

Successful Fall Planting in the Inland Northwest

- Inland Empire Reforestation Council
- 2022 Annual Meeting
- March 1, 2022
- The Coeur d'Alene Resort
- Coeur d'Alene, Idaho
- By Kennon McClintock
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Fall Planting

- Definition
- History
- Physiology
- Fcap Planting Program
- Benefits & Observations



Fall Planting

- Planting: starts in late Summer, early Fall. (earlier the better)
- Seedlings: a) containers
b) semi-dormant, hardy
- Need a good nursery that understands what you need and will work with you.

History



- St Regis Paper Company – Libby, Montana, 1976
- Problems with lifting bare root Spring seedlings.
- Shortage of seed
- New Greenhouse built
- Problem with overwintering containers.





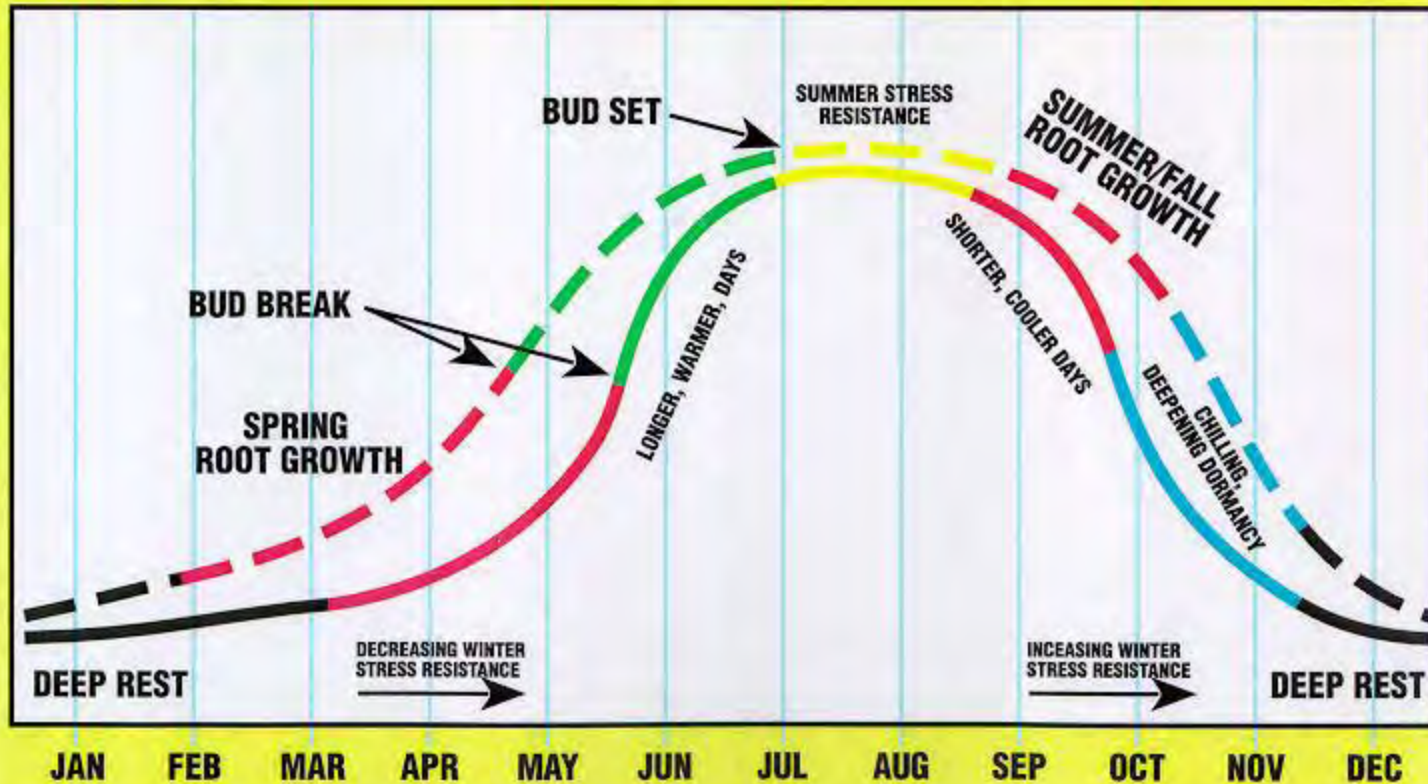
Tree Physiology

- March – May Spring Root Growth (40+ degrees)
- May – early July Bud break, height growth, lateral growth, bud set (except WL)
- Mid July – Mid Sept Radial Growth (Summer Stress)
- Mid Aug – mid-Oct Fall Root Growth (until < 40 degrees)
- Sept – March Some degree of Dormancy

ANNUAL GROWTH CYCLE of SEEDLINGS

TEMPERATE ZONES 

BOREAL ZONES 



- Fall Seedling in synch with Growth Cycle



Root Growth before Bud break



Excellent, Consistent Survival and Good Growth

Forest Cap program

- Plant 600 M – 1.2 MM each Fall
- Good Site Preparation
- Delivery of Seedlings in early Sept
- Planting begins directly after 1st delivery
- Seedling shipments every 7 – 10 days
- Shovel Plant
- 2 or 3 crews working 6 – 8 weeks
- About 9 M seedlings Fall planted during FCap

Forest Cap Fall Planting

- All seedlings - received 2 wks – 6 wks blackout.
- Good bud set, hardy, semi-dormant
- Seedlings boxed vertically
- No box liner
- <200 seedlings per box
- White Pine: Styro 8
Larch: Styro 10
- Pelton & PRT -- excellent customer service



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Storage of Fall Seedlings

- **Storage temps from 50 to 55 degrees**
- **No Botrytis problems**
- **No frozen seedlings**
- **No bud break in boxes**

Fall Planting conditions & issues

- Seedlings are under very little stress
- Soil moisture -- not a factor
- Air temperature & Humidity – not a factor
- Frost heaving --- not an issue in most cases
- Snow & Frozen soil – can be an issue (generally not)

Oct 13th.





Oct 13th.

May 2nd



May 2nd



June 4th



May 2nd



May 2nd



June 4th



1 yr old



1 yr old



Highland Flats 11 -- 1 year old WP seedling
Planted Fall, 1999

2 yr old



10-31-2000
Planted Fall, 1998

Mutiny Point Plantation





5 yr old WWP
74" tall
Stryo 10



5 yr old WWP
57" tall
Stryo 5

1 yr old WL



Shovel – 39”

11-9-2003

2001 Fall Plantation

Boundary County, Idaho





A man wearing a blue button-down shirt, a hat, and jeans stands in a forest. He is holding a shovel vertically, with the blade pointing upwards. The shovel is positioned next to a young, thin tree. The forest is filled with various types of trees, including tall evergreens and smaller deciduous trees. The ground is covered with low-lying vegetation and rocks. The sky is overcast.

3 yr old WL
(Shovel – 39’)

North Bench 4 — Planted in Fall, 1997 (10-31-2000)
3 year old WL — 13' 6"
Grew 65" in 2000, Grew 50" in 1999









02.16.2022



02.16.2022



Fall Planting Basics

- Fall Seedlings
 - Hardy, semi dormant, good bud set, stout
 - Well conditioned seedlings not under stress
 - Important to work with a good nursery
 - Styro 10 WL, Styro 8 WP

- Seedling in synch with natural growth cycle
 - Before Sept 15th -- fall root growth likely
 - Spring root growth prior to bud break
 - Best way to circumvent spring/summer drought stress

Fall Planting Basics

- **Access to planting sites**
- **Fall, Winter, & Spring Precip** -- firmly set the seedling in the ground before spring bud break.
- **Ease of storage & handling**
 - No fungus problems
 - Trees not breaking bud in the box
 - No frozen seedlings
 - Cooler temp easier to maintain (50 – 55 degrees)

Overall Reforestation Benefits

- Excellent Survival
- Accelerated early Growth
- Plantation Status -- SFI free-to-grow certification standards & adjacency
- Cost Savings (?)

Thank You

