

## Chapter 05 - “Planting Equipment”

In this chapter, we're going to talk about Planting Equipment. You'll need planting bags to carry your seedlings comfortably and efficiently. You'll need a shovel to plant the trees. On some contracts, you may need silvicool inserts to protect the trees on hot days. And finally, you'll need a plot cord to measure your own density, to keep your efforts on track. The chapter after this one will talk about camping equipment, clothing, and non-planting essentials.

### Planting Bags

Your planting bags are your personal planting gear. You'll use them every day until they start to rot and fall apart, although the smart planters buy newer bags before that point, to maximize comfort. It still amazes me that some people will try to save \$120 by using a tattered old set of bags, held together with rope and duct tape, instead of buying a new set with good straps and comfortable padding. You're going to be wearing your bags for probably 600 or 700 hours in a season. That's not much more than twenty cents an hour if you use them for a single season, or ten cents an hour if you use them for two seasons. To me, it makes sense to spend a some money to be more comfortable. You can also buy new padding if you don't want to invest in an entirely new set of bags! Don't be scared to invest a bit of money in your personal comfort. You'll happily spend lots of money to make your tent more comfortable. You can do the same with equipment that you'll be wearing for hundreds of hours.



**Figure 5.01**

Planter With New Planting Bags.

*New bags are comfortable. After a year or two, the shoulder and waist straps on an older set of bags don't offer much padding. If you get a new set of bags, make sure you put your name on them (clearly) so other people can see who owns them. And decorate them.*



**Figure 5.02**

Old Planting Bags, Ready For Retirement.

*An old set of bags like this should probably be retired, or at the very least get some major repairs. If the straps are starting to lose their cushion, it's possible to buy new shoulder and/or waist straps without having to buy an entirely new set of bags.*

Planting bags usually have three pouches fastened to a waist strap. The waist strap should have a piece of padding on it, to cushion the weight of the bags on your hips. There's a plastic buckle on the front of the bags to strap yourself in and to prevent the bags from shifting and sliding around. They also have a set of shoulder straps, to help redistribute some of the weight and take it off your hips. These "three-baggers" are the traditional type of planting bags used by the majority of new planters.



**Figure 5.03**

Three-Bagger Planting Bags.

*Three baggers are the bags are very common within BC, and almost universal throughout the rest of Canada.*

It's also possible to buy a set of bags with four pouches instead of just three. These are usually called "four-baggers" instead of "three-baggers." There are advantages and disadvantages to getting four-baggers. They distribute the weight around your waist somewhat more evenly, so they're slightly more comfortable. The extra pouch sometimes makes it easier to carry extra gear with you, such as raincoats, or extra trees. However, they also weigh a tiny bit more than three-baggers. Not much more, just a few ounces, but every ounce counts when you're strapping on a full load of trees. Four-baggers are more expensive, probably by an extra \$30 or so. Four-baggers used to be virtually unknown in the Interior for many years, although a very large percentage of coastal planters have always used them because they're especially handy when planting multiple species. In the past couple of years, more Interior planters have discovered that they can be quite convenient. I find that four-baggers are quite a bit more comfortable than three-baggers, and since your side pouches are slightly more "forward" than with three-baggers, you don't have to reach as far back to your side to grab seedlings. I think these features are well worth carrying a slight bit of extra weight. I definitely prefer to use four-baggers.



**Figure 5.04**  
Four-Bagger Planting Bags.

*These bags are very useful when planting multiple species, and even though they're slightly heavier and more expensive than three-baggers, a lot of people find them to be very comfortable. They're used fairly commonly throughout BC.*

Make sure that all the buckles are adjusted properly when you get your bags. Many first-year planters assume that they're set up properly by the manufacturer. However, everyone's body is different. The waist strap can obviously be adjusted in size. Also, there are four buckles attached to the shoulder straps, two on the front and two on the back, which you should play with. Make sure everything fits fairly snugly, with no loose or floppy straps. Make sure the left and right straps are even on both the front and the back. If you have problems with your waist buckle popping open when you bend over, which may start to happen more frequently after you've had the bags for quite a while, you can buy replacement plastic buckles. I recommend that everyone buy a spare plastic buckle for the season, since a spare only costs about six dollars. Amazon also sells a similar buckle for backpacks, for even less, which you can find by doing a google search for "2 inch buckle side release" and, knowing Amazon, you can probably find a package of four buckles for \$10 plus shipping. The male side is the prongs and the female side is the receiver. You can also go to a junk yard and buy an old seat belt buckle to replace the buckle that comes with the bags.



**Figure 5.05**  
Adjust Your Bags to Fit Your Body.

*You'd be amazed at the difference in comfort between a pair of properly adjusted bags, and a set that aren't set up properly.*

It's important right now to talk about your back. You'll get a sore back from planting trees. It's inevitable. Your back muscles are just like any other muscles, and they need a workout to become stronger. After a week or two, once the muscles get a lot stronger, your back won't hurt so much. One of the problems for your back is bending over. You'll be bending over at least a thousand times a day at the start, and several thousand times per day once you get faster. That's a lot of bending for your back. But that's ok, because your back is designed for that. However, your bags can cause a problem. If your shoulder straps are adjusted properly and they fit snugly on your body when you stand up, they can put extra strain on your back when you bend over. Also, as you're walking

around, if there's a lot of weight on your shoulder straps, this weight will act unevenly on your spine as you move. That makes your lower back sore.

There's a solution. You can really tighten up your waist belt, and put a lot more weight on your hips. Loosen your shoulder straps a bit, which takes some of the pressure off your upper body. The drawback with doing this is that your upper legs have to work a lot harder. Your legs will become sore, instead of your back. It's basically a balancing act. You can put all the pressure on your hips and legs if you want, by not wearing shoulder straps at all. You can put a lot of pressure on your upper body, which gives a bit of relief to your upper legs. Or you can do a mix of both, so neither part of your body is taking all the workload. Obviously, no matter what, your legs still have to carry all the weight, regardless of how you have things set up. It just feels heavier on your legs if you have no weight on your shoulder straps. If you're getting a sore lower back when you start planting, don't worry, that's normal. But if it's really bothering you, get rid of the shoulder straps right away and see if your back starts to feel better after a couple days. Incidentally, in many cases, the best remedy for a sore back is more exercise, especially if the soreness is caused solely by tight muscles that are getting a new workout.



**Figure 5.06**  
Be Prepared for a Sore Back.

*It's common to have a sore back while planting. Usually, the worst time is the first few weeks of the season. Exercise is actually quite good for a sore back, and as your back gets stronger, the problem will dissipate.*

As you bend over with a load of trees, there isn't usually a lot of strain on your back from the weight in your side bags. However, any weight in your back bag on a three-bagger needs to be lifted more when you bend over. For this reason, you should really try to avoid putting much weight in your back bag if you're having back issues. Four baggers are a bit better on the back, because each of the two back bags are offset, instead of putting all the weight in the center of your back. It is also beneficial to have weight in the bags distributed evenly. If you bag up with a full box of trees, half on the left side and half on the right side of your bags, don't just plant one entire side then the other. The weight will be too lopsided if you do this, and that's hard on your body. Either learn to plant ambi so you can draw from both sides roughly equally, or stop for a few seconds to manually redistribute the weight as soon as you've planted enough to throw the weight distribution off balance.



**Figure 5.07**  
Planting Without Straps Helps Your Back.

*If your back is really sore, try loosening up your shoulder straps, or planting without them.*

Women have different body shapes than males. For women, the breasts usually get in the way of the shoulder straps a bit more. There's an upper cross-strap on your bags that goes across your chest. Most women leave this very loose, or don't use it at all, in order to keep their shoulder straps from rubbing against their chest so much. Do whatever is most comfortable for you. Also, although some women have less upper body strength than the average male, which may make shovel screefing a bit more of a challenge, many women naturally have stronger upper legs than guys. It all balances out. Some people suggest that if you do a lot of shovel screefing, you might find shoulder straps to be slightly restrictive.

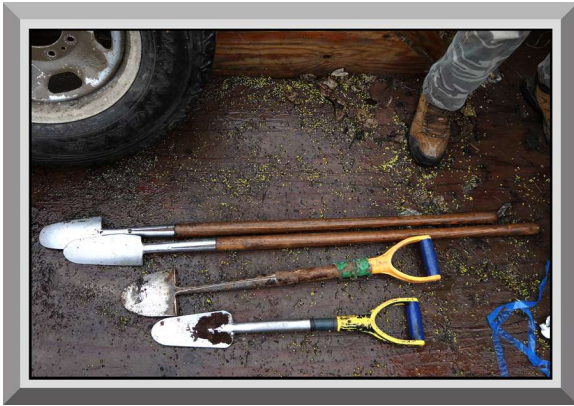


**Figure 5.08**  
Many People Plant Without Shoulder Straps.

*It's especially common for women to plant without shoulder straps, both because their breasts get irritated, and also because they have stronger legs and hips that are better able to carry the weight.*

## Your Shovel

Shovels come in a variety of styles, lengths, and weights. When it comes to choosing a shovel, you essentially have two choices, what's called a D-Handle or what's called a Staff handle.



**Figure 5.09**  
Assorted Shovels.

*The top two shovels are staff shovels, and the bottom two are D-handles.*

A staff handle is essentially a straight handle. This used to be a common shovel in Ontario, although planters in Ontario have mainly switched to using D-Handle shovels. A staff shovel is taller and therefore heavier than a D-Handle. There are a few minor advantages to staff handles. The length gives you a bit more leverage when trying to wiggle the shovel blade into rocky ground. It may be used as a walking stick for better balance on difficult ground. Also, its design means that it reduces the impact to the wrist and arms, especially on rocky sites or compact soils.



**Figure 5.10**  
Planter Using a Staff Shovel.

*There is no inherent speed advantage (or disadvantage) with using a staff shovel instead of a D-handle.*

However, even though the staff handle offers advantages to the wrist and arms in rocky ground, those advantages may be more than offset by the strain of the additional weight of the shovel compared to a D-Handle. The D-Handle is short and lighter, therefore, carrying it around all day causes less strain on the arm. It's slightly easier when doing helicopter work, because the handle can be clipped through the belt buckle on your planting bags, to make sure it doesn't fall out of a sling. Also, with the proper tools, the shovel length can still be adjusted quite easily. You'll find that about 99% of planters in BC use D-Handle shovels.



**Figure 5.11**  
D-Handle Shovel.

*This type of shovel is used by the vast majority of planters in the industry. Technically, it's a type of spade, but let's not get hung up by that.*

There's another type of shovel called the "Ergonomic D-Handle" which has a slanted handle, shaped differently than the traditional D-Handle. Although this shovel handle should be more effective than a regular D-Handle at minimizing potential MSI's, very few planters seem to use this type of handle. In addition, there's one major problem with this type of shovel: I always recommend that new planters learn to plant ambidextrously, and that isn't possible with the Ergonomic D-Handle.



**Figure 5.12**  
Ergonomic D-Handle, or Ergo-D.

*While this type of shovel handle may be anatomically superior to a regular D-handle, very few people use them. If you're going to learn to become an ambidextrous planter, you can't use an Ergo-D handle.*

Once you've picked your style, you can look at the length and weight of the shovel. Many planters say that lighter is better, while others suggest that a bit of extra weight can help increase the momentum required to drive the shovel into hard ground. Some people remove the kicker from one side of their shovel to save a few extra grams of weight. I personally don't see a huge benefit in this, and sometimes it's nice to have both of your kickers available, but you can make that decision on your own. If you want to learn to plant ambidextrously, you definitely shouldn't remove either of the kickers. BushPro sells shovels with kickers intact, and also has options where the left or right kicker is already removed at the factory. I recommend that first-year planters buy shovels with both kickers.



**Figure 5.13**  
Shovel With One Kicker.

*This shovel has the kicker shaved off. If you're cutting it off just to save a few grams of weight, it probably won't make much of a difference.*

If you shorten the shaft, that will save a few ounces of weight. Make sure that you have the proper wood saw or hacksaw blade for the job. Modern BushPro shovels have gone back to wooden shafts, although for a while, metal and fibreglass were options. Most camp supervisors should have all the tools required to take a shovel apart to shorten it. Don't cut too much off at once! Cut a couple inches and try it out for a few days. You can always cut more off later if you think it's still too long, but if you cut too much off the first time, you can't lengthen it! Not everybody shortens their shovel.

I highly, highly recommend to first year planters that they shouldn't shorten their shovel very much until they've been planting for at least three days. After you've planted for at least a shift or two, ask a couple of the vets if you can try their shovels out for a few minutes around camp, so you can get a feel for different lengths. And as mentioned, don't cut it too short when you start to reduce the length.



**Figure 5.14**  
Shortening a Shovel with Metal Shaft.

*It's important that you don't cut too much off the first time. You can always shorten your shovel in several increments, a few days at a time. This shovel is an older one with a metal shaft, which requires a hacksaw to cut.*

Your crew leader and your trainer can show you more in person, and can perhaps let you try holding a couple of different shovels. When you go to buy gear, your crew leader will probably accompany you to make sure you get the right items.



**Figure 5.15**  
More Shovel Adjustments.

*With the modern BushPro shovels, the wooden shaft makes it very quick and easy to do a repair. All that you need is a cross-cut saw for wood, plus a Robertson screwdriver (or a drill with a Robertson bit).*

BushPro currently produces two types of D-Handles, which are distinguished by the blades. One is called the Hiballer blade, and one is the Speed Spade. The shafts and handles of these shovels are equivalent, so it's only the blade that differs. The Hiballer blade is slightly wider (and heavier) than the Speed Spade. But which is better?

I'd have to reach out to BushPro to find out which blade sells best, but my guess is that the Speed Spade is slightly more popular. People who haven't used either probably assume that lighter is better. And in some cases, that's correct. But every tool has a use, so let's look at where each type works best.

The Speed Spade seems to be better for more compact ground (stiff ground), and also for blocks that are rooty or rocky. The Speed Spade is easier to wiggle into tight spaces, and to force into clay soils.

The Hiballer seems to be good for just about everything else. It's great for bigger plugs, and for effectively making a larger hole. The slightly heavier weight can be an advantage in some types of ground, especially for planters who know how to use gravity in conjunction with their arm muscles. The Hiballer can work well in sandy ground, soft ground, and wet ground.

One minor drawback with the Hiballer is that it gets to be a bit more annoying to use when it starts to wear down, so you may want to sharpen it occasionally so it doesn't feel so wide, flat, and dull.

First-time planters might be better off going with the Speed Spade when they start planting if they want to minimize their initial physical exertion. A lighter shovel is easier to manoeuvre. Also, the narrow blade is useful when in challenging ground, which is where a first-year planter really struggles with the best way to work the ground effectively. The only drawback is that the Hiballer seems very heavy after starting to learn with a Speed Spade, which effectively shuts the door on later use for a lot of planters.

Perhaps the solution is to buy one of each, as it's always handy to have a backup shovel in camp? If you go that route, alternate each day between the two shovels, so you're completely comfortable with each and know how they handle in different types of ground.

One last thing: Tree planting “shovels” are actually spades, not shovels. A shovel is meant for scooping and moving dirt, while a spade is used more for downward movement, ie. digging and edging. In civilian terminology, shovels are normally longer and have a straight handle, while spades are typically shorter with a specialized handle. Tree planters refers to their spades as shovels though, so don't get hung up on that technicality.

## Miscellaneous Planting Gear

You may need silvicool inserts for any bag that you might use to carry trees. You'll want at least two inserts, and I'd recommend three. If you have four-baggers, you don't necessarily need four inserts unless you're positive you're going to carry trees in all four pouches. I usually use one of the four pouches just for things like small water bottles, plot cord, a waterproof pack with anti-histamines, and my raincoat. Of course, an insert can keep these things clean and dry. Inserts are not required on all contracts. Ask your crew leader or trainer for advice.

You need to carry a plot cord. These are cheap, only around fifteen dollars or so, and made out of clothesline. Some people try to save money by making a plot cord out of rope. That usually doesn't work so well. It might disappear from your bags when someone uses it to tie up their tent. Just buy a plot cord. Every planter should carry a plot cord in their bags all the time when you're on the block. Throw several quick plots on yourself to check your density regularly. It takes less than a minute to throw a quick density plot on yourself, and it's a good time investment. I usually throw four to six plots on myself each day when I'm planting, and I've noticed that a lot of the best professional planters on the coast throw plots on themselves quite frequently. It only takes a couple minutes, and I'd rather do that than spend hours replanting. For your first couple weeks, when you're starting out, you'll need to throw a lot more than just four plots on yourself each day.

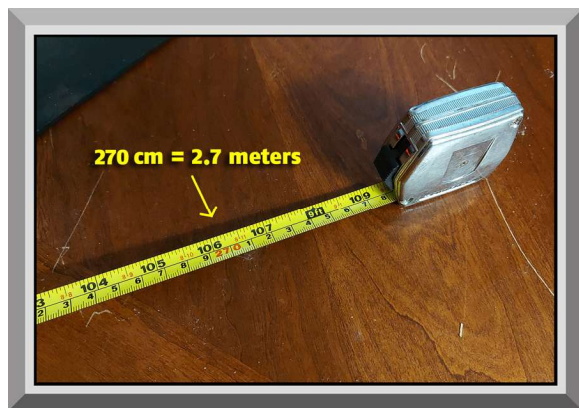


**Figure 5.16**  
Box Full of Plot Cords.

*When you're buying your plot cord, make sure you get the standard planter length of 3.99m. Another common size in western Canada is 5.64m meters, but that's usually used for brush saw work and other types of silviculture activities.*

You should buy a very cheap tape measure. Make sure that it's a metric tape measure, not Imperial, unless you want to mark all the metric conversions on it (not recommended). This tool will be very helpful for your first shift or two, as you're learning spacing. It only needs to be able to extend out to about 4 meters, so don't look for anything fancy. I even use a tape measure occasionally to check a couple trees on my first bag-up of the day, despite having planted for a few decades. It's a quick and

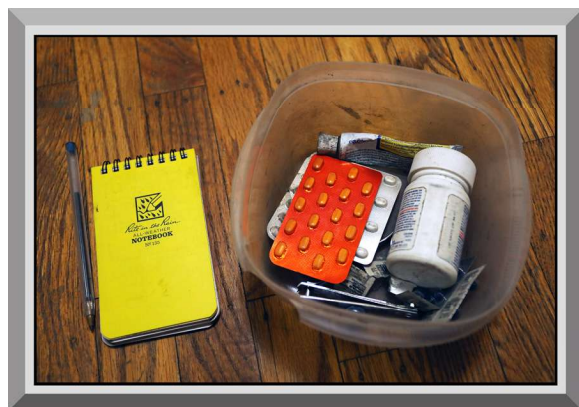
easy way to calibrate your exact spacing. This is especially helpful if the prescribed density has changed from your last block.



**Figure 5.17**  
Metric Tape Measure.

*A tape measure lets you really be certain about distances during the first few weeks of learning. Some vets even carry them for an occasional self-check. Make sure you get one that includes metric measurements. Some backwards companies in Ontario still use feet, not metric.*

You can buy a small water-proof tally book which costs very little. The cool thing about this is that you can write on it in the rain with a pencil. The paper in it is waterproof paper, often called "duck back" paper. That's duck, like the bird, not duct, like the tape. A lot of planters carry a small tupperware container in their day bag with their tally book, a few pencils, and anti-histamines and/or painkillers.



**Figure 5.18**  
Tupperware and Tally Book.

*The "Rite In The Rain" brand of notebooks is great, because they use duck-back paper, which is waterproof. You'll need a pencil to write on it if it's wet, not a pen. A small tally book can fit into a relatively small Tupperware container, along with a couple of other small critical items.*

Finally, a cheap wristwatch is a very worthwhile investment. It lets you time your bag-ups, and also lets you know when it's time to head to the trucks. No planter should be without one. You can attach it to your bag straps, if you'd rather not wear it on your wrist.

## Budgeting For Your First Season

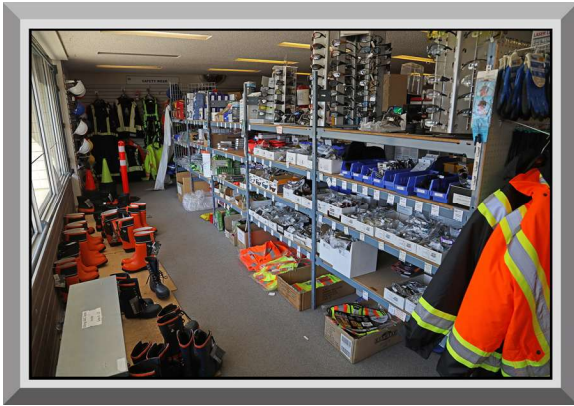
If you're thinking going planting, make sure that you know what you're getting yourself into, both mentally/physically and financially. Let's figure out what you need to budget for your first season. Brace yourself: I'm going to estimate around \$1,500 in total, including camping gear and planting equipment.

In terms of the actual equipment needed to plant, you should be prepared to spend about \$350 altogether (bags, shovel, 3 inserts, plot cord, safety whistle). You should be prepared to spend maybe close to \$700 for a tent, sleeping bag, and rain gear (unless you have all that stuff already). More if you also need a good pair of boots, and some “disposable” work clothing, but you can get that sort of stuff quite cheaply from Value Village. As mentioned, the chapter after this goes into more detail about all the camping gear and clothing that you need to consider.

Here’s an exact price list for gear from IRL in Prince George, as of February 2026 (prices may change before the 2026 season):

- BushPro 3-bagger planting bags, \$141.95
- BushPro 4-bagger planting bags, \$164.95
- Replacement Shoulder Straps, \$27.95
- Replacement Shoulder plus Waist Harness & Padding, \$70.95
- BushPro Hip Pad Doubler, \$27.95
- Replacement Standard Waist Buckle, \$4.67
- Replacement Auto-Lock Waist Buckle, \$5.95
- BushPro Silvicool Sac (Insert), \$19.95
- Pair of Viking Nitri-Dex gloves, any size, \$2.50
- BushPro “Speed Spade” D-Handle Shovel, \$70.95
- BushPro “Highballer Spade” D-Handle Shove, \$70.95
- D-Handle “Traditional” Replacement Handle, various colours, \$11.95
- D-Handle “Comfort” Replacement Handle, various colours, \$11.95
- BushPro Fert Pouch, \$19.95
- 3.99m Plot Cord, \$13.50
- Safety Whistle, \$6.99 for Fox 40 or \$6.95 for equally effective T2000.

IRL is located at 610 Richard Road, Prince George, BC, V2K 4L3. Their hours are 8am-5pm Monday through Friday, and normally closed on weekends. However, for the past few years, they have opened from 9:30am-4pm on Saturdays from mid-April into the planting season, due to the higher traffic to the store. They have a website online. They don’t compensate me for advertising this information; it’s just a convenient place to buy planting gear for people in Prince George. IRL will also ship gear to you, anywhere in Canada, if you pay the shipping costs. You may also find other online retailers that can do the same.



**Figure 5.19**  
IRL, in Prince George.

*Industrial Reproductions Limited, known commonly just as IRL, is the go-to planting equipment supplier in Prince George. You can also order gear with a credit card and have it shipped to you. The shipping charges are probably reasonable.*

You'll probably also want to have a couple hundred dollars in spending cash to keep you solvent on days off in town (food/laundry) until your paycheque arrives, which is usually about two to three weeks after you start planting. Make sure that you work for an employer that follows employment standards regulations, and pays you 100% of your wages in full, every two weeks. Don't work for a company that only hands out advances, or that pays out at the end of a contract, or that says that the first paycheques will be "a bit late." It's not your job to act as a payroll loan program for your employer. You deserve to receive all of your money, on time, regardless of the company and regardless of the province. Some companies will promise new employees that they pay every two weeks, but then mysteriously fail to actually do that once you start working for them. It's a smart idea to do a lot of research about a company before you accept a job. Look for online reviews, and talk to other planters who worked for the company the previous year.

It is highly recommended that you buy a proper emergency whistle. Many people refer to these as "safety whistles." BushPro bags come with a plastic whistle built into the strap. It's a great idea, but it's not effective. Get a proper separate whistle, which only costs about six dollars. IRL sells a brand called the Fox 40 and another called the T2000. Anything similar to those should work. Test it at the start of the season, but don't use it on the block unless it's a legitimate emergency.



**Figure 5.20**  
Emergency Whistle Attached to Bags.

*The orange whistle on the left is the one that is part of the BushPro planting bags. The deep red whistle on the right side above it is a Fox 40, which works far better than the BushPro whistle. There's a similar whistle to the Fox 40 (available at IRL) which is called the T2000.*

Incidentally, planting for just one season is not recommended. You'll learn a lot and be making good money by the end of the summer, but you'll probably just be topped up to minimum wage for the first two to four weeks, and there are all of your start-up expenses to consider. In your second season, you'd be making decent money right from the start, and I've found that second year planters

typically gross at least four or five thousand dollars more in a full season than first-year planters. This is why it really doesn't make sense to just try planting for one season then move on to different work. You need to think about your life plans for the next couple years.

For more photo and video resources associated with this chapter of the book, including a video demonstration of how to adjust and wear your planting bags, visit:

[www.replant.ca/training/plantingequipment](http://www.replant.ca/training/plantingequipment)