

Tree Care

Handle trees with care at all times. Reduce repeated stress on the seedlings by not throwing or dropping the boxes. Ensure trees keep as cool as possible at all times, for spring trees 1-2 degrees Celsius and for summer trees 5-6 degrees Celsius. Continually check to ensure root systems are moist.

THE TREES ARE ALIVE!!!

Bag up Rules

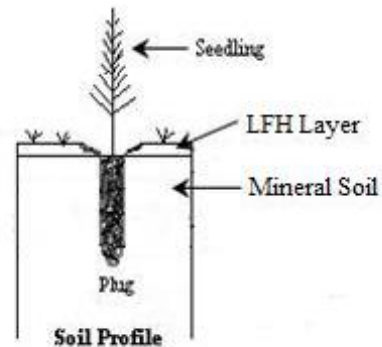
Do not stack bundles on top of each other. Draw bags with trees in them not being used, must be closed. Only take what you need for one run, do not over load your bags. Bag up after your break **NOT BEFORE!!** Place bundles directly into the Silva-cool bag do not place them on the ground first.

Tree Cache

Construct tree caches in shady locations first. No more than a ½-day supply is allowed on the block. All boxes have to be fully covered at all times with a Silva-cool tarp and sealed to the ground with rocks or logs. Adjust you cache's position throughout the day to ensure the least amount of sun exposure.

LFH soil layers (Litter/Fermentation/Humus)

The litter layer is organic matter that has not decomposed. The Fermentation layer consists of organic matter that is in the early stages of decomposing. The Humus layer is in the late stages of decomposing and at a point that plants can now use it as a source of nutrients.



MIX PLANTING UNDERSTANDING SPECIES REQUIREMENTS

Lodgepole Pine

- Grows in all sorts of environments.
- Considered a universal species on most of our sites.
- Grows much better in drier conditions than Spruce.
- Frost tolerant. (can handle frost)
- Shade Intolerant (doesn't like shade)

Spruce

- In general, spruce grows better on moist and moisture receiving sites.
- In general, spruce grows better than pine on our wetter sites.
- Frost intolerant (doesn't like frost)
- Shade tolerant (likes shade)
- Grows better near aspen
- A spruce planted on dry rocky hill top is a fault

Douglas Fir (D-Fir)

- In general, D- Fir grows better on dry and well-drained sites.
- In general, Fdi grows better on slopes.
- Frost intolerant (doesn't like frost)
- Shade tolerant (likes shade)
- A D-fir planted in poor drained, wet soils is a fault

Cedar

- Prefers moist to slightly wet soils (not saturated)
- Screefing recommended unless mechanical site prepared
- Frost intolerant (doesn't like frost)

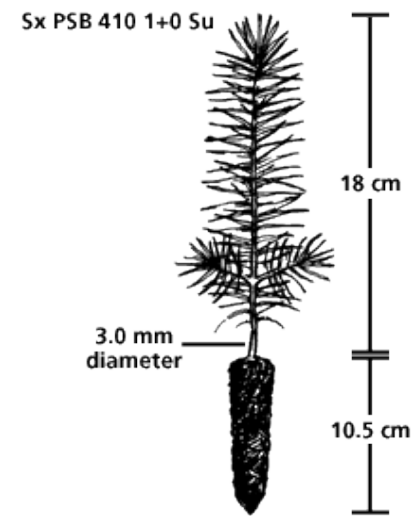
Western Larch

- Resistant to root rot
- Shade intolerant (does not like shade)
- Grows well in dry conditions
- Frost tolerant (can handle frost)

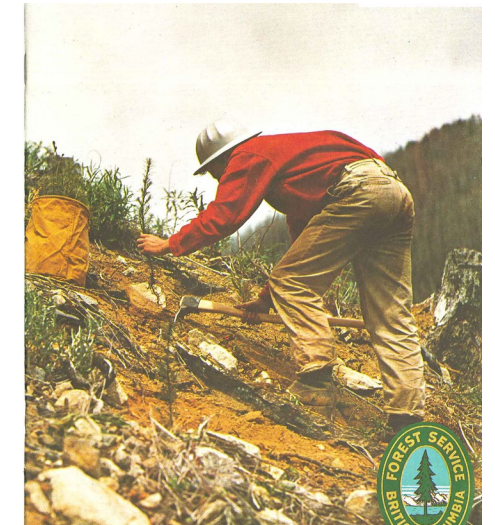
THE BOTTOM LINE

- Microsite planting is very important!
- **Obstacle Planting is Number 1**
- If you are unsure of how to plant a site, ask your Forman, supervisor or the BCTS representative.
- The results of planting correctly will provide benefits for a long time.
- OPEN HOLES ARE THE MAIN PLANTING FAULT and are usually the result of inadequate screefing of vegetation and in some cases humus layers
- Remember the tree cannot get up and move to a better site once planted.
- The planter is the **Most** important link in establishing a healthy well growing plantation.

YOU WILL MAKE A DIFFERENCE!



Typical 410 Spruce Seedling



TREE PLANTING GUIDELINES & MICROSITE PLANTING

~~~~~ Cariboo-Chilcotin Business Area

Williams Lake Field Team

TREE PLANTING GUIDELINES

Below is a reference tool for you to use while planting trees on our contract. Please take the time to review this material.

TREE SPECIES you will need to identify:

- Lodgepole pine - Western Larch
- Spruce - Cedar
- Douglas Fir (D-Fir) - Paper Birch
- Trembling Aspen (Aspen)
- Subalpine Fir

MECHANICAL SITE PREP you will have to plant on:

- Disc Trenching
- Excavator Mounding

CONTRACT SPACING/DENSITIES – ensure you know what the contract and minimum spacing is on each treatment unit before you start.

- Disc Trenching -Please view Planting Prescriptions prior to planting.
- Excavator Mounding,-Utilize all mounds plant in between the site prep as required to meet target densities.
- Untreated – See Prescription

Sloped Ground Profile

- Species specific planting depending on slope position.
- Plant mid-slope areas as a true mix.
- The crest and upper slope requires a higher percentage of Pine & D-Fir while the lower slope and the toe of the slope require a higher percentage of Spruce. Avoid putting spruce in frost pockets, depressions or in areas where cold air pools.
- Pine does better in frost pockets

Flat Ground Profile

- In general you can plant a **TRUE MIX** (equal amounts of the mix over the entire area with this profile).
- If the block calls for a 50/50 mix of Pine and Spruce then each plot should also

have roughly 50% of each species.

Aspen Patches (mature and immature)

- Planters will need to identify Aspen (young and old).
- Once Identified planters will need to under plant these areas with a larger concentration of spruce regardless of the original prescription. Plant a higher spruce component until Aspen whips start to disappear.
- Plant 2m off of the mature Aspen stem

MICRO SITE SELECTION - defined as choosing an optimal place to plant a seedling to maximize growth and survival.

Untreated –

- Use stumps to plant beside when possible but stay within 20cm, but do not jam against the stump.
- **Plant beside obstacles (logs) or boulders/rocks in areas of heavy cattle use, obstacle planting is a requirement.**
- Do not plant on cattle trails.
- Plant below stumps on steep ground to protect from snow creep.

Disc Trenching –

- As directed. Plant in between the trenches to meet target densities.

Mounds –

- Plant every mound
- Plant between the mounds when the mounded densities are less than prescribed density.
- Clay mounds which can dry out over the year which is not optimal for seedling establishment, will be treated differently, site specific.
- Plant high on the mound in low (wetter) ground and more to the hinge on higher

(drier) ground. When planting the hinge of a mound, the spot must be prepared.

- The diagram below can be used to clearly describe the position on the mound or trench where the tree is to be planted. Confirm with your crew boss/supervisor/ or BCTS rep as to the desired placement.

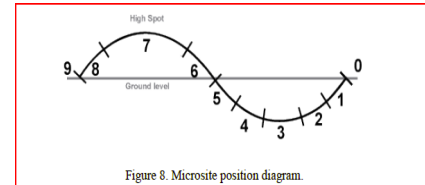


Figure 8. Microsite position diagram.

Burn Piles – Plant as per Planting Prescription

SCREEFING

- A small screef is required to remove the vegetation (ie grass, kinkinnik)

PLANTING DEPTH

- The plug should be covered with mineral soil.
- Laterals may be pinched but not buried.

WET GROUND

- Plant wet areas to the best of your ability using your minimum spacing to try and accomplish the required stocking for the planting unit. In some cases you may not meet the desired density. Let your Foreperson know about large tracts of wet ground in which you are having a hard time planting.
- Seedlings are not allowed to be planted in **ANY WATER!!!** This is a fault!!
- If you open the hole and any water rushes in, don't plant but if it just seeps in – plant. (Spring, ground will likely dry out)

RED ROT (Decomposed wood)

- (Greasy) to plant in. Spruce only.

IF NOT SURE ASK.

NATURALS

- The definition of a good natural is any tree (Pine, Spruce or Douglas fir) of good colour and vigour, with a dominant leader, straight stem, greater than 50% live crown
- Acceptable Crop tree size: West of the Fraser River 10cm for D-fir and spruce, 5 cm for pine,
- East of the Fraser River 10 cm for D- fir, spruce and pine planting.
- Space off naturals as if it was a planted tree to meet target densities.

Douglas fir Residuals (Large Mature trees)

- Do not plant under the dripline of large mature fir residuals space off a distance of 2 meters from the stem, as seedlings will not be getting any moisture and will die.

PLANTING BOUNDARIES

- Block boundaries are identified by orange BCTS BLOCK BOUNDARY and orange BCTS SILV. UNIT ribbon within the block.

Fences

- Plant 1.5m either side off the center of the Fence line.

Roads

- Plant Seedlings 3 metres off the edge of the running surface of any major access roads.
- Do not plant in cutbanks, roadside fill, loose humps, or soil, gravel or debris subject to drought.
- Plant only up to the roadside berm on In block roads.

Most Common Faults

- OPEN HOLES IS THE MAIN FAULT
- Not Obstacle planting