Chapter 07 - "Health"

In this chapter, I'm going to focus on Health within the reforestation industry. Topics that will be covered include nutrition, fitness, personal protective equipment, physical illness, mental health, ergonomics, and other topics.

In many industries, the two separate topics of Health and Safety are often lumped together. Although they're usually given lip service as being of the utmost priority, that's unfortunately not always the case. Whether the fault lies more with corporate culture or with individual workers is always an interesting debate.

In the Silviculture industry, a significant portion of the workforce is relatively young and inexperienced, and our workplace has more subtle hazards than most factory floors. We'll get to those shortly, in the next section about Safety.

Health and Safety are very much related on some levels. Both of them ultimately affect a worker's well-being. The main difference is that Health is mostly concerned with practices that minimize negative effects from injuries or illnesses that develop over long time periods, whereas Safety focuses on injuries that can occur quite quickly and sometimes unexpectedly.

Staying healthy throughout the season has a huge impact on your productivity and your earnings. The best way to stay healthy involves a simple series of four basic steps: (1) Eat well; (2) Stay hydrated; (3) Get lots of sleep at night; and (4) Minimize alcohol and partying. Going to bed early on a night off isn't as much fun as staying up and partying, but your bank account will be much healthier at the end of the season. Don't go to bed early every night off, though. Relax and socialize a bit too!

Some workers might be reviewing this material for the first time just a day or two before their first season begins. If that's the case, it's too late to do much about preparatory nutrition or fitness. However, these are topics that are still important during the season, and you should think about nutrition and fitness when preparing for future planting seasons. Let's cover nutrition first.

Nutrition

Nutrition concerns the selection and consumption of foods that impact the growth, repair, and maintenance of our bodies. What we eat has a direct and immediate effect on how we feel and how well our bodies perform. The wrong foods lead to a weakened immune system, slow mental and physical processes, and slower healing. The right foods ensure that you have the energy for good health and productive planting. They help with recovery so you can plant hard again the next day, and they aid in the building and repairing of tissues. What you eat and how you eat it is critical in providing an optimal energy flow to your body, which translates directly to more money in your bank accounts.

Humans need two types of nutrients. Macronutrients includes carbohydrates, proteins, and fats. Micronutrients include vitamins and minerals. Let's look at macronutrients first.

Figure 7.01
Eat Healthy.

Don't snack on foods that are full of bad sugars and empty calories. Make sure that every meal has a healthy mix of proteins, fats, and carbohydrates.

Complex carbohydrates offer a slow and sustained source of energy. They take about an hour to digest, depending on how full your stomach is. Some examples are whole-meal breads and pastas, beans, and root vegetables. Complex carbs are the most important energy source for planters. You can also eat simple carbs, such as those found in most sugary foods. These give quick boosts of energy but often end in a sugar crash. Carbohydrates are essential to maintaining concentration & coordination, and in supporting your immune system.

Figure 7.02
Carbohydrates.

Here are some examples of foods which contain healthy carbohydrates. A few others that I could have included would be whole grain breads, bran, and pumpkin seeds.

Proteins are another source of energy, but they're also used to repair muscle and connective tissue. When combined with carbs, proteins will slow down your digestion and provide a slower, steady release of energy. Proteins take a couple hours to digest. Examples include meat, fish, eggs, dairy products, nuts, tofu, dried beans, and lentils.

I did some analysis in my own camp during the period from 2008 to 2016 and discovered a statistical correlation which suggested that most vegans and vegetarians had lower productivity than planters who were on an omnivorous diet (by about 6%). Was this due to lower protein levels? I don't know. If you're on a vegetarian or vegan diet, try to load up with lots of lentils, beans, chick peas, and nuts, to maximize your protein.

Figure 7.03
Proteins.

Here are some examples of foods which contain healthy proteins. Another good source of protein that isn't pictured here would be tofu.

Fats are also useful, especially if the delay before you need their energy is significant. Fats slow down the digestion of other foods, and take about three hours to digest. Essential fatty acids are critical for the tissue repair needed every day after planting. You can find them in oily fish, canola, nuts, and seeds.

Figure 7.04
Fats.

Here are some examples of foods which contain healthy fats.

In addition to carbs, proteins, and fats, some foods contain fiber (which is actually a type of carbohydrate). Fiber, also known as roughage, isn't digested by your body. While most carbs are broken down into sugars, fiber is not, and it passes through you, relatively intact. There are soluble and insoluble fibers. Soluble fibers dissolve in water. They are found in beans, peas, apples, citrus fruits, coats, and barley. Insoluble fibers assist in the movement of material through your digestive system, and include green beans, potatoes, nuts, beans, cauliflower, and whole-wheat flower. Foods

containing high amounts of fiber are good for people who are watching their weight. High fiber foods are usually more filling than low fiber foods, so you'll stay satisfied longer before having hunger pangs. They are also less energy-dense, which means that they have fewer calories for the same volume of food. Despite this, tree planters don't need to try to avoid foods that are high in fiber. Such foods usually also contain good carbs or protein, so they're still healthy. Also, having lots of fiber in your diet helps regulate your bowel movements, and has proven to be helpful in reducing inflammation (as has turmeric).

When planning your meals and snacks, don't just focus on what you feel like eating. Make sure you have a mix of proteins and carbohydrates and some fats with each meal, and also when you're snacking throughout the day. This seems like a lot to think about, but it's quite simple. Mix it up. On a positive note, you'll be so hungry that you'll be eating practically everything in sight, so you should have no problems getting something from each of the three critical macronutrient categories.

The importance of micronutrients shouldn't be overlooked. The main micronutrients are vitamins and minerals. There are thirteen essential vitamins that the human body needs to function properly. These thirteen vitamins are A, B1, B2, B3, B5, B6, B7, B9, B12, C, D, E, and K. Four of these vitamins are fat soluble, and therefore are stored in the body's fatty tissues (A, D, E, and K). The other nine vitamins are all water soluble, and therefore they must be replenished more regularly because they are lost from your body when you urinate. Minerals are also important micronutrients. Three of the main minerals that your body needs are calcium, iron, and zinc.

As a first-time tree planter, be aware that you'll lose weight. In fact, you'll lose a *lot* of weight, especially in June and July when you start to get faster and work harder. Even if losing a few pounds was one of your goals for the planting season, don't try to watch your weight when you start planting. Planters that try to restrict their food intake usually make less money and get sick more frequently. But of course, there are exceptions to every rule. If you want to restrict your intake of sugary foods, that's fine. But trust me, you shouldn't hold back when it comes to large, healthy meals. You'll lose weight no matter what, but with large meals containing a good mix of carbs and proteins, it'll happen in a healthy manner.

Figure 7.05
Eat To Maintain Weight.

No matter what you do, you'll lose weight during a planting season. Make sure you eat as much as possible to reduce your weight loss. A bit of weight loss is usually fine, but too much weight loss can be very unhealthy. You'll need as much energy as possible.

Water/Hydration

Even though I mentioned food first, water is the most essential nutrient. Without it, the body can't function properly, and performance is drastically reduced. Dehydration can make you light-headed and more likely to injure yourself. It also leads to muscle fatigue, reduced coordination, and muscle cramps. While planting, dehydration compromises the body's ability to cool itself through sweating. This leads to heat exhaustion and, in extreme cases, heat stroke. I've had severe heat exhaustion twice, and in both cases, I felt like death for several days.

You must consume water regularly to replace lost fluids. The recommendation is half a litre every hour, at a minimum, even on cool spring days. In other words, you should be going through a full four-litre jug every planting day. If it's a hot, dry day, you'll find it easier to force that much water into your system, and in fact, you might easily double that amount per day. Luckily, you also get a fair amount of fluid in your foods.

Figure 7.06
Drink Lots Of Water.

Make sure that you drink more water than you even feel like drinking. Even if you're not thirsty, your body can probably benefit from more water.

Drinking four to eight litres or even more in a day sounds like a lot. It is, but it isn't. You won't feel like drinking that much, especially on cool or rainy days. It'll make you pee a lot. It'll turn the contents of your intestines and bowels into things that I don't want to describe here, and you'll quickly get used to "using the facilities" in your planting area. However, drinking at least that much water is healthy, and it's necessary.

Figure 7.07
Water Is As Important As Your Planting Gear.

Don't leave home without it.

Drinking small amounts of water frequently is the most efficient way to absorb water into the bloodstream. When you come back to your cache after a run, you may not feel like drinking half a litre or an entire litre all at once, and your stomach may hate you if you try. I like to bring a couple of four-litre jugs that I keep at my cache, and then carry two smaller water bottles in my planting bags. I fill the small bottles every time I'm back at the cache, then while I'm out planting, I can take a quick fifteen second pause every ten or fifteen minutes to drink half of one of the small bottles. Metal water bottles are generally recommended over plastic, because they're easier to disinfect and better with respect to environmental considerations.

Figure 7.08
Topping Up A Small Water Bottle.

You can use your four-litre to keep topping up a smaller water bottle that you carry with you on the block.

Water containing electrolytes (salts & sugars, powdered juices or Gatorades, or other sports drinks) can be useful, but don't overdo it. The pre-mixed liquid sports drinks sold in stores have much higher concentrations than they should for the volumes of water involved. If you're mixing your own, mix it to about a third of the strength of store-bought pre-mix. A tiny bit of flavor is an indication that it's strong enough; it doesn't have to taste like sweetened juice.

Alcohol, Drugs, & Tobacco

Alcohol, taken even in small amounts, dulls your judgment, slows your reflexes, reduces your coordination, and increases your fatigue. That's why it's categorized as a depressant. All of these effects will have a negative impact on your planting, and you'll earn less money. Many drugs have the same effect.

It only takes an average-sized person about an hour or so to metabolize an ounce and a half of alcohol, or a can of beer, to the point where its intoxicating effects have worn off. However, it takes about three times as long before the full subtle metabolic effects are worn off. If you drink a full case of beer, you'll be looking at roughly thirty-six hours before you're back to normal, even if you don't feel hungover. During that time, your body is not getting proper rest, nor are your tissues healing as effectively as they could be.

Don't get me wrong - I'm not against alcohol. I've worked for years in the off-seasons as a bar manager and a bartender, and personally, I'm quite fond of alcohol. However, the planting industry

has changed quite a bit over the past few decades. At the same time, our Canadian culture has slowly cut back on alcohol consumption, and people have realized that there's a time and a place for it. Many people will have a few drinks on the night before a day off, and if that's something that you want to do, I see nothing wrong with it. Just don't overdo it, and try to stay away from any alcohol at all on a work night. It'll just mess up your sleep.

Stay away from caffeine or stronger stimulants. A can of Pepsi or an energy drink might seem like a good idea to give you a burst of energy – trust me, I've tried them many times. But you'll probably soon find that the crash as they wear off negates any benefits that you got from the burst of energy in the first place.

Figure 7.09
Energy Drinks.

I wouldn't judge someone for having the occasional energy drink, perhaps once or twice per week. However, the long-term effects of energy drinks are questionable, and a reliance on them during planting season is unquestionably unhealthy.

Also, caffeine stays in the system for about twelve hours, so an energy drink in the afternoon will reduce the effectiveness of your sleep in the evening. And finally, caffeine and other stimulants increase the amount of water lost in your urine. In the long term, any kind of stimulant often has more of a negative effect than a positive one.

Figure 7.10
Other Stimulants.

Over-the-counter stimulants, energy supplements, and weight loss pills are also a bad idea for your long term health. Many highly successful planters work through their entire season without any stimulants.

As far as smoking goes, it should go without saying that everybody reading this, including the smokers, knows just how unhealthy it is to be a smoker. Unfortunately, planting has a way of turning some people into smokers, and it's a habit that many of them come to hate later in life. My only suggestion, if you're just starting to plant and you're not a smoker now, is to resist any temptation to get started in the first place. You only have one body and one set of lungs.

Now that marijuana has been legalized in Canada, people can smoke it with less concern of being stigmatized. Arguably, pot is probably a lot less unhealthy than cigarettes. However, if you're stoned, you shouldn't be working. Save it for the evenings and nights off. As with alcohol, impairment while at work is probably not permitted.

Also, be careful with cigarettes. Some planters are woefully careless with their butts. I'm aware of three wildfires that were allegedly started in 2024 by planters' cigarettes (at three different companies). It's only a matter of time before a planter and their company are both [separately] subjected to an "administrative determination" by a provincial government, which states that you are liable for reimbursement of wildfire suppression costs. Both the employee and the employer can be found separately liable for such an incident, and the cost-recovery amounts would almost certainly bankrupt both the employee and the company.

Incidentally, a tree planter at Bugbusters inadvertently started a wildfire on a planting block near Prince George in 1992, from a discarded cigarette butt. The BC Ministry of Forests sued the company and ultimately, Bugbusters lost. This led to the company's bankruptcy. This was a landmark case, which partly led to the strict Wildfire Act regulations that are in place today, and which also led to the establishment of the legal concept of "Strict Liability." The concept of Strict Liability has reverberated massively over the years, including the ubiquitous modern need for due diligence, and the solidification of vicarious liability of the company. Administrative determinations are a direct result of this case. I cannot emphasize strongly enough that you do not want to start a wildfire, yet it can happen very easily when people are smoking on the blocks.

Although I'm not aware of any employers who implement drug testing internally, some Clients that planting companies work for will require drug testing. There are two types of drug tests: Pre-employment screening, and post-incident testing. For pre-employment screening, you will have to undergo a mandatory test in order to be certified as having been completely drug and alcohol-free (at the time of testing). This certification usually has to have taken place within 30 days prior to the start of commencing work for the Client. Other clients don't bother with pre-employment screening, but if there is an incident on a work site and the Client suspects that drugs or alcohol were involved, the Client will ask you to submit to a post-incident test. If you are found to have drugs or alcohol in your system at this time, your employment will presumably be terminated. If you refuse to submit to a post-incident test, you will not be allowed to continue your employment on that worksite. I haven't heard much recently about drug testing in the broader industry, but it's quite common for reforestation projects in the oil & gas sector.

Fitness & Avoiding Injuries

Being fit is a smart idea going into a planting season. You don't necessarily have to have full-scale daily workouts for half a year before the season starts. To be honest, no type of workout can truly mimic what your body will experience when you start planting. However, maintaining a minimum

level of regular activity, especially in the four weeks leading up to the start of a season, can have a huge positive effect. The smartest planters will prepare for their season in advance with some sort of regular activity program, such as the eight week "Fit To Plant" program that you can find online.

Trying to include most of the information from the "Fit To Plant" program in this book would be impossible. It's a very comprehensive program designed by Delia Roberts of Selkirk College, which has been proven to be quite successful in bringing people up to a high level of fitness in preparation for a season of planting. Planters who have followed this program in experimental situations have been proven to be significantly more productive during their seasons, which means more money in the bank. I can't recommend this program strongly enough. It can be found online, it's free, and it's a great way to tailor a simple fitness program to some activities that can specifically develop parts of your body that are used most intensely during planting activities. Even if you're just learning about "Fit To Plant" now and your season is only a few days away, make a note to look into it next year, and to follow it for the two months before you start planting again. It's well worth the time invested.

If you can't find the motivation to follow a direct training program such as the Fit To Plant program, find a similar activity that you enjoy. Running, racing, biking, rock-climbing, yoga, and dancing are all good substitutes. Just be active. Anything at all that gets you moving for an hour or two per day will help set you up for success. Couch potatoes do not make good tree planters.

Figure 7.11
Being Fit.

Even if you don't have time to research and prepare for your season using the highly recommended "Fit To Plant" program, a basic level of physical conditioning is helpful. Jogging and hiking are two simple ways to help partially prepare you for a planting season.

Kerri Dunsmore (a former tree planter and current professional athletic therapist) also has an excellent paid program online, which I think is well worth the cost:
www.replant.ca/kdathletictherapy

MSI's, RSI's, and Tendonitis

Musculoskeletal Injuries are also known as MSI's. They include sprains, strains, and tears, and they're a huge problem in the planting industry, sometimes preventing planters from being able to plant for several days or even longer. Common problems include back injuries, knee problems, and especially tendonitis in the hands or wrists. Some are also referred to as Repetitive Strain Injuries, or RSI's.

Most MSI's can be avoided, to a large extent, through overall fitness. This includes long-term strengthening and stretching, short term warming-up, the use of rest strategies, and by using movements that minimize the potential for contributing to issues.

One ten-year analysis of tree planting injuries done by WorkSafe BC gave the following breakdown of reported lost-time injuries:

26% Arms, wrists, hands, and fingers
27% Backs, chests, hips, shoulders, and trunks
33% Legs, ankles, feet, and toes
14% Everything else

However, this is an older study, and I suspect it was biased because a lot of times, if someone gets tendonitis and misses a couple days, it probably doesn't get reported to WorkSafe very often. If I had to guess, I'd bet that if a planter misses a day of work due to some sort of short-term or long-term injury, the odds are probably greater than 50/50 that it's directly related to tendonitis or an MSI. On a positive note, this number is dropping slowly, probably thanks mainly to a company called Total Physio (mentioned below).

Aside from pre-season training, here are some suggestions to minimize MSI's:

- Eat healthy, and sleep well.
- Stretch before planting.
- If you find that a particular part of your body seems to getting aggravated, see if you can adjust your technique (perhaps by switching planting hands).
- If you notice any of the initial signs of injury, such as swelling, tendon soreness, or creaking tendons, slow down or rest for the remainder of the day, in the hopes of avoiding a greater amount of long-term downtime.
- Make sure your bags are adjusted properly, and your shovel techniques are appropriate.
- If you're a first-year planter, don't try to keep up with experienced planters. Be realistic. Experienced planters have learned subtle techniques that allow their bodies to move gracefully with a minimum of aggravation.
- In the longer term, you should strongly consider learning how to plant ambidextrously.

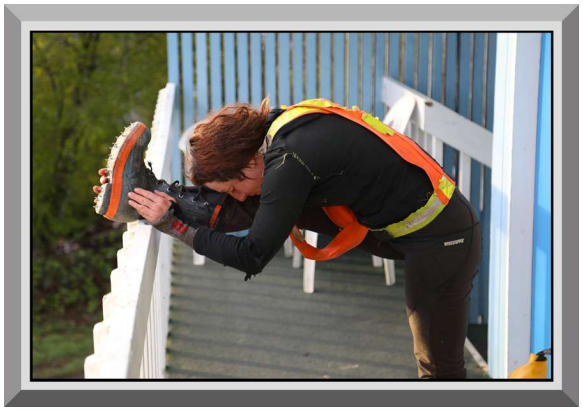

Figure 7.12
Stretching.

A bit of stretching before heading to work can help prepare your body for a hard day of work.

Some MSI's can be caught early, and managed with tape, tensor bandages, or braces, restricting the movement of the affected part and possibly preventing more significant injuries. Taping with athletic tape can ease some of the tension and stress placed on ligaments by limiting the amount of stretching they can do, and preventing tears. However, there are two slight problems with these treatments. The primary issue is that first aid kit contents as recommended by WorkSafe BC do not include athletic tape, for the simple reason that taping is a preventative measure, not a treatment of an injury that has already occurred. Secondly, first aid attendants are not taught how to tape people during their regular training, and need to seek additional specialized training to learn how to do performance taping. Since they're not skilled at doing these treatments properly, they can be quite ineffective. Even worse, they can give a planter a false sense of security, which leads the planter to keep pushing hard and injure themselves more significantly.

Figure 7.13
Preventative Taping.

Preventative taping can now be performed properly by many people, thanks to the resources that a company called Total Physio has provided. Incidentally, the tape that is best used for this type of taping is a breathable sports tape such as Leukotape.

Total Physio, a company based out of Houston BC, made some important discoveries in 2017 which drastically decreased several forms of tendonitis that affected many planters. Data from 2018 and onward has confirmed the effectiveness of these preventative actions. Thankfully, Total Physio has already provided resources to the community which teach people how to tape themselves properly. These training guides about proper taping techniques have been a game-changer for some people. For more information, visit: www.replant.ca/tendonitis

Figure 7.14
Total Physio Training Seminar.

The work that Total Physio has done for our industry has been a game-changer for many people. They do a lot of camp visits each season, and planters really benefit from the work that they've done.

Here are a few tips to help you prevent tendonitis:

- Stay hydrated! A hydrated body has far better lubrication for your tendons. There's a direct correlation.
- Learn to plant ambi, which allows you to move some stresses away to the opposite side of your body.
- A wrist brace can be a useful preventative tool for the first couple shifts of the season, as is proper taping.
- Keeping your hands/wrists/forearms warm is very important. Don't wear t-shirts on cold days at the start of the season. Find some sort of clothing to keep your forearms warm. I've seen planters cut the toes out of the bottom of a pair of wool socks and wear those as a tube on their forearms for the first couple shifts of the season.
- Using a C-Cut to open holes will allegedly aggravate tendonitis. Don't do C-Cuts.
- Wear mittens (not gloves) to bed on cold nights, to ensure better circulation to your fingers and hands.

Ambidextrous Planting

I'll talk more in another section about ambidextrous planting, but I'd like to mention it again quickly right now. You should practice the constant use of both hands and feet by trying to learn ambidextrous planting, which means planting using both sides of your body equally. Your trainers may mention this option, but nobody will ever force you to become an ambidextrous planter. It's something you have to learn on your own initiative, and it's something you really need to try to learn from the beginning, when you first start planting. Ambidextrous planting might seem like a waste of time. It's not. If you learn to plant "ambi," you'll significantly reduce the strain on certain parts of your body. Ambidextrous planting is a great way to reduce the risk of getting MSI's. Some companies have been reluctant to encourage ambidextrous planting because they were initially concerned about higher minimum-wage top-up during the training period. However, many of these companies have come to realize that the long-term benefits of higher production and less long-term downtime make it smart to support this type of training.

If you're already an experienced planter, and you wish that you had learned to plant ambi, it's not too late. What I recommend is that you learn gradually. As a vet, you don't want to waste a lot of time learning ambi planting, because it cuts into your daily earnings. And yes, when you're already experienced, it does take a couple days to learn to plant "backwards." But it's still possible. I suggest that you plant the first two bundles of every single bag-up with your shovel in your non-dominant hand, ie. "backwards." After all, the first thirty trees of each bag-up are usually quite slow anyway, due to the weight in your bags, and getting back into a rhythm. Planting just thirty trees this way only slows down your bag-up by a couple of minutes. But after a few weeks of doing this, you'll suddenly realize that ambi planting has become very comfortable, and you sometimes start doing it without thinking. One other tip is to practice doing a few other things around camp with your non-dominant hand, to build coordination. Eating with your "wrong" hand is a great example.

Figure 7.15
Ambidextrous Planting.

Nothing is better for your long-term health while planting than learning to plant ambidextrously. But no, you don't use two shovels at the same time.
Photo Credit: Andrew Ulmer.

Ergonomics is the practice of designing equipment that fits a person's body properly, to minimize potential for injury. We'll talk about this in the planting gear video tutorial.

Personal Protective Equipment

Personal Protective Equipment is often referred to as your PPE. Remember this. Write it down. You'll probably be asked about this by a safety auditor someday.

PPE is any type of equipment or clothing that protects a worker from a short-term or long-term hazard. Some types of PPE that relate to short-term safety will be discussed in the next section. Some types of PPE are more applicable to long-term health, especially in terms of clothing.

Clothing is your main barrier against the elements. It keeps you dry, provides warmth on cold days, protects you from the sun, and offers some protection from insects. Wise clothing choices can also minimize MSI's by keeping key muscles warm. If you're ever asked what PPE you have available to you, you can start by listing some of your clothing!

Figure 7.16
Protect Yourself From Bad Weather.

A good raincoat and other clothing helps to protect you from the elements.

Rain gear protects you from getting too wet and cold, thus minimizes your risks of hypothermia. Gloves have become a staple in the industry in the past five or ten years as better materials have led to the development of thinner, stronger gloves that are perfect for planters. Gloves can keep your

hands warm on days when you're planting in cold, wet ground. They can also protect you from chemical exposure, cuts, infections, and they even provide a level of padding from your shovel. Long pants and long sleeves can protect you from sunburn, cold, insects, and cuts. Stay away from cotton unless the weather is guaranteed to stay warm all day. A combination of wool and polypropylene is recommended for warmth and breathability. Many people wear two layers of socks to prevent blisters, with a polypropylene inner layer and wool or bama socks over top. Other people use what's called a compression sock, similar to what some high-performance athletes and long-distance runners wear. Also, make sure that you always carry raingear and some extra dry clothing in your day-bag, even on days when it doesn't look like it's going to rain. Being comfortable is a big part of being productive, and the weather in the BC mountains can sometimes change drastically in the space of as little as twenty minutes.

Figure 7.17
Different Types of Rain Gear.

There are many different types of rain gear available. Planters haven't really settled on any one standard.

Footwear should be selected that minimizes foot and ankle injuries, slips and falls, and blisters. Getting good boots is a critical investment. You'll probably want to work them in gradually during the couple weeks before the season starts. There are all kinds of choices, and choosing what's best depends on your personal situation. Some people wear leather work boots. Some people go for old army boots from a surplus store, if you can find them. Some people wear rain boots, which are great in wet conditions, although they can be a bit heavier than other boots. Some people wear caulk boots (pronounced "cork"), which are chain-saw boots with steel spikes on the bottom to ensure you have more stable footing on slopes or wet slash. Caulks are great, although they're often a bit heavier. Some people bring two pairs of boots, so they have a choice for different conditions, or a dry pair if one pair gets soaked. There are lots of online discussions in tree planting forums about what experienced planters recommend as the best type of boot to buy, and many conflicting opinions. I'd recommend that you look up some online forums if you want advice, or check with your crew leader. At a minimum, you should show up with waterproof boots that provide ankle support. Some people try to save money when it comes to buying boots, but investing in high quality footwear will pay off many times over throughout your season. Learn more at: www.replant.ca/boots

Figure 7.18
Caulk Boots.

Boots with caulks (metal spikes) are common in some parts of western Canada, especially on coastal blocks and steeper technical ground in mountainous parts of BC. However, they're not necessary in all parts of BC, and rarely used throughout the rest of Canada.

Planters don't wear sunglasses, even on the brightest of days. Sunglasses get sweaty and dirty quite quickly. It's very difficult to see into a shaded planting hole if you're wearing sunglasses.

Minimizing the Risk of Illness

The last thing you want to do is get sick while planting, knowing that you're losing a couple hundred dollars every day that you're in your tent. In addition, viruses or bacteria can spread through a crew or camp like wildfire, putting an entire contract at risk. I've been in two camps where over 90% of the planters suddenly contracted an unknown flu or other disease (probably a norovirus) over the course of a single shift, and most of them missed a day or more of work. A disease outbreak can be demoralizing, can mess up schedules and put additional pressure on staff and the other planters, and can have serious health implications. That's not even considering the misery of spending two days shivering in a damp tent while you're alternating between rounds of vomiting and diarrhea.

There are eight simple ways to have a very significant impact on reducing the spread of a major outbreak. Pay close attention to these, because these are really important:

- Wash your hands frequently around camp, especially before and after meals, and in particular after using the outhouses. Incidentally, outhouses in every camp should have liquid antibacterial sanitizer bottles, or even better, a hand-wash station (which is more effective than hand sanitizer). Ask for them if your camp doesn't have them. Your cooks and supervisor should recognize the value of proper hand washing. This is the by far the most important recommendation to prevent the spread of diseases throughout camp.

Figure 7.19
Handwashing.

Tubs of hot water and disinfectant can be useful to allow planters to wash their hands. However, a system that provides hot running water is much better than wash basins.

Figure 7.20
Hand Sanitizer.

It's important to have hand sanitizer available outside the outhouses. If you notice someone coming out of the outhouses without using hand sanitizer, don't be hesitant to remind them that it will help them (and others) from getting sick.

- Try to wear reasonably clean clothes, since bacteria collects in fabric. Try to have enough work clothes that you can change into clean clothes every day. If you don't have enough, go to Value Village or the Salvation Army on your next day off.
- Shower regularly. This also cuts down on infections from cuts on your arms or legs. You can also sweat more effectively if you're not covered with a layer of dirt.

Figure 7.21
Shower Regularly.

Your camp should have a system which allows workers to have hot showers on a daily basis. Take advantage of this, at least once every couple of days. Regular showers help minimize the chance of all types of infections.

Figure 7.22
A Muddy Planter.

You'll inevitably get dirty while planting, so a good hot shower can feel great.

- Try not to share water bottles on the block, or alcohol containers on the night off. Don't justify it by saying, "The alcohol will kill the germs!" Just mix a drink for yourself, instead of drinking directly out of the bottle. The crew that drinks together sometimes vomits together.
- Don't drink out of streams, ponds, or other non-potable water. Non-potable water can contain parasites and other nasty biologicals. Your company should provide plenty of safe, potable water.
- After using the outhouse, put the lid down on the toilet seat. Not only does it reduce the smell, it also reduces the risk of flies going down the hole and then landing on another person, transmitting fecal bacteria between employees. If you work for a company that doesn't have proper outhouses or lids on the toilet seats, consider switching companies. Proper sanitation is critical when it comes to minimizing the risk of illness transmission.

Figure 7.23
Potable Water.

Potable water is water that has been designated as clean and biologically safe to drink. Your company is required to ensure that you have a plentiful supply of potable water at all times. Potable (safe) water can be used in your pots.

- Strive for cleanliness in food serving areas. Be respectful around the lunch table, and use the serving utensils provided, rather than picking up food with your hands. If you see someone else using their fingers while making lunch, tell them to use the utensils provided.

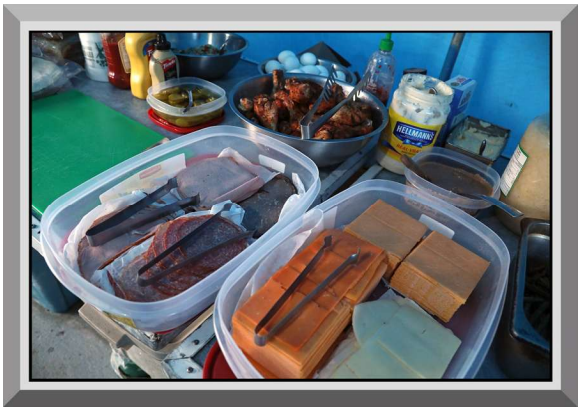

Figure 7.24
Use Tongs to Pick Up Food.

If you're in a camp, it's important that the lunch table doesn't become a source of disease transmission. One of the best ways to ensure this, aside from regular handwashing and sanitizing, is to provide tongs and make sure that people use them.

- Trucks are vectors of disease. Don't leave dirty clothing in the crew trucks. Try to help ensure that the trucks are kept as clean as possible. If you become a driver at some point in your career, wash the inside of your truck regularly. If you're sick, don't go to work if there's a risk that you'll infect the rest of your crew on the drive to the block.

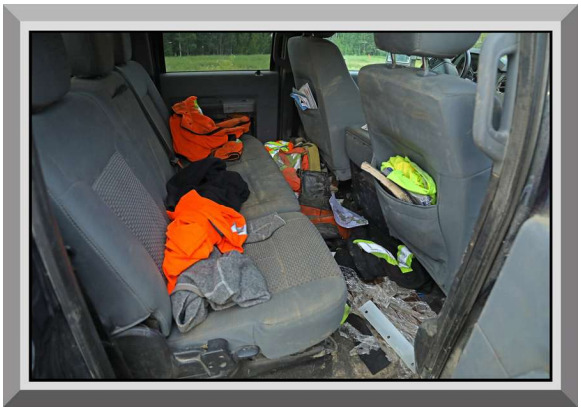

Figure 7.25
Trucks are Vectors of Disease.

Keep the insides of the crew trucks clean, and free of unnecessary garbage, equipment, and clothing. The mess in the back seat of this truck is entirely unnecessary.

Food poisoning is also a risk. Camp cooks are required to have regularly updated food safety training. However, many planters have unsafe personal habits that would make a food safety inspector cringe. Bacteria (or the toxins produced by bacteria) start to multiply more quickly after as little as four hours, if food is kept above four degrees Celsius. If you happen to like to load your sandwiches/wraps with chicken or mayo or other high-risk ingredients, try to eat that stuff by late morning on hot days. Save the safer parts of your lunch (trail mix, fruits) for the afternoons.

Opioids & Other Drugs

Marijuana is legal to use in Canada. Most companies have three rules: (1) Treat it like alcohol, and don't drive while stoned; (2) Treat it like cigarettes and don't smoke anywhere you're not allowed to smoke cigarettes; and
(3) Smoking in camp after work is fine, but don't be impaired at work.

Magic Mushrooms (a type of organic psychedelic) are common in camps. Medical literature, while cautionary, seems to indicate that psilocybin mushrooms are considered one of the least toxic drugs known. Many people report that when dosing in small quantities (especially micro-dosing), negative physical effects or side effects are rare.

Opioids, however, are a major problem in today's society, and their impact has been felt within the planting industry. The opioid crisis started hitting BC and Alberta particularly hard in about 2015-2016. Many people have died in Canada after taking drugs contaminated with opioids including fentanyl or carfentanil, but mortality rates have been much higher on the west coast than in eastern Canada. I knew several people who died of overdoses, including within the planting community. Maybe you don't personally know anyone who has been a victim, but opioids are taking a lot of people. Recently (May 2025), a tree planter died in his tent in a camp in Northern Ontario, allegedly due to an opioid overdose. It wouldn't be hard to imagine a mass casualty event in a planting camp, if opioids are being used.

A bush camp is a poor place to engage in high-risk activities. If you overdose in a remote bush camp, your odds of surviving are significantly reduced, due to the distance from professional medical treatment (and other constraints).

While fentanyl can be obtained illegally on the streets as a standalone drug, the main problem is that it is being used to contaminate or cut various other common "party drugs," such as cocaine and MDMA. A user may not realize that the "safe" party drug they think they have may also contain fentanyl. Even for people who test their drugs prior to ingestion, concentrations can vary significantly within a batch, and lead to a false sense of security. This mistake can be lethal.

Some people have suggested that Naloxone/Narcan kits can help, and under the right conditions, this is absolutely correct. Unfortunately, a remote planting camp doesn't present the right conditions. I would caution everyone to consider these six limitations:

- **Remote access:** A victim needs to get to professional medical care before the dose of naloxone wears off. At typical distances from remote camps to professional medical facilities, multiple naloxone kits would be needed to get a single victim to the hospital. How many kits should be on site? If you assume a single victim, will you have three kits?
- **Triage:** Often, multiple people take drugs simultaneously. If several people become victims at the same time, there's no way that there will be enough naloxone kits available. What if you have three kits in camp, and five victims? Who gets the kits, and who dies? Who makes that decision? Keep in mind that giving each victim a single kit might just be a waste, because each victim needs multiple kits to make it to a hospital. You might think that you're saving three of five lives, but discover that all five die because you should have saved all three kits for a single victim.
- **Discovery:** Often, if someone is going to pass out, it happens in their tent alone or in the woods. A kit doesn't do any good if the victim is discovered after they've stopped breathing. They might be able to be resuscitated, but that doesn't do any good if their brain

hasn't been receiving oxygen for 2-3 minutes. In that case, they're basically in a coma for the rest of their life. That's what happened with one planter that I knew. He was found while still alive (in town, close to professional medical care), but was eventually taken off life support due to quality of life considerations.

- **Additional First Aid:** A naloxone kit by itself is not enough. You need to also have trained personnel who can continue CPR en route to medical aid, and ideally you also need a supply of oxygen. Planting camps do not carry enough oxygen for a major triage situation, as that is well beyond the scope of WorkSafe requirements. If a victim in a camp is one hour from a hospital, that victim will need three standard oxygen tanks. A fully trained AFA (Advanced First Aid) attendant would find it almost impossible to effectively continue CPR for an hour in a dark vehicle racing to town in the middle of the night, while simultaneously trying to swap oxygen bottles, etc. And if the victim didn't start to receive proper treatment within a couple minutes of collapsing, they're already brain dead.
- **Efficacy:** Kits are supposed to be stored in a temperature range between 15 and 25 degrees. If you bring a kit to camp at the start of the season, it will soon be exposed to sub-zero temperatures that will reduce its effectiveness. It would be unfortunate if someone had a kit on hand and it didn't work to full potential in an overdose situation because the kit had been exposed to low (or high) temperatures and lost some of its effectiveness. This is an issue that is rarely mentioned or understood, but is quite significant. If a camp has naloxone kits, they should ideally be kept in some sort of storage solution that can both generate heat at night and provide cooling in hot weather, to maintain an internal temperature between 15 and 25 degrees. That's easy in civilization, but that's a big challenge in the bush. You need to assume that the efficacy of a kit used in the bush will be lower than that of a fresh kit from a pharmacy.
- **Chemical Structure:** Carfentanil is similar to fentanyl, but has a different chemical structure. It is significantly more potent than fentanyl, and is becoming more common. Naloxone kits have been seen to be mostly ineffective in reversing the effects of a carfentanil overdose, except occasionally when naloxone is administered in much higher concentrations.

It seems that the presence of naloxone kits would likely be more effective in a motel situation than in a remote planting camp. Some planters who choose to engage regularly in high-risk activities may want to consider this. Naloxone kits are able to save lives in some circumstances, but their effectiveness may be significantly reduced in an emergency in the bush. While the presence of naloxone kits is recommended in all cases, be careful that this doesn't create a false sense of security, which may then increase the chance that people will consume potentially tainted drugs and thus increase their overall risk. Educating our community about the limitations of naloxone is critical.

Many people don't think of mushrooms or acid as being risky, but cross-contamination is possible. A supply risk exists, even if that risk is generally lower than with party drugs that come in pill or powder form.

You're not going to be at risk of a fentanyl overdose if you stick to alcohol and pot, or stay sober.

Mental Health

Tree planting can be really stressful and/or depressing. Here are some of the reasons why:

- **Relationships at home**: It can be hard to be away from friends, family, or a significant other for three or four months straight.
- **Isolation**: It's common on planting blocks to be able to see several other planters working a few hundred meters away, but you'll often be working in a piece by yourself. Hopefully you don't get lonely.
- **Boredom**: Planting is tedious and repetitive, especially if you're planting in a piece by yourself. Think of ways to keep yourself mentally amused. Think about how you'll spend the money you're earning.

Figure 7.26
Mental Distractions.

If you're on the block, don't allow yourself to get too focused on things happening elswhere. It's easy to get distracted and lose focus.

- **Remote Living**: You may end up far away from television, internet, and mobile coverage for days or weeks at a time. Bring something to keep yourself amused when you're not planting, like a few thick books, or a tablet full of movies and music.
- **Living Closely with Others**: Living with the same small group of people for several months in an isolated location can be fun. More often though, people can get on each others' nerves. Try to be patient and put yourself in the other person's shoes when conflicts arise. They're dealing with the same problems that you are.
- **Daily Challenges**: They're a part of tree planting – insects, bad weather, heat, mud, exhaustion, aching muscles, scrapes, cuts, blisters, hunger, thirst, and those really annoying birds that dive-bomb you and make a weird screeching noise (probably the Common Nighthawk, if you're curious).

The planting industry generally started to pay more attention to the mental health of the workforce starting around 2020, especially after some presentations at the annual WFCA Conference in February of that year. Coincidentally, Covid first became a problem in the spring of 2020. Many people initially suggested that Covid restrictions led to a severe impact on the collective mental health of the workforce that season. However, it soon became apparent that Covid wasn't the cause of the problems, but rather was the catalyst to help the industry recognize that problems already existed. Recognizing and understanding mental health challenges has become increasingly

important since then, in terms of helping to manage a healthy workforce. It is now becoming increasingly common for persons at all levels of management to receive training in mental health awareness and psychological first aid.

Common Medical Issues

Tree planters suffer from a wide variety of aches and pains and other problems that don't necessarily occur as frequently among the civilian population. Here is a short list of some of those problems, and my personal opinion on each of them. Remember, I'm not a doctor, and I have no formal training in the field of medicine.

Christmas Toe – This is a slang term referring to the fact that you may eventually find that your big toe on one or both feet is going numb, and you can't feel anything. The reason why it is called Christmas Toe is because it often lasts for a few months after the planting season has ended, so you may not start to have any feeling in the toe again until around Christmas. Some hikers and backpackers also seem to suffer from this condition. I don't know what causes this. Is it a form of peripheral neuropathy? Whatever the cause, it does usually go away after a few months.

Bum Chafing – It's common to suffer from chafing on the outside of your hips (from your planting bags rubbing against the skin) or in the crack of your bum (a combination of heat, moisture, and rubbing). As I mention in the equipment list chapter, zinc oxide creams such as Zincofax or Pentaten are good preventative measures, while a cream such as Lanacane does the same thing but also has a topical anesthetic.

Arms Falling Asleep at Night – This happens to planters more commonly during the latter half of the season. I also find that the condition worsens for me (in the real world) when I've been doing a lot of work at the gym. I believe that this condition is partly caused by general dehydration. Dehydration also lowers blood volume and blood pressure, hence the tingling/numbness in extremities. I also think that if your bicep muscles become especially strong (increase in mass), they constrict the flood of blood in the main brachial artery that supplies blood to the rest of the arm. Sleeping with your head on your arm further cuts off blood flow. There is nothing that can be done about bicep mass (you gain bicep strength while planting) but keeping hydrated and trying not to sleep on your arms should partially mitigate this problem.

Blisters – You will probably get blisters. They occur most commonly on the hands and feet. For blisters on your feet, the best solutions are to keep your feet as dry as possible, switch into dry socks, wear better socks (moisture wicking, not cotton), and if necessary, consult with your crew leader about your boots to see if they're the problem. If the boots are the problem, you may be able to tie them differently to change pressure points, or you may be able to wear some sort of extra layer of padding. For blisters on the hands/palms, try adjusting the way that you grip your shovel. Most blisters on the hands are caused by people holding their shovel too tight. Sometimes, blisters on the

hand are unavoidable for the first week or two of the season. A lot of people recommend covering blisters with moleskin. Moleskin is a thin but heavy cotton fabric, which is soft on one side but with an adhesive backing on the other. You apply it like a bandage, although it is thicker than traditional bandages. The best way is to cut a large moleskin patch then cut a hole in the middle of the patch. The patch is then applied (with the adhesive to the skin) so the hole in the patch is on top of the blister. This way, there is no direct pressure to keep aggravating the blister, but the thick moleskin around the blister prevents whatever it is that was rubbing on the blister area from exerting as much pressure. If you don't have moleskin, a lot of planters will just put a piece of duct tape on the area being aggravated as a stop-gap measure. The duct tape solution is often partially effective.

Sore Lower Back – My understanding of sore backs, based upon a great deal of personal experience, is that there can be two separate causes for a sore back. The first is that you may have a pinched nerve (radiculopathy), when a nerve gets compressed by nearby vertebrae and becomes inflamed. This results in a moderately sharp pain, especially when you twist your body in certain directions. I find that this condition, and general inflammation, are both resolved by Naproxen (an NSAID, see the toiletries and medical section of the Equipment chapter). The other cause is general muscle soreness, which is caused by exertion (this is very common at the start of a season). I find that this condition is relieved by a muscle relaxant such as Robaxacet. I also find that sore lower back muscles are aggravated by cold, because your entire body tends to tense up when it is cold, and this pressure aggravates the sore muscles. The tricky thing about these two separate issues is how to adjust your workstyle to minimize making them worse. For the pinched nerve, further aggravation is bad. If I think that a pinched nerve or inflammation are the problem, I'll usually try to go with lighter bag-ups and perhaps be a bit more cautious in my movements. However, the best cure for sore back muscles is exercise! In that case, although it seems counter-intuitive to push yourself when you have a sore back, I prefer to just keep planting. A few days later, my back muscles are generally much stronger, and the pain goes away.

I'm sure that there are many additional common problems that should be added to this section. If you can think of any, email me at scooter@replant.ca and I'll include them in the 2027 edition.

Modified Work Duty

Some companies have "modified work duty" programs, also referred to as light duties or alternative duties.

When a planter is injured at work, there may be an opportunity for WorkSafe to start a claim. This allows the employee to have any treatment costs covered, and to be compensated for any lost time relating to the incident. The role of WorkSafe is to improve workplace safety, and to support injured workers.

When a WorkSafe claim is approved, the employer will eventually bear some of the costs of the claim. This is typically done by WorkSafe adjusting the company's "contribution rate" in the following year. Every employer, regardless of province, contributes a "payroll tax" into their provincial WorkSafe program. This varies by province and by company (based upon each company's previous claims history) and usually runs from as low as 2.5% to as high as 6.5%. This is a massive expense. At the high end, this is another $65,000 in costs for every million dollars in payroll. Companies want to have fewer claims, to keep their WorkSafe rate low and to keep expenses down. Planters should want to help minimize unnecessary expenses, because that leaves more money that can be put into higher tree prices.

The best way to reduce the number of claims is to have a strong safety program, with buy-in from employees. Another good way is to offer a modified work program. When a worker's claim affects the company's rate, the majority of this impact is from lost time, not from the medical/treatment costs. A company can reduce the impact of lost time by offering an injured employee some type of paid work that keeps them on the payroll. Of course, the employer cannot force the employee to perform work that aggravates the injury. If someone breaks their arm, they can't be expected to unload heavy tree boxes from a reefer. But they could presumably walk around a block and help check tree quality, and be paid for this modified work duty. When suitable alternative duties can be found, everybody wins: WorkSafe doesn't have to get involved, the company avoids future higher payroll taxes, and most importantly, the worker continues to make money. Incidentally, employees are allowed to voluntarily decline offers of modified work duty if they'd prefer to just take a day or two off work without pay (but that also means that WorkSafe won't pay you for lost time). You can't be forced to work if you'd prefer to take unpaid time off.

Modified work duty (and WorkSafe claims) are only for work-related injuries. If you twist an ankle playing soccer on a day off, or tear a tendon in your knee while rock climbing on a day off, you'll just need to take a few days off work to heal. I've seen a lot of day-off injuries that result in lost time from work. It's probably smart to avoid high-risk activities on days off, in favour of rest and relaxation.

Seeking Medical Advice

If you think you're going to need to go to the hospital or a walk-in clinic, and it isn't for something acute, think about the timing and logistics. If you seek medical advice late in the day, and have to wait several hours to be seen, you may end up being discharged late in the evening. This can be problematic, if camp isn't nearby and you need to do a long drive back after dark, arriving late at night. This is even more difficult if you aren't a designated driver, and someone else from camp is waiting for you to be discharged, so they can chauffeur you home late at night.

I've seen situations where someone knew that they should go to a clinic to get something such as an infected finger looked at, but they decided to do their laundry first when arriving to town. Then lunch. Then a few hours at the rec center. Then finally deciding to go to the walk-in at 4 in the

afternoon, resulting in an entire truckload of co-workers being stuck waiting in town until 10:30pm. That's not fun for you, or for your co-workers.

Obviously, if you need to seek medical assistance, sometimes there's no discretion in the timing. When you need assistance, you need it, and your company should facilitate that regardless of how inconvenient it is. Consider the impact upon yourself too, not just upon your co-workers. It's never fun to return to a dark camp late at night, realizing that you need to get up in a few hours to go planting again.

Many planting companies now pay for services which allow planters to do video consultations with companies such as Total Physio, without ever having to leave camp. In situations where the injury or aggravation is suited to advice from this type of professional, this can be a much more effective solution than going to see a GP at a walk-in clinic or outpatients department, who just wants to push you out the door as quickly as possible so they can move on to the next patient.

For more photo and video resources associated with this chapter of the book, including links to tendonitis information and other resources, visit:
www.replant.ca/training/health