



Reforestation, What I've Learned Over Forty-five Years in Forty-five Minutes

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My First Tree

- I planted my first tree in June, 1978 in a recently harvested timber-sale unit in the headwaters of Curtis Creek and the Middle Fork of the Boise River on the Cascade Ranger District of the Boise National Forest. The tree was a 2+0 Bare-root lodgepole pine.
- The planting was accomplished by a large (twenty-five person) Forest Service crew using a three-step division of labor:
 1. Scalping
 2. Augering
 3. Planting
- I scalped planting sites and planted.



Scalp



Auger



Plant



What have I done since this first planting in 1978?

Planned and/or executed the planting of more 18,000,000 +/- trees on 76,000 acres (238 TPA/Ave)
(From Performance Summaries)



What Have I learned?

(Carry a camera with you)

- Seed
- Seedlings
- Wildlife Issues
- Site Preparation
- Planting
- Survival Surveys
- Contract Issues



Seed -Have enough high-quality seed to meet current and projected needs



Seed - Match Your Seed to Your Site, Seed Zone and Elevation Band.



Seed - We are rapidly moving toward orchard production that meets our needs for most, but not for all situations.



Seedlings - Match stock type to Site. P+0, P+ 1, Bare-root.



Seedlings – Storage and Transportation



Wildlife Issues – Avoid reforestation obligations in Deer and Elk Winter Range



Release Treatments – Avoid them like the plague 😊



Site Preparation– Start off the right way and you probably won't need a release treatment.

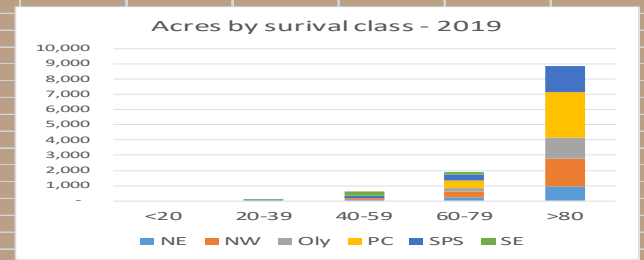


Planting— Have enough supervisors

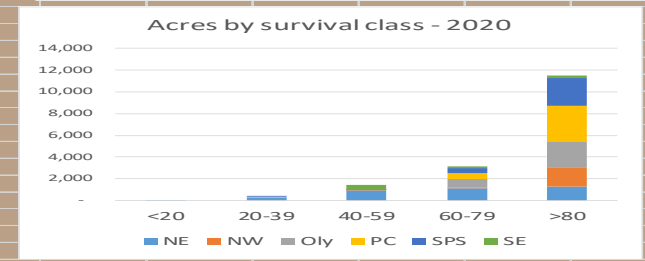


Survival Surveys – Monitoring

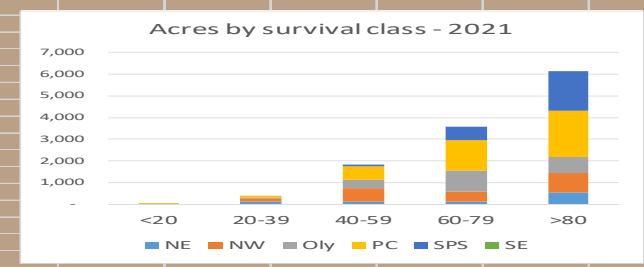
2019		Proportion of units with 60%+ survival					94%
		Proportion of units with 80%+ survival					77%
Survival class	NE	NW	Oly	PC	SPS	SE	Grand Total
<20	-	-	-	-	-	-	-
20-39	89	-	-	-	-	22	111
40-59	92	61	15	-	183	264	614
60-79	216	416	212	-	509	398	1,867
>80	977	1,812	1,380	2,951	1,742	-	8,862
Grand Tot	1,374	2,289	1,607	3,460	2,324	401	11,454



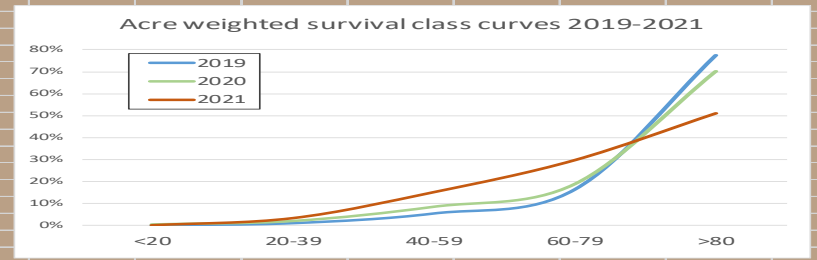
2020		Proportion of units with 60%+ survival					89%
		Proportion of units with 80%+ survival					70%
Survival class	NE	NW	Oly	PC	SPS	SE	Grand Total
<20	85	-	-	-	-	-	85
20-39	304	-	21	-	17	-	342
40-59	909	4	80	10	6	397	1,405
60-79	1,107	77	823	534	458	106	3,105
>80	1,278	1,790	2,323	3,323	2,574	241	11,529
Grand Tot	3,683	1,871	3,247	3,867	3,055	743	16,467



2021		Proportion of units with 60%+ survival					81%
		Proportion of units with 80%+ survival					51%
Survival class	NE	NW	Oly	PC	SPS	SE	Grand Total
<20	-	-	2	19	-	-	21
20-39	116	165	43	86	-	-	411
40-59	141	611	384	632	57	-	1,826
60-79	151	465	962	1,370	623	-	3,571
>80	564	880	727	2,154	1,796	-	6,121
Grand Tot	973	2,122	2,117	4,261	2,477	-	11,950



Survival curves				
Survival class	2019	2020	2021	Grand Total
<20	0%	1%	0%	0%
20-39	1%	2%	3%	2%
40-59	5%	9%	15%	10%
60-79	16%	19%	30%	21%
>80	77%	70%	51%	66%
Grand Tot	100%	100%	100%	100%



Contract Issues

- Know as much as you can about contract law.
- Know as much as you can about drafting contracts.



Questions?



