AD-514
(1-60)

U.S. DEPARTMENT OF AGRICULTURE

REFERENCE SLIP

DATE 10-18

REFERRED TO La Grande

- [ ] ACTION
- [ ] NOTE AND FILE
- [ ] APPROVAL
- [ ] NOTE AND RETURN
- [ ] AS REQUESTED
- [ ] RECOMMENDATION
- [ ] FILING
- [ ] REPLY FOR SIGNATURE OF
- [ ] FOR COMMENT
- [ ] SEE ME
- [x] FOR INFORMATION
- [ ] YOUR SIGNATURE

REMARKS This old plantation file recently came to light. It is on a part of old N. Powder R.D. which is now on your district. Therefore we are sending it to you to do with as you see fit.

J.H.

Baker R.D.

(NAME OF SENDER)

GPO : 1960 OF—540756

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
WHITMAN NATIONAL FOREST

SP
Whitman-Planting

SUMPTER, OREGON.

November 5, 1910.

Mr. Thomas H. Parker,
Forest Ranger,
North Powder, Oreg.

Dear Sir:

Under separate cover I am sending you 1½ pounds pine and one-half pound each Norway Spruce and European Larch. This seed has been treated with coal tar in order to prevent injury by animals and birds.

I wish you would plant a plot of one acre to each kind of seed upon the Ladd Creek fire area. The plots should be selected within the portion which has been burned over clean and as far away from the influence of surrounding seed trees as can reasonably be secured. It is suggested that some point on or just east of the East Fork of Rock Creek about one-half mile north of your old camp would be a suitable place. The spruce should be planted in the creek flat if possible and the larch and pine upon the slopes to the east. The plots should be measured and staked and tied in to some section corner. There is a section corner located about one-third mile west of Jones' old camp on Howard Meadows. The line may be picked up along the fire trench

where the Forest boundary notices are posted.

The pine and larch seed should be planted in spots about 8 x 8 feet with from 12 to 18 seeds in a spot. The seed should be covered to a depth of from one-fourth to one-half inch. Probably no preparation will be needed here, as the fire has left an excellent seed bed. The seed can likely be covered with the feet. The spruce seed should be planted in the same way as pine and larch, except that it should be spaced 5 x 5 feet and but five to six seeds placed in a spot.

The stakes should be marked on the sides facing the plots X5/1 (or 2 or 3, according to number of plots) /10, X5 being the experiment number and 10 the year of planting.

I am very anxious to have this work done before the ground freezes up so you should plan on doing this work as soon as possible. You may hire one man to assist you in this work. I am sending you a blank Form 3 voucher which you should have this man sign in blank. You should send this in with a statement of the man's name, the time and date worked and the rate of pay.

Blanks for reporting upon this planting will be sent you within a short time. Meanwhile please keep complete notes on all work done.

Please return all unused seed to this office as soon as planting is completed.

You should plan on doing this work at your earliest

convenience before the ground freezes up or snow falls.

Very sincerely yours,

Henry Graland.

Forest Supervisor.

Enclosure.

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

District 6. Fall, November 1910

REPORT ON EXPERIMENTAL SOWING. ..... OF.....
(Season) (Year)

One acre, (each) 1, Spruce 2. Pine

Whitman National Forest. Section 6, T, 3 S, R. 38, E.W.M.

..... Norway Spruce, Western Yellow Pine Experimental Area, No..... Strip No. November 10 10

Location..... Spruce 1/2 .....

Two Western Yellow Pine 1 lbs

Species.....1, 1/2 .....Date of sowing Forest Service 19 .

Area.....acres. Amount of seed sown per acre:..... lbs.

Total amount North East lbs. Source of seed 4500 .....

Character of site: Spruce deep loom, Pine Volcanic ash

Exposure:....Ashes, (Burned area) Altitude:..... ft.

Soil:.....

Ground cover: Spot, Norway Spruce 5x5 ft, Pine 8x8 ft .....

Sowing:

Method:.....
(Broadcast, seed spot, on snow, etc.)

.....holes dug with pick, (ground frozen).....

.....

Preparation of site:.....
(Harrowed, raked, etc.)

.....coated with coal tar.....

.....

Treatment of Seed:.....
(Pregerminated; coated with red lead,

.....
etc.)

Costs:

Seed	Transportation	# Sowing: Cash Labor	# Sowing: Time of Forest Officers	Additional Expenses: Amt.	Additional Expenses: Character	Total	Cost per Acre
		$5.00	$10.83			$15.83	$7.91

##Estimated number of seedlings per acre:.....

Is experiment a success or failure, and cause?.....
....
.....

.....

.....

Remarks:.....

.....

.....

.....

.....

Recommendations:.....
(To be filled in by Supervisor. Additional experi-

.....

.....
ments advisable; change in methods, etc.)

.....

Approved:..... .....
(Supervisor) (Name)

Date:..... .....
(Title of Forest Officer)

Cost of implements should not be included.
Estimate based on sample counts of areas representing average conditions.

ADDRESS REPLY TO
"FOREST SUPERVISOR"

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
WHITMAN NATIONAL FOREST

SP
Whitman - Planting
Woodrat Experimental Area, No. 5.

SUMPTER, OREGON

May 11, 1911.

Mr. Thomas H. Parker,
Forest Ranger,
North Powder, Ore.

Dear Mr. Parker:

Under another cover I am sending you Engelmann spruce seed which will probably be sufficient to plant ten acres on the Rock Creek bottom in the big burn of last season. I am also sending you sufficient yellow pine, Scotch pine, Norway spruce and mixed European larch and Douglass fir, for one acre each.

The yellow and Scotch pine should be planted on a south and west slope, or a typical yellow pine slope. The Engelmann spruce and Norway spruce should be planted on the creek bottom, or typical spruce land. The European larch and Douglass fir should be planted on ground that in your opinion is well adapted for the growth of this timber.

The plots upon which this seed is planted should be marked in accordance with the instructions outlined in my letter SP-Whitman-Planting of November 5, 1910. You may hire one or two men to assist you in this work, submitting a signed Form 3 voucher with a statement of the time spent, giving dates and the rate of pay.

In the case of the Engelmann spruce, since there is quite a quantity of it I believe it would be well to plant one acre plot using the seed spot method, one acre plot broadcast and raked in and the remainder merely broadcast and left, as it seems to me this ground is soft and loose enough that the seed will become covered very readily.

You should prepare a map showing the exact location of the area planted, in order that it may be readily located. This map should be on a scale sufficient to enable all the information concerning dates of planting, kind of seed sown and the method used, to be shown.

Sample Map enclosed

In order that the area planted may be cleared of rodents that would destroy the seeds you may prepare and use poisoned bait prepared as follows:

Rolled oats.....	25 quarts.
Strychnine.....	1 ounce.
Saccharine.....	1 teaspoonful.
Water.....	6 quarts.

Probably one-fourth or one-sixth of this amount will be sufficient.

Very sincerely yours,

Henry Graland

Forest Supervisor.

ADDRESS REPLY TO
"FOREST SUPERVISOR"

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
WHITMAN NATIONAL FOREST

SP
Whitman - Planting,
Woodrat Experimental Area.

SUMPTER, OREGON

September 26, 1912.

Mr. Thos. H. Parker,
Asst. Forest Ranger,
North Powder, Oregon.

Dear Mr. Parker:

I would be glad to have you make as soon as possible a careful examination of all seeding done on the above experimental area and report, in accordance with SP-Whitman-Planting circular letter of May 31, 1911, fully on each plot that has been seeded. As the District Forester is very anxious to have complete information concerning these, this examination should be very careful and the report complete, as he desires to know the exact results that are being obtained in all our seeding experiments.

Very sincerely yours,

Harry Graland

Forest Supervisor.

SP
Whitman-SPanting
Woodrat Experimental Area xxxxx
June 1911.

North Powder,Oregon,October 13.12.

Mr Henry Ireland
Forest Supervisor
Sumpter,Oregon,

Dear Mr Ireland:

Yellow Pine
x5/7/11,seed Spot 8x8

This seed did not come up at all good there is or an average of 3 trees coming up out of every 20 spots and about one to the spot the seed aparently did not germinate,reason not known.

Scotch Pine
x5/8/11,Seed Spot 6x6

This seed seemed to germinate in good shape there was 15 spots coming up with good healthy trees out of 20 and from two to four trees to the spot,out of 20 I had staked when planted there was 5 with 0,4 with 1,3 with 2,4 with 3,and 4 with 4 trees to sp spot.

European Larch & Douglas Fir
x5/3/11,Seed Spot 6x6

This seed did very little good if any out of 10 stakes I had put to spots I could not find a single tree and on the entire area I could find none that I was sure of,this seed was treated with red paint or some other red stuff and might have killed the germ,all these apots were planted carefully with a hoe and covered with the foot.

Engelmann Spruce
x5/6/11,seeded Broadcastraked in

This seed did the best of any it will average 20 good healthy trees to the rod square,perhaps the other seed was planted too deep or the kind of seed was not adapted to the ground.

Engelmann Spruce
x5/5/11,seed Spot 5x5

This seed was planted in spots and twenty stakes placed to the spots but a band of sheep had run over the stakes and knocked them nearly all down but as near as I could get at it they would not run over 4 to the 20 spots and only one tree to the spot, this acre plot is exactly the same ground as the acre raked in.

Engelmann Spruce
x5/4/11 Broadcast not touched

This 8 acre plot will average about 5 good healthy trees to the rod square,this seed being broadcasted probably was picked up by the birds although the area was poisoned.

I think the spring is the wrong time to plant seed if it

SP
Whitman-Planting
Woodrat Experimental Area
June 17,11.

Sheet #2

were planted in the fall of the year after the fall rains setin and befor the ground is frozen so the ground can be thoroughly worked,I believe good results could be obtained,with a common garded rake,let one man go along and make a mark with the rake while another dropped in a few seed,then sheep should be kept off for several years.

Am sending in a few samples of trees found on the area.

Very sincerely yours

Dist Ranger

Form 134
(Revised Jan. 1, 1913)

(Read instructions on reverse side before preparing report)

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Ranger's copy.

FIRST REPORT ON PLANTATIONS OR SEEDING AREAS[1]

TO BE ACCOMPANIED BY MAP OF AREA

Case designation SP, Whitman - Planting, Woodrat Exp. Area, #5.

Location Woodrat Experimental Area, X-5-11 (including 12)-13 Whitman National Forest

Sec. 5 T. 5 S. R. 38 E., W. M. Date established May 21-23, 1913. Altitude 5200 ft.

Exposure Easterly Slope 10 - 15% Soil deep, friable, fresh, light, volcanic ash.

Type Transitional Ground cover None. Burned clean 1910.

Present condition Clean surface; approximately 500-600 fire-killed standing poles per acre. (Old or recent burn, brush, density of cover, etc.)

Species Pinus ponderosa Larix kaempferi (Scientific name.) Source[2] Wind River Nursery (Plants.) (Seed.) Age[3] 1-1 (Of plants or seed.)

Quality or Condition Buds bursted, growing - poor. (Of plants or seed.) Method Alternate larch & pine. (Of planting or seeding.) Spacing 8 x 8 ft. (Of plants or seed spots.)

Preparation of site No preparation made. (Raked, plowed, harrowed, etc.) Av. acres per man per day[4] 1 acre. (Planted or seeded.)

Protection of site No protection given. (From rodents, fire, etc.)

Weather Clear; cool; light winds. (At time of planting or seeding.)

Object Reforestation with species not naturally growing in transition type of forest, although native to Blue Mts. Region; & the introduction of exotics (Of plantation or seeding area.)

Factors favorable or unfavorable to success Trees had been packed in moss & stored in dark cellar for about a month, and rather dry; buds bursted on nearly all, and larch needles had 1-3 growth.

Area 5.8 (Acres.) Total amount used 2800 (M trees or pounds seeds.) Amount per acre ~~517~~ 483 approx. (M or pounds.) Cost[5] (Per M or per pound.)

DETAILED COSTS

	6 TREES OR SEED	7 TRANSPORTATION RAILROAD	7 TRANSPORTATION OTHER	8 9 PREPARATION OF GROUND	9 SURVEYING	9 PLANTING OR SEEDING	10 EQUIPMENT	9 PROTECTION POISON	9 PROTECTION OTHER	11 SUPERVISION	SUBSISTENCE	12 OTHER	TOTAL
Total cost	#15.98	1.69	14.96	-	2.48	18.23	.79			18.76	3.75	18.85	~~79.51~~ 95.49
Cost per acre	2.76	.29	2.58	-	.43	3.14	.14			3.23	.65	3.25	~~13.71~~ 16.47

Cost shown for total number of trees including those lost & destroyed.

Cost of subsistence per meal 25¢ Per cent of total labor furnished by Forest Officers 66% by temporary laborers 34%

Remarks: Excessive costs of transportation, supervision & other expense due to distance traveled and handicaps due to adverse climatic conditions. The actual number of trees planted was 912 larch and 1888 pine. The shortage from 3000 due to trees destroyed by rodents while heeled in and slight loss in handling.

June 10, 1913. (Date of report.) [signature] (Name.)

Approved: HENRY IRELAND. Forest Ranger. (Title.)

(Supervisor.) (OVER) 8—1970

Q. A. Z.

Ranger's copy.

REPORT ON CONTROL PLOT
IN
WOODRAT EXPERIMENT AREA NO.5

- - 0 - -

SP
Whitman-Planting
Woodrat Experiment
Area No.5, Strip 12.

Sumpter, Oregon, July 10, 1913.

The trees planted on Woodrat Experiment Area No.5 for Control Plot are located in Strip 12 (this strip being within strip 11) and is typical of Strip 11 of this area. These trees were planted in the morning of May 21, 1913, with clear cool weather.

Soil. The soil was moist to fresh sandy loam and deep friable volcanic ash, light yellow to whitish in color.

Ground Cover. There was no ground cover as it had been destroyed by the Ladd Creek fire in August, 1910.

Forest Cover. The forest cover was all killed by the Ladd Creek fire in August, 1910. All of the down timber burned at that time and there has been no down timber since that time. There are 600 dead poles still standing.

Topography. It is approximately 5200 feet elevation and is a gentle slope with an easterly aspect.

Method. A mattock was used and the men carried the trees which were well wrapped in wet burlap.

The following shows plan of numbering the trees. The condition of each of the one hundred trees at the time of planting is indicated by use of the "key to tallies" which is also given below.

Commencing at N.W. corner of plot and running south the west row has odd numbers 1 to 49, inclusive; the next row east running in same direction has even numbers from 2 to 50, inclusive; third row east, commencing at south end and running north has odd numbers from 51 to 99, inclusive; and the fourth row east, commencing at the south end and running north has even numbers 52 to 100, inclusive.

<u>Key to tallies</u>

L	Larch, Japanese
P	Pine, Western yellow
1	Good condition
2	Medium condition
3	Poor condition
B	Budded: needles on L 1/5 grown, and pine buds 3/4 inches long.
D	Dormant - growth not started or starting.
L	Large size(comparatively) well developed.
M	Medium size
S	Small size
r	Roots meager or injured.

(Trees listed on next sheet and condition indicated)

Approved:
HENRY IRELAND.

Form 135.
(Revised July 1, 1912.)

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

PROGRESS REPORT ON PLANTATIONS OR SEEDING AREAS

Case designation S. Whitman -Planting, Exp. #5, Woodrat, Strips 11 & 12. Whitman National Forest

Location Sec. 5, T. 5 S., R. 38 E., W. M. Area 5.8 Acres. (Acres.)

Date established May 21 - 23, 1913. Date of examination June 21, 1914.

Species Western Yellow Pine Japanese Larch Method Alternate larch & pine seedlings, 8 x 8. (Of planting or sowing.)

Present average number of trees alive per acre 363 Average height Larch 4". Pine 5".

Per cent living of total number planted Larch, 80%. Pine, 70%. Per cent of area estimated 10%.

Condition of trees Good.

Distribution over area Even.

Cause of loss Probably from poor condition of seedlings when planted and careless handling when planted.

Is the work a success or failure, and why? A partial success; too costly.

Future operations proposed

What has actually been demonstrated on this area, and how can the results be practically applied in National Forest work? That above species as seedlings will grow well. Better results were obtained by seedlings than by direct seeding in the yellow pine.

Photographs (Give numbers of negatives that go with this report.)

Remarks:

June 29, 1914 (Date of report.)

A. G. Angell (Name.)

Asst Forest Ranger (Title.)

8—1952

Ranger's copy.

O. A. Z.

FOREST SERVICE
WHITMAN NATIONAL FOREST
SUMPTER, - OREGON
JUL 16 1914
RECEIVED
Answered

from you on this point, since it one which ought to be given considerable consideration in view of the planting work planned for yours Forest this fiscal year.

Whitman-Planting
Exp. #5, Woodrat (Strips 11 & 12)

July 15, 1914.

Very truly yours,

A. E. Ireland

Assistant District Forester.

Forest Supervisor,

Sumpter, Oregon

Dear Mr. Ireland:

Ranger Angell's Progress Report, Form 135 of June 29, on the planting of western yellow pine and Japanese larch on strips 11 and 12 of this area, in the spring of 1913, is received.

The results of this planting thus far are quite encouraging since it appears that 70 per cent of the pine and 80 per cent of the larch are growing. As the plantation has now been in existence the entire year and has passed through one dry season and one winter, it is presumed the loss will not be great hereafter. These results are markedly better than those on strip 20 of the Columbia area, No. 2, planted in the fall of 1913. Do you attribute the difference to the season of the year in which planting was done, or to differences in site conditions? If the former, would it not be advisable for us to plan to do more of our planting in the spring rather than in the fall? I would be glad to get an expression of opinion

Copy for Ranger Angell

from you on this point, since it is one which ought to be given considerable consideration in view of the planting work planned for your Forest this fiscal year.

Very truly yours,

F. E. Ames

Assistant District Forester.

FOREST SERVICE
WHITMAN NATIONAL FOREST
SUMPTER, - OREGON
DEC 2 1915
RECEIVED
Answered .....

S
Whitman - Seed
#xp. #5 Woodrat.

November 30, 1915.

Forest Supervisor,

Sumpter, Oregon.

Dear Mr. Ireland:-

Ranger Angell's Progress Report, Form 135, covering the planting of western yellow pine and Japanese larch on strips 11 and 12 of the above designated area in the spring of 1913 is received.

I think this experiment can fairly be considered a success, as the plantation has now passed through three seasons with an average loss of only about 25%. The trees appear to be well established, as they are making a rapid height growth and I do not look for much mortality in the future.

Annual reports are no longer needed, but I think it would be interesting to have a report occasionally. Accordingly I wish you would have another examination made in 1918, and report submitted at that time.

Very truly yours,

F. E. Ames

Assistant District Forester.

Copy for Information of Field Officer.

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
WHITMAN NATIONAL FOREST

ADDRESS REPLY TO
FOREST SUPERVISOR
AND REFER TO

BAKER, OREGON

S
Planting, Whitman,
Exp. 45, Woodrat.
(Strips 11 & 12)

August 3, 1918.

District Ranger,

North Powder, Oregon.

Dear Mr. Angell:

In accordance with letter dated November 30, 1915 in this case, report should be made on strips 11 and 12 this fall. It is being called to your attention at this time in order that you can make the examination some time when you are in the vicinity of the planting area. Strip 12 is inside of strip 11.

Very sincerely yours,

F. M. Fowler,
Forest Supervisor.

FOREST SERVICE
WHITMAN NATIONAL FOREST
BAKER - OREGON
MAR 31 1919
RECEIVED

S
Planting - Whitman
Experiment No. 5
Woodrat

March 29, 1919.

Forest Supervisor,

Baker, Oregon.

Dear Mr. Evans:

Ranger Angell's Progress Report, Form 135, of February 26, giving results on strips Nos. 9 to 12, are received.

Seeding strips Nos. 9 and 10 continue to show no results except in the case of western larch. It seems useless to continue these under observation any longer and they may be closed. Planting strips Nos. 11 and 12 have been only partially successful, but they are of particular interest on account of the exotic species, Japanese larch, planted upon them. For this reason, they should be continued under observation, but the next report need not be made until 1922 when ten years will have elapsed since date of planting.

Very sincerely yours,

E. T. Munger

Acting Assistant District Forester.

Copy for Forest Ranger

Angell

January 17, 1922.

FOREST SERVICE
JAN 19 1922

S
Planting-Whitman
Exp. #5, Woodrat

Forest Supervisor,

Baker, Oregon.

Dear Mr. Evans:

Ranger Angell's progress reports, Form 135, of November 26, 1921, covering strips 4, 5, 6, 7, 8 and 11 of Experiment No. 5 are received.

It seems that there has been very little loss in the various strips since the last report four years ago except in the case of the exotic species, Japanese larch. It is interesting to note that the Scotch pine averages greater in height than any other species, though not equal to the natural lodgepole pine reproduction.

Ranger Angell recommends that the area be closed. While one of the original features of the tests, that concerning the question of establishment by seed-spotting and by planting of nursery stock, is completed, there is still the question of rate of growth and general adaptability to the location especially under the influence of the severe competition with native lodgepole. I think it will be of interest to see how the various species work out under these conditions, and since very little work will be entailed in keeping the experiment open, since future examinations need be made only at ten year intervals, I believe the case should be continued. Strip No. 8, however, may be closed, since very few of the yellow pine upon it survive.

Ranger Angell's photographs give a very good idea of the condition of the plot and I am very glad to have them. If the films have been sent to Washington, I wish that you would send me the list of the permanent numbers.

Very sincerely yours,
FRED AMES, Assistant District Forester.

T. T. Munger

By Angell. Acting.

Copy for Information of Field Officer.

Form 135
(Revised Feb., 1917)

(To be prepared in triplicate—for Ranger, Supervisor, and District Office)

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Whitman National Forest

PROGRESS REPORT ON PLANTATIONS OR SEEDING AREAS[1]

Woodrat Exp. #5 *Project* *Areas reforested* spring (Season), 1911

Area No.	Acres.	SPECIES. (Scientific name.)	Date Examined.	Per Cent Area Examined.	Average Height (or Condition).	[2] Average Number per Acre.	[3] Distribution.	Cause of Loss.
4	8	Engleman Spruce	5/24/35	12½	3.24	136	uneven	falling snags
5	1	" "	"	1	3.64	1360	even	" "
6	1	" "	"	1	3.60	3860	even	" "
8	1	Scotch Pine	5/23/35	100	5.1	58	uneven	Porcupines falling snags

Remarks The Scotch Pine on Plot 8 is dying out. The only live plants were found along the edge of the plot where a swamped strip was made to identify the plot. Heavy cropping ~~on~~ of branches and terminals by porcupines. Plants scrubby, not adapted to area. A dense stand of Lodgepole is established on the area averaging 15 feet in height. On plots 4, 5, 6 a dense stand of Lodgepole pines, West Larch and White Fir is established on the area averaging 18 feet in height. Engleman Spruce is being suppressed making very little growth each year. Would reccomend this plantation be discontinued.

(Include recommendations for further work on any areas needing it)

Date submitted _____

G. D.
(Name)

Approved: _____, *Supervisor.*

Lumberman
(Title)

[1] Record on one sheet results on all areas planted or sown in one season on one project.
[2] Present average number of living trees per acre. In case of seed-spot sowing give number of spots with trees, not total number of trees.
[3] If not well distributed, explain under Remarks. Note whether any blanks of one-fourth acre or more occur.

8—1962

Form 185
(Revised Feb., 1917)

(To be prepared in triplicate—for Ranger, Supervisor, and District Office)

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Whitman *National Forest*

PROGRESS REPORT ON PLANTATIONS OR SEEDING AREAS[1]

Woodrat Exp. #5 *Project* *Areas reforested* May 21--23 (Season), *19* 13

Area No.	Acres.	SPECIES. (Scientific name.)	Date Examined.	Per Cent Area Examined.	Average Height (or Condition).	[2] Average Number per Acre.	[3] Distribution.	Cause of Loss.
11	5.8	Ponderosa Pine	5-24-35	16 2/3	10.88	135	uneven	Percupines and falling snags
		*Japanese Larch	5-24-35					

Remarks * Japanese Larch must of died out if any still alive they could not be identified from Western Larch.
(Include recommendations for further work on any areas needing it)

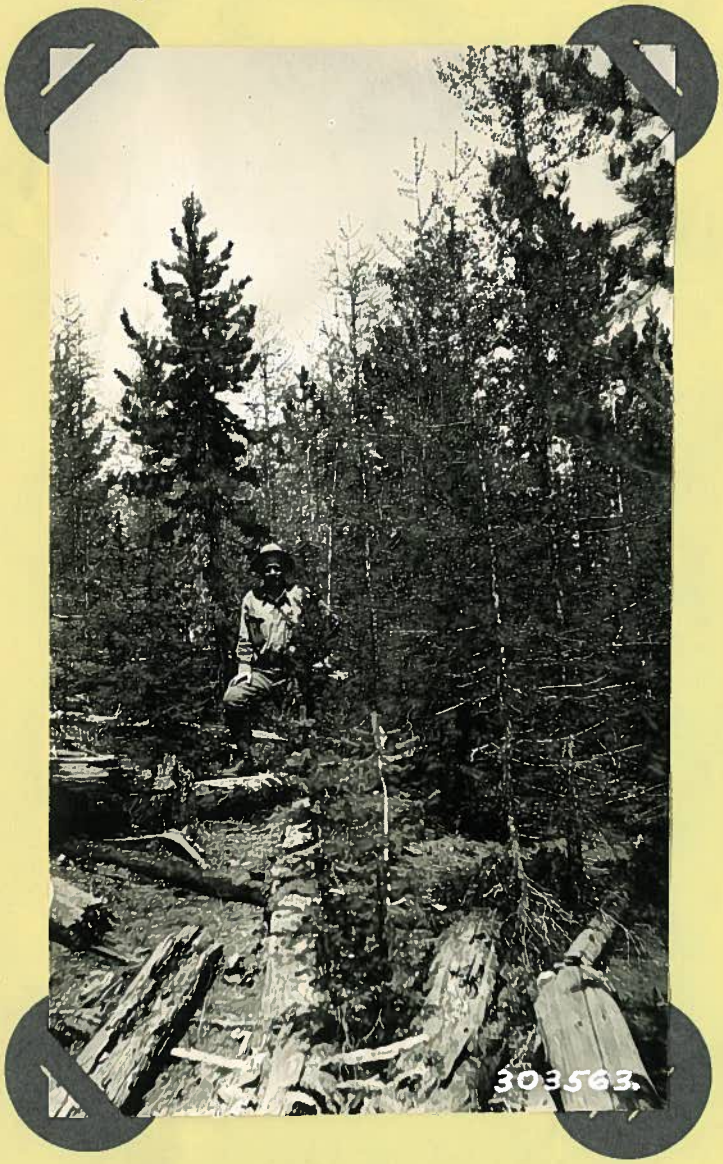
Ponderosa Pine is making an excellent growth and seems to be holding its own in competition with the Lodgepole Pine and Western Larch. A dense stand of Western Larch and Lodgepole Pine is established on the area. Would reccomend this plantation be discontinued.

Date submitted _____ _____ (Name)

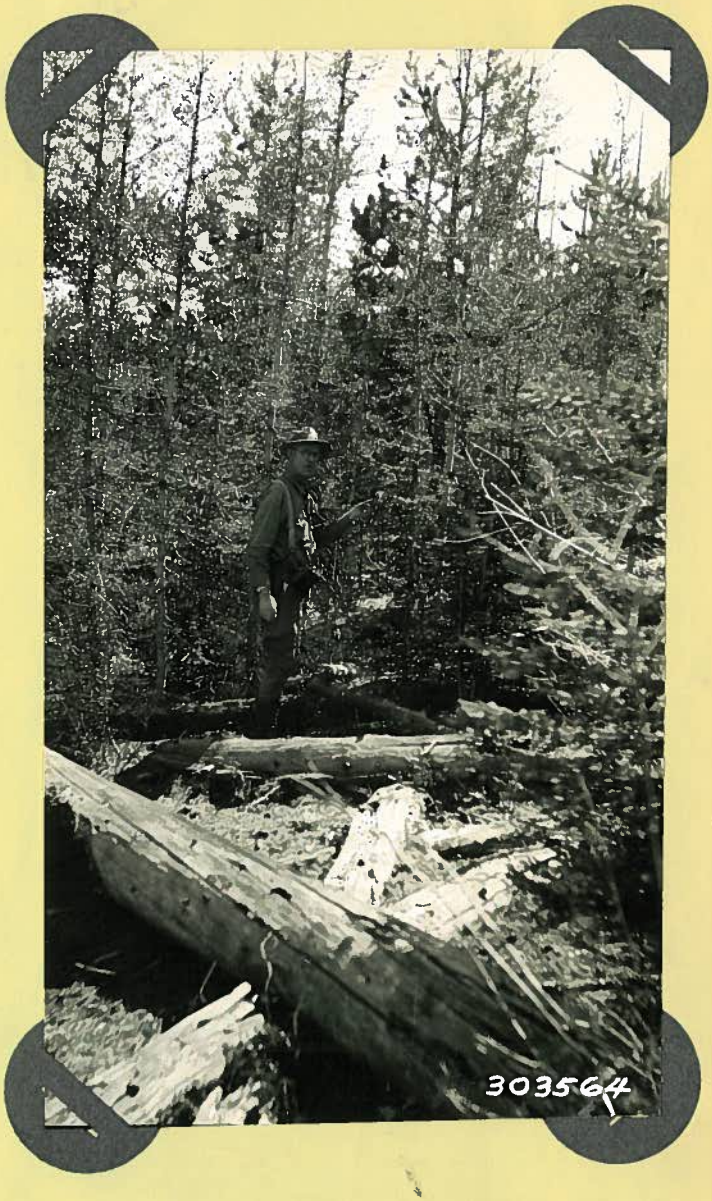
Approved: _____, *Supervisor.* _____ (Title)

[1] Record on one sheet results on all areas planted or sown in one season on one project.
[2] Present average number of living trees per acre. In case of seed-spot sowing give number of spots with trees, not total number of trees.
[3] If not well distributed, explain under Remarks. Note whether any blanks of one-fourth acre or more occur.

8—1933



Engleman Spruce suppressed by
Lodgepole Pine and Western Larch
Plot #6



Engleman Spruce suppressed by
Lodgepole Pine and West Larch.
Plot #5

Natural reproduction crowing in on Plot #4.

Natural reproduction crowding in on Plots No. 8-11