Dictionary of Planting Terms, and Acronyms

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Introduction

Are you puzzled by all the strange words you come across while reading about planting? Don't be surprised – there's some pretty arcane terminology in the silviculture field, and a lot of it isn't scientific. Planters have come up with all sorts of words and expressions to communicate planting-related concepts, which have become engrained within the industry over the past few decades. This dictionary should solve some of your questions about terminology, although it is by no means complete. There's a list of common planting-related acronyms at the bottom of this page.

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 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, 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.

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

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 always 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 it from the beginning of your career, although a few experienced planters have managed to learn the skill. 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 (incidentally, people generally develop shoulder problems in their shovel arm, and wrist/forearm tendonitis problems in their tree arm). 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 is to just plant your first bundle of every bag-up with your opposite hand, so you gradually become 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" (effedrine) and "bennies" (benezedrine), or "dexies" (Dexedrine). All three have the tendency to "wake up" and energize the planter. Effedrine 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. Effedrine is 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 aveoli are able to absorb more oxygen. Like caffeine, these drugs can make you feel warm, and jittery. Dexedrine is probably more potent than effedrine 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 two major drawbacks with using stimulants to enhance your planting performance – for one, the drugs only work for a short time, and then 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. A second 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.

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

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 already planted (line planting). These lines do not necessarily have to be straight, as they may curve around quite a bit to follow topography, obstacles, or existing planted seedlings. Anyway, the planter is working and following a line of trees, he or she 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 aspen. Seen from above, the ground may be exposed in a number of odd-shaped squares and triangles, depending on where the aspen 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 trees, to plant that entire small area, so that 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 to sound good, when 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.

Back-Cut (aka. double-shovel) – The back-cut is a move designed to eliminate 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. Most BC Ministry contracts specify that every single tree must be back-cut, although this rarely happens 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 – Short for planting bags. The 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 females forego using the shoulder straps which 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.

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, so 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.

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.

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.

Bear Spray (aka. pepper spray or mace) – A chemical spray which contains oleoresin capscicum at high concentrations. Sort of like a spray of liquidified cayenne pepper, but really hot. Bear spray comes in small pressurized containers that throw a fairly tightly—directed spray 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. The standing joke is that grizzly bear poop often smells like cayenne pepper, ie. they got sprayed then ate the person who sprayed them. Most 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.

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 where the road used to be 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.

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 just plant in the cleared, bladed areas.

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

Blowdown (aka. windfall, windthrow) – Mature trees, as individual trees or groups, that have been knocked over by wind.

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 is bad for the tree, and these foresters are likely to say, "I don't want to see bootmarks beside your trees."

Boot Stomp – To close the 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.

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

Box-end or Boxtop – Many companies use boxtops as a means of verifying tree tallies from the planters. As a planter finishes planting a box of trees, he or she rips the unique box top or box end from the box, and hands this into the foreman at the end of the day as proof that the box was planted. Usually the 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 on the side (the box-end), although a decade ago they often were attached to the top flap. The box end, loosely speaking, often includes the sticker and a unique piece of cardboard to accompany it. Many people try not to rely on just the stickers, because in poor weather, the rain often makes stickers rip off the boxes and disintegrate, therefore, the underlying cardboard with the special marking is more important. A good combination is often to use the pesticide warning flap on the top of the box, plus the sticker when possible.

Bracchie Mounds – A type of 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 a huge donaren mound (mini-mound), 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 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. Maybe the term came from the name of the manufacturer of the heavy equipment used to make the mounds, like donaren mounds? Or maybe Bracchie was a guy that worked as a heavy equipment operator at one of the mills that I planted for. I really don't know. If anyone can shed some light on this, please email me.

Broadcast Burns – In the past in BC, it was common practice 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 of 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 light 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, without being so dry as to present a high risk of starting a forest fire.

Brushing – Brushing is another type of silvicultural activity which involves taking care of the seedlings several years after they are initially planted. Brushers use special saws (kind of like big whipper-snippers, but with a metal blade similar to a skill saw instead of just a piece of plastic cord) to 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 pretty much 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 "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, turning it into a log. Bucking is fairly dangerous work, and many buckers get injured by branches snapping unexpected under pressure while they are being cut.

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

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 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.

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. However, there's no other term in use to indicate "the burned place where there used to be a slash pile," so I guess we'll have to live with this one.

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 sometimes 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 metres 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. Burns are sometimes referred to as burn piles, which makes no real logical sense. A slash pile is a pile of slash, but when it is burned, it is no longer a pile, unless it didn't burn properly. But the phrase "burn pile" certainly has its roots in the fuel source, the slash pile.

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, with a kitchen tent, a mess tent (dining area), first aid tent, shower tents, drying tent (with heaters, for drying wet clothes), and outhouses, 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.

Butt Line – This is a 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, a foreman or checker might flag a line through the middle of the area to cut the 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.

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 foreman 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 foremen 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 foremen 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.

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, these costs are higher, but some of that is covered as overhead costs to the company. 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 such a system 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. 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 opportunity in the interior (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.

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

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 the most 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?"

Chaps – Chaps are a type of chain saw pant, which are pants with special Kevlar webbing that is strong enough to catch and bind up a chain saw, so 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. 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.

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 planters get paid in full. There are various systems of monitoring quality standards, and in almost all of these systems, planters 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 you will get paid for your hard work, but they also act as the enforcement officers, who levy fines against planters 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 foremen 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.

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, Christmas trees probably refer to juvenile conifers, probably between about five and ten years old, that are 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."

Chigger – see "tick."

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 chauffer'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.

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 – "The Claw" 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 feels worst first thing 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 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 textures, and has the highest water holding capacity. Unfortunatately 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 – To pull off to the side of a radio-controlled forestry road.

Clevice – A part on a helicopter net. This is one of the hooks.

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 Interfor, private woodlot owners, municipalities, etc.

Come-Along (aka. 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. Come-along is more of a slang term, and many people just refer to these things as ratchet straps, their proper names. 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.

Cone-Picking – Another form of silviculture work, but one which occurs only sporadically. When a cone-picking contract comes along, 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, and when the chopper sees a tree top that is suitably full of cones, the chopper can cut the top of the tree right off and fly 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 to provide the nursery with enough seed to last for several years.

Company Checker – see "internal checker."

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. Confiders 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 a group of trees which actually shed their needles each winter, so technically they are a conifer but not an evergreen.

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 - 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. Also occasionally called the Target Inter-Tree Distance or "target spacing."

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 pretty rough piece of ground, 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. More commonly though, cream refers to pieces that are good by any standard, at any price.

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 foreman 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 foreman will often make sure 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 really useful if someone's water jug accidentally gets broken though.

Crew Boss (aka. foreman) – 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), 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.

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 a crop tree. These rules are not hard and fast though, and can vary from contract to contract and region to region.

Crown Canopy – see "canopy."

Crown Cover – see "canopy."

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 somewhat 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 identified for cutblocks.

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.

Cycle – Slang used when doing helicopter nets. For example, if a dozen loads of trees need to go into a block, and only three nets are available, 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. As 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.

D-Handle – A type of planting shovel, which is characterized by having a grip at the top of the handle which is sort of in the shape of the letter D facing downward. This is by far the most common type of shovel in Western Canada, although many people (especially in Ontario) also use staff shovels. In 2004, the modified D-handle started to attract a lot of attention, and became commonly available. The modified D-handle is aligned at a tilt, and this ergonomical design is apparently better for the wrist and may reduce the possibility of tendonitis.

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, or 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 their danger rating is based upon an assessment of a very wide number of factors.

Dark Figure – A safety term, referring to the difference between what is reported and what actually occurred.

Deactivation – This is the process of preventing easy access across a road. Mills often deactivate a road, so trucks cannot 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 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. 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.

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).

Decididuous – 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, fruit trees.

Decks – see "log decks."

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

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 with moist sponges to minimize the effects of desiccation on the roots.

Diaper Drop – A specific way of rigging up a heli slingload of trees such that when the helicopter lets go of the sling, instead of completely letting go and leaving 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 without the need to have someone at the drop point to unload the trees and then hook the empty net back onto the long-line.

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 or not a contract should be tendered out for bidding on the open market, or negotiated with a specific planting contractor who will want to provide a higher level of service in return for guaranteed work for a number of years.

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, we planted trenches on blocks that were covered with cows. On that contract, we were asked to put the trees in the bottom of the trenches, because the cows were scared to put their feet down into the trench, and therefore this kept the seedlings from being trampled.

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.

Donaren Mounds – A type of site preparation which creates mounds that are probably the fastest 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 pretty high tallies. The name comes from the manufacturer of the equipment used to make the mounds.

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, photoperiod 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-Shovel – see "back cut."

Down – Terminology used 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. Radio controlled roads seem to be switching to a system of "up" and "down" instead of loaded/empty.

Drag Scarification – Another 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 finer and easier to walk around, and also slightly arranging it 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, whereas the pouch on the other side (the side reserve bag) and the back pouch (the back reserve) should 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 rain falling from the heavens should not be any worse hitting the seedlings than drops fifty feet from the canopy. What is important though 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 drawbag (overstuffing), these trees have a tendency to drop out onto the ground as you are bending over and moving 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, especially at the start of your bag-up, while your 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.

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 a silvery-grey (although many other colors 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. Many planters who don't like wearing gloves (which restrict movement of the fingers in your drawbag) will instead put a few pieces of tape on the tips of their fingers, to minimize cuts and scraping while putting fingers into the ground. Duct tape is also a good general-purpose fixit 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.).

Duff – Duff theoretically 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. If this is the best definition, then you should think of duff as stuff that you could plant in, but you shouldn't, because it just isn't dirt or smearable organic. In this case, duff is usually composed of dry feathery moss or dry humus material, maybe with a bit of surface litter thrown in. Planters are not supposed to 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 suggest 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 silvicultural 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 humus 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.

Dynablast – A brand of propane powered water heater. Some camps may have a propane tank hooked up to a Dynablast unit, then a pump by a river that delivers water to the Dynablast, and the result is warm water for a set of showers.

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

Empty – Terminology used on a lot of radio-controlled logging roads. An "empty" vehicle refers to an empty logging truck, which is assumed to be heading away from the mill/town and further into the bush.

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.

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

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

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 scoop is on the machine. It is hard to plant excavator mounds in any sort of defined pattern, since they are just made 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 usually range between 800 and 2000 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."

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."

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. Usually, a falling corner is marked by a tree that is cut with the stump remaining a couple feet above ground level, then a series of deep notches are cut into the stump, all the way around the stump, so it's obvious and

noticeable. 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."

Farmer's Blow – To blow one's nose without Kleenex, which means that the phlem shoots out onto the ground.

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."

Fen – A type of bog, especially a low-lying area, wholly or partly covered with water and dominated by grasslike plants, grasses, sedges, and reeds.

Fermenting Layer – In the three LFH layers, the fermenting layer is the middle layer. This is 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 or 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. Ferts are generally recommended to 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 and they can be really annoying during rain days once they start to get wet.

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 (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 (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 (which 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.

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 foremen use small strips of this tape to mark locations on the blocks. A two foot long piece of flagging tape tied to a stick 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.

Flip Side – The side of a trench which is created when dirt 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).

Foamie – A foamie is a large sponge mattress that a planter can sleep on. Foamies can come in different thicknesses, say from two to four inches thick. A foamie cannot be rolled up as tight as an inflatable air mattress for transportation, and it is not comfortable when your foamie gets wet because it is, after all, just a big 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 $30.

Foreman – The foreman 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), but are not seen as often nowadays. The foreman 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.

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

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 silvicultural 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 stands for a healthy "preferred" or "acceptable" and well-spaced tree that is at least the minimum height and minimum size relative to competing vegetation within the effective growing space.

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 grow 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.

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

Furrows – see "trenches."

Gardening – Slang used to describe planting techniques which make 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, so even though gardening might seem to be great for an individual tree, in the long term all stakeholders will benefit by seeing "adequate" quality on large numbers of trees 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 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 – Adding data to various types of digital maps that allows the user to see their own position on the map, through the use of mobile apps such as Avenza's PDF Maps.

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

Girdling – A type of silvicultural 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 truck, below the lowest live branch. Since the bark protects the cambium, which is the layer that allows for transfer of nutrients between the leaves and the roots, elimination of the bark will effectively cause the tree to starve to death eventually. Once this happens, it 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, and a few years later, the aspen stand has managed to re-establish itself.

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.

Grapple-Yarder (aka. 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 grapple yarder is kind of like a giant mechanized clothesline. The grapple yarder parks on the road, and the other end of the clothesline is attached to a strong anchor point on the far woodline. Workers will attach grapples (a short cable) from the yarder line to a log on the ground, and the grapple yarder can pull the log across the block and out to the road. To understand better how they work, it might be useful to watch videos on YouTube showing a grapple yarder in action.

Green Trampoline – When a block is first logged, there will be major amounts of branches left lying on the ground. In some cases, equipment will try to clean this mess up somewhat by consolidating it into slash piles, before the planters will go onto the block. More frequently, 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 takes a bit longer for planters to plant it.

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."

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 pretty 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 in 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 "humus layer."

Hammer – The Hammer is a logging tool. It's a special hammer with a stamp on the end, which is often 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, so when the load arrives at the mill, an inspector can tell exactly which region 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, "Loaded from the Hammer," which means that they're pulling away from the hammer location and heading toward the mill.

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.

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. As 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 – 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.

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

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 work hardest and plant big tallies day after day.

Highway Load – A logging truck that is loaded to meet legal weight limits imposed by the Department of Transportation for 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 in excess of legal weight limits (this would be called an "off-road load" or an "off-highway load").

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

Hole – Trees are planted in holes. However, there is another type of hole that planters need to be aware of. When planting a section of 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 imagine 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 everywhere 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.

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.

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 foreman may have to hump some boxes into the block to set up a cache.

Humus Layer – A brown or black material, often moist, which results from decomposition of plant and animal matter, and which 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 humus layer is the bottom of the three layers, and completely decomposed.

Hundred Pounder – A hundred pound propane tank. This term is misleading. A hundred pounder tank, when full, weighs more than a hundred pounds (about 170, according to the internet). A hundred pounder 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. I believe that this means the rated capacity is 125 pounds of propane, and the tank can be filled to 80% of that level or 100 pounds of liquefied propane. However, this is just what the internet says. 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. 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 due to the chaos that is inherent in tree planting, something else goes wrong and so the planters need to be patient after the appointed time before anything can happen. 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.

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 often 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 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.

Inland Cache – A cache that is set up in the middle of the block, in an area with no road access or discernible quad trail.

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 not notice right away – the mountain pine beetle (and to a much lesser extent the spruce beetle) are decimating forests in the Interior region of British Columbia at the present, and ruining thousands of square kilometers of timber.

Insert – see "Silvicool Insert."

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.

J-Roots – When you plant a seedling, the tree will eventually grow to be straight up and down, as it

grows toward the sky. Just as the tree above ground likes to be straight, the central root system should 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 pretty easy to cover the ground quickly and through visual checks be able to fix 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, make it 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 particular dangerous and nasty. This term is sometimes used synonymously with schnarb, although not really in a correct manner.

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.

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.

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.

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."

Koflach – A brand of high-end work boots.

"L" Layer – See "litter layer."

Landslide – Usually just called a "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 pretty dangerous, as it is sort of like an avalanche, except with mud and some 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. If a block has a slide on it, that area is usually planted just like any other part of the block.

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.

Leader (aka. terminal bud) – The top of the stem of a seedling or tree. This is the primary growing point of the tree.

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."

LFH Layers – Three layers of organics on the top of the mineral soil: Litter (completely undecomposed), Fermenting (partially decomposed), and Humus (completely decomposed).

LFH Planting – This type of planting usually means that the planters are supposed to plant THROUGH all three layers of the LFH spectrum. No screefing is required. This type of planting is far less common than FH planting, because it leads to several quality problems. First, without screefing, 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 dessication 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, Weyerhauser, 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.

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 on some of radio-controlled logging roads. A "loaded" vehicle refers to a loaded logging truck, which is assumed to be heading towards the mill/town and away from the bush. Radio controlled roads seem to be switching to a system of "up" and "down" instead of loaded/empty.

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 pretty 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 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 local that meet the crew every morning at 6:45am at the Cardlock".

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 walk around decks in their pieces.

Log Dump (aka. 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, quality, etc., 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 logging region and then the trees are sorted so that some are deciduous going to one mill, others are coniferous being moved to a second mill for saw-logs and lumber, and other coniferous trees are being moved to a third mill to be chipped up and used perhaps for pulp or for heating pellets.

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

Logging Camp – An effectively 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 $80 a 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.

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 break off the tree, 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.

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.

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 – 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.

Microsite – The microsite is the mini ecological environment that the seedling is planted in. When looking at a seedling, you could probably say that its 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, elevation (even a few inches can make a big difference in temperature), etc.

Mill – Short for "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 minimum spacing is 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.

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 contract spacing (not minimum) 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 to 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 – 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 be used 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 – This is a group 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.

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 rational 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.

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 repellant to contain DEET, which led to its overwhelming popularity. Interestingly, the

inventor of Muskol in the 1960's was Charles Coll, who was Scooter's next-door neighbour while growing up in Nova Scotia.

Mustering Point – This is a meeting point, usually referring to a designated area to meet during emergencies. For example, on a block, the primary mustering point is usually the emergency transport vehicle or the foreman'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 foreman's truck has a bear or is on fire, the secondary mustering point might be where the crew meets to decide what to do.

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.

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

No-See-Um (aka. biting midges, punkies, or sand flies) – 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, gnats do not like DEET. These midges are very small flies (about 1/25-1/10) inch long whose small but 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 or wet places 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 important pests along 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.

O-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 by 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 (this is true, believe it or not!). 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 – 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) – A logging truck loaded above the legal weight limit that is permitted on provincial highways.

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 variation, 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. This method of checking allows more tolerance for variable spacing, and is often used to encourage planters to look for the best microsites rather than just trying to achieve very consistent spacing.

Organic Soil – Soil which is made up of very 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 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. Important in areas where equipment operators have regular working-alone check-in procedures for safety purposes, because otherwise if someone 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.

Overhead Obstacle – A piece of slash, plant, tree, rock, or any other item which is positioned above a seedling microsite. These are not good, 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.

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.

Pear Ring – See O-ring.

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.

Personal Protective Equipment – 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 dog-fuckers from hiding in the woods when the rest of the crew is hard at work on a camp move.

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.

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.

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.

Plant-As-Is Ground (aka. raw, unprepped) – 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 1/200th of a hectare. If there are expected to be 1800 trees planted in each hectare, then simple math shows that the average plot should have 1/200th 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.

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. 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 1/200th 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 (1/200th of the target density of 2000 stems/Ha), then 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 the BC MOF 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 1/100th 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 Saskatchewan, a large square area is marked out to determine a plot, in some places.

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 enough to 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 – Seedling grown with root systems encased in a package of dirt, rather than as bare roots. Although these seedlings are usually called plugs in western Canada, they may be referred to as container stock in eastern Canada. See also "container stock."

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.

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 either the foremen and internal checkers, or 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, that makes them take a day off in camp.

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.

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 kind of 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.

Processor – A type of logging equipment that looks sort of like an excavator with a boom on it, and at the end of the boom, there's a special piece of equipment that looks sort of like 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 another piece of equipment that is hard to describe in writing, so to understand better what it looks like and how it functions, you might want to watch a YouTube video.

Pruning – Another form of silvicultural 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).

Quad – A four-wheeled ATV (all-terrain vehicle) that seats one person. Quads are incredibly versatile machines, and are heavily used by foremen to move trees to blocks which are not accessible by road. Although machines made by Polaris and Yamaha are functional, the Honda "Foreman 400/450" series are probably by far the most preferred vehicles in the planting industry.

Quick Thaw – When a nursery pulls over-wintered trees out of cold storage, they normally are 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.

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?"

Ravine – See the definition for "gully."

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

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.

Reccie (aka. reconnaissance, recon) – 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 reccie, before planters and trees are flown in, to make sure there are no surprises that disrupt logistical operations for the day.

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.

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 dessication 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 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 truck unit, without the truck. If you can imagine an eighteen-wheeler transport truck, the reefer is the back container, 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, reefers are 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.

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) – Road that has been reclaimed. Rehabilitation and reclamation are the same thing.

Release (pesticide) – 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 (submit a block) – To release a block means that a foreman 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, giving 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 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 uses in the local broadcast area, same as a normal radio channel works. However, if someone makes a broadcast on the repeater channel, as 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 seedlings from the first planting that may have survived (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.

Reserve – An area in which logging is prohibited, and therefore, no reforestation will be required.

Reserve Bag – For years, every planter knew what a draw-bag referred to, but there was no common term to refer to the pouch that was on the opposite side of your draw-bag, or your back bag. I got annoyed with constantly describing "the bag opposite to your draw-bag" when talking to people, so I decided to give that pouch a name. From now on, the pouch in your planting bags that is not being used as your draw-bag will be called your side reserve bag, or a back reserve bag. Hopefully I can start a trend here. Read it, learn it, live it.

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.

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.

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

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."

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 activites 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.

Rookie (aka. greener) – A first year planter. Rookie seems to be the preferred term in Western Canada, while "greener" is more frequently used in 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.

Root Collar – A tree's root collar is the area 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 underground air pockets and j-roots can be more clearly identified.

Run – A short planting session of perhaps between half an hour and two hours. 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.

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 be pretty thick 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.

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.

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, is one of life's greatest pleasures. It's like planting in soft butter. Sand is very easy to work in, but unfortunately, very rare.

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. 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.

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.

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.

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.

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

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

Shovel – Come on, you must know what a shovel is! 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).

Shutdown – 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. See also "standdown."

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 also quite nice to plant in.

Silvicool Insert (aka. silvicool or silvi) – Most commonly, these are referred to as your "silvies" (almost pronounced "sivvies"). 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 silvies, 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 silvicool 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 silvicultural activities for

an opening/cutblock. Requirements for species selection, density, and timing of reforestation are specified in this document.

Site Prep (aka. Site Preparation) – 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.

Skidder – A large machinery that is used extensively in forestry and logging operations, kind of 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.

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.

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.

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 or not 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 burning the slash doesn't make a lot of ecological sense, I'm happy that the blocks are easier to move around on, even if it does mean that the tree price is slightly reduced.

Slide – This one can have a couple different meanings, so check out "landslide" first. However, a "slide" can also refer to when a planter falls on a steeper block, and sometimes will end up sliding six or eight feet (or more) down the slope of the block. Planters can get scraped up or bruised pretty badly if they're not careful and they fall or slide.

Slip Tank – see "tidy tank."

Slope – Can be used in a couple different ways. A slope (noun) is a way of describing an area of land that isn't flat. This is the most common definition that the public thinks of when they hear the term. However, it's also a mathematical term, describing "the rise over the run" of a hillside. Slopes are often described in degrees or percentage. If in degrees, 0 degrees is flat land and 90 degrees is straight up,

so in the middle, at 45 degrees, the elevation changes at an equal level with a change in location moving up or down the hill. If slope is measured in percentage, it's similar, with 0% being flat land and 100% being straight up. So a 50% slope is equivalent to a 45 degree slope.

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 people find it easier to deal with the roots of the bare-root seedlings when they are wet and stick together, therefore, the damp roots are slightly easier to control and faster to plant than when planting seedlings which have not been slurried.

Snag – see "Danger Tree."

Snow Cache – Snow caches are used fairly rarely. In isolated circumstances, however, they can be useful. A snow cache is used in the spring plant, when 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, and 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 any more, 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. If someone has a picture of snow cache that I could post here, I would appreciate the contribution.

Soup Sandwich – Used to describe a situation or circumstances that are extremely messed up. Similar to saying that something is a "gong show."

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. After several years however, if the tree survives that long, the truck will have become strong enough to withstand the weight of the winter snow, and the trunk 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 – See "log dump."

Space Tarp – See "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, or less probable, because elevated tarps above boxes of trees provide a shaded place for airflow.

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) – 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, thinning, etc. Spacing refers to the process of cutting out some of the crop trees so that 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 in 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) and 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."

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.

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.

Sponges – Some licensees require planters to carry sponges in each of their insert bags. These sponges, which are expected to be kept moist, will theoretically provide moisture for the roots of the trees. Many planters think of sponges as being a big hassle. I personally don't think that sponges are that effective, especially since most contracts feature plug stock rather than bare-roots, but at the same time they don't weigh that much, so I don't see any reason to try to argue the necessity for carrying them. Rather than asking my planters to buy proper kitchen sponges, I usually go to the dump at the start of the season to see if I can find an old chesterfield or armchair that has foam cushions, and just cut up the foam centers of the cushions. Failing that, you can buy a large foamie for about $25 at a sporting goods store, and cut that up to provide sponges for an entire crew.

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 foreman to look at the hole and try to judge visually how much room may be remaining.

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.

Standdown – 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. See also "shutdown."

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.

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 foremen if they think another planter is stashing trees.

Statistical Density – see "plotted density."

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.

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.

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

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.

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. When a planter is having a bad day, he/she might joke that they'd be better off falling intentionally upon one of the suicide sticks and ending their life.

Summer Weight Tape – see "Flagging Tape" for more information.

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

Sweeper – A naturally growing tree that isn't coming straight out of the ground, but rather 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.

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.

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."

Tendonitus – Aka. Tendonitis. A condition referring to inflammation of tendons and of tendon muscle attachments.

Terminal Bud (aka. leader) – The primary growing point at the top of the stem of a plant.

Theoretical Density – see "claimed density."

Thinning – Thinning, properly known as 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.

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, rather than just two or less. So for example, when walking across flat and stable grass, a planter alternates between one-point contact (when one foot is lifted) and two-point contact (when 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.

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 *Hippobosciddae*, which are wingless, louselike insects which are parasitic on sheep, goats, and many other animals.

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. 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.

Tie Point – Before the advent of a lot of mobile technology, checkers used to measure 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.

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.

Tractor Truck – 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, dragging, etc. 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 Runner – Some companies employ tree runners to deliver trees to the planters, rather than leaving this responsibility solely in the hands of the foremen 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 foreman. Unfortunately, foremen 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 foreman 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 foremen, especially if they can double as quality checkers during times when tree running is caught up and the planter caches are all well-stocked.

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 problems.

True Density – see "planting density."

Trunk – see "stem."

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, but it gives the planter a rough idea of what the checker is looking for.

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.

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 (if 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 (aka. plant-as-is or raw ground) – Ground that has not had any site preparation.

Up – Terminology used 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.

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 elsewhere is experienced. I think that's bullshit. 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. I usually refer to new planters as "rookies" during the spring season, and as "first-year planters" during the summer half of their first year, once

they have several weeks of experience.

Vexar Cones – Vexar cones are 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 what 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 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.

Walk-box – A walk-box is 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.

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 level below which the ground is saturated with water.

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 flavirus mainly infecting birds and mosquitoes, transmitted by them to humans and other animals, which causes flu-like symptoms (West Nile fever) which may lead to encephalitis and meningitis, with no known treatment. Unluckily for tree planters, I have read articles that estimate that more than one mosquito in a hundred might eventually become carriers for this disease in Western Canada. 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 article suggests 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.

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.

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

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, in order to allow for a varied ecosystem for animals, birds, and insects.

Windfall – see "Blowdown."

Windrow – A row of slash, usually piled up by machine. Like a slash pile, but in a long strip.

Windthrow – see "Blowdown."

Winter Weight Tape – see "Flagging Tape" for more complete information.

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 – see "Grapple-Yarder."

A List of Common Acronyms

Planters and foremen will often see acronyms that they don't understand immediately. Here's a list of some common ones, what they stand for, and what they mean!

2WD – Two Wheel Drive. Self explanatory.

4WD – Four Wheel Drive. Self explanatory.

4X2 – Four by Two. Two wheel drive.

4X4 – Four by Four. Four wheel drive.

ABC – Airways, Breathing, Circulation. An extremely important checklist in first aid courses.

AFS – Alberta Forest Service. This provincial agency is Alberta's equivalent of the British Columbia Ministry of Forests, although their involvement in reforestation and forest management in Alberta is much less than that of the MOF in BC.

AKA – Also Known As. Used to list synonyms for a word or phrase.

ATOP – At Time Of Planting. Used in sets of instructions sometimes, ie. "This bridge might have been pulled ATOP."

ATV – All-Terrain Vehicle. This is a type of vehicle that is designed for use in areas where roadways may not exist. The most common example of an ATV would be a quad or four-wheeler.

BCFS – British Columbia Forest Service. This is the old name for the Ministry of Forests. I have no idea why it is still being used on a lot of the buildings and trucks around the province. Presumably there is some sort of distinction between this and the MOF, but I haven't found anyone that can explain it to me.

BCTS – British Columbia Timber Sales. This is the name for the branch of the Ministry of Forests that interacts with the public by being in charge of reforestation of land logged by small and medium sized logging contractors. BCTS is in charge of a fairly significant portion of the logging throughout British Columbia.

BMP – Best Management Practices.

CFE – Canadian Forestry Equipment. One of the top suppliers for planting equipment in Edmonton. They carry an extensive line of supplies and equipment specifically for planting, in addition to their general camping and forestry products.

CP – Cut Permit. Every licensee has to get a cutting permit from the provincial government, which gives permission to cut timber within a certain area. In BC, most cut blocks have a specific unique block number which associates with the cutting permit number.

CSA – Canadian Standards Association. This association regulates products sold in Canada, and provincial legislation or WCB regulations often specify that certain types of work equipment must meet certain CSA standards. An example would be Kevlar chain saw pants, because only certain types of pants are deemed acceptable for work use as defined by WCB and the CSA.

CTL – Cut To Length. A type of logging approach where logs are cut into smaller pieces before being shipped to mills, as opposed to full tree-length shipping.

DEET - Diethyl-meta-Toluamide. A chemical compound originally developed (I think) by the U.S. Army, and now commonly used in the most effective insect repellents. All major brands of bug dope (Muskol, Deep Woods Off) use DEET as the main active ingredient, for repellents in both liquid and aerosol spray forms. Interesting trivia: Scooter grew up in Truro, Nova Scotia, living two doors away from Charles Coll, the world-famous inventor of Muskol.

DIPO – Disc, Power On. A type of disc trenching.

DONM – Donaren Mounds. This type of treatment is made by a skidder with donaren mounded attachments. As the skidder drives around the block, a pair of scoops (one behind each rear wheel of the skidder) repeatedly take scoops of dirt out of the ground and flip them over. The planters are then required to put a tree on each of these mounds. Donaren mounds are generally the easiest type of mounds to plant, as they are typically smaller than excavator mounds, and occur in moderately straight parallel rows.

DRSF – Drag (Shark Fin) Scarification. This is a certain type of site treatment whereby a skidder

drives all over a block and drags a large metal drum or rollers (possibly filled with water?) behind it, which crushes most of the debris left behind from logging, and spreads out the cones. Areas that have been dragged are typically replanted at lower densities than normal ground, under the assumption that the cones have been spread out sufficiently to allow for more successful natural regeneration (which will complement the planted seedlings).

EFP – Environmental Field Procedure. Standard operating protocols in the field, with respect to an Environmental Management System.

EMS – Environmental Management System. This is a set of rules and practices that a mill or a planting contractor follows in order to protect the environment while carrying out all work.

ERP – Emergency Response Plan. A document which outlines what is supposed to happen to response to various types of emergency situations. An ERP usually specifies how workers should react (ie. meet at a specific "mustering point" for instructions), who to contact (list of communication numbers), and other specific instructions.

ETA – Estimated Time of Arrival. Used to designate when someone is estimating that something is going to happen (not necessarily "arrive"). For example, you can have an ETA of predicted departure time, or ETA of when a block might be finished.

ETV – Emergency Transport Vehicle. This is the vehicle on a work site that is designated for use in safety situations or emergencies. Presumably, the ETV will contain the first aid equipment and have room to accommodate a stretcher for transportation of seriously injured workers.

EXMD – Excavator Mounds. (Aka. Hoe mounds). This type of treatment occurs when an excavator (construction site slang for a backhoe) digs holes all over a block and dumps the dirt from these holes in piles all over the block. The planters then are required to plant one tree on each mound. Excavator mounds can be fairly large at times, and are commonly found in wetter areas, where minimal disturbance to nearby watercourses is a priority.

FAC – Firearms Acquisition Certificate. In previous years, persons needed to possess a valid FAC in order to be allowed to purchase firearms or ammunition in Canada. With changes to gun laws over the past several years, I am uncertain about the exact status of the FAC system.

FIST – Forest Industry Seedling Transport. This is a large insulated fiberglass storage unit which is mounted on the back of a pickup truck. The purpose of the FIST is to allow for a greater number of boxes to be carried than in an open pickup (perhaps fifty to sixty average sized boxes), and allows for the trees to remain significantly cooler than a wooden box frame

FLNRO (or MoFLNRO) – **Ministry of Forests, Lands, and Natural Resource Operations.** Formerly the MOF. Someday, they'll decide to stick with an acronym for more than five or six years.

FMA – Forest Management Agreement. A Forest Management Agreement (FMA) is an area-based agreement between the Province [of Alberta] and a company that gives the company the rights to establish, grow, harvest and remove timber from a particular area of land. Like Timber Quotas, these agreements are also granted for 20-year periods with options for renewal. Forest Management Agreements require the company to be very involved in all aspects of forest management. Unlike Timber quotas or timber permits, Forest Management Agreements require long-term forest management planning and public consultation by the companies. The FMA holder takes the lead in planning and works with any quota holder or permit holder within their FMA. In return for an FMA, companies take on

greater responsibility and accountability for forest management planning. The government approves the companies' management plans. Under FMAs, there is no transfer of land ownership to a private company.

FN – First Nations. Self explanatory.

FNB – Felled & Bucked. Trees that have been cut down and had their branches removed.

FRPA – Forest Range & Practices Act. Legislates forestry-related practices in BC.

FRPR – Forest Planning and Practices Regulation. Specific regulations, part of the FRPA.

FS 704 – Forest Standard 704. This is the BC Ministry of Forests form which is used to record and calculate planting quality. Checkers will record their plots in books of FS 704's.

FTG – 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 grow to maturity by themselves.

GPS – Global Positioning System. The global positioning system is a series of satellites that transmit data to handheld GPS units, which allow a person to know their exact position (latitude and longitude) anywhere on earth, within a couple metres of accuracy. Blocks are often "GPS'd" which means their size is measured by these units, giving a very accurate description of how large the area is.

HNC – Hole Not Closed. An abbreviation used by checkers to indicate one of two types of air pocket faults, when the hole that the planter placed the seedling in was not completely kicked shut, and therefore the seedling's roots are still exposed to air.

IRL – Industrial Reproductions Limited. One of the main suppliers for planting and forestry equipment in Prince George, located near the bridge on the Hart Highway heading north from town.

ISO – International Standards Organization. This international body has a whole bunch of different sets of standards for governments, corporations, and different entities. Each standard is basically a set of rules or guidelines or targets. If an organization meets that standard, than someone else can be assured that the organization complies with the rules or targets outlined. Basically, it's a way to measure an entity's quality in certain ways. There are certain ISO standards (identified by number) which are common in different industries. For example, a forestry company or mill might boast that it complies with the "ISO 14000" or "ISO 9001" standard. Look it up online for more information.

LFH – Litter, Fungus, Humus. This stands for the layers of organic material that general exist on the forest floor, from the surface (litter) down to the humus, which is the layer generally found on top of the underlying mineral soil or rock.

LTA – Lost Time Accident. An accident or incident that causes an employee to miss productive time from work.

MD – Municipal District. Often used when describing certain types of communities.

MEC – Mountain Equipment Co-Op. This chain of outdoor clothing and equipment stores is a good source for camping supplies. Their popularity is based upon the quality of the goods that they sell, at a reasonable price and with excellent customer service. Most knowledgeable planters highly prefer MEC

to other places like Eddie Bauer and Land's End for outdoor clothing.

MFZ – Machine Free Zone. Heavy equipment is not allowed in these areas. Frequently used in sensitive environments, ie. alongside creeks, etc.

MITD – Minimum Inter-Tree Distance. This is the minimum spacing permitted on a contract. Often might be 1.0m, 1.5m, 1.6m, or 2.0m, but can also be other distances.

MOF – Ministry of Forests (British Columbia). This provincial agency regulates licensees throughout the province, and also is responsible for overseeing a fair amount of reforestation contracts in the province.

MOTT – Mounding, Terra Trencher. I think this is a specific type of mounding site prep, sort of like donaren mounding, but I'm not positive.

MPB – Mountain Pine Beetle. A pest which has caused billions of dollars of damage to pine stands throughout western Canada. The pine beetle has been around for centuries, but did not usually cause a big impact on stands in BC and Alberta. However, after about 2000, the MPB population exploded throughout BC, and wiped out a large percentage of pine stands. The problem is migrating eastward into Alberta with about a five to ten year lag time since it really became a problem in BC. Many mills have been targeting pine logging since the problem became widespread, to try to recover a lot of the pine wood before the MPB killed it and it became rotten and useless. If you see large areas of grey/dead trees which look sort of similar to a forest fire, the cause was probably MPB.

MSDS – Material Safety Data Sheet. An MSDS sheet is a document which lists a number of important types of information about a potentially hazardous material. For example, an MSDS sheet might have information about the chemical composition of a substance, its intended use, dangers associated with its use, recommended first aid procedures in case a person accidentally comes into contact with the material, etc. Companies in BC are required to have MSDS sheets on site for all hazardous materials present within the work site. For example, in a planting camp, there will probably be a binder in the first aid tent which has MSDS sheets for items such as gasoline, diesel, propane, kerosene, oven cleaner, bleach, etc. MSDS sheets can be found quite easily on the internet for thousands of different potentially hazardous materials. An MSDS sheet must have been printed within the past three years in order to be considered acceptable.

MSSp+a – Minimum Stocking Standard, Preferred & Acceptable. A stocking standard measurement.

MTC – Mobile Treatment Centre. This is the vehicle on a work site that is designated for use in safety situations or emergencies. Presumably, the MTC will contain the first aid equipment and have room to accommodate a stretcher for transportation of seriously injured workers. Often called an ETV, for Emergency Transport Vehicle.

MWD – Modified Work Duty. When a planter is injured in the workplace, perhaps through something accidental (such as a broken foot), or through a "wear and tear" process over time (such as tendonitis), some companies will keep that person on the payroll temporarily on a moderate day-rate, in an effort to give the injury time to heal, and therefore, accommodate the need to bring the employee back to full productive capacity in the most efficient manner possible. Persons on MWD are typically asked to do useful work around the camp or work sites that does not aggravate their injury, but allows them to feel like they are making a positive contribution to productivity of their work group. Modified work duty programs are not a sustainable expense in the reforestation industry, where compensation is based on piece-rate work, but if the system is not abused by employees, it can be an effective way of retaining

the strength of the work-force in the long term, and building employee loyalty.

NAR – Net Area to Reforest.

NMSP – No Mechanical Site Preparation. This means that an area has not been treated, and is therefore "raw" or "plant as is" ground.

NP – Non Productive. Land which is not productive, such as swamp or rock.

NSR – Not Satisfactorily Restocked. Also called Not Sufficiently Restocked. An area which has not been satisfactorily reforested.

OGR – Operating Ground Rules. Another set of rules governing what is to be done and what is not to be done when performing work activities.

OHV – Off Highway Vehicle. A vehicle that doesn't need pavement. Includes things such as quads, four-wheelers, but also larger multi-seat ATV's, and larger equipment like rolligons, haglunds, etc.

OPD – Overflow Protection Device. An example would be a spit valve on a propane tank, which prevents the tank from becoming over-filled and exploding.

OTR – 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.

PAI – Plant As Is. This means the same as NMSP (no method of site preparation). The area has not been treated or site prepped in any way, therefore, it is to be planted as you find it.

PB – Peanut Butter. You know this from childhood, but you still might be making PBJ's (peanut butter & jelly sandwiches) for lunch occasionally.

PB – Personal Best. Some sort of personal record, such as "most trees in a day" or "fastest box" or "biggest money day."

PHSP – Pre-Harvest Silviculture Plan. Before a block is even cut, a PHSP is written up, which details all activities to be carried out on the block, from the period before harvest to the eventual attainment of "free-to-grow" status many years after logging. Once the designated forester for the region is satisfied with the terms and plans outlined in the PHSP, he/she will sign off on it, and the harvesting and reforestation process is allowed to begin. For planters, the important thing to note is that the PHSP will contain information about planned reforestation of the block, such as species and density prescriptions, etc. These items may sometimes be amended during the planting process, depending on conditions and approval of changes by the forester.

PPE – Personal Protective Equipment. This refers to personal safety items such as hard hats, quad helmets, steel-toed boots, safety glasses, high-visibility vests, sunscreen, etc.

PU – Planting Unit. A map designation to delineate a specific area of a block for planting.

PW – Plant Wizard. A software package commonly used in reforestation, that facilitates tracking of

seedling orders, deliveries, block allocations, plot databases, and similar information.

RCO – Coast Forest Region. The official BC provincial designation for the coastal areas (head office in Nanaimo).

RCP – Radio Call Point. A sign on a radio-controlled logging road that indicates the driver must call their location.

RGD – Regen Delay Date. The date by which a block must pass official regen surveys.

RNI – Northern Interior Forest Region. The official BC provincial designation for the Northern Interior (head office in Prince George).

RSI – Southern Interior Forest Region. The official BC provincial designation for the Southern Interior (head office in Kamloops).

RTC – Rapid Transport Category. A first aid acronym referring to a patient/victim who is in the most serious treatment category (potentially fatal injuries/condition). The patient needs to be transported to a proper medical facility as quickly as possible in order to increase the chance of survival.

RX – Receive. This abbreviation came from Morse Code telegraph shorthand.

SAR – Species At Risk. Any species of plant or animal that is endangered.

SFI – Sustainable Forestry Initiative. This is an American initiative, sort of a system of standards similar to the ISO standards.

SFM Plan – Sustainable Forestry Management Plan. This is a document or plan that a forestry company might adapt to guide their operating practices, with the goal of long-term sustainability of their operations.

SIN – Social Insurance Number. The Canadian social insurance tracking number, unique to all individuals. All persons employed in Canada must legally be in possession of a valid SIN. This nine digit number can also be assigned to foreigners with temporary work visas. Typically, SIN numbers for this category of worker being with the number 9.

SOP – Standard Operating Procedure. A lot of corporations will designate a list of SOP's for various activities. As an example, if you're refueling a quad in the field, a few of the SOP's might be to check that there is a fire extinguisher on the quad, and ensuring that you are more than 100m from any running water, before starting to transfer fuel into the quad.

SP – Site Preparation. The method of site preparation for a block.

SP – Silviculture Prescription. The document outlining the forester's assessment of reforestation requirements for a block.

SR – Satisfactorily Restocked. An area that has been satisfactorily restocked.

STARS – Severe Trauma Air Response Service. This is the Alberta Air Ambulance service.

SU – Stocking Unit. A mapping designation.

TD1 – Tax Declaration Form 1. This form is filled out by all employees in Canada once per year, to determine taxation status on employment earnings. Full-time workers in companies that offer year-round employment often neglect to have employees re-submit forms on an annual basis, but in planting companies with seasonal work, you'll probably have to fill one of these out for every company that you work for (unless you work as a sub-contractor).

TFL – Tree Farm License. A tree farm license (TFL) is a license a company can purchase from the government to gain forest management rights to a selected area of crown land for a period of 25 years, which includes exclusive harvesting rights. The owner of a TFL is responsible for resource inventories, operational and strategic planning, reforestation, and road building.

TITD – Target Inter-Tree Distance. This is a specific calculation/definition of the average spacing 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 more commonly called the "Contract Spacing."

TSL – Timber Sale License. This grants the right to harvest timber from a specified area of Crown land within a timber supply authority or TFL area. This is mostly performed by Small Business Forest Enterprise Program (SBFEP) participants. The Ministry of Forests is responsible for operational planning, road building, and reforestation on timber supply authority sold under the SBFEP. The Licensee must maintain the manufacturing facility if required in the original license. Typically lasts for anywhere from six months to five or ten years, mostly non-replaceable. Typically used by small to medium sized operations.

TSS – Target Stocking Standards. The number of well-spaced preferred and acceptable trees per hectare that will produce a free-growing crop.

TX – Transmission. This abbreviation came from Morse Code telegraph shorthand.

UTM –Universal Transverse Mercator. Used for location references. The Universal Transverse Mercator is an international plane (rectangular) coordinate system developed by the U.S. Army. The UTM divides the world into 60 zones of 6 degrees longitude. Each zone extends 3 degrees east and west from its central meridian and are numbered consecutively west to east from the 180-degree meridian. Transverse Mercator projections may then be applied to each zone.

WCB – Workers' Compensation Board. The provincial government regulatory agencies which protect the rights of all employees in the province in terms of health and safety issues. Persons considered to be employees are eligible for workers' compensation under the appropriate conditions, if an injury occurs, whereas sub-contractors usually are not eligible.

WOG – Work Order Guidelines. Suggested steps for performing certain types of tasks.

WOI – Work Order Instructions. Manadatory/required steps for performing certain types of tasks.

WTP – Wildlife Tree Patch. This is often seen on block maps where a patch of the block is shaded in, and it refers to a stand that has been purposely avoided during harvest to allow for a varied ecosystem for animals, birds, and insects.

WX – Weather. This abbreviation came from Morse Code telegraph shorthand.

Tree Species Abbreviations

These abbreviations are usually based upon the Latin names of each species. They're usually fairly easy to figure out, you just have to reverse the order of the words in the species name. Technically speaking, only the first letter is usually capitalized, although you'll often see them in all-caps on the stickers on the side of tree boxes, or on shipment invoices.

Act – Black Cottonwood.
At – Trembling Aspen.
Ba – Amabilis Fir.
Bg – Grand Fir.
Cw – Western Red Cedar.
Dr – Red Alder.
Ep – Paper Birch.
Fd – Douglas Fir (generic).
Fdc – Douglas Fir (coastal).
Fdi – Douglas Fir (interior).
Hm – Mountain Hemlock.
Hw – Western Hemlock.
Lt – Tamarack.
Lw – Western Larch.
Mb – Bigleaf Maple.
Pa – Whitebark Pine.
Pl– Lodgepole Pine (generic).
Plc – Lodgepole Pine (interior).
Pli – Lodgepole Pine (coastal).
Pw – Western White Pine.
Py – Yellow Pine.
Sb – Black Spruce.
Se – Engleman Spruce.
Ss – Sitka Spruce.
Sw – White Spruce.
Sx – Hybrid Spruce.
Yc – Yellow Cedar.

BC Timber Sales Business Areas

You may recognize some of these abbreviations from being in the middle of request keys on box-end stickers.

TBA – **Babine Timber Sales Office.** Covers Burns Lake, Houston, Smithers.
TCC – **Cariboo/Chilcotin Timber Sales Office.** Covers Williams Lake, Quesnel.
TCH – **Chinook Timber Sales Office.** Covers Chilliwack, Queen Charlotte City.
TKA – **Kamloops Timber Sales Office.** Covers Kamloops, 100 Mile House, Clearwater, Merritt.
TKO – **Kootenay Timber Sales Office.** Covers Nelson, Castlegar, Cranbrook, Grand Forks.
TOC – **Okanagan/Columbia Timber Sales Office.** Covers Vernon, Revelstoke.

TPL – Peace/Liard Timber Sales Office. Covers Dawson Creek, Fort Nelson, Fort St. John.
TPG – Prince George Timber Sales Office. Covers Prince George, Mackenzie.
TST – Seaward/Tlasta Timber Sales Office. Port McNeill, Price Rupert.
TSK – Skeena Timber Sales Office. Covers Terrance, Hazelton.
TSG – Strait of George Timber Sales Office. Covers Campbell River, Port Alberni, Powell River.
TSN – Stuart/Nechako Timber Sales Office. Covers Vanderhoof, Fort St. James.

BC Forest Region and District Boundaries

Southern Interior Forest Region (headquartered in Kamloops):

DMH – 100 Mile House Forest District. Covers 100 Mile House.
DAB – Arrow Boundary Forest District. Covers Castlegar, Grand Forks, Nakusp.
DCS – Cascades Forest District. Covers Merritt, Lillooet, Princeton.
DCC – Central Cariboo Forest District. Covers Williams Lake, Horsefly, Likely.
DCH – Chilcotin Forest District. Covers Alexis Creek.
DCO – Columbia Forest District. Covers Revelstoke, Golden.
DHW – Headwaters Forest District. Covers Clearwater, McBride.
DKA – Kamloops Forest District. Covers Kamloops.
DKL – Kootenay Lake Forest District. Covers Nelson.
DOS – Okanagan Shuswap Forest District. Covers Vernon, Penticton, Salmon Arm.
DQU – Quesnel Forest District. Covers Quesnel.
DRM – Rocky Mountain Forest District. Covers Cranbrook, Invermere.

Northern Interior Forest Region (headquartered in Prince George):

DFN – Fort Nelson Forest District. Covers Fort Nelson.
DJA – Fort St. James Forest District. Covers Fort St. James.
DKM – Kalum Forest District. Covers Terrace.
DMK – Mackenzie Forest District. Covers Mackenzie.
DND – Nadina Forest District. Covers Burns Lake, Houston.
DPC – Peace Forest District. Covers Dawson Creek, Fort St. John.
DPG – Prince George Forest District. Covers Prince George.
DSS – Skeena Stikine Forest District. Covers Smithers, Dease Lake, Hazelton.
DVA – Vanderhoof Forest District. Covers Vanderhoof.

Coast Forest Region (headquartered in Nanaimo):

DCR – Campbell River Forest District. Covers Campbell River.
DCK – Chilliwack Forest District. Covers Chilliwack.
DNC – North Coast Forest District. Covers Prince Rupert.
DIC – North Island Central Coast Forest District. Covers Port McNeill, Hagensborg.
DQC – Queen Charlotte Islands Forest District. Covers Queen Charlotte City.
DSI – South Island Forest District. Covers Port Alberni, Duncan.
DSQ – Squamish Forest District. Covers Squamish.
DSC – Sunshine Coast Forest District. Covers Powell River, Sechelt.

Conclusions

If you have any suggestions or additions to the above information, please send an email to jonathan.scooter.clark@gmail.com or post feedback in the appropriate thread of the training forum on the Replant Message Boards at www.replant.ca/phpBB3

Also, please feel free to print this page and pass the information along to other potential planters, and let them know the link to www.replant.ca

An excellent additional reference for forestry and silviculture related terms, in case you can't find a specific definition above, is at the Ministry of Forestry website's glossary page, found at http://www.for.gov.bc.ca/hfd/library/documents/glossary

- Jonathan Clark (Scooter), author.