of material,

it has the ability to ensnare and hold the steel teeth of a running chain saw, stopping it from being able to cut or rotate any further, and is therefore used extensively in personal protective equipment.

**Kicker** – The flattened-out, upper edge of a shovel blade, used for applying pressure with the foot to work the shovel into rocky or compact soils.

**Kick-In** – To work on slowly cleaning up a campfire, bonfire, or fall & burn fire by kicking the outside scraps that aren't burning so they go into the center of the fire.

**Kilometer Boards** (aka. Boards) – Signs posted every kilometer or so on logging roads that show the number of kilometers from the start of the road. An example of use would be someone saying on the radio, “Hey Fred, I’m just passing the kilometer 17 board right now, I should see you in a few minutes.”

**Kinnikinnik** – A nickname for the bearberry plant.

**Koflach** – A brand of high-end work boots.

**Krummholz** – A type of stunted or deformed tree (or other type of vegetation) that is most frequently found in high-wind areas, subarctic, and subalpine tree line environments. It is gradually shaped by long-term exposure to fierce, freezing winds, so that most or all of the branches will be found on one side of the tree, on the side that is most protected from the wind.

**“L”** – A type of land management approach whereby a planter plants a line into their piece, then another line or lines roughly perpendicularly to the first (along the back of their piece), and then back out. This type of planting (which is usually a very wise piece management strategy) is named because when you look down on the piece from above, the shape of the planting pattern looks like the letter “L” (although perhaps upside down).

**“L” Layer** – See “Litter Layer.”

**Ladder Fuels** – Wildfire fuels that can carry the fire from ground level up to the lower branches of mature trees. Examples include brush and vegetation. Ladder fuels can turn a fire from a low-level intensity ground fire into a fierce crown fire in the canopy.

**Landing** – A flat area on a cut-block, adjacent to a road, which is large enough to allow trucks to turn around, or to park without blocking the road. In harvesting operations, logs are often skidded to a landing for bucking before they get loaded onto the logging trucks.

**Landslide** (aka. Slide) – On the coast, slides usually refer to mudslides that happen during heavy rains, when the entire side of a hill can suddenly collapse and wash out. Obviously, a slide can be very dangerous, as it is sort of like an avalanche, except with mud and rock instead of snow. Slides

have occasionally been known to wipe out large sections of steeper coastal blocks, although there haven't been any known instances of planters being caught in a slide (yet). If a block has a slide on it, that area is usually planted just like any other part of the block. In some parts of the coast, rainfall shutdowns are common during periods of extreme rain, in order to minimize the risk of people getting injured or killed in a slide. In these areas, it is not uncommon for sections of logging roads to be completely buried or washed out by slides.

**Lanyard** – Has multiple definitions in the real world, usually associated with rope, wire rope, or rigging. When planters hear about lanyards, it is usually with respect to helicopter operations, where a lanyard is a short steel cable, usually about 4-6 feet long, which usually has a large hook at one end and a large O-ring or pear ring at the other end. The lanyard is used as a connecting device to attach a sling/net to the belly hook on the bottom of a helicopter.

**Late Free Growing Date** – The latest date by which a stand must be declared free growing. This is most commonly twenty years after logging. Exceeding this time limit may be a legal contravention.

**Lateral** – The small growth on a young tree/seedling which basically is the beginning of a branch.

**Layering** – A method of plant propagation in which a stem is induced to send out roots when it is surrounded by soil and still attached to a parent plant.

**Leader** (aka. Terminal Bud) – The top of the stem of a seedling or tree. This is the primary growth point of the tree.

**Leaf** – The main organ of photosynthesis on a plant. A leaf is typically comprised of a lamina (blade), petiole (leaf stalk), and stipule (base appendage). The petiole grows out through the center of the lamina, acting as a mid-rib supporting a network of veins.

**Leaner** – A planted seedling that is leaning significantly. Trees grow straight up and down, so it should be a goal of planters to plant the seedlings straight up and down too. When a checker walks onto a block, he or she will always get a good initial impression if all the planted trees are straight. Remember, you only ever get one chance to make a first impression. Many checkers assume (correctly) that if the planter took the time to ensure that the trees look good and straight, they probably also took the time to make sure that the rest of the quality considerations are good.

**Leave Patch** – See "Wildlife Tree Patch." Note that this is spelled and pronounced "leave" (as in "leave no man behind") not "leaf" (as in "a leaf on a branch").

**Leave Tree** – See "Residual."

**Leukotape** – A type of medical/athletic tape which is very useful for tendonitis prevention. This tape has a high tensile strength yet is hand tearable for easy application. It is also easy to remove without causing pain from pulling at skin and hair.

**LFH Layers** – The three layers of organics on the top of the mineral soil: Litter (completely undecomposed), Fermenting (partially decomposed), and Humus (completely decomposed). In some areas, not all three of these layers are readily identifiable, especially if they're very thin because the ground is clean.

**LFH Planting** – This type of planting usually means that the planters are supposed to plant through all three layers of the LFH spectrum. No screening is required. This type of planting is far less common than FH planting, because it often leads to several quality problems. First, without screening, it is difficult to see trees, so there are often a lot of double-plants or density problems unless each tree is flagged. Second, depth tends to be a problem, because the plug may not be deep enough to prevent desiccation during dry weather (the top of the plug will be in the sticks and twigs of the litter layer, and thus exposed to drying out).

**Licensee** – A holder of an agreement to harvest timber. Licensees include private or publicly traded entities such as West Fraser, Interfor, Canfor, Island Timberlands, Pope-Talbot, Weyerhaeuser, Millar Western, Western Forest Products, and many more. BCTS also acts as a licensee in BC even though it is a branch of the government, because it basically oversees the harvesting of timber by smaller operators.

**Line Planting** – A method of covering an area by planting a row of trees into the piece beside the last row of previously planted trees. Once you reach the end of the row or line or piece, you turn around and plant another row back out to the front, beside the trees that you just planted. It is important to emphasize that each new line of trees doesn't have to be a straight line.

**Linear Restoration** – Often refers to tree planting or other types of environmental restoration work that is performed on pipelines (because they are long and linear).

**Litter Layer** – The layer of sticks, twigs, chunks of wood, pieces of grass, leaves, and other detritus or garbage on the surface of the ground. This stuff should be kicked out of the way before you plant a tree in the ground. The litter layer is not decomposed, and it is the top layer in the LFH spectrum, sitting above the partially decomposed "fermenting" layer.

**Loaded** – Terminology used to indicate direction of travel on some radio-controlled logging roads. A "loaded" vehicle refers to a loaded logging truck, which is assumed by default to be heading towards the mill/town and away from the bush. Most radio-controlled roads in BC seem to be switching to a system of "up" and "down" instead of loaded/empty. Sometimes the driver will still say "loaded" when he/she has a load of logs on, but will add the direction (up or down) just to clarify direction,

especially in a rare case that they may be headed in a direction that most other road users wouldn't expect (ie. loaded up).

**Loam** – This is a soil which contains a mix of all three fine textures. Loam is considered to be ideal for seedling growth as it offers varying amounts of the advantages of all three textures. Loamy soils are usually fairly good to plant in.

**Local** – This one has a couple different definitions. Sometimes, a “local” refers to a resident of a town that planters are working in, ie. “Our cook talked to one of the locals and found out that there’s a good Farmers’ Market in the square on Saturday mornings.” In some areas, especially the south or central coast and Southern Interior, a “local” can also refer to a planter who lives and works from home, when there is planting work in the area, ie. “Two thirds of the crew in Port Alberni is staying at the usual motel, but they also have six locals that meet the crew at the Cardlock every morning at 6:45am.”

**Log** – People commonly, people that a “log” refers to a cut tree. However, a tube containing 10-12 individual rolls of flagging tape, held together temporarily in the plastic packaging, is also referred to as a log sometimes. Other names for a “log” of flagging tape rolls are deck, tube, and sleeve.

**Log Decks** (aka. Decks) – Piles of logs waiting to be picked up and shipped to mills. The decks are usually removed from blocks before planters start planting, but occasionally a planter will have to work around decks in their pieces.

**Log Dump** (aka. Dump, Sort, Log Sort) – An area in the bush which is being used as a temporary or semi-permanent facility, where harvested logs are sorted out by species, size, and quality, before further transportation or processing. Logging trucks might be bringing mixed loads of logs from various cut-blocks to this area and dumping them off, and then other equipment sorts them into different types of wood to be moved to different processing facilities. For example, a log dump might receive loads from a fairly large logging region, then the trees are sorted with deciduous going to one mill, some coniferous being moved to a second mill for saw-logs and lumber, and other coniferous trees being moved to a third mill to be chipped up and used perhaps for pulp or for heating pellets.

**Log Bolt** – See “Bolt.”

**Log Jack** – See “Timberjack.”

**Log Peavey** – See “Peavey.”

**Logger** – Someone who cuts trees either by hand (with a chain saw) or with heavy equipment such as feller-bunchers.

**Logging Camp** – A semi-permanent camp in the bush, with full-time year-round heated wooden structures. A typical logging camp includes bunking and shower facilities, laundry, hot & cold running water, kitchen, dining room, and maybe a TV lounge or games room. Loggers and equipment operators and truck drivers often stay at these camps, and pay daily camp costs of between \$40 and \$150 per day for most camps, which includes accommodation, use of all facilities, and meals. Planters rarely stay at logging camps, except maybe when working coastal planting contracts.

**Long Drop** – Slang for an outhouse, originated in Australia/New Zealand.

**Longline** – A long cable used for slinging trees while doing helicopter operations. These cables attach to the belly hook on the helicopter, and dangle below the helicopter, then a sling/net gets attached to the hook on the end of the longline. These cables are typically at least 75 feet long, and sometimes as long as 130-150 feet.

**Lookouts** – Experienced firefighters who observe a wildfire from various vantage points, in order to be able to alert crews to changing conditions.

**Loose Spacing** – See “Wide Spacing.”

**Loose Tree** – A loose tree is one which, when pulled lightly, comes out of the ground quite easily. To solve this problem, the grounds needs to be closed firmly by the planter, either by squeezing tightly with the hand, or by kicking the ground. Some checkers will pull lightly on the top of the tree when checking to determine if it is loose. Others will do the “two needle test” or the “three needle test” or a similar variant, in which they grab a couple needles from the top of the tree, and pull hard. If the tree comes out the ground, it is too loose. If the needles come off the tree and the tree stays in the ground, it is planted firmly enough. Of course, the needle tests are not very discriminatory, so it might be safer to tug at the top of the seedling to see if it is loose. Some foresters prefer for trees not to be loose, while others will prefer loose trees, to ensure that root systems are not compacted or crushed when planters are kicking the holes shut. The word loose can also apply to spacing. Loose spacing is equivalent to “wide” spacing, which is (on average) greater than target contract spacing. The opposite of loosely spaced trees are those which are tightly spaced, or (on average) closer together than target contract spacing.

**Loose Wrap** – Tree seedlings that are delivered in boxes with no bundle wrappers to organize them into smaller groups of perhaps fifteen or twenty trees per bundle. This is a rather inelegant term. How can they be “loose wrap” if there is no wrap at all. Let’s do better, and refer to these as “loose pack.”

**Lowbed** (aka. Low Boy) – A special type of large trailer, designed to be attached to a tractor truck, which is flat with no sides. It is used for carrying heavy equipment.

**Lowball** – To plant a low number of trees compared to other planters. This term, which means the opposite of highballing, is not used nearly as often as highballing. The lowballers in a camp are usually some of the first-year planters, and some of the slowest vets. There is no shame in being a lowballer. Not everyone can be the fastest planter. Focus on doing the best possible job that you can, and ignore any judgement by your co-workers. If being a lowballer bothers you, put all of your energy into learning to plant good trees faster. The best way to become a faster planter is to practice, so keep your head down, take good care of your health, and try not to miss any time. A slow planter who never misses work can often end up planting more trees in a season than a highballer who frequently gets sick or injured.

**Lug** – A metal ridge that provides traction for a vehicle, such as the ridges on dozer or excavator tracks. You'll see signs on some highways that say "vehicles with lugs prohibited" because these lugs can exert enough pressure to cause dents in the pavement.

**Lyme Disease** – An inflammatory disease caused by the spirochete *Borrelia burgdorferi* transmitted by ticks, and characterized initially by a rash followed by flulike symptoms including fever, joint pain, and headache. If untreated, it can result in chronic arthritis and nerve and heart dysfunction.

**Mace** – See "Bear Spray."

**Machine Free Zone (MFZ)** – An area (such as along a creek or stream) where heavy equipment is not allowed to operate, and where timber is usually not harvested unless it can be done by hand.

**Marked Fuel** – Fuel which has a dye additive (usually red) to differentiate it from clear fuel. Marked fuel is sold at lower prices as it has less government taxes applied. The caveat is that marked fuel is only allowed to be used in off-road use, ie. for generators, pumps, ATV's, farm tractors, and heavy equipment. Marked fuel is about ten to fifteen cents per litre cheaper than clear fuel.

**Mat** – See "Grass Mat."

**Mattock** (aka. Pick Axe) – A tool that is somewhat similar to a cross between a hoedad and a pulaski (fire axe). It has the flat horizontal blade of a hoedad (but thinner than a hoedad's blade), and on the opposite side, there is the digging tool that you'd see on a Pulaski. The hoedad doesn't have that digging tool on the back side of the head. It's best to google an image of a mattock to understand it better. These may have been used as planting tools occasionally, but I think that hoedads were used much more commonly.

**Melt, the** – See "Freshet."

**Mess Tent** – A large tent that is most often used for dining, but which might also be used for meetings or as a dance club on a night off.

**Microsite** – The mini ecological environment that the seedling is planted in. When looking at a seedling, you could probably say that the microsite encompasses the area about a foot square around the tree. Important considerations when evaluating different microsites for a seedling include moisture content, soil type, shade, and elevation (even a few inches can make a big difference in temperature).

**Midballer** – A planter who usually puts in an average number of trees compared to their peers.

**Mill** (aka. Lumber Mill) - When planters talk of planting for a specific mill, they are referring to a specific lumber producer or pulp producer that has contracted them to plant trees. Mills can be privately owned or family operations, or they can be publicly owned and traded on stock exchanges (ie. Larger corporations like Canfor and West Fraser). If you're not working for some sort of mill, you're probably planting on some sort of contract managed by one of the provincial forestry departments.

**Mineral Soil** – This is what people think of when they think of “dirt.” Mineral soil includes traditional dirt and small pebbles or gravel. Other types of soils which are different than mineral soil would include things like humus (organic soil, composed mostly of black peat components).

**Minimum Spacing** (aka. Minimum) – The shortest permitted distance between any two trees. For instance, a contract may specify that the target density for a block is 1800 stems/Ha, which translates to an average spacing between all trees of 2.7 meters. This average contract spacing is just that, an average, which means that the checkers recognize that some trees will be further apart than 2.7 meters, while others will be closer together than 2.7 meters. However, by specifying a minimum acceptable spacing (say 2.0 metres, as an example), they are saying that they will not permit any tree to be closer than 2.0 meters to any other tree, or else they will consider it to be an unacceptable fault tree. Usually, the acceptable minimum spacing is at least half a meter to a full meter less than the target contract spacing. Pay attention to spacing in two dimensions, ie. both forward/back and side-to-side.

**Missed Spot** – A missed spot occurs when you skip a spot that should hold a tree. The key word here is “should”. There is a lot of debate on this rule between licensees. Some say that if a tree could be inserted anywhere into a plot and still be more than the minimum spacing from all other trees, then that indicates a missed spot. However, this is not correct, at least not according to provincial quality standards. The Ministry specifies that to be considered a missed spot, the tree would have to be inserted into a plot and still be at least contract spacing (not minimum spacing) from all other trees. If this is not the case, then the plot should be written down to have wide spacing (not a fault) rather than a missed spot, to clarify why there might be a lower number of plantable spots than expected in the plot. To use a numerical example, assume that the contract spacing is 2.7 meters and the minimum spacing is 2.0 meters. In this case, if there was a small “opening” in the plot which was greater than 5.4 meters across, then another tree could be planted in the middle of that opening and

still be at least contract spacing (half of 5.4 meters, or 2.7 meters) away from all other trees. Therefore, there would be a missed spot.

**Mixed Bags** – Mixed bag planting occurs when you plant more than one species at a time, and thus have multiple species mixed in your planting bags. For instance, one section of the block might call for a ratio of two pine trees for every spruce tree planted. In that case, you might want to bag up with a box of pine trees and half a box of spruce trees, if the two types of boxes contained the same number of trees. Mixed bag planting is not that common (or complicated) in the Interior, where about ninety-nine percent of trees planted are either spruce or pine. However, when doing coastal planting, it is not unheard of to have four or five species in your planting bags at any given time, each of which targets a specific type of microsite.

**Modified Work Duty (MWD)** – Some companies, in order to reduce Workers Compensation Board payroll expenses, will try to find alternate duties for workers who are injured on the job, to keep them active in the work force and reduce compensation claims. For instance, if a planter gets a stick puncture in his or her shovel hand, they may work as a checker for a couple days while their hand is healing, so they still feel like a useful part of the workforce and are still earning wages rather than drawing compensation. For companies with large payrolls, the negative effect of a compensation claim can fair outweigh the minor cost involved in paying the employee to do alternate duties for a couple of days while they recover.

**Moleskin** – This material can be fastened to sensitive areas of the skin, to prevent blisters from forming. Moleskin is commonly used to prevent boots from blistering peoples' heels.

**Monoculture Stand** – A group (stand) of trees in the forest which is comprised of entirely one species. While many forests may be mixed and contain dozens of species, it is fairly easy to find large tracts of forests where only one dominant species of tree exists.

**Mosaic** – A type of logging approach whereby cut blocks have several large retention patches of mature trees left in them, rather than the block being entirely clearcut. This is a healthy practice for many reasons, including seed dispersion, visual buffering, and providing better habitat for animals.

**Mound** – A type of site preparation where a piece of heavy equipment takes a large scoop of dirt (possibly a couple feet across or larger), pulls it out of the ground, and flips it upside down on the ground beside the hole that the dirt just came from. The planter is expected to plant a tree on every mound of dirt that has been created, with the rationale usually being that the mounds are higher, drier, and warmer than the soil at ground level, which can lead to increased chance of success and higher growth rates for trees. Another reason for planting on mounds is to protect trees from being choked out by competition from grasses.

**Mudslide** – See "Landslide."

**Musculoskeletal Injury** – An injury affecting the muscles, bones, and joints, caused by accidents or activities which are frequent or repetitive, or activities which use awkward postures repetitively.

**Muskeg** – Swampy or boggy ground, formed by an accumulation of sphagnum moss, leaves, and decayed matter resembling peat.

**Muskol** – A brand of insect repellent which is one of the most famous in the world. Muskol was probably the first repellent to contain DEET, which led to its overwhelming popularity.

**Mustering Point** – A designated area to use as a meeting spot during emergencies. On a block, the primary mustering point is usually the emergency transport vehicle or the crew leader's truck, and an alternative/secondary mustering point might be the entrance to the block (to be used in the event that the primary mustering point is a problem). For instance, if the crew leader's truck has a bear in it, or is on fire, the crew will probably want to meet at the secondary mustering point to decide what to do.

**My Number** – Slang for a planter's daily goal, usually mentally calculated in trees, but sometimes in dollar terms, ie. "I had a slashy section for most of the morning, so I was about 400 trees shy of hitting my number today."

**Natural** – A naturally occurring tree which began its life as a seed on the forest floor, which germinated naturally. Naturals are regen, not purposefully planted seedlings.

**Near Miss** – A safety reporting phrase used in the past to identify things that could have gone wrong, plus minor things that did go wrong. Unfortunately, this made no sense, and the phrase "near miss" should be retired. First of all, it makes no etymological sense. If something "nearly missed" you, then by logic it must have hit you, "ie. That was a near miss. I almost got out of the way in time, but it hit me." Wtf? I believe that it makes sense to use the phrases "good catch" for something that is noticed before an incident happens, and "incident" for something that does actually go wrong (even if minor).

**Needles** – The thin, fairly short, and often-sharp type of leaves that are commonly found on almost all varieties of coniferous trees. Green needles indicate that a tree is probably still alive. Red needles mean that the tree, or at least the part of the tree where the red needles are found, has died. Red needles will drop to the forest floor within a fairly short period after they die. Although planters are permitted to plant in "organic" soils in many areas, it is generally not permitted to plant in sticks and/or needles.

**Nest** – Non-planters usually think of birds when they hear about a nest, but if a planter is talking about a nest, they are usually referring to a wasp or hornet nest. Such nests can either be built above ground (hanging from the branches of a shrub or tree), or underground. Underground nests are particularly annoying for planters in some areas in July and August, because you may not notice it until you stick your shovel or hand in it to plant a tree.

**Night Soil** – Human feces, as it collects in port-a-potties, cesspools, privies, septic tanks, etc.

**No-Work Zone (NWZ)** – An area within which work is prohibited. For example, if a danger tree could fall over on a planter, a no-work zone will probably be established around that tree. The area at the base of a cliff which has falling rocks would probably also be designated as a no-work zone.

**Northing** – In cartography, this refers to a latitudinal grid line.

**No-See-Um** (aka. Biting Midge, Punkie, Sand Fly) – The no-see-um is a nasty little fly which likes to bite. The problem is that it is so small that you can barely see it, hence the nickname. Luckily, these insects do not like DEET. These flies are very small, usually only about 1mm to 3mm in length. Their blade-like mouthparts make a painful wound that is out of proportion to the fly’s tiny size. Welts and lesions from the bite may last for days. The larvae of various species breed in a wide variety of damp and wet places, preferring those which are high in organic matter. Most are attracted to lights. One vicious biter breeds along the Atlantic coast in salt marshes and wet soil. Another species, found in mountainous areas, feeds in the evening and night hours and is small enough to pass through ordinary screens. These are significant pests in coastal and mountainous areas and can seriously interfere with outdoor activities.

**Nub** – When trees are shipped from the nursery, sometimes they are not in perfect shape. Occasionally, bundles will become dislodged within the box rather than standing in orderly rows. In this case, the roots of a bundle may become bent. This can also happen during the bundle-wrapping process, so that planters end up receiving bundles with trees that have bent roots (J-roots) before they are even planted! These “pre-made J-roots” are called nubs.

**Numbies** – An app that used to be popular for planters to keep track of their daily planting production totals. As of spring 2026, other apps were starting to come onto the scene as a replacement, as Numbies doesn’t seem to be available anymore. With AI-supported vibe coding, I expect a flood of new apps in the next few years, although vibe coding currently tends to produce some fairly buggy code.

**O-Ring** (aka. Pear Ring) – A part on a helicopter net. This is on one of the four corners of the net. The hooks on the other three corners all attach to the O-Ring. A lanyard is then used to hook from the helicopter to the O-ring.

**Obstacle Planting** – This refers to a type of planting in which all seedlings are purposely planted in locations beside obstacles, for various reasons. In some areas, snow-press is a concern, and by planting the seedlings immediately beside obstacles such as stumps, the obstacles provides a bit of “shade” from the snow drifting (meaning that the seedling may not be pressed as badly by the snow). In other areas, trees may be placed on a certain side of stumps, so that when Chinook winds come in the winter and spring, the seedling is sheltered from the winds. Finally, a more general justification

for obstacle planting is that it is generally good to plant a tree beside a decaying log or other form of bio-mass, because that rotting tree will eventually provide nutrients for the new tree.

**Off** (aka. Deep Woods Off) – A well-known brand of insect repellent. Muskol and “Off” are probably the most famous brands of repellent. “Off” comes in a couple different varieties – the Deep Woods variety is a favorite, and smells best, as far as insect repellents go.

**Off-Highway Load** (aka. Off-Road Load, Fat Truck) – A logging truck loaded above the legal weight limit that is permitted on provincial highways.

**Off-Road Load** – See “Off Highway Load.”

**Onboarding** – The process of bringing a new employee up to speed with respect to employee contract, TD1, payroll paperwork, initial safety meetings, and initial orientation, ie. “We have three first-year planters showing up tonight, Dan will be doing their onboarding in camp tomorrow.”

**One & A Half** – Trucker slang for a logging truck or tractor trailer unit that is being followed by a small pickup or similar vehicle.

**One Up, One Down** – Refers to a system of quality measurement where, rather than having a very specific target number of trees per plot, there is a slightly wider tolerance range to account for variation in plots. The FS 704 system used in BC asks for a specific consistent number of trees in every plot, and if there is one tree too many it is counted as an excess tree, and if there is one tree too few the checker must look for a missed spot. In a one-up, one-down system, the checker doesn't worry if the number of trees in the plot is one more or one less than the target number, and instead counts the number of trees planted as being an acceptable number. A planter would need to plant two more seedlings than the target number in a plot, in order for the first excess tree to be called. Similarly, if the plot contains two trees less than the target, then only one missed spot is called (and this is usually called automatically, rather than by using the actual methodology to assess a missed spot). This method of checking allows more tolerance for variable spacing, and is a great way to encourage planters to look for the best microsites rather than just trying to achieve very consistent spacing.

**Option To Renew** – Some government contracts are tendered out for two or three years instead of for a single season. These are called Option-To-Renew contracts. If BOTH the government and the planting contractor wish to plant the trees on the contract for a second and/or for the third year, then the original contract covers that work and the trees don't have to be put out for public tender again. However, if either party decides that they aren't interested in working together for those subsequent years, then the contract is simply cancelled. The government might decide not to renew if the planting contractor had performance problems in the previous year, and there are certain rules by which the government simply isn't allowed to follow through in a subsequent year (technical qualifications such as the number of trees in the second and third year needing to be within perhaps

twenty percent of the number of trees tendered in the first year of the contract, as an example). And a planting contractor might opt to drop the contract if they feel that the pricing is not sufficient and fair, or if they feel that they don't have access to sufficient labour to complete the work as per contract requirements. If either party decides not to renew before the renewal agreement is signed, there are no penalties for the extinguishment of the contract.

**Organic Soil** – Soil which is made up of decomposed and decaying organic matter, such as old plant and insect matter. Organic soil is usually a black smearable mush, much like peat moss.

**Ortho Photo** (aka. Orthographic Photo) – An aerial photograph which is geometrically corrected so that it has a uniform scale. Ortho photos are used to assess access info into and on an opening/block, as well as to assess different types of vegetation and land forms.

**Out** – Terminology used to indicate direction of travel on a lot of radio-controlled logging roads. A vehicle heading “out” is assumed to be heading “out from the mill,” ie. away from the mill/town and deeper into the bush. In some places, “out” is designated for vehicles heading away from the closest log dump or log sort.

**Out For A Few** – A phrase commonly heard over the radio when a machine operator (logger equipment driver) or someone else is going to be away from their radio for a few minutes. They usually say “out” instead of “away” because they're outside the cab of their machine, perhaps to talk to someone, or to use the washroom, or to check an oil leak. This type of a “status update” call is important in areas where equipment operators have regular working-alone check-in procedures for safety purposes, because otherwise, if the dispatcher or safety officer calls them and there's no response, someone might be sent to make sure things are Ok with the operator.

**Over Wintering** – Trees that are planted at the nurseries in the late summer, after the spring trees have been pulled and shipped out, are usually packaged sometime between the start of October and mid-December. Once they have been placed in boxes, they are frozen in giant freezers. This act purposely mimics nature, and makes the seedlings go into dormancy because they assume (correctly) that it is winter. In the spring, the boxes are pulled out of cold storage approximately ten days before they need to be delivered to the planters, and are allowed to thaw out gradually. These seedlings, planted during the spring plant, are said to be over-wintered. This is in contrast to the hot-lift trees (grown in the spring) which are planted during the summer plant.

**Overclaim** – To record higher tallies than you actually planted. The crew boss obviously notices almost immediately that someone is overclaiming, because the crew will have collectively claimed to have planted more trees than were brought to the block. The crew boss will then have to start auditing pieces to determine who made the overclaim and thus who should be fired.

**Overhead Obstacle** – A piece of slash, plant, tree, rock, or any other item which is positioned above a seedling microsite. This kind of obstacle is not good for the seedling, because as the tree grows, it

will bump into the obstacle. When the wind blows, the top leader of the tree may be damaged by brushing against the overhead obstacle, and the tree's growth will be stunted, or the tree may die. Most foresters will fault a seedling that is planted underneath an overhead obstacle.

**Overview Map** – Slang for a type of map that shows a large area or region, probably containing many blocks. You would typically use the overview map to figure out how to get to a particular block, then use a more detailed block map once you arrive. See also the definition for Compartment Map.

**Overwintered** – Seedlings that were lifted (packaged) in the fall, frozen, and then stored over the winter, to be thawed in the spring. The thaw process should start about seven to ten days before they need to be planted, so planters don't need to deal with frozen bundles.

**Paloma** – A brand of propane powered water heater, very similar to a Dynablast unit (although the Paloma probably was available for years before the Dynablast came onto the market). Water goes in one end, then propane heats it, and warm or hot water comes out the other side. The temperature of the water coming out depends on the volume – to make the water hotter, you just slow the flow down, so it takes longer to move through the Paloma and therefore has more time to heat up inside it. The Paloma can easily warm a stream of water traveling through a garden hose, and is used for camp showers or to provide hot water for the kitchen.

**Patch Cut** – Logging approach that creates numerous small openings (usually no greater than 1 hectare in size), where the overall management goal is to treat each opening as a distinct even-aged opening.

**Pathological Indicators** – Visual evidence on a tree that indicates the presence of pathogens on the tree, including conks, blind conks, scars, forks, crooks, frost cracks, mistletoe, rotten branches, and dead or broken tops.

**Pear Ring** – See "O-ring."

**Peavey** – A logger's tool that has a pivoting hooked arm and metal spike at one end. Also referred to as a cant dog or a log peavey.

**Pecker Pole** – Slang for a very thin harvested log, probably only a few inches in diameter. It seems almost inconceivable that such a small tree would have any value in forestry, but these trees are probably used either in pulp operations for their fiber, or for their biomass, since they're too small to be used for lumber.

**Pepper Spray** – See "Bear Spray."

**Percentage Mix** – When a forester asks for a percentage mix, he/she is asking for a constant ratio of all prescribed species, in a ratio according to the relative numbers prescribed of each species, with a disregard for microsite-specific targeting. As an example, on a block with a 75% pine and 25% spruce mix, with a target density of 1600 stems/Ha (8 trees per plot), the forester would expect to find approximately six pine seedlings and two spruce seedlings in any plot taken on the block, regardless of ground conditions or location of that plot. Lower or wetter parts of the block would not be targeted with a higher ratio of the tree that would probably be most appropriate for microsites with high moisture content (spruce). This is in contrast to a targeted mix.

**Perennial** – A plant that lives for many years.

**Performance Survey** – A defined type of forestry survey specific to Alberta, which assesses certain specific aspects of the health of a plantation. Refer to the online “Reforestation Standards of Alberta” (RSA) guidelines for additional information.

**Personal Protective Equipment (PPE)** – This is any type of equipment that is used to protect a worker somehow. Examples vary widely, and can include safety boots, hi-visibility vest, gloves, hard hat, quad helmet, safety glasses, hearing protection, and many other items. Abbreviated PPE.

**Personals** – This stands for “personal camping gear,” ie. your tents, tent tarp, and all the clothing and equipment and supplies that you keep in your tenting area. You’ll often hear rules such as “nobody is allowed to work on personals until the main camp is completely set up or torn down,” to keep lazy planters from hiding in the woods when the rest of the crew is hard at work on a camp move.

**Petiole** – The stalk that joins a leaf to the stem.

**Phloem** – The food-conducting tissue of vascular plants, consisting of sieve tubes, fibers, parenchyma, and sclereids. Basically, this is the inner bark of the plant or tree, which is what allows food substances from the leaves to reach other key parts of the plant.

**Photoperiod** – The amount of time in a day during which there is sunlight.

**Photosynthesis** – The process which takes minerals and waters from the soil, and carbon dioxide from the air, and converts them into carbohydrates (food) for the plant. Oxygen is also released. This process is fueled by direct or indirect sunlight.

**Phototropism** – Growth of a plant towards the direction of its light source.

**Piece** – A section/part of a cut-block that has been assigned to a planter. Ie. “My crew boss cut me a large piece today, and I was only able to finish about half of it.”

**Pickaroon** – A woodworking or logger’s tool that is used for stacking, dragging, and rearranging wood. It minimize the need to bend over to rearrange the wood, which makes it easier to process firewood, etc. It looks somewhat like an axe that has a spike instead of an axe-head. It is very similar in appearance to a hookaroon, except that the spike on the pickaroon is either straight or just slightly curved, unlike that of the hookaroon which has a more pronounced hook.

**Pinch** – When a seedling is placed deeply enough that dirt squeezes the bottom branches (laterals) against the stem of the seedling, without actually burying said laterals, you are said to be “pinching” the laterals.

**Pinch The Front** – To close out the front of your piece while there is still a hole remaining somewhere in the middle or back of the piece. Planters will need to start humping trees in to finish the piece, and dead-walking back out, since it is no longer possible to plant the full distance between the cache and back of the piece.

**Pith** – The soft inner portion of a twig.

**Plant-As-Is Ground** (aka. Raw, Unprepped, Unscarified, Straight Plant) – Ground which has not had any site preparation.

**Plantable Ground** – An area which features many acceptable microsites.

**Plantable Spot** – When assessing quality, the checker measures out a specific area (usually 50 square meters in British Columbia) and checks all the trees within that area. Besides comparing the quality of each tree, the checker also looks to see whether the correct number of trees were planted, by comparing the trees planted with the number of plantable spots. The number of plantable spots is usually determined by the target density. One plot is 1/200<sup>th</sup> of a hectare. If an average density of 1800 trees are expected to be planted in each hectare, then simple math shows that the average plot should have 1/200<sup>th</sup> of that number, or nine trees. If there are less trees planted than expected, the checker will look to see if he or she can find another plantable spot. For instance, if there is a gap where no tree was planted, that might indicate a plantable spot. First, however, the checker must check the ground right there, to verify whether or not it was a plantable spot. Perhaps there was an enormous boulder just under the surface, which means that it would not be possible to plant a good tree in that spot. That might be why the planter left the gap in the first place. The planter cannot be faulted for something (such as that boulder) which is out of their control.

**Planting Density** – The actual number of planted trees per hectare of area. The only way to measure this density completely correctly is to actually count every single tree in an area. However, that approach is impractical, so statistical samples are used instead. The claimed density will match the true planting density if the planters record their planting tallies accurately. However, if a planter over-claims or stashes trees, then the true planting density will end up being lower than the claimed density.

**Plot** – When a checker is assessing the quality of a block, he or she starts by taking a plot. This means that a specific area is measured out, and all the trees that fall within the plot are checked for planting faults. Under the BC Ministry of Forests quality system, which is the most widely used system in BC and Alberta, a plot is taken by choosing a center point somewhere on the block, and measuring a circle that is 3.99m in radius or 7.98m in diameter around that point. This turns out to have a total area of exactly fifty square meters, which means that the plot represents 1/200<sup>th</sup> of a hectare. For accuracy, on blocks of ten hectares or greater in size, the checker will throw one plot for every hectare of land on the block. Therefore, a block which is 100 Ha in size will have 100 plots thrown on it to determine overall quality and the payment percentage. If the block is to be planted at 2000 stems/Ha, then this block should hold about 200,000 seedlings. Since each plot is expected to hold about 10 seedlings (1/200<sup>th</sup> of the target density of 2000 stems/Ha), about 1000 trees will be physically checked, and the expected statistical quality of the entire block will be extrapolated from the quality of those 1000 trees.

**Plot Cord** – A plot cord is used to help a checker determine the boundaries of each plot. In planting, if using BC's standard FS 704 quality system, the radius of the plot circle needs to be 3.99 meters, therefore, most planting plot cords are 3.99 meters long. In spacing and brushing, the plots are designed to measure 1/100<sup>th</sup> of a hectare, therefore, twice as many trees are measured in each plot (100 square meters). To make this happen, a spacing plot cord needs to be 5.64 meters long. Some licensees in Alberta, plus the Alberta Forestry Service, use different methods of plotting which may not necessarily involve round plots. In some parts of Saskatchewan, a large square area is marked out to determine a plot.

**Plotted Density** (aka. Statistical Density) – This is the density that estimates the true planting density on the block through statistical measurement. A certain number of plots are taken which, in a statistical sense, are believed to be sufficient to allow one be reasonably confident that the estimated density is within a certain tolerance range of being a good approximation of the true density. The type of plots taken can vary from jurisdiction to jurisdiction, and the number of plots required to attain certain confidence levels will vary depending on the size of the block. In British Columbia, the provincial FS 704 system is the system most commonly used to determine a plotted density that is believed to be a reasonable approximation of the true planting density.

**Plug** (aka. Container Stock) – A seedling that is grown with its root system encased in a package of dirt, rather than as a loose bare roots. Although these seedlings are usually called plugs in western Canada, they may be referred to as container stock in eastern Canada.

**Point Of Commencement** – The starting point or reference point for a measured grid of plots on a block. When checkers used to use sting and walk-boxes to measure grids (before GPS technology), the point of commencement was frequently referred to as the tie point.

**Pole Truck** – A special extra-long logging truck that is able to transport “pole” trees. These are the very longest logs, often used for things like telephone poles, etc. These can also be called “stinger-steer trailers.” Part of the trailer is hooked to the tractor truck via the fifth wheel, and then there is a second “detached” trailer which is only connected to the front trailer by control wires and hydraulics. There is no support for logs in the middle area between the trailers.

**Potable Water** – Water that is safe to drink. Non-potable water is not safe to drink. If you’re trying to remember which is which, potable water is safe to go into pots to cook your dinner. It literally means “water that you can put into your pots.”

**Pound** – To plant very hard, trying to maximize productivity. On the last day of a contract, planters often say that it’s time to “pound for freedom” (ie. get the job done so they can leave).

**Prairie Chicken** – Slang referring to a ruffed grouse, which is a mid-sized bird species (about the size and shape of a small chicken) which usually has feather with a mottled brown/white/beige pattern. These birds are hard to see in the bush, although they often stand on the side of forestry roads. They believe that their camouflage is so effective that when a predator (or truck) comes near, they usually stand still and hope that the predator doesn’t notice them. This is why they will often “ignore” large vehicles that pass within a few inches of them (or unfortunately, occasionally run them over).

**Pre-Commercial Thinning** – See “Thinning.”

**Pre-Work Conference** – At the beginning of almost every contract, the licensee or forestry checker will come out to the planting camp to meet the planters. At that time, the checker will hold a conference with the crew leaders and internal checkers, or possibly even with the whole camp, to talk about their expectations for the contract. During the conference, topics such as safety, quality standards, density standards, stock-handling expectations, and many other issues are covered, so the planters know how to satisfy the contract requirements. The pre-work conference usually takes a couple hours, and happens on the very first morning of the contract.

**Precipititis** – A tongue-in-cheek reference to the fact that planters sometimes get a mysterious ailment when it is raining at breakfast which makes them take a day off in camp. Nobody likes to wake up and work in the rain, but you’ll have to deal with it if you want to become a successful planter.

**Preferred Species** – In a regen survey, a preferred species is one which is considered to be best suited to a site.

**Prescribed Burn** – Sometimes, foresters will intentionally burn the slash and vegetation load on a block to eliminate most of the surface debris, and to make it easier for planters to plant. Prescribed burns were very common in BC up until the mid-1990’s. Some of the reasons why they are very rare these days is due to factors such as carbon release, the risk of an escape that damages surrounding

timber, and the public's disapproval of significant smoke pollution when burning was being done in the fall.

**Prescription** – The list of requirements assigned to a block, including the allocation (expected number of trees to be planted), density, minimum spacing, and other planting specifications.

**Presenteeism** – A medical condition whereby the patient (worker) is characterized as being there in body but not in spirit. Or perhaps present, but not productive or useful.

**Pretendonitis** – A disease that tends to affect planters more when they are working on bad contracts. People say that they have sore hands or wrists, and want to take a day off. This is a tongue-in-cheek term. Planters may as well just say they need a mental health day off in camp, rather than blaming it on questionable medical problems. Don't confuse this term with tendonitis, which is a very real and significant medical problem that can truly prevent a planter from being able to plant.

**Prime Contractor** – A system designating legal responsibility when multiple companies are sharing a worksite. The prime contractor is the company who is in charge of defining and implementing safety rules and procedures, which then apply to all other companies sharing the worksite.

**Processor** – A type of logging equipment that looks similar to an excavator with a boom on it, and at the end of the boom, there's a special piece of equipment that looks similar to a claw. This claw can pick up a fallen tree from the ground, and it moves the tree back and forth and strips all the branches from it, and the resulting log can then be dropped onto a pile of similar logs for pick-up by a logging truck. This is a piece of equipment that is hard to describe in writing. To understand better what it looks like and how it functions, you might want to watch a YouTube video.

**Project Manager** – A person with an upper management role who is often either at the same level of responsibility as a camp supervisor/manager, or possibly even higher. These persons are sometimes referred to as PM's, although in some companies they go by other names such as Project Coordinator.

**Propane** – If you're Canadian, you already know what propane is because of summer BBQ's, so I'm not sure why I'm even including this in the dictionary. Rather than a definition, how about a few facts: Propane is almost always used to heat the showers and hot water in planting camps, and to provide the fuel for ovens and stoves. Most frequently, the propane is transported and stored in "hundred-pounder" tanks, which are connected to the stoves and hot water heaters with some basic propane-specific hoses and fittings. Propane connections screw and unscrew in the opposite direction of all other types of fittings in North America (on purpose, for safety). Finally, did you know that naturally occurring propane has no odor? Manufacturers add a special chemical (called a mercaptan) to the propane in small amounts, which gives it the slight rotten-egg smell. This is a safety precaution, so people can smell when there is a gas leak. For the science geeks out there, propane is a by-product of natural gas processing and petroleum refining. It's a three-carbon alkane with the molecular formula C<sub>3</sub>H<sub>8</sub>.

**Provenance** – Used to describe the source of seeds. Refers the geographical source of the plants or trees that were the original source of the seeds.

**Pruning** – A form of silviculture activity in which the workers go into a block of well-established young trees, and prune the lower branches off the trees. Some people believe that by eliminating the lower branches, the tree will put more of its energy into growing taller. The validity of this theory is debated in some circles. Also, the value of bothering to prune pine trees is suspect, since pine is a self-pruning species (you will notice this when you look at mature pine trees, which have very few branches until you get to the top of the tree).

**Pulling Logs** – This means that the log haul is in progress, ie. “Yeah, I heard that they started pulling logs from the Herrick on Tuesday.”

**Pulp Hook** – A hand tool used for handling pulpwood, boltwood, or firewood.

**Pulpwood** – Wood that is used in the pulp and paper industry rather than to produce lumber.

**Punky** – A soft and often spongy condition in rotting wood, caused by decay fungi.

**Quad** – A four-wheeled ATV (all-terrain vehicle) that seats one person. Quads are incredibly versatile machines, and are heavily used by crew leaders to move trees to blocks which are not accessible by road. Although machines made by Polaris and Yamaha are functional, the Honda “Foreman 500” series are probably by far the most preferred vehicles in the planting industry at the present time.

**Quick Thaw** – When a nursery pulls over-wintered trees out of cold storage, they are normally given ten days to thaw in a cooler at slightly above the freezing point. However, sometimes (through poor planning or last minute changes in plans) the trees are needed more quickly. If that is the case, a “quick thaw” can sometimes be done by the nurseries. A quick thaw can be done in several days, by allowing the boxes of trees to thaw in a slightly warmer environment. Many nurseries ask for a five day lead time for quick-thawed trees, but due to limited capacity, only a certain percentage of a nursery’s trees can go through the quick-thaw process instead of the regular 10-day thaw. In most facilities, performing a “quick thaw” simply means to move the boxes out into the open to thaw, rather than keeping them shaded inside a cool building.

**Radio Assist** – A situation where a road user is encouraged to use a radio to call position on a road, but it is optional rather than mandatory. All road users travel under the assumption that other users without radios may be approaching. This is the usual protocol on most resource roads in BC.

**Radio Check** – You’ll hear a person saying “radio check” on the radio if that person is trying to see if anyone else can hear them. If nobody answers right away, you should answer and say whether or

not you can hear them clearly. An example call might be something like, “Radio check, is this the right channel for the 400 Road?”

**Radio Control** – A situation where a road user must own and use a radio in order to travel on the road. In place on some privately-owned some oil & gas roads.

**Ravine** – See “Gully.”

**Ratchet Strap** – This is a type of strap with a ratchet in the middle which allows for the use of leverage to tighten the strap into place. These straps are often used by truckers to hold down the tarps on their loads, and are useful for keeping stuff attached to the back of a truck. Smaller ratchet straps are sometimes used to hold boxes on the quad.

**Raw** (aka. plant-as-is or unprepped ground) – Ground that has not been site prepped at all.

**Re-Up** – To top up your planting bags before you’ve bagged out. Doing a re-up is a bad productivity strategy for most first-year planters, especially if they’re doing it because they’ve walked out of a piece before bagging out (except when it happens due to a departure deadline at the end of the day). However, doing a re-up is sometimes a logical move. If you’re about to finish a piece, it’s always smart to take far more trees into the piece than you think are required to finish it. However, this usually means that you still have trees in your bags when you come out. Rather than moving directly into the next piece and finishing your bag-up, it usually makes sense to re-up to a full bag-up of trees before you start planting again.

**Reassess** – A polite way of saying that a piece or block is being replanted. Some licensees do not allow trees to be dug up and replanted, therefore, if there are quality problems, only certain problems can be fixed (ie. leaning trees, or deep or shallow trees). In such cases, if faults are found that require pulling up and replanting the seedlings (ie. j-roots, air pockets, poor microsites), the piece cannot be reworked to improve quality. Some planters use the term “reassess” to indicate minor reworking and “making the trees look pretty,” while they use the term “replant” to indicate major reworking.

**Recce** (aka. Reconnaissance, Reconnoiter) – To check out an area. For example, if using helicopters for the day, the supervisor and forester might fly over the blocks for a quick recce, before planters and trees are flown in, to make sure there are no surprises that disrupt logistical operations for the day. Recce is Canadian/Commonwealth slang. Americans use “recon.”

**Receiving Area** – An area that is prone to receiving moisture, either seasonally or throughout the year. It therefore may be swampy, or characterized by moss or black organic soils.

**Reclamation** – This is the process of completely destroying an existing road so future use is impossible. Mills often reclaim roads into or across blocks, ensuring that not even ATV’s can use the former road easily. This is an effective way of keeping hunters and recreational ATV users off the

blocks. Unfortunately, it is also a pain in the ass for planters because it makes access a lot harder, and unfortunately, roads are often deactivated or reclaimed before we plant the blocks. Planters will therefore have to walk or use quads to access sections of cut blocks where roads have been removed. The terms “deactivation” and “reclamation” are often used interchangeably, but there is actually a big difference. A “deactivated” road usually still has a useable road surface for most of the road, but can’t be actively used by trucks because of specific obstacles. A “reclaimed” road is usually very difficult to use (by quad) or even walk on, because it usually has been torn up or had a significant amount of stumps, slash, and other debris raked back onto the road by heavy equipment. Reclaimed roads are generally meant to have no future road activity, and therefore the reclamation allows workers to plant seedlings on the space that the road formerly occupied. This term can also be used in a broader sense when an entire area is brought back to the state it was before industrial activities occurred, ie. at the end of the life of a mine, the entire mine site might undergo a massive reclamation effort.

**Recovery** – A moderately pretentious word for an operation designed to extract a stuck truck, ie. “Jeff had to run out the block after dinner to help Emmett do a recovery on Steven’s truck.”

**Red Belt** – A type of disease found throughout parts of western Canada, affecting a large number of conifer species of all ages, but especially hard on lodgepole pine. Symptoms usually appear in spring as reddish-brown discolouration of foliage, which when viewed from a distance, appear as a well-defined horizontal band across a slope. Red belt is the result of a combination of climatic conditions. The unseasonable occurrence of warm, dry winds by day, followed by cold air drainage at night, leads to desiccation injury. Frozen soils do not allow lost moisture to be replaced quickly enough, and affected needles discolour and are eventually shed. Symptoms are often more pronounced in the upper crown and on the sides of trees facing the prevailing wind. Unopened buds are usually not harmed. Foliage and occasionally open buds are killed. Trees often recover from extensive defoliation but mortality may result from repeated red belt damage or destruction of all buds. Affected trees have a reduction in growth rate. Trees weakened by red belt are more susceptible to insect attack or disease. Large areas of red belt increase the fire hazard for the summer following the event.

**Red Flagging** – See “Senescence.”

**Red Rot** – When wood (logs, trees, etc.) decays, it goes through a couple different steps. First, the wood cracks and dries out. Next, it starts to crumble and turn into dry chunks, usually reddish or orange in colour. Finally, the chunks start to decompose further, and become a smearable, greasy reddish organic material. Eventually, that material starts to become dark and more finely decomposed, and turns into part of the organic soil. When the wood is in the stages somewhere between dry red chunks and smearable reddish organic material, it is called “red rot.” Most contracts will allow a planter to plant in red rot only if it is in the greasy and smearable stage, OR if there are some chunks but they are mixed with at least fifty percent mineral soil.

**Reefer** – A refrigerated trailer. If you can imagine an eighteen-wheeler transport truck, the reefer is the refrigerated trailer which carries the cargo. Many reefers are between 40 and 53 feet long, and have their own refrigeration and heating units attached to the front of the reefer. These temperature control units run off a small diesel engine attached to the reefer, and are supplied by a tank of diesel which is attached to the underside of the reefer. The reefer units can therefore be regulated at probably any temperature between about minus twenty and plus fifty degrees Celsius (as a guess), but for tree planting, the goal is to keep them between four and seven degrees Celsius for transportation (and for short-term storage of spring over-wintered trees). During the spring plant, a reefer is usually left on site to act as a temperature regulated storage unit for the seedlings. During the summer plant, the reefer will deliver the hot-lifted trees to the field, then the load is moved into a field cache for improved air circulation. Some licensees are now starting to prefer storing summer hot-lifted trees in reefers, so long as the trees are all planted within about five days of arriving on-site.

**Reefer Brackets** – Pieces of metal in the shape of an L, usually roughly about two feet on the longer part of the L. These are sometimes carried in reefers to help store slats after a load of tree boxes has been emptied out, if the slats were used as dunnage between the rows of boxes. The L brackets can be stood up along a wall, then by putting all of the slats into the cradle that is created by the brackets, the slats all stay in one big stack and don't slide around the truck. The weight of the slats keeps the brackets from falling over or sliding out.

**Regen Delay Date** – The date by which a minimum number of healthy, well-spaced, preferred, and acceptable trees must be established pending a declaration of “free growing.” Exceeding this time limit may be a legal contravention. The regen delay date and the deadline for achieving free-to-grow are different. For example, regen delay may be three years for planted stands and six years for stands left for natural regeneration, whereas free-to-grow might be fourteen years.

**Rehabbed Road** (aka. Rehabilitated Road) – A road that has been reclaimed. Rehabilitation and reclamation are the same thing.

**Release** (the herbicide) – Release is the name brand for a popular type of herbicide that targets non-coniferous species. It is therefore useful, when used in the appropriate concentrations and conditions, to kill brush that competes with young seedlings.

**Release** (to submit a block) – To release a block means that a crew leader is confident that the block meets the contractual planting standards, so he signs an authorization which releases the block to the licensee or Forest Service. This serves as written permission for the block to be pay plotted, or to have the quality officially assessed. Once a block has been released, no further work can be done upon it.

**Repeater** (aka. Repeater Channel) – A unique type of radio channel. These channels are not available in all areas. In areas where they exist, this is a parallel channel to one of the usual chat channels on the radio, and carries the same messages in certain cases. However, the repeater is assisted by a

series of repeater towers located throughout the region that the channel covers. If someone makes a broadcast on the non-repeater channel, that broadcast is heard by all repeater and non-repeater channel users in the local broadcast area, the same as a normal radio channel works. However, if someone makes a broadcast on the repeater channel, so long as that broadcast is picked up by one of the repeater towers, the tower will then relay the broadcast to all the other repeater towers in the region and they ALL broadcast the message, so the message is heard throughout the entire region. Why wouldn't everyone just use the repeater channel all the time? Because it gets to be too busy. So normally, if a crew is working in a small area just a few miles across, all calls will be made on the local channel. However, if a crew is trying to reach the supervisor who might be working an hour away, they could try making a call on the repeater channel, saying, "Fred, are you there, it's Jim calling on the Repeater." Fred would then know to switch over to the repeater to reply to Jim, because if he stayed on the local channel, he would be too far away for Jim to hear his reply.

**Repellant** – A mix of chemicals that is applied to the skin, either in liquid or aerosol spray form, to repel insects. Common repellants include brands such as Muskol and Off, although the active ingredient (DEET) in each of these is the same. These repellents are good at controlling mosquitoes and black flies and gnats (no-see-ums), but do not seem to deter horse flies.

**Replant** – To a non-planter, replanting is the act of reforesting blocks that have been logged or burned by fire. To a planter, replanting is the process of fixing trees that were initially planted with quality problems. To further confuse matters, a re-plant is also a term used for a specific type of planting when a specific block needs to have a second round of seedlings planted on it. If a block has already been replanted in a previous season, a forester may find that a significant number of the seedlings did not survive. The forester may then decide to pay a crew to go back into the block again to add additional seedlings. If the planters are expected to cover the entire block again, ignoring the few surviving seedlings that remain from the first plantation (rather than "fill planting" or spacing away from those surviving seedlings), it is considered to be a re-plant. Essentially, the planters are planting the entire block a second time.

**Replant.ca** – A well-known website about tree planting in Western Canada.

**Repo** – Sometimes used as slang for replanting (fixing trees).

**Reserve** – An area in which logging and harvesting activities are prohibited, and therefore, no reforestation will be required.

**Reserve Bag** – Any pouch in your planting bags that is not currently being used as a draw-bag. Planters usually fill their draw-bag and side reserve bag when bagging up, but don't always fill their back reserve bag (due to the heavy overall weight).

**Resin** – See "Sap."

**Residual** – A tree left standing after harvest. The size doesn't matter. There can be very small residuals (often balsam) all over a block, which are lower than waist height. There can also be stands of mature trees which tower high above the planters. These are sometimes also called "leave trees," because the loggers leave them behind.

**Residual Patch** – A group of standing residual trees.

**Respiration** – The process by which a tree (or any plant) breathes.

**Retardant** (aka Fire Retardant) – The mix of foam and water used by aerial fire suppression equipment such as helicopters and bombers. It is often dyed a red colour.

**Retention Cut** – Leaving individual trees or groups of trees dispersed throughout a cut-block such that greater than half of the total area of the cut-block is influenced by trees.

**Retention Patch** – See "Wildlife Tree Patch."

**Rework** – To go over a piece of planted land for the purpose of trying to fix trees that are of bad quality.

**Ribbon** – See "Flagging Tape."

**Rig Mat** – A large slab made up of lumber which has been laid in an alternating cross-pattern and glued together. Most rig mats are about sixteen feet long by eight feet wide (some are 14' x 8') and they are usually six inches thick (sometimes 4.5"). In areas where road access conditions are terrible (especially throughout most of northern Alberta and similar areas), companies will sometimes lay down a series of rig mats so pickups and logging trucks can traverse the area.

**Riparian Zone** – An area of land adjacent to a stream, river, lake, or wetland area that (due the presence of water) is different than the surrounding area. A riparian area generally has logging restrictions, and reforestation activities may or may not be required.

**Ripper Plow** (aka. Rips) – A form of site preparation similar to disc-trenching, although the machine that makes the rips does so by dragging a large tooth or teeth behind it, instead of having a furrowed blade(s). Because of this, the rips are generally a lot smaller and of poorer quality than disc-trenching.

**Roach** – The row of dirt left along the top centerline of a pipeline. This row is intended to settle evenly with the ground level over time, preventing the pipeline from being in a depression after the dirt has had a few years to settle.

**Roadside Processing** – A harvesting operation where fallen trees are dragged close to the road before being processed (ie. limbed/bucked). This type of operation results in especially heavy accumulations of slash within about ten to twenty meters of all the block roads (unless the slash is piled very well), but the rest of the block will probably be cleaner than usual.

**Rolligon** (aka. Rollie) – A large vehicle with an articulated joint in the middle (similar to some skidders), which allows it great versatility in travelling over uneven terrain. Rolligons usually have giant wheels, about five feet high and three feet wide, which allow it to drive over large stumps and rocks, and also through very wet marshy areas. Rolligons are frequently used in Alberta and Saskatchewan, in ground which has a lot of muskeg or swampy areas.

**Rookie** (aka. Greener) – A first year planter. Rookie seems to be the preferred term in Western Canada, while “greener” is more frequently used in central and Eastern Canada.

**Rookie Stare** – That look of confusion when a planter is standing still, looking at the ground around them, and trying to figure out what’s going on.

**Rookie Stick** – A simulated tree seedling used for training purposes at “rookie training” sessions. These teaching aids are usually constructed by cutting a twelve to fourteen inch long piece of 1” diameter wood dowel, then wrapping a thin (1-inch) piece of orange or brown duct tape around the center of the stick (to simulate the location of the root collar) and then green duct tape around the “upper” half of the dowel (to simulate the stem and needles).

**Root Collar** – The area on a tree where the roots join the main stem or trunk. In a mature tree, this area is typified by a flare leading to the major roots. In a young seedling, the root collar is the part of the stem located between the top of the plug (or roots in a bareroot) and the lowermost laterals or needles. The root collar is part of the tree's trunk. Unlike the roots, the trunk is not specialized to resist constant soil moisture.

**Root Excavation** – To carefully excavate planted trees with a small shovel or trowel to check on the placement and condition of roots and of the planting medium. This is normally done in such a way as to carefully and fully expose the plug and the surrounding planting medium. In this way, planting faults such as J-roots can be more clearly identified.

**Rope It Out** – Slang for ribboning the boundary of a block, piece, or no-work-zone.

**Run** – A short planting session of perhaps between half an hour and ninety minutes. Once you’ve filled your bags with seedlings, the conventional approach is to go for a “run” (you’re not actually running) during which you theoretically plant all the seedlings in your bags, then return to your cache. It is highly inefficient to come back to the cache without finishing your bag-up. The only reason that you should do this is if you finish your piece and there is no room for additional trees. Rookies might sometimes come back to the cache in the middle of a run to grab more food or water,

or have a smoke. This is a bad idea. Nobody likes a quitter. Finish your bag-up before you come back to the cache.

**Rust** – A group of plant diseases, caused by fungi (parasites), which is one of the most destructive groups of diseases for forestry, horticulture, and agriculture. There are approximately seven thousand different rust species in 168 genera, each of which can cause up to five different problems for the plants that they're attacking. What's also interesting is that they mostly attack healthy plants, rather than weak ones. Rust is a huge problem. A lot of types of pine trees especially can be attacked by rust.

**Safety and Performance Evaluation (SPE)** – A review of an employee's on-the-job performance with respect to following safety protocols, and other performance measures.

**Salal** – A leathery-leaved shrub in the heather family, which is native to western Canada. It is especially prevalent in some areas on the coast, and is far more likely to grow on organic soils than on mineral soil. You may recognize it because it is often used as the tough, waxy green plant that is used to fill out a lot of flower bouquets. It can grow quite thickly in some areas, which makes it annoying for planters. Because it is such a strong plant which covers an area so thickly, it usually chokes out any competing plants or vegetation. Many foresters will specify that cedar seedlings are the only type of tree that is allowed to be planted in salal patches.

**Sally-Ann** – Slang for a Salvation Army store.

**Safe Work Procedure (SWP)** – A standard way of doing a certain task that minimizes any risks from potential hazards that may be present.

**Salvation Army** – A store that accepts donations of used clothing, and sells it at very low prices to budget conscious people. The Salvation Army is a perfect place to buy planting clothes, because they can get dirty and destroyed and you can throw them away at the end of the season, without having spent a lot of money. Value Village is another similar cost-effective supplier of used clothing.

**Sand** – The coarsest of the three fine fragment textures, more coarse than silt or clay. Sand is non-sticky and non-moldable and therefore won't compact easily. It tends to be nutrient poor, but it provides good drainage and trafficability. Planting on a block full of sand, especially with a tiny bit of moisture to help it hold its shape, makes for a very good day.

**Sap** (aka. Resin) – A semi-solid viscous liquid which exudes from many trees after physical trauma. One can almost consider it to be the "blood" of a tree.

**Sapling** – A young, slender tree. Trying to categorize a tree exactly leads to uncertainty, but I'd usually call a tree a seedling until it's a year or two old, then a juvenile or sapling from the time it's about two or three feet high until it's about 12-15 feet high. It seems that sapling is usually used with

deciduous trees, and juvenile is usually used with coniferous trees, although I'm not sure that there is any scientific reasoning to support that distinction.

**Scalp** – When a tree is planted, some contracts require a scalp, which means that the area around the seedling to be planted needs to be cleared of competing plants, debris, and litter. Usually, a couple swipes of the shovel or kicks with the boot will provide a good scalp, and then the tree is planted in the middle of the scalp. A scalp is not as extensive as a screef.

**Scarification** (aka. Site Preparation) – Scarification happens when the ground to be planted is altered in some way by machine before the seedlings are planted, to make the planters' job easier (in theory). Some methods of scarification include trenching (disc-trenching or ripper plows), mounding (excavator mounds or donaren mounds), or dragging. This basically means to "scar" the land, or disturb it.

**Scarpa** – A brand of high-end work boots.

**Schnarb** – Slang for the annoying obstacles and vegetation that are present on some land, including logs, fallen trees, tall grasses, bushes, etc. Schnarb is similar to slash, although schnarb is usually assumed to include living plants as well as the logging debris.

**Scion** – A shoot cut from a section of a plant or tree, especially if it has been cut specifically for grafting or rooting. Willow scions are often cut from live young juvenile willow stands, and then used in reclamation work.

**Screef** – When a tree is planted, some contracts require a screef, which means that the area around the seedling to be planted needs to be cleared down to the FH (fines and humus) layer or down to mineral soil. Once the screef has been cleared down to the necessary depth, the tree is planted in the middle. A screef is more extensive and deeper than a scalp.

**Srench** – A small tool used for chainsaw maintenance. One side of this T-shaped tool has a flat-headed screwdriver, and the other side has a wrench used for removing the spark plug from a saw.

**Sedimentation** – Occurs when water is disturbed, causing dirt and organic particles to become suspended in the water. These eventually settle out due to gravity, in a process called sedimentation. Sedimentation can be an issue in some areas if upstream sediment flows downstream and covers or alters the gravel bottoms of fish-bearing streams, hindering the ability of fish eggs to hatch properly. Sediments suspended in water can also harm fish gills, block their ability to see (in order to eat), and excessive amounts can cause high mortality. This is why most EMS systems prohibit vehicles (including ATV's) from driving through streams, creeks, and even ephemerals which can flow into fish-bearing waters downstream.

**Seed** – A structure that develops from a fertilized plant ovule. When a seed is mature, it contains an embryo of a plant.

**Seed Tree** – A mature tree of any species that is left standing on a block after harvesting. The intent is for this residual tree to act as a seed source to the land around the tree, to enhance the success of natural regeneration.

**Seed Zone** – An area of land which is the region of provenance from which a specific genetically consistent seed is obtained. A seed zone is the smallest area used in defining locality for plants. Many foresters try to ensure that seedlings planted in any specific area are grown from seed that was collected in that same seed zone, both to maximize the potential success of the new trees, and also so as not to mess with natural genetic patterns in their regions.

**Seedling** – A young tree. Probably any tree that has sprouted but which is less than one year old would be considered to be a seedling. Usually, the term “seedling” refers to trees grown from seed in a nursery, rather than “naturals” or germinants that sprout in the wild.

**Seismic Line** – Narrow corridors cut through the forest, or running across swampland or muskeg, which are used to transport and deploy geophysical survey equipment. These lines allow oil & gas companies to travel throughout a region more easily. Typically, a company cuts out a number of seismic lines (perhaps 20-30 feet wide) and sends equipment up each line, detonating small explosives on the surface and using very sensitive seismic monitoring equipment to record and analyze the measured shock waves and reverberations. This data can be used by sophisticated computer modelling systems to create a sub-surface map of the underground geology and hydrology of a region (typically used when searching for various types of fossil fuels). Northern BC and Alberta especially are cut up with hundreds of thousands of seismic lines. It’s fairly common for one or two seismic lines to intersect cutblocks in Alberta. They don’t really affect the planters, but these lines can be sometimes be quite useful to tree haulers as alternate paths for getting trees into various parts of a block. A decade ago, it was common to be told not to plant on seismic lines that crossed through a block, but the seismic line is generally of no use anymore once the seismic program has completed its survey, and nowadays, there is more concern about a desire to reforest all of these deforested corridors.

**Select Bidding** – When a contract is tendered out for competitive bids, but only offered to a small group of bidders rather than being offered to the open market.

**Selfish Logic** – Coming up with justification for doing something because it is in one’s own self-interest.

**Senescence** (aka. Fall Flagging, Red Flagging, Cedar Flagging) – A situation when some of the branches on healthy conifers turn bright red and die. This can happen to several types of conifer, although it is typically most common on western Cedar. Many people assume that this is a disease,

but it is simply a self-pruning actual taken by the tree to improve its health and chance of survival, typical during or after a dry season or drought. This is sometimes called fall flagging because it is typically most pronounced in the fall after a dry summer. This process seems to be a lot more prevalent in the past half-decade, perhaps due to climate change.

**Serotinous** – A type of tree/plant where seeds are released in response to a specific environmental trigger, rather than at maturity or a specific chronological point. This type of adaption is commonly associated with fire-prone ecosystems, ie. lodgepole pine cones opening to disperse seed after a wildfire. The cones are covered with a resin that melts during the fire, releasing seeds onto the ground that has just burned and been cleared of competition. This ecological strategy is a survival mechanism that works well in ecosystems with frequent fire disturbances.

**Severity Rate** – A safety system metric referring to the number of lost days relative to the number of incidents.

**Shake Makers** – People on the coast who work in the shake and shingle industry. They go into the cut-blocks, sometimes at the same time as the planters, and use chain saws to cut up cedar slash. The cut-up slash is then pulled out of the blocks and taken to a central location where it is split into cedar shakes and shingles (used in exterior home construction).

**Shelterwood** – A silviculture system in which trees are removed in a series of cuts designed to achieve a new even-aged stand under the shelter of remaining trees.

**Shoot** – A stem plus the attached leaves/needles.

**Shortline** – To fly loads of trees/gear without a long line when doing helicopter operations. When shortlining, either a 3-6 foot long lanyard is used to hook the nets to the belly hook on the helicopter, or in some instances, the pear-ring on the net is hooked directly to the belly hook without a lanyard in between.

**Shot Rock** –The large chunks of rock that are broken apart by blasting with explosives (if required) when the roads are built. It is commonly seen on coastal blocks, where explosives are frequently required to blast roads out of the hillsides. Shot rock is often seen in patches on the low side of in-block roads. It is slightly treacherous to walk on, and impossible to plant in.

**Shovel** –Tree planters use different types of specialty shovels. Most of them have smaller blades than a conventional garden shovel, perhaps a foot tall and four to five inches in width. The handles of tree planting shovels are usually staves (staff shovels), or shorter handles with a triangular grip in the shape of a D pointing downward.

**Shovel Tuck** – Planters who learn to plant a lot of bareroot trees will often learn a technique in which the blade of the shovel is used to gently tuck the roots of the seedling into the hole. If done

improperly, the roots of the tree can be damaged, which is a fault. If done properly, the planter can learn to plant bareroot seedlings comfortably and easily. Some planters who get good at shovel tucking will take this technique and use it when planting plug stock, although to be realistic, it is not the most appropriate technique for planting plugs. Checkers who see planters using a shovel tuck on plug stock will be very wary, and will probably examine planted plugs carefully to look for cut plugs (a planting fault).

**Show** – Slang used in describing a contract, when paired with some sort of planting adjective. Examples include cream-show, shit-show, boat-show, motel-show, gong-show, etc.

**Shrub** (aka. Bush) – A woody plant which is somewhat similar in physiology to a tree, although it is usually smaller (rarely more than six meters in height at maturity). Shrubs have woody stems, but there are usually multiple stems rather than a single trunk.

**Shutdown** (aka. Standdown) – A temporary work stoppage. This is usually the phrase used when the stoppage is due to logistical or environmental concerns, such as a shutdown for a couple days due to heavy precipitation (especially in coastal areas with risk of mudslides) or due to high winds.

**Side By Side** – A special type of ATV that has a roll bar/cage, and is allowed to carry passengers. There are tons of different styles available, but I'm most familiar with the Honda "Big Red" side-by-sides, which typically seat a driver, a front seat passenger, and three in the bench back seat. It's possible to pull out the driver's seat and the front passenger seat, and replace them with a bench seat, which allows the ATV to carry a total of six people including the driver. This makes it a much better transportation fit with the crew cabs which are in common use in our industry. The name "Side-by-Side" refers to the fact that people can sit beside each other, rather than a passenger piggybacking [illegally] on a normal quad.

**Silt** – This is the fine fragment which is mid-range in texture, between coarse sand and fine clay. Silt is almost soapy and slippery to the touch, and slightly sticky. It's a bit more nutrient rich than sand. Silt is usually quite nice to plant in.

**Silvicool Insert** (aka. Silvicool, Silvi, Silvi Sac, Insert) – Most commonly, these are referred to as your "silvies" (almost pronounced "sivvies") or "inserts". A silvicool insert is a small bag with a drawstring at the top which can be tied shut, which fits almost perfectly into one pouch on a normal set of planting bags. Most planters have three inserts, which allows them to fully load up their bags (many contracts do not allow planters to put bundles or loose trees in any compartment of a set of planting bags that does not have a silvicool insert). The point of the insert is that it keeps the bundles of trees in your bags cooler and less likely to dry out during the time that the trees are in your planting bags. Many checkers ask that any inserts containing trees remain closed at all times, with the exception of your drawbag. Silvicool inserts are also useful for keeping your water jugs cool if you don't have an insulated water cooler, and also for keeping your lunch cooler than in a knapsack

or kitbag. The outside of a silvicool insert is usually a white plastic tarp-like material, while the inside is a reflective silver material.

**Silvicool Tarp** – A silvicool tarp is used to shade a cache of trees. These tarps are made of a white material similar to plastic on one side, and have a shiny reflective silver coating on the other side. These tarps are either used to wrap up boxes and keep the sunlight off in the spring, or are suspended (elevated) over the cache in the summer, again to keep direct sunlight off the boxes of seedlings. My one big question, and perhaps a minor pet peeve about the industry, is why tarps are used in the manner that they are. At the moment, convention dictates that the white side remains up, and the shiny side is underneath on the side of the trees. However, my knowledge of physics is not exactly poor, and I recognize that even though white is an excellent reflector, silver reflective material is probably even better at reflecting light and other forms of radiation. Therefore, if we are trying to keep the trees cool, why aren't we putting the shiny side up? Putting the shiny side down, facing the trees, helps to trap the heat. You can hear about an example of this effect when you talk to any cooking professional who has ever baked potatoes – the shiny side of the tinfoil stays in, to trap the heat and help cook the potato faster.

**Silviculture** – The art and science of managing the establishment, growth, composition, healthy, and quality of a forest to meet the needs of landowners, the public, and other stakeholders in a sustainable manner.

**Silviculture Prescription** – A legal plan describing the planned harvesting and silviculture activities for an opening/cutblock. Requirements for species selection, density, and timing of reforestation are specified in this document.

**Silviculture Survey** (aka. Survey) – A generic phrase which can refer to any of a large number of different types of surveys, undertaken when forestry workers sample data from around a certain intentionally selected or random point. Some types of surveys include regen surveys, free growing surveys, stocking surveys, quality surveys, density surveys, mortality surveys, pest assessment surveys, etc.

**Simplex** – A radio channel that uses the same frequency for both transmitting and receiving broadcasts. This means that you can't hear others talking when you're broadcasting.

**Single Point** – A hook assembly that gets attached to the bottom of a long-line during helicopter operations. The single point is steel device with a large hook and an electronics system that allows the pilot to open the hook (and drop whatever is attached) while flying. It is called the single point because there is only a single hook to which slings can be attached (although it is sometimes possible to put two singles onto that one hook, depending on the size of the hook and the size of the O-rings on the slings).

**Site** – An area where trees get planted. This term is more frequently used by foresters than by planters, especially when referring to things such as “site conditions” or “site preparation.”

**Site Prep** (aka. Site Preparation, Scarification) – The intentional disturbance (by heavy equipment) of an area’s ground vegetation, debris, and topsoil, to create conditions which might favor successful reforestation more than planting trees in the original undisturbed area.

**Skid** – To move logs or downed trees to a different area, usually from where they were cut to a landing or to a nearby roadside for processing and pickup. The trees can either be dragged across the block, or picked up by a machine (usually a skidder) to be moved.

**Skidder** – A large machine that is used extensively in forestry and logging operations, just like a conventional farm tractor is the mainstay of a farmer. The skidder has four very large wheels (about the height of a person, plus very thick and round), and the front and back end are held together by a universal joint, which effectively allows all four wheels of the machine to tip in different directions and angles. Skidders are often used to haul logs from the middle of the block to the nearest roadway (known as skidding the logs). Skidders can also handle lots of scarification attachments, such as disc-trenching blades and ripper hooks and donaren scoops, and they drive around the block to perform the site preparation work.

**Skiff** – A very light dusting of snow on the ground.

**Skin-So-Soft** – This product, by Avon, is a form of skin moistener/conditioner. It ironically seems to have the effect of acting as a mosquito repellent, and because it is so cheap, suburbia populations have latched onto it as a very cost-effective repellent. However, while I will admit that this product does work, it is more effective in situations involving minor harassment from mosquitoes. When you go to work in the bush, you will definitely want something far stronger and more effective, such as any product containing DEET. Also, remember that Skin-So-Soft only repels mosquitoes, but when planting, you also need protection against gnats, black flies, chiggers, and more.

**Skydrop** – The art of planting a tree without bending over, by throwing it into the hole and straightening it with a shovel tuck. This is a terrible technique which invariably leads to j-roots (and replanting) as soon as a checker or crew boss notices you doing it.

**Slamfest** – A contract with very relaxed quality requirements, where it is easy to plant large numbers of trees and make a lot of money.

**Slash** – The detritus and by-products left over after a block has been logged, which includes logs, small trees, branches, and other pieces of wood.

**Slashing** – A type of chainsaw activity that describes the cutting of fairly small trees. Cutting a tree is referred to as “falling” (done by a faller) when the tree has a diameter at breast height (DBH) of

greater than six inches. Cutting a tree with a smaller DBH is referred to as “slashing” (done by a slasher). In BC, the level of certification required to do slashing work is less complex than getting a faller’s ticket, because trees of DBH<6” are generally less dangerous to cut than larger trees (but not without risk).

**Slashpile** – Sometimes, instead of leaving the slash lying all over a block, the foresters will get machines to gather it up into piles, usually made along the sides of the block roads. These piles may then be burned during appropriate weather conditions. Piling slash and burning it makes the block a lot cleaner for the planters to work on, but has the drawback of removing future nutrients that might help accelerate the growth of the seedlings. The forester often makes his or her decisions about whether to reduce the slash based on economics. Using machines to pile the slash, and then burning it afterwards, may reduce the price that has to be paid out to have the block replanted, so that in the long run, eliminating the slash is cheaper than paying for higher planting labor costs. When this kind of a financial decision must be made, the fact that the slash is a good fertilizer is often ignored for short-term profits. Personally, although piling and burning the slash doesn’t make as much ecological sense as leaving it spread out for decomposition/fertilizer, I’m happy that the blocks are easier to move around on, even if it may mean that the tree price is slightly reduced.

**Sleeve** – A tube-like package containing 10-12 individual rolls of flagging tape, held together temporarily in plastic packaging. Other names for a “sleeve” of flagging tape rolls are deck, tube, and log.

**Sliced Plug** (aka. Cut Plug) – A seedling plug which has a slice in it, caused by a planter trying to tuck the plug into the hole with the edge of the shovel. This is often considered to be a planting fault.

**Slide** – This one can have a couple different meanings, so check out the definition for “landslide” too. However, a “slide” can also refer to when a planter falls on a steeper block, and will sometimes end up sliding six or eight feet (or more) down the slope of the block. Planters can get scraped up or bruised badly if they’re not careful and they fall or slide. On the coast, “slide” more commonly refers to a mudslide (landslide).

**Sling** – This term is associated with helicopter use in moving cargo. A sling (noun) can refer to a net full of cargo (picked up and carried underneath the helicopter) or to the empty net itself. Slinging (verb) is the act of moving the slings around between various locations, ie. “The pilot is going to pick up that sling of 15 boxes for Cache Echo, then come back and sling Peter’s quad into the block too.”

**Slip Tank** – See “Tidy Tank.”

**Slope** – Any section of land which rises or falls, rather than being flat. The steepness of the slope can be measure in degrees, percentage, or ratio.

**Slope Degrees** – The steepness of a slope expressed in degrees. You’ll need a bit of calculus to figure out this number properly. For example, if your piece is 200m to the back, and rises 50m over that distance, the slope degrees equals  $\text{ArcTan}(50/200) = \text{ArcTan}(0.25) = 14$  degrees. You can use a scientific calculator to figure this out.

**Slope Percentage** – A ratio of the vertical distance divided by the horizontal distance (rise/run), but expressed in percentage terms. For example, if your piece is 200m to the back, and rises 50m over that distance, the slope percentage is  $(50/200) = 0.25 \times 100\% = 25\%$ .

**Slope Ratio** – A ratio of the horizontal distance divided by the vertical distance (run/rise). For example, if your piece is 200m to the back, and rises 50m over that distance, the slope ratio is 200:50 or 4:1. The slope ratio is the inverse of the slope percentage, if the slope percentage was expressed as a pure decimal number rather than as a percentage. Planters rarely talk about slope ratios.

**Slurry** – Slurry is a mixture of peat-moss and water. When planting on bare-root contracts, the roots of the seedlings can very quick dry out when exposed to the air, which increases the risk of mortality for the tree. To mitigate this risk, planters are asked to fill buckets with a mixture of slurry, and then, when bagging up, the planter is expected to dip the roots of each bundle of trees into the slurry mixture to coat them with this moist, protective mix. Slurrying trees is a pain in the ass. However, it does have one advantage other than just increasing the survival rates of the trees. Most planters find it easier to deal with the roots of the bare-root seedlings when they are wet and stuck together, therefore, the damp roots are slightly easier to control and faster to plant than when planting seedlings which have not been slurried.

**Snag** – Often used (incorrectly) interchangeably as slang for a Danger Tree. The only problem is that this is not technically always a correct substitute for danger tree. Technically, a snag is a mature or semi-mature tree that has started to fall for some reason, but is now hung up in another standing tree. Therefore, most snags can be classified as Danger Trees, but not all Danger Trees are snags.

**Snag Falling** – The activity of checking a block for dangerous trees, and falling them (or ribboning off a no-work zone). The perimeter of the block is the most likely area to find danger trees that could cause potential for planters (assuming the tree has a risk of falling into the block), although it is also possible to find danger trees among the residuals standing within the block itself. Unfortunately, this is a somewhat poor phrase, since someone doing snag falling is looking to mitigate problems with all danger trees, not just snags. See also the definition for snag.

**Snag & Hinge** – A type of silviculture treatment in which small weed trees (juvenile aspen, poplar, willow, grey birch) are killed by hand by simply bending them over and snapping them, so the stem can no longer grow vertically. This type of work is sometimes referred to as “bend and break” work. This type of treatment removes some of the brush competition from a plantation, which allows more sunlight and other resources to reach the crop trees. This type of treatment is less intrusive than using a brush saw, although it is slower.

**Snow Cache** – Snow caches are only used in rare circumstances. In isolated circumstances, however, they can be useful. A snow cache is used in the spring plant, while working in an area (usually fairly far north) where the only access is either through air by chopper, or across frozen rivers in the winter. Since the trees are frozen in the nursery, some companies will analyze costs of flying the boxes in versus moving them to the site (in the winter) by rolligon or some similar vehicle, over the frozen rivers. If the contract is big enough, and distance for flying is large enough, it may be economically advantageous to rolligon the frozen trees in during the winter, set them up into a huge pile, and cover them with sawdust or some similar material for insulation. Then, as the winter progresses, the trees get covered with a deep layer of snow, and of course remain frozen. In the spring, when the planters arrive, the layer of snow has probably melted from the heat of the sun, but the sawdust keeps the boxes insulated. The trees are probably still slightly frozen, but ready to be pulled away from the snow cache where they thaw within a couple days once spread out to the blocks. Of course, there is one huge drawback to a snow cache: the cardboard boxes get incredibly wet and soggy, and fall apart. This makes them very hard to move around, either by chopper or by quad. I personally haven't ever seen a snow cache used effectively, although if the boxes could be protected from moisture in some sort of extremely large temporary tent structure, or through the use of extensive tarping or protection with plastic sheeting, the concept would be much more feasible.

**Soup Sandwich** – Used to describe a situation or circumstances that are extremely messed up. This is similar to saying that something is a “gong show.” A similar term would be “spaghetti sandwich.”

**Snow Press** – Snow press is a phenomena that occurs over the course of the winter, as young seedlings get covered in a layer of snow. These seedlings may not, for their first three or four years, be strong enough to withstand the weight of the snow on them in the winter. The snow may press down and bend them all out of shape (or flatten them on the ground), so when they are exposed in the spring, they are all curved, bent, and deformed, rather than pointing straight at the sky. If the tree survives for several years, the trunk will have become strong enough to withstand the weight of the winter snow, and will probably straight out eventually. There is of course a concern that the snow press may not only stunt the tree in terms of appearance, but also physically handicap the growth of the tree, or pose a risk to survival in extreme cases. In some places, obstacle planting is recommended to mitigate the effects of snow press. In obstacle planting, the trees are planted very close to stumps and logs and other items that may give a small amount of shelter to the tree.

**Sort** (aka. Log Sort) – See "Log Dump."

**Sour Gas** – Refers to gas mixtures containing hydrogen sulfide (H<sub>2</sub>S), which is a poisonous gas. This gas is colourless, but not odorless (it smells like rotten eggs). It is extremely hazardous, flammable, corrosive, and explosive. Some pipelines that carry a mix of fossil fuel gasses (natural gas and other types of gasses) are contaminated with moderate to significant concentrations of hydrogen sulfide, and when there is enough H<sub>2</sub>S present to be considered to be harmful or dangerous to humans, the resulting mix is called Sour Gas. Some pipelines will be labelled as sour gas pipelines, and oil & gas

infrastructure on leases (pumps, relay stations, processing facilities) may be labelled with warning signs to let people know that H<sub>2</sub>S may be present. This gas can cause sickness in even minute quantities, and is fatal when ingested in larger quantities. Although sour gas rarely causes problems for planters, there have been occasional incidents where crews have become physically sick due to very faint concentrations from leaks in infrastructure beside planting blocks. It is important for planters to try not to work or park close to sour gas processing facilities, and not to smoke when on oil & gas leases of any type. Very occasionally, you may also see references to sour oil, which is just some sort of bitumen or crude (heavy oil mixture) which also has H<sub>2</sub>S contamination.

**Space Tarp** (aka. Silvicool Tarp) - I think that the name “space tarp” refers probably to the fact that the silver lining makes it look like some futuristic item from space. It’s also possible that this slang referred to the fact that elevated tarps above boxes of trees provide a shaded place for airflow. I haven’t heard someone use this term since the 1990’s.

**Spacing** (planting distance) – When talking about distance between trees, you are referring to the inter-tree spacing. Usually, target densities on a block or contract are given in stems per hectare. To aid the planters, a second number is often given, which is the target average inter-tree spacing (2000 stems/Ha = 2.5 meter spacing, 1600 stems/Ha = 2.9 meter spacing, etc.). Another type of spacing which may be mentioned is the minimum acceptable spacing between trees. Contracts will often specify some number like 2.0 meters which is the minimum acceptable spacing between any two trees. If two trees are planted less than 2.0 meters apart, one is considered to be a fault tree. When asking about spacing, you should try to clarify and get two different numbers, the target spacing (average) and minimum spacing, so you know exactly what is expected.

**Spacing** (cutting activity) – In the silviculture industry, there is a lot of “stand-tending” work done in some areas, which means that once the seedlings have been planted, they may require additional attention to maximize their growth potential. Stand-tending can include activities such as brushing, spacing, and thinning. Spacing refers to the process of cutting out some of the crop trees so the remaining crop trees are “farther apart.” This is a bit of a misnomer, since the retention trees are in the same spot as before, and therefore are not physically any farther apart than they were before. However, the elimination of some of the extra crop trees from between the retained trees gives the appearance of wider spacing. Essentially, brushing, spacing, and thinning are very similar processes, with subtle nuances. In brushing, the weeds and brush are eliminated, so the crop trees have less competition. In spacing, which generally occurs when the stand is between eight and twenty years old, there are too many crop trees, so some of the weaker ones are cut out to minimize competition for the remaining good crop trees. These weaker crop trees, once cut, are left where they fall and will eventually decay and provide fertilizer and nutrients for the rest of the plantation. In thinning, which should be properly referred to as commercial thinning, the space process occurs as for spacing, but the age of the stand is a lot greater (perhaps 25-40 years). The crop trees which are cut in the thinning process are salvaged for commercial use (probably to make pulp) rather than just being left to rot on the forest floor.

**Spacing Latitude** – The allowable variation between the contract spacing and the minimum spacing. Spacing latitude allows for the maximum use of plantable microsites, represents the maximum allowable deviation from the contract spacing, and provides the flexibility for altering the strict contract spacing as dictated by specific site conditions. Planters are expected to take advantage of this latitude for two reasons: first and foremost, to make use of the most appropriate microsite, but also as a secondary consideration to use spots that are easier to work with.

**Spear** – The spear is very similar to a staff shovel, but has a narrower blade. The spear can be very useful in extremely rocky ground, where the narrow width of the blade makes it easier to shove into the ground between the rocks.

**Specs** – See "Specifications."

**Special Mission** – When a planter or a couple of planters are sent on a separate project from the rest of their crew, usually for a day, although sometimes for longer or shorter periods. Special missions might include planting small blocks, filling holes, finishing up burns or roadside areas, fixing someone else's quality problems (with pay), doing a difficult block that the rest of the crew might not be suited for, or any of a few dozen other different reasons. Special missions usually turn out to be really annoying, or a nice change to a regular day.

**Specifications** (aka. Specs) – The guidelines that a forester will ask for on a block/project/contract. Some examples of specs would include things like the target spacing/density, the minimum permitted spacing, the species prescribed for the block and the type of mixing used if multiple species are prescribed, the preferred optimum depth, how a planter is expected to react to a multitude of conditions such as water/vegetation/prep, and any of the dozens or hundreds of other rules that a forester might impose during the project.

**Speed Spade** – A type of shovel blade that is narrower than the standard blade. It can be quite useful when the ground is not rocky or rooty (ie. it's easy to open holes) and you're planting small plugs.

**Sphagnum** – A type of moss, any specimen of which is any member of a large genus (*Sphagnum*) of atypical mosses that grow only in wet acid areas where their remains become compacted with other plant debris, and eventually form peat. These mosses have white leaves which are slightly tinged with green or red. Any patch that sphagnum grows will probably not feature any other significant plant life. Planters often can identify sphagnum mosses by the "star" patterns that are commonly visible.

**Sponges** – In the 1990's, some licensees required planters to carry sponges in each of their insert bags. These sponges, which were expected to be kept moist, would theoretically provide moisture for the roots of the trees. While this reasoning may have been valid for bareroot stock, it doesn't make sense with modern plugs. The use of sponges has been essentially discontinued in the modern-day industry.

**Spoon** – A type of shovel with a blade that is very worn down and short.

**Spot Fire** – A fire ignited by sparks that are carried outside the main fire perimeter by air currents, gravity, and/or fire whirls.

**Spring Breakup** – See “Breakup.”

**Spring Melt** – See “Freshet.”

**Spruce Rash** – Spruce allergies are fairly common. Planters who don’t wear long sleeves often tend to get this rash (especially on the underside of their non-shovel arm) from reaching into their drawbag and having their arm brushing against the seedlings. People can have allergies to all types of conifers, but it may be that the prickly needles found on spruce seedlings tend to further aggravate the skin. One solution is to take anti-histamines, but a better solution is to wear long sleeves.

**Square Up** – To make the boundaries of a remaining piece on a block more straightforward. Sometimes, a piece of unplanted ground may have really messed up boundaries, so it’s in a very rectangular shape (at best) and often with boundary edges that are nowhere close to straight. To square up a piece means to make the boundaries more logical. This can be done for different reasons, for example, to make the “hole” more manageable for other planters coming in to finish the open ground, or maybe just to make the boundaries more logical so it’s easier for a crew leader to look at the hole and try to judge visually how much room may be remaining.

**Staff Shovel** – A shovel with a long, straight handle, which does not have a D-handle grip or any other type of attachment at the top of the shaft. The planter holds the shovel by the shaft itself. The plural of this type of staff is “staves.”

**Staging** – A staging area was traditionally known as an area to rest on a journey. In a planting sense, a staging area is usually an area where people and supplies gather in preparation for the next part of the trip into a block, usually in a different type of vehicle. For example, the crews might arrive at a helicopter staging area and then fly the rest of the way into a block. Staging areas are used for helicopters, water taxis, barges, unimogs, haglunds, and all kinds of vehicles. Sometimes, the staging area may be a temporary bare area with nothing but vehicles, and at other times, a company may store a large cache of trees there, first aid equipment, tools, equipment, and other supplies.

**Stalk** – See “Stem.”

**Stand** – A community of trees which is sufficiently uniform in species composition, age, arrangement, and condition to be distinguishable as a group from the forest or other growth in adjoining areas, which thus forms a single management entity.

**Stand-down** (aka. Shutdown) – When work ceases temporarily. This usually is the phrase used when the stoppage of work is due to an emergency, such as an ongoing first aid incident in the area, when responder personnel want everyone to be standing by and listening to the radios in case additional assistance is needed.

**Stand Tending** – Stand tending is the process of taking care of a stand of trees, which can include pest management through herbicides and pesticides, physical maintenance through brushing and spacing and thinning, and other miscellaneous activities such as pruning of limbs, culling of diseased trees, etc.

**Standing Residual** – See “Residual.”

**Stashing** – Stashing is the illegal disposal of seedlings that should be planted. Stashing is very similar to theft. Some planters, regrettably, will stash some of their trees and say they planted the seedlings, to try to make more money. This meets with varying degrees of success. Statistical analysis of blocks will quickly show if the expected density based on planters claimed tallies matches the plotted density of the block. If the stats show that the numbers don’t jive, checkers will quickly investigate to see what could have caused the discrepancies. There are quite a few methods used to look for stashing of trees. In some areas, stashing is unfortunately a tolerated part of the planting culture, although in my experience it is commonly frowned upon in BC and Alberta, and people suspected of stashing are usually terminated immediately. Stashing is morally wrong, and many honest planters will bring problems to the attention of their crew leaders if they think another planter is stashing trees.

**Statistical Density** – See "Plotted Density."

**Staves** – The plural term for a group of staff shovels.

**Steel Shank** – Many good work boots have a steel or metal strip embedded into the bottom of the boot, which prevents the sole from being bent when walking on sticks and rocks and uneven materials. The steel shank also protects the bottom of your foot when kicking a shovel, because rather than all the pressure being concentrated in one part of the foot (where it meets the shovel), the pressure is instead distributed more evenly across the entire bottom of the foot.

**Stem** (aka. Stalk, Trunk) – The main body of the portion of a tree, shrub, or other plant which is above the ground. In a tree, the stem is the woody axis forming the trunk or branch to which leaves, other branches, and reproductive structures are attached.

**Stock** – Refers to the seedlings being planted in a block, ie. “The stock going into that block is a 50:50 mix of Sx 410’s and Fdi 412A’s.”

**Stocking Survey** – A non-reportable survey (unlike regen delay and free growing surveys, which are official government-mandated surveys) intended to assess the progress of the plantation towards free growing.

**Straight Plant** – See “Plant As Is” ground.

**Stratum** – A layer of vegetation, usually of the same or similar height. The plural is strata.

**Strip Line** – A ribboned link through a proposed cut-block, with at least one of the two ends of the line terminating and tied off at the block boundary. Timber cruising plots (for measuring inventory volume) are located along these strip lines.

**Studs** – Small pieces of metal which are embedded in an automobile or truck tire to give additional traction on the road surface. These are typically used on vehicles in winter, to assist in travelling on snow and ice, rather than for traction in mud.

**Stump-Side Processing** – A harvesting technique where trees are limbed and topped in the block, right beside wherever they were cut, before being moved to the roadsides for pickup. This type of processing leaves a lot of slash distributed evenly across the block, unless of course the slash is properly raked, piled, and burned.

**Stump Sprouting** – Occurs when a tree is burned or cut without damage to its long taproot. The taproot will then stimulate new growth in the form of sprouts on or around the stump. Stump sprouting is not characteristics of all species, particularly not of any species that does not have a proper taproot.

**Styroblocks** – The Styrofoam trays that plug/container seedlings are grown in at the nursery, before the seedlings are removed, boxed, and shipped to planting sites.

**Sucker** – A secondary shoot that grows from the base or roots of a woody plant, and which eventually turns into a new mature plant. Aspen is one species that is especially well known as being excellent at suckering. Sometimes, an entire stand of aspen is actually one single organic entity, with all of the separate “individual” trees having grown from (and still attached underground to) a single mature tree.

**Suckering** – The process by which certain species of trees are able to regenerate by sending new shoots up out of their roots, which grow above the ground and turn into new trees.

**Suicide Sticks** – Slang for short residuals (usually lower than stomach height) which remain upright on a block during planting, and which usually have the branches and needles ripped off. The term comes from the fact that these residuals become somewhat akin to upright stakes on the block, which are a danger to someone who could accidentally fall upon on.

**Summer Weight Tape** – See the “Flagging Tape” definition for more information.

**Sump** – A low-lying area, muddy pool, or swamp. This is a British term, although we occasionally hear it in planting.

**Supervisor** – In the planting world, this term usually refers to a camp supervisor. However, in the eyes of WorkSafe, a supervisor is any person who supervises the work activity of other workers. Therefore, all crew bosses are considered to be supervisors by WorkSafe. Also, if a senior planter is overseeing the work of a less experienced planter, he/she is considered to be in a supervisory role. Anyone in any sort of supervisory role can and usually does have some legal liability if anything goes wrong and a worker is injured or killed. Many people don’t realize this, but the bottom line is that if you’re acting in any kind of a role as a superior or manager or mentor, you should realize that decisions that you make (or fail to make) can increase your legal liability when accidents happen. In some cases, people who have been in supervisory roles have gone to jail or prison when accidents happened that harmed planters.

**Surface Fire** – A fire that burns on the surface fuel layer. This is distinguished from the slightly deeper ground fire.

**Survey** – See “Silviculture Survey.”

**Swale** – A low area, usually moist, between two ridges or higher areas. Usually moist, and sometimes full of a different type of vegetation that is more suited for moist, rich growing conditions.

**Swamp Donkey** – Slang for moose.

**Sweeper** – A naturally growing tree that isn’t coming straight out of the ground, but instead comes out sideways and then straightens up. Quite often, during logging, a low branch might be left at the bottom of a stump and covered with slash. That branch might eventually grow and sneak its way out and start growing vertically into a new “tree.” Sweepers are not considered to be “good” naturals that need to be spaced off of, because even if it does grow into a fully mature tree someday, the grain of the wood at the bottom of the tree would be curved and therefore less valuable to a mill. It would be better to just plant a new seedling in that area that will hopefully grow up to be a straighter and more valuable tree.

**Sweet Gas** – Refers to natural gas which has not been contaminated with significant amounts of hydrogen sulfide (H<sub>2</sub>S, a poisonous gas). Sweet gas is not toxic to humans. Planters often see signs referring to sweet gas pipelines when working in northern BC or throughout Alberta and Saskatchewan, but no special safety precautions are needed when working in these areas.

**Switchback** – A feature found on steep mountain roads, where the road doubles back in the opposite direction, kind of like a letter “Z.” On a slope that is too steep for vehicles to ascend the slope directly, a zig-zag road pattern with a series of switchbacks is used to keep the overall slope of the road manageable.

**Tank Trap** – Slang for a large road deactivation that trucks or ATV’s would be unable to traverse.

**Taproot** – A large central dominant root in a plant or tree, which will grow downward and have lateral roots branching out from it. Taproots of plants (such as carrots) often have a thick taproot that branches off. Not all tree species have taproots, but the ones that do are usually more firmly anchored, and less likely to blow down during a strong wind or storm.

**Target Spacing** – See “Contract Spacing.”

**Targeted Mix** – If multiple species are being planted on a block, this refers to specifications which ask planters to plant certain species according to the microsites they are finding, or according to large geographical features. For example, on a block with a targeted mix of 80% pine and 20% spruce, the forester would probably ask the planters to put the spruce in any areas that looked low or moist, and also to concentrate the spruce at the bottom of the block where moisture is naturally a bit higher and soil temperatures are naturally a bit lower. This is in contrast to a percentage mix.

**Tarps Off** – Slang for removing shirts and bras.

**Tea-Bag** – See “Fert.”

**Ten Four** (aka. 10-4) - Communications slang for “Ok” or “I copy.”

**Ten Ten** (aka. 10-10) - Communications slang for “I’m going to stop broadcasting, but I’ll keep listening.”

**Ten Thirty-Three** (aka. 10-33) - Communications slang for “Emergency.”

**Ten Thirty-Six** (aka. 10-36) - Communications slang for “What is the correct time?”

**Ten Twenty** (aka. 10-20) - Communications slang for “Location.”

**Tendonitis** - A condition referring to inflammation of tendons and of tendon muscle attachments.

**Terminal Bud** (aka. Leader, Apical Bud) – The primary growing point at the top of the stem of a plant.

**Terra Torch** – A small “flamethrower” which consists of a backpack mounted propane tank, a hose going from the tank to the burning apparatus, and a wand with a blast head on the end. Propane flows out the end of the blast head, where it burns. The flames are generally a foot or more in length, but are fairly blue and hot, in order for the torch to be able to ignite flammable materials. A terra torch can be used in place of a drip torch for burning slash piles in the fall or winter, and is essentially a larger version of a tiger torch that many construction workers and mechanics use for various purposes. There are some alternative types of terra torches that use fuels other than propane.

**Texas Gate** – A strong metal grid over a ditch, placed in a road at a fence opening, which deters cows from passing through the fenceline because their feet would fall through the grid. The steel beams in the grid are placed widely enough so that a cow can’t find footing, but close enough together (maybe a foot apart) so that a vehicle can still drive across the grid to pass through the fence opening.

**Thaw Request** – When foresters or planting contractors order spring (overwintered) seedlings, which are still frozen, they must submit a request to the nursery or cold storage facility to start thawing the trees before they are picked up for planting. A ten-day allowance for gradual thawing is quite common, although some facilities are able to perform a “quick thaw” process in four or five days. The quick thaw is not very technical. From what I can see, this usually involves pulling the pallets of boxes out of the freezer and leaving them sitting directly in the sun on the loading dock for several days, instead of thawing more gradually inside a shaded warehouse.

**The Fear** – An irrational emotional feeling of distress or apprehension about something. Quite often, this relates to things such as being attacked by a bear. Many people don’t have The Fear when they start planting, but maybe they’ll have an unexpected run-in with a bear after a few years, and from that point forward, The Fear takes hold and they’re always nervous about bear encounters when working alone. Once you get The Fear, you can never really get rid of it. Also appropriate with respect to irrational thoughts associated with certain types of drug use, especially various hallucinogens.

**Theoretical Density** – See "Claimed Density."

**Thinning** – Thinning, properly known as pre-commercial thinning, is a form of stand tending similar to spacing. Some of the crop trees in a stand or plantation will be cut, in order to minimize competition for the remaining crop trees. In spacing, the eliminated trees are usually left to rot and decay on the block, but with commercial thinning, the cut trees are presumably large enough to be salvaged for commercial use, such as for production of pulp.

**Throwing Plots** – Taking plots, to assess the quality and density of a piece or cutblock.

**Three Bagger** – A set of planting bags with three pouches for carrying trees.

**Three Point Contact** – In areas with dangerous footing (slippery ground, steep slopes, unstable slash) many safety officers will recommend that planters try to maintain three-point contact when moving around. This means that a person is always in contact with the ground or other supports at a minimum of three points. During normal behaviour, when walking across flat and stable grass, a planter alternates between one-point contact (one foot is lifted) and two-point contact (both feet are touching the ground). With three-point contact, one hand or perhaps the shovel is being used as an additional point of contact at all times, other than just two feet. On really unstable slash or slopes on unstable coastal ground, it's common for planters to use a combination of two-point and three-point contact to move around safely.

**Three Track Driving** – Driving on a gravel road in a manner in which the left wheels of two vehicles coming at each other are travelling in exactly the same path (center of the road), although the center of each vehicle is therefore slightly out from the center of the road itself. In this situation, each vehicle still has to swerve slightly in order to pass each other. It is called “three track” because you can see three tire tracks in the road – the inner track is shared by both vehicles, and the right tires of each vehicle create the two outside tracks.

**Tick** (aka. Chigger) – A member of the family *Ixodidae*, which has numerous small bloodsucking parasitic arachnids, many of which transmit diseases such as Rocky Mountain spotted fever and Lyme disease. Ticks can also refer to members of the family *Hippoboscidae*, which are wingless, louselike insects which are parasitic on sheep, goats, and many other animals. Ticks are bad, as they can carry diseases. Blacklegged ticks (deer ticks) on the east coast and Western Blacklegged ticks on the west coast are especially bad as they're the ones that carry [lyme](#).

**Tidy Tank** (aka. Slip Tank) – A large metal “portable” fuel tank, often installed in the backs of pickup trucks, which can carry gasoline or diesel. A slip tank usually has a mechanical or electric pump, which allows the operator to easily fill up other vehicles or pieces of heavy machinery. They are used in planting camps so trucks can be refueled without going to town, or in logging to fuel up the heavy equipment in the field. A lot of the tidy tanks used in pickups hold between 300 and 450 litres of fuel, but much larger tanks are also available. The phrase “tidy” probably refers to the double-wall containment mechanism of a slip tank, which is intended to minimize the possibility of a messy spill.

**Tie Point** – Before the advent of mobile technology, checkers measured distances on blocks by using a device called a walk-box. They'd tie one end of a piece of string to a branch or log, and as they walked, the string would run out of the walk box and it would measure the distance travelled. The tie point was the location where the string was tied, ie. the starting point from which a distance was measured. Sometimes, when checking a block, a specific tie point would be marked on the map as the official location from which all plots on the block were off-set. Sometimes referred to as the Point of Commencement (POC). A tie point should be a specific point on a block whose location is readily identifiable on a digital image, aerial photograph, or map (ie. a road intersection or the corner of a field or swamp).

**Tight** – Spacing where the trees are fairly close together. If a planter’s density is too low, due to spacing that is wider than the target spacing, he/she is asked to tighten up.

**Timberjack** – A tool which is used to lift felled trees off the ground, so they can be bucked up (cut into desired lengths) more easily.

**Toe-Tapping** – Toe-tapping occurs when a planter closes a hole by gently tapping it shut with the toes, rather than giving a good hard kick with the heel. There are advantages and disadvantages to both methods. Toe-tapping uses less energy, and isn’t as hard on your heel and foot as toe-tapping. However, toe-tapping doesn’t always close the hole properly, or eliminate potential air pockets. Of course, one drawback of kicking hard when closing the hole is that the roots of the seedling may be compressed, making it harder for the tree to become established.

**Topping** (aka. Tree Topping) – See “Wind Firming.”

**Total Incident Rate** – A safety system metric measuring the number of recordable injuries per 100 employees.

**Tracking** – An option on many types of GPS devices and GIS apps. When turned on, as a user moves around, the device records a GPS trail of where the user travelled. If a supervisor is visiting a block a few days ahead of the crew, he/she could turn tracking on in a handheld GPS device, figure out the best way to walk into or out of a section of the block, and then share the best track with the person who leads the crew into that area a few days later.

**Tractor Truck** (aka. Tractor) – This is the truck that pulls a reefer or dry trailer. The term 18-Wheeler is slang that refers to the tractor with some sort of trailer attached, but the tractor is just the truck alone.

**Trafficability** – This refers to the ability of water/moisture to pass through a soil. It depends on the density of the particles in the soil, the composition (sand/silt/clay), the amount of organics present, and the compaction of the soil. Soil that will allow water to pass through more easily is said to have higher trafficability.

**Treatment** – The type of treatment on a block refers to the type of site preparation, if any. Some different types of treatment can include various forms of trenching or mounding, or other miscellaneous approaches such as burning or dragging. Treating a block, depending on the method of site preparation used, is expensive for the forester, however, it usually makes it easier for the planter to plant the trees. Of course, because the ground is easier, the planter usually gets paid less for treated ground than he or she would for raw, un-prepped ground.

**Tree** – A woody perennial, usually with a single trunk and growing more than 5m in total height.

**Tree Runner** (aka. Tree Hauler) – Some companies employ tree runners to deliver trees to the planters, rather than leaving this responsibility solely in the hands of the crew leaders or crew bosses. The tree runner will usually have a quad, and will spend the day bringing truckloads of trees from the main cache out to where the trucks park by the block, and then quadding the trees from the truck to the individual planter caches. Making sure that planters never run out of trees should always be the top priority of any crew leader. Unfortunately, crew leaders are often paid by commission, while tree runners are often paid by the hour, or given a daily rate. This can cause problems, because the tree runner may not be as motivated as the crew leader to ensure that the trees are delivered to the planters as quickly as humanly possible. If that is the case, planters who have to wait for trees may get extremely frustrated with the tree runners. Tree runners are sometimes most useful as a backup to crew leaders, especially if they can double as quality checkers during times when tree running is caught up and the planter caches are all well-stocked.

**Tree Vaulting** – See “Vaulting.”

**Trenches** (aka. Furrows) – Trenching is a form of site preparation, in which a trenching machine (perhaps a skidder with the appropriate trenching attachments) goes back and forth over a block, and digs up trenches in the block. The planters then walk up and down each trench, and plant trees either in the exposed dirt, or on upturned humps (high spots), depending on the particular contract specifications. There are several different types of trenching, such as disc-trenching, ripper plow, etc. Each type varies mostly in the way that the trench is made (either by a rip through the ground, or by a blade or disc flipping over a row of sod and dirt). It is always much faster to plant up and down along the trenches (following the trenches), rather than trying to plant across the trenches. Therefore, the skill of a site-prep operator in laying out the trenches in a manner well-suited for planting can make a huge difference in the speed with which a block can be planted.

**Trespass** – To trespass in a general sense means to encroach on someone else's property without their permission. In a forestry sense, if you plant blocks outside of the block boundary, or if a logger harvests timber outside of a block boundary, it's called a trespass.

**Trike** – A trike is a three-wheeled ATV. These things are [hopefully] no longer in commercial use in planting companies, having been replaced by quads in the 1989-1993 period. Trikes are incredibly dangerous because they are unstable and very easy to flip, and in the early 1990's they were the cause of many broken and sprained ankles and other serious injuries.

**True Density** – See "Planting Density."

**Trunk** – See "Stem."

**Tube** – See “Sleeve” (of flagging tape).

**Twig** – A small limb or branch on a tree.

**Two Finger Rule** – The two-finger rule (or one-finger rule, or three-finger rule) refers to the general depth tolerance on a planting contract. Usually, a forester will say something like “you are expected to cover the top of the plug when planting the seedling, and you have a tolerance so that you can plant it a bit deeper by as much as the width of two fingers, before you will get faulted for your tree being too deep.” Of course, the number of fingers depends on the forester or checker, and since everybody’s fingers are slightly different, this is a somewhat arbitrary measure. However, it gives the planter a rough idea of what the checker is looking for.

**Two Stroke Engine** (aka. Two Cycle Engine) – A type of internal combustion engine which complete a power cycle with two strokes (up and down movements) of the piston during only one crankshaft revolution. Two stroke engines often have a high power-to-weight ratio. They usually have a small number of moving parts, so they can be more compact than a four-stroke engine (and lighter). Most two stroke engines require oil to be mixed with the fuel, to lubricate the inside of the piston chamber. Examples of two-stroke engines include chainsaws. A common mix ratio for the fuel/oil mix is 50 parts fuel to 1 part mix oil (an oil which is a different consistency than motor oil, and dyed blue).

**Two Track Driving** – Driving on a gravel road in a manner in which vehicles coming at each other are travelling in exactly the same path (center of the road), and each has to swerve completely in order to pass. It is called “two track” because the tire tracks of both vehicles are on exactly top of each other, except of course when vehicles have to veer to get around each other. Even if the road is narrow, you should move to three-track or four-track when approaching the crest of a hill from either direction.

**Unbundling** – Removing plastic wrappers from bundles while bagging up.

**Underplant** – A type of cut block which retains a large number of mature residual trees that were purposely left standing during the harvest (often to help provide seed throughout the block and thus increase potential natural regeneration). When planters are underplanting this type of block, they’ll often find it to be a lot more shady and cool than a regular open clear-cut.

**Ungulate** – An animal belonging to the orders *Perissodactyla* or *Artiodactyla*, which are comprised of the hoofed animals such as horses, cattle, deer, caribou, moose, swine, and elephants.

**Unit** – One of several possible terms used when identifying a block, ie. “Steve needs to load maps for Unit 04, which his crew may end up moving into later this afternoon.”

**Unplantable Ground** – For ground to be considered unplantable, the checker must not be able to plant an acceptable tree, according to normal contract quality standards. A number of things could cause a specific spot, or general area, to be classified as unplantable. For instance, consistent red rot, or a thick carpet of sticks, might be a good reason not to plant a tree. Most commonly though, I think that wet ground (as defined by ground where the hole made by your shovel immediately fills up

with water) and extreme solid rock would be the two most common reasons for a small area to be considered unplantable. It is fairly common to find a specific spot which is unplantable, but with a little bit of work, the planter can usually find a plantable spot within a few feet. It is very rare to find unplantable areas more than five or ten meters across, except on very nasty blocks.

**Unprepped Ground** – See “Plant As Is” ground.

**Up** – Terminology used to indicate direction of travel on a lot of radio-controlled logging roads. A vehicle heading “up” is assumed to be heading “up the mountain,” ie. away from the mill/town and deeper into the bush. You can also think in terms of the kilometer boards, if the numbers are going up (increasing) then you’re going up the road.

**Unscarified Ground** – See “Plant As Is” ground.

**Vaulting** – A method of sequestering carbon by burying trees (trunks/branches/chips) underground. As the wood decays, the carbon stays locked underground rather than entering the atmosphere. Some companies are starting to look at tree vaulting (of slash and waste wood products) as a way of contributing less to planetary warming than by burning or allowing organics to decompose on the surface.

**Vein** – A thread of thickened tissue in a leaf, very similar to the concept of a vein in a human.

**Vet** – A vet refers to a veteran or experienced planter. Planters are considered to be veterans after they have completed one spring and/or summer season, and return to the field the following year. Some companies, in submitting bid proposals for contracts, promise that they will supply 100% experienced planters, under the assumption that a planter who has spent three days learning to plant on a different contract is then considered to be experienced. That’s shady, but it happens. A first-year planter should be called just that, a first-year planter, for the entire first year that they are planting. Of course, a first-year planter near the end of the summer, with sixty or seventy days of experience, can sometimes be almost as good as any of the true experienced planters in their second or third year.

**Vexar Cones** – Short cones made of plastic or similar materials, which are placed over a tender young seedling to protect it from being eaten by deer and other ungulates. Presumably these cones are biodegradable, and disintegrate after several years once the seedling has established itself and started to grow. Vexar cones are not commonly used in the interior, although they are fairly common on some contracts on the coast of BC.

**Void** – A void is another term for the opening that is created when a “hole” or unplanted area is left on a block. Since there are no trees planted in a specific area, there will be an empty spot or hole in the forest canopy once all the surrounded trees have matured and grown up. The term “hole” is usually used in planting, whereas the term “void” is used in spacing but is slightly different than the

term hole. In spacing, a hole or opening is often acknowledged as a pre-existing spot in the plantation devoid of trees, whereas a void is a hole that has been created accidentally by a worker who has unfortunately cut down too many crop trees in a specific spot, thus creating a void where there used to be trees. Creating a void while spacing is a very bad thing to do.

**Voluntold** – To be “strongly encouraged” to volunteer for a task.

**Walking** (heavy equipment) – To move a piece of heavy equipment to a different location, under its own power (rather than moving it on a low-bed trailer). For example, an operator might tell a logging crew leader, “That feller-buncher isn’t at the top of A87392 now; I walked it down to the lower landing at the end of the day.” The alternative is to “float” the equipment (move it on a trailer).

**Walk-box** – A plastic container attached to a belt that contains a strong nylon string and a counter. If you tie the string to a stick or something stationary, then start walking, the counter on the walk-box will register the number of meters of string that has played out, which therefore tells you how far you have walked. The walk-box is commonly used by checkers and other forestry workers to measure the distance between plots, etc.

**Waste Water** – See “Grey Water.”

**Waterbar** – A type of deactivation that is especially annoying, because often a road will be left fully functional except for the waterbars. Basically, this is a ditch that is dug completely across the road, with the excavated dirt on one side of the ditch (generally the low side). When there is heavy rain or run-off, and a ditch is extremely full on one side of the road, the dug-out waterbars allow the water to flow to the other side of the road without flowing across the surface of the road (which generally washes out large sections of the road). So this way, when the road needs to be brought back into use, the waterbars just need to be filled back in rather than having large sections of the road repaired. Most waterbars are only a foot deep or thereabouts, so a four-wheel drive truck with good clearance can generally get through them (easiest if you come at the waterbar at an angle rather than straight on). But I’ve also seen waterbars that are dug so deep they could swallow an entire truck.

**Water Table** – The sub-surface level below which the ground is saturated with water.

**Water Taxi** – A small boat (often used in coastal planting operations) used to move a crew from their camp or lodging area to a cut-block. In some cases, a water taxi may take planters from a lodging barge to the shore of an island, from which point a truck will carry them to the block.

**West Nile Virus** – A viral disease of varying severity, occurring in Africa, Asia, the Mediterranean, and parts of North America. It is a type of flavivirus which mainly infects birds and mosquitoes. The carriers then transmit the flavivirus to humans and other animals, leading to possible flu-like symptoms (West Nile fever), which may develop into encephalitis and meningitis (with no known

treatment). Some articles have suggested that more than one mosquito in a hundred might eventually become carriers for this disease in Western Canada (a process which could be accelerated by global warming). Knowing how many times that a planter gets bitten by mosquitoes each year, this means almost certain exposure to the disease over the long term. However, the same articles suggest that the people who are most susceptible to the disease are the very young, the old, and the weak. It was estimated that among healthy young tree planters, less than two percent of the population would even notice the symptoms or have any obvious deleterious effects, and that less than one in ten of those people would suffer any serious effects.

**Westing** – In cartography, this refers to a longitudinal grid line.

**Wheel Chocks** – Triangular or wedge-shaped blocks, usually made of wood/plastic/metal/rubber, which are placed on either side of the wheel of an airplane or vehicle to prevent it from rolling. It's always good to chock the wheels of a truck that is parked on any sort of significant slope (put the chocks on the downhill side), for safety. You don't necessarily need to use official chocks – even a solid rock or a piece of log can often work.

**Whip** – Has two definitions. The first is a type of small deciduous tree (of any species), generally between maybe about two and six feet high, very thin, with almost no branches or leaves. For the other type of whip, see the definition for “buggy whip.”

**Wide Spacing** – Trees which, on average, are planted further apart from each other than the target/contract spacing that would be required to hit the desired target density. If a planter is found to be planting higher density than the contract calls for, he/she is asked to “widen out.”

**Widowmaker** – A detached or broken limb or tree top that is hung up in a tree, which could seriously injure or kill a person if the object fell onto someone.

**Wildfire** – An uncontrolled forest fire, brush fire, or grass fire.

**Wildlife Tree** – Any standing dead or live tree which has special characteristics that provide valuable habitat for wildlife (such as internal decay, nesting opportunities, den holes, or being higher than surrounding trees).

**Wildlife Tree Patch** (aka. Retention Patch, Leave Patch) – A stand of mature trees still standing on a cut-block which was not cut during harvesting, which provides a varied ecosystem for animals, birds, and insects.

**Wind Firming** (aka. Tree Topping, Crown Modification) – A treatment whereby the tops of trees along the edge of a cut block are pruned (by an attachment dangling from a helicopter) in order to lower the exposure to winds. This reduces the risk of subsequent windfall or blowdown into the

block. This type of treatment is expensive, and commonly restricted to high value coastal areas rather than to Interior blocks.

**Windfall** – See “Blowdown.”

**Window** – A chronological opening, ie. an interval of time during which certain conditions exist. For example, when doing herbicide spraying, the temperature, humidity, and wind speed must all be within certain parameters. So during any time when all of these conditions are suitable for spraying, the weather window is said to be open (favorable for working).

**Windrow** – A row of slash, usually piled up by machine. This is similar to a slash pile, but in a long strip.

**Windthrow** – See “Blowdown.”

**Winter Weight Tape** – See the “Flagging Tape” definition for more complete information.

**Woodlining Trees** – Planting trees within the block, just inside the woodline/block boundary. You should not plant trees outside of the block boundary, and this definitely does not mean that you should throw bundles into the woodline. That’s stashing. If you stay a good solid 3m off the block edge when you initially plant the block, there will be a bit of room for you to bag out in this very thin strip along the edge of the block when there’s no other room remaining.

**Wrapper Check** – This is a bit of a confusing term, because it’s used as both an action and a place. When a logging truck gets to the bottom of a logging road and is about to start travelling on the highway, it will stop first and the driver will perform a number of safety checks, including checking to see if the cables or straps (the “wrappers”) across the top of the load are fastened securely. There is often a pullout area at the start of each logging road which is called the wrapper check, where these safety checks are performed.

**Xylem** – The supporting and water-conducting tissue of vascular plants, consisting primarily of tracheids and vessels. Basically, this is the woody part of a plant or tree.

**Yarder** – A type of logging equipment, most frequently used in areas with steep slopes that conventional machines (such as skidders) aren’t able to work on safely. The yarder is similar to a giant mechanized clothesline. The yarder parks on the road, and the other end of the clothesline is attached to a strong anchor point on the far woodline. Workers on a ground crew on the block will attach chokers (short cables) from the yarder’s lead cable to a log/tree on the ground, and the yarder operator then reels in the lead to pull the log across the block and out to the machine.