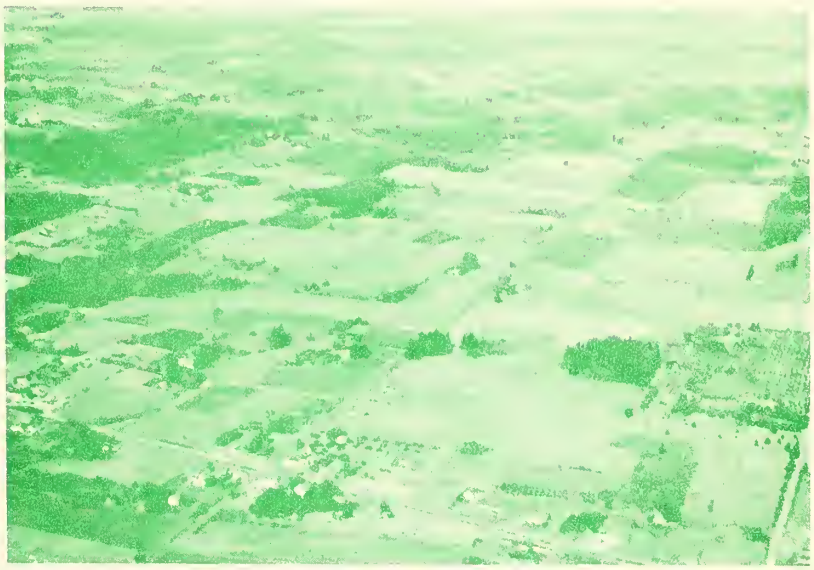
SMALL FOREST LANDOWNERSHIPS

OREGON AND WASHINGTON



U. S. Department of Agriculture, Forest Service,
Region Six, Portland, Oregon

1956

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Educational: Oregon State College - School of Forestry

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Small Forest Landownerships
Oregon and Washington

By

Division of State & Private Forestry

U. S. Department of Agriculture, Forest Service
Region Six, Portland, Oregon

1956

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INTRODUCTION

One family in ten owns a small forest!

Statistics from the Timber Resource Review, a 3-year study of the Nation's timber situation, points out that half of the private commercial forest land in Oregon and Washington is in "small" private holdings of less than 5,000 acres.

The Timber Resource Review divides private holdings into 3 classes:

Small or "Class 3 owner" is one having 10 or more but less than 5,000 acres.

Medium or "Class 2 owner" is one owning from 5,000 to 49,999 acres.

Large or "Class 1 owner" is one owning 50,000 or more acres.

The importance of the small or "Class 3 owner" for the States of Oregon and Washington is evidenced in the following tabulation:

Owner Class	Number of owners	Area	
		Thousand acres	Percent of total
Private:			
Class 3 owner (Small)	83,696	9,854[1]/	22
Class 2 owner (Medium)	186	2,865	6
Class 1 owner (Large)	30	6,755	15
Public:			
Federal	-	22,650	50
State and local	-	3,141	7
Total	83,912	45,265[1]/	100%

Most Class 1 and 2 timberland owners are associated with the forest industry and manage their stands for continuous forest production.

The Class 3 owner, on the other hand, includes many types of people such as farmers, ranchers, professional and businessmen, wage earners, and housewives. For the most part, forest management is an incidental part of the Class 3 owner's business activity.

To become better acquainted with the small forest landowner is the purpose of this booklet.

1/ Timber Resource Review figure is 100,000 acres higher--the difference is due to Forest Survey re-inventories made since the TRR.

CLASS 3 FOREST LANDOWNERSHIPS

The following summary from Table 1 points out some interesting size group comparisons:

Size of holding	Ownerships		Acres of commercial Forest land represented	
	Number	Percent	M acres	Percent
10 - 99 acres	59,743	71	2,022	21
100 - 499 "	20,910	25	4,346	44
500 - 1,999 "	2,741	3	2,512	25
2,000 - 4,999 "	302	1	974	10
	83,696	100	9,854	100

For example: 4 percent of the Class 3 ownerships (those with 500 or more acres) own 35 percent of the area. Adding the 100 499-acre group, 29 percent of the number of owners control 79 percent of the area.

It has been estimated that some 5,000 Class 3 owners benefit from forestry assistance each year. It has also been assumed that approximately 50 percent of the contacts are repeats, that is, follow-up with owners previously contacted. At that rate it would take approximately 33 years to reach each of these ownerships. Until there is greater coverage through the farm forestry and similar programs, some selection is inevitable - one solution might be to direct attention to those properties that are most likely to follow through. In many cases small owners can be assisted collectively such as: community demonstrations, work shops, forest institutes, show-me trips and other similar devices.

In addition each forest owner following acceptable forest practices should be encouraged to interest a neighbor who needs forestry guidance.

Neighborly assistance

TABLE 1 Area of Commercial Forest Land and Number of Class 3 Owners
By Size Groups -- Oregon and Washington -- 1952
(A Class 3 Forest Landowner is one having
10 or more but less than 5,000 acres)

Unit	Total		Size Group							
			2,000 - 4,999 Acres		500 - 1,999 Acres		100 - 499 Acres		10 - 99 Acres	
	Owners	Area	Owners	Area	Owners	Area	Owners	Area	Owners	Area
	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres
Western Oregon										
Benton	838	120	7	20	43	32	296	52	492	16
Clackamas	3,040	236	-	-	76*	65*	414	56	2,550	115
Clatsop	788	76	-	-	14*	17*	136	35	638	24
Columbia	1,564	175	4	14	51	49	300	60	1,209	52
Coos	2,463	303	3	7	103	92	1,366	186	991	18
Curry	769	171	8	22	54	47	352	81	355	21
Douglas	1,975	519	8	33	161	163	701	235	1,105	88
Hood River	314	37	-	-	16*	18*	66	10	232	9
Jackson	2,779	387	33	116	91	77	649	106	2,006	88
Josephine	912	199	5	21	27	42	234	83	646	53
Lane	3,985	380	8	18	140	81	1,429	231	2,408	50
Lincoln	1,450	175	3	11	42	31	405	87	1,000	46
Linn	2,406	189	5	11	27	18	484	110	1,890	50
Marion	1,511	128	-	-	7*	11*	152	50	1,352	67
Multnomah	420	48	-	-	4*	5*	121	31	295	12
Polk	1,564	77	-	-	43	27	214	30	1,297	20
Tillamook	784	107	-	4	40*	32*	226	52	518	23
Washington	2,207	191	5	15	73	53	230	55	1,899	68
Yamhill	1,389	119	-	-	136	72	283	32	970	15
Western Washington										
Clallam	1,292	94	-	-	8	9	227	48	1,057	37
Clark	2,979	147	-	-	17*	14*	443	81	2,519	52
Cowlitz	1,811	138	-	-	24	20	433	72	1,354	46
Grays Harbor	1,801	172	10	26	59	35	476	88	1,256	23
Island	1,363	82	-	-	16	16	132	26	1,215	40
Jefferson	870	86	-	-	19*	22*	174	42	677	22
King	1,564	142	-	-	39	43	177	55	1,348	44
Kitsap	1,747	75	-	-	-	-	109*	30*	1,638	45
Lewis	3,948	286	-	-	50*	34*	869	161	3,029	91
Mason	1,479	148	-	-	34*	43*	231	56	1,214	49
Pacific	1,036	83	4	14	29	17	177	36	826	16
Pierce	4,426	199	-	-	10*	11*	358	72	4,058	116
San Juan	754	50	-	-	29*	20*	167	20	558	10
Skagit	2,051	159	3	7	24	26	324	71	1,700	55
Skamania	792	81	4	13	18	17	169	35	601	16
Snohomish	3,624	157	-	-	23*	21*	327	59	3,274	77
Thurston	2,083	167	-	-	22	24	338	82	1,723	61
Wahkiakum	335	32	-	-	4	3	75	20	256	9
Whatcom	2,694	142	3	9	15	14	148	45	2,528	74
Western Oregon	31,178	3,637	98	319	1,139	901	8,088	1,582	21,853	835
Western Washington	36,649	2,440 1/	34	99	432	361	5,352	1,097	30,831	883
Douglas-fir Subregion	67,827	6,077 1/	132	418	1,571	1,262	13,440	2,679	52,684	1,718
Eastern Oregon										
East Cascade 2/	1,472	309	23	63	146	124	451	96	852	26
Central Oregon 2/	3,461	1,077	90	253	430	390	1,877	412	1,064	22
Total	4,933	1,386	113	316	576	514	2,328	508	1,916	48
Eastern Washington										
R-6 3/	2,632	877	26	108	381	412	745	276	1,480	81
R-1 3/	8,304	1,514	31	132	213	324	4,397	883	3,663	175
Total	10,936	2,391	57	240	594	736	5,142	1,159	5,143	256
Pine Subregion	15,869	3,777	170	556	1,170	1,250	7,470	1,667	7,059	304
Oregon	36,111	5,023	211	635	1,715	1,415	10,416	2,090	23,769	883
Washington	47,585	4,831 1/	91	339	1,026	1,097	10,494	2,256	35,974	1,139
Total Pacific Northwest	83,696	9,854 1/	302	974	2,741	2,512	20,910	4,346	59,743	2,022

* Combined with next larger size group to prevent disclosure.

1/ Timber Resource Review figure is 100,000 acres higher---
the difference is due to Forest Survey re-inventories made since the TRR.

2/ Counties included in subunits:

East Cascade	Central Oregon (Blue Mtn.)	
Deschutes	Baker	Morrow
Jefferson	Crook	Umatilla
Klamath	Grant	Union
Lake	Harvey	Wallowa
Wasco	Malheur	Wheeler

3/ Counties included in subunits:

Region 6		Region 1
Asotin	Kittitas	Ferry
Chelan	Klickitat	Pend Oreille
Columbia	Okanogan	Spokane
Douglas	Walla Walla	Stevens
Garfield	Yakima	Whitman

COUNTY UNITS

In this report, information on Class 3 forest conditions is discussed by county groups. These county groups represent the smallest possible unit on which reasonable accuracy was obtained from the field sampling. However, most counties within a group have similar conditions.

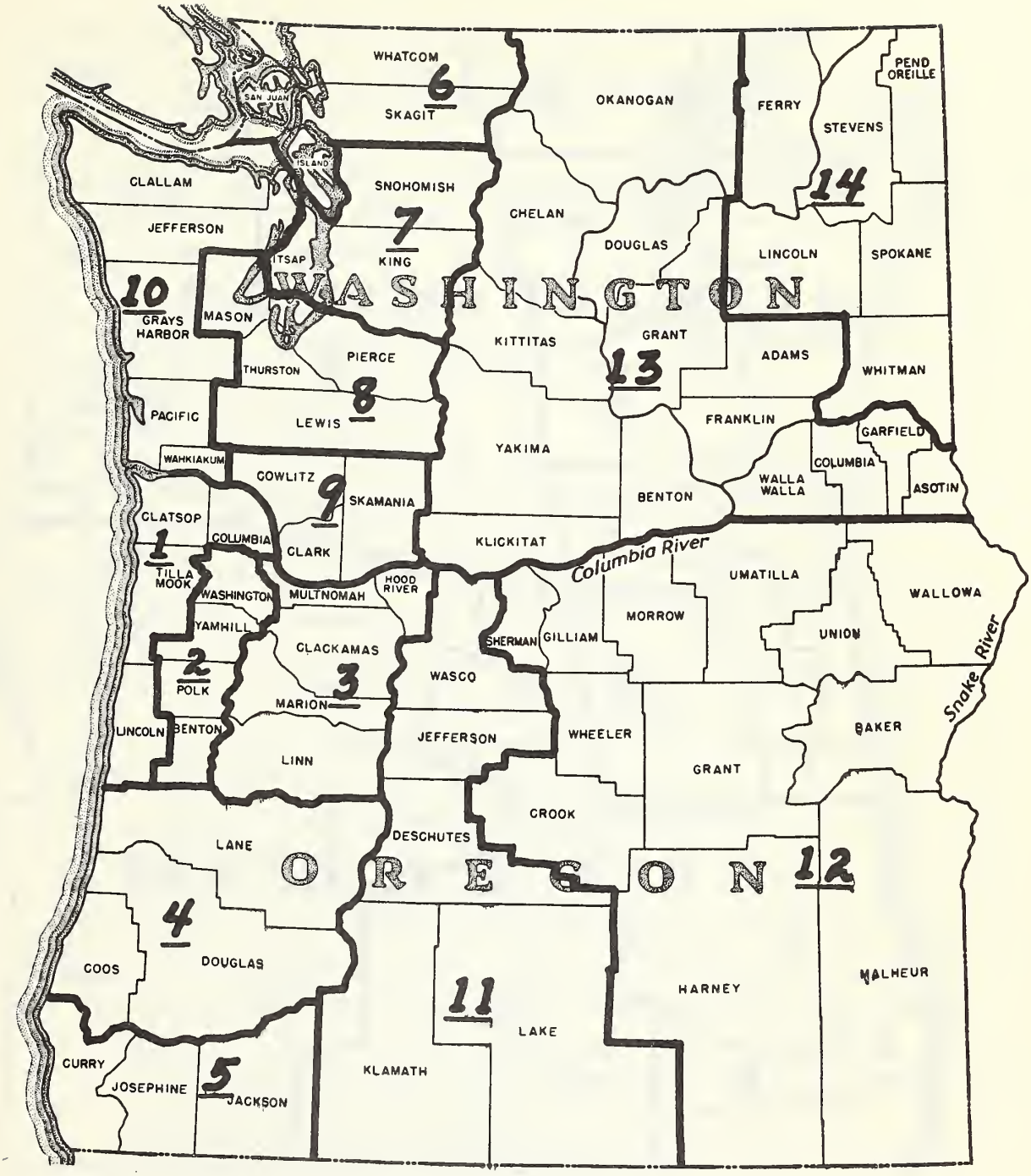
Sampling standards for the study:

For the Douglas-fir Subregion: Some 30 Class 3 forest ownerships were sampled per county, i.e., forest conditions for County Unit No. 1, which represents 4 counties, was determined by sampling 119 Class 3 ownerships.

For the Pine Subregion:
County Unit No. 11 represents a sample of 59 Class 3 ownerships.
" " " 12 " " " " 89 " " "
" " " 13 " " " " 64 " " "
" " " 14 (Class 3 conditions were not studied for this area.)

State	Unit number	Counties represented
Western Oregon	1	Clatsop, Columbia, Tillamook and Lincoln
	2	Washington, Yamhill, Polk and Benton
	3	Clackamas, Marion, Linn, Hood River and Multnomah
	4	Lane, Coos and Douglas
	5	Curry, Josephine and Jackson
Western Washington	6	Whatcom, Skagit, Island and San Juan
	7	Snohomish, King and Kitsap
	8	Mason, Thurston, Pierce and Lewis
	9	Cowlitz, Clark and Skamania
	10	Clallam, Jefferson, Grays Harbor, Pacific and Wahkiakum
Eastern Oregon	11	Wasco, Jefferson, Deschutes, Lake and Klamath
	12	Baker, Crook, Grant, Harney , Malheur, Morrow, Umatilla, Union, Wallowa and Wheeler
Eastern Washington	13	Asotin, Chelan, Columbia, Douglas, Garfield, Kittitas, Klickitat, Okanogan, Walla Walla and Yakima
	14	Ferry, Pend Oreille, Spokane, Stevens and Whitman

COUNTY UNITS

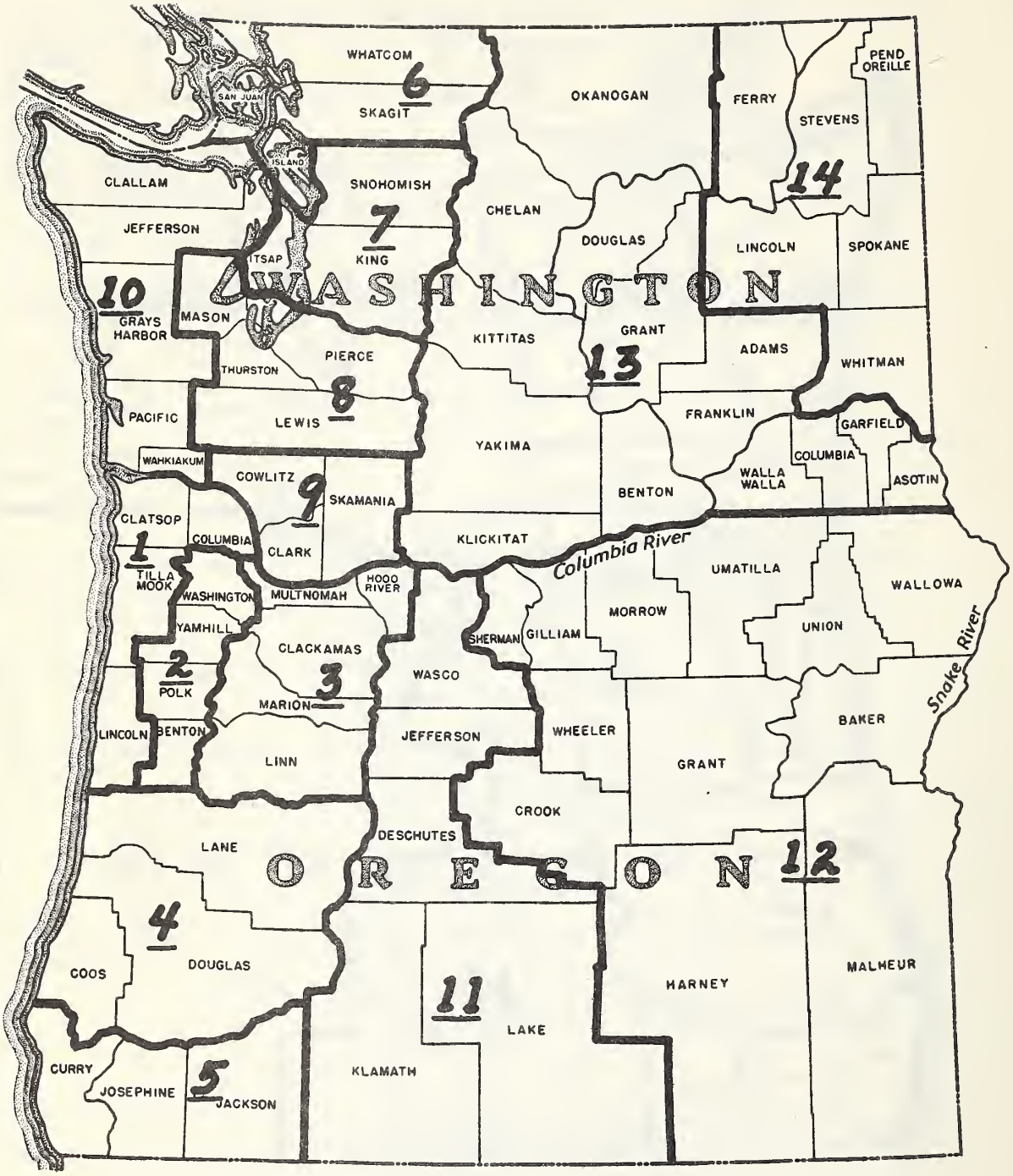


MAP SHOWING COUNTY UNITS FOR OREGON AND WASHINGTON

Legend

Unit Boundary

COUNTY UNITS



MAP SHOWING COUNTY UNITS FOR OREGON AND WASHINGTON

Legend

Unit Boundary

TABLE 2 Area of Commercial Forest Land and Number of Class 3 Forest Landowners, By Size Groups and County Units, Oregon and Washington --- 1952

County unit[1]	Total		Size Group							
	Owners	Area	2,000 - 4,999 Acres		500 - 1,999 Acres		100 - 499 Acres		10 - 99 Acres	
	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres
Western Oregon										
County group #1	4,586	533	10	36	144	118	1,067	234	3,365	145
2	6,018	507	12	35	295	184	1,053	169	4,658	119
3	7,691	638	11	31	124	97	1,237	257	6,319	253
4	8,423	1,202	19	58	404	336	3,496	652	4,504	156
5	4,460	757	46	159	172	166	1,235	270	3,007	162
Western Washington										
County group #6	6,862	433	8	21	82	71	771	162	6,001	179
7	6,935	374	-	-	64*	66*	611	142	6,260	166
8	11,936	800	4	15	112	97	1,796	371	10,024	317
9	5,582	366	5	15	58	49	1,045	188	4,474	114
10	5,334	467	15	42	118	84	1,129	234	4,072	107
Western Oregon	31,178	3,637	98	319	1,139	901	8,088	1,582	21,853	835
Western Washington	36,649	2,440[2]	34	99	432	361	5,352	1,097	30,831	883
Douglas-fir Subregion	67,827	6,077[2]	132	418	1,571	1,262	13,440	2,679	52,684	1,718
Eastern Oregon										
County group #11	1,472	309	23	63	146	124	451	96	852	26
12	3,461	1,077	90	253	430	390	1,877	412	1,064	22
Total	4,933	1,386	113	316	576	514	2,328	508	1,916	48
Eastern Washington										
County group #13	2,632	877	26	108	381	412	745	276	1,480	81
14	8,304	1,514	31	132	213	324	4,397	883	3,663	175
Total	10,936	2,391	57	240	594	736	5,142	1,159	5,143	256
Pine Subregion	15,869	3,777	170	556	1,170	1,250	7,470	1,667	7,059	304
Oregon	36,111	5,023	211	635	1,715	1,415	10,416	2,090	23,769	883
Washington	47,585	4,831[2]	91	339	1,026	1,097	10,494	2,256	35,974	1,139
Total Pacific Northwest	83,696	9,854[2]	302	974	2,741	2,512	20,910	4,346	59,743	2,022

* Combined with next larger size group to prevent disclosure.

1/ Counties within each county group are listed on page 4.

2/ Timber Resource Review figure is 100,000 acres higher -- the difference is due to Forest Survey re-inventories made since the TRR.

OPERATING AND NONOPERATING CLASS 3 FOREST LANDOWNERSHIPS

Class 3 forest landownerships were separated into two broad groups--depending on whether or not there had been cutting. Small forest ownerships which had some commercial cutting during the period January 1, 1947 to December 31, 1952 were classed as operating. Those which had no cutting during that period were called nonoperating. Areas cut during this period are referred to as "recently cutover forest land," in both this report and the Timber Resource Review.

Thus, an operating forest is one on which sufficient cutting occurred between January 1, 1947 and December 31, 1952, to provide reasonable evidence as to forest conditions following cutting.

Table 3 indicates that 36 percent of the Class 3 ownerships for Oregon and Washington were classed as operating during the examination period.

Most forest activity occurred in Oregon, with 46 percent classed as operating.

An operating forest ownership

TABLE 3 Class 3 Forest Landownership Classified as Operating and Nonoperating by Size Groups, Oregon and Washington -- 1952

County Unit[2]	Total Operating & Nonoperating		Operating[1]										Nonoperating							
			Total		Size Group								Total		Size Group					
	Owners	Area	Owners	Area	2,000 - 4,999 Acres		500 - 1,999 Acres		400 - 499 Acres		10 - 99 Acres		Owners	Area	2,000 - 4,999 Acres		500 - 1,999 Acres		100 - 499 Acres		10 - 99 Acres	
	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres
Western Oregon																						
County group #1	4,586	533	1,841	270	8	28	94	83	413	96	1,326	63	2,745	263	-	-	52*	43*	654	138	2,039	82
2	6,018	507	2,513	330	11	30	220	136	580	110	1,702	54	3,505	177	-	-	76*	53*	473	59	2,956	65
3	7,691	638	4,173	358	11	31	72	70	497	130	3,593	127	3,518	280	-	-	52	27	740	127	2,726	126
4	8,423	1,202	3,989	679	18	54	308	246	1,979	310	1,684	69	4,434	523	-	-	97*	94*	1,517	342	2,820	87
5	4,460	757	1,780	446	44	151	120	100	663	145	953	50	2,680	311	-	-	54*	74*	572	125	2,054	112
Western Washington																						
County group #6	6,862	433	2,034	216	8	21	69	61	410	80	1,547	54	4,828	217	-	-	13	10	361	82	4,454	125
7	6,935	374	1,435	105	-	-	40*	35*	150	39	1,245	31	5,500	269	-	-	24*	31*	461	103	5,015	135
8	11,936	800	3,011	328	3	12	70	64	791	177	2,147	75	8,925	472	-	-	43*	36*	1,005	194	7,877	242
9	5,582	366	1,398	190	5	15	38	33	618	118	737	24	4,184	176	-	-	20	16	427	70	3,737	90
10	5,334	467	1,934	231	10	26	69	50	568	115	1,287	40	3,400	236	5	16	49	34	561	119	2,785	67
Western Oregon	31,178	3,637	14,296	2,083	92	284	814	635	4,132	791	9,258	363	16,882	1,554	6	25	325	266	3,956	791	12,595	472
Western Washington	36,649	2,440[3]	9,812	1,070	27	77	285	240	2,537	529	6,963	224	26,837	1,370	7	22	147	121	2,815	568	23,868	659
Douglas-fir Subregion	67,827	6,077	24,108	3,153	119	371	1,099	875	6,669	1,320	16,221	587	43,719	2,924	13	47	472	387	6,771	1,359	36,463	1,131
Eastern Oregon																						
County group #11	1,472	309	483	169	10	30	104	90	158	39	211	10	989	140	13	33	42	34	293	57	641	16
12	3,461	1,077	1,829	724	70	204	314	263	1,126	254	319	3	1,632	353	20	49	116	127	751	158	745	19
Total	4,933	1,386	2,312	893	80	234	418	353	1,284	293	530	13	2,621	493	33	82	158	161	1,044	215	1,386	35
Eastern Washington																						
County group #13	2,632	877	1,033	355	18	72	177	185	166	65	672	33	1,599	522	8	36	204	227	579	211	808	48
14[4]																						
Pine Subregion (Less group 14)	7,565	2,263	3,345	1,248	98	306	595	538	1,450	358	1,202	46	4,220	1,015	41	118	362	388	1,623	426	2,194	83
Total Oregon	36,111	5,023	16,608	2,976	172	528	1,232	988	5,416	1,084	9,788	376	19,503	2,047	39	107	483	427	5,000	1,006	13,981	507
Total Washington (Less group 14)	39,281	3,317	10,845	1,425	45	149	462	425	2,703	594	7,635	257	28,436	1,892	15	58	351	348	3,394	779	24,676	707
Total Pacific Northwest (Less group 14)	75,392	8,340	27,453	4,401	217	677	1,694	1,413	8,119	1,678	17,423	633	47,939	3,939	54	165	834	775	8,394	1,785	38,657	1,214

* Combined with next larger size group to prevent disclosure.

1/ Class 3 forests in which some cutting for commercial purposes was done between January 1, 1947 and December 31, 1952, were classed as operating.

2/ Counties within each county group are listed on page 4.

3/ Timber Resource Review figure is 100,000 acres higher -- the difference is due to Forest Survey re-inventories made since the TRR.

4/ Data not available.

FARM AND NONFARM CLASS 3 FOREST LANDOWNERSHIPS[1/]

Table 4 considers two basic ownership groups, farm and nonfarm. For comparison purposes these ownerships are further classified as to operating and nonoperating.

Farm ownerships have a 16 percent edge, both as to number and area, over the nonfarm group. Farm owners also exceed, by about 28 percent the nonfarm owners in number.

The farm owner usually has considerable advantage as a forest manager. He generally lives close to the woods and has equipment that may be converted to woods use. Although many have these advantages, some of them are most apt to neglect the forest crop.

While some farm owners operate the forest as part of the farm unit, many consider the woods in about the same category as the scrap pile. In other words--when an item is needed perhaps it can be found in the woods.

The nonfarm owner generally does not live on the property and considers the forest as an investment. This investment may represent monetary value to the owner or it may be recreational.

Farm and nonfarm owners become better forest managers through group demonstrations

1/ Farm--A private ownership with 10 or more acres of commercial forest land plus 3 or more acres producing $150 or more of agricultural products.

TABLE 4 Class 3 Operating and Nonoperating Forest Ownerships by Farm and Nonfarm, Oregon and Washington — 1952

County unit[2]	Operating[1]						Nonoperating					
	Total Farm and Nonfarm		Farm		Nonfarm		Total Farm and Nonfarm		Farm		Nonfarm	
	Owners	Area	Owners	Area	Owners	Area	Owner	Area	Owners	Area	Owners	Area
	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres	Number	Thousand acres
Western Oregon												
County group #1	1,841	270	1,392	177	449	93	2,745	263	1,578	137	1,167	126
2	2,513	330	1,957	250	556	80	3,505	177	2,933	137	572	40
3	4,173	358	2,867	256	1,306	102	3,518	280	2,368	201	1,150	79
4	3,989	679	2,083	254	1,906	425	4,434	523	2,566	192	1,868	331
5	1,780	446	696	146	1,084	300	2,680	311	1,200	156	1,480	155
Total	14,296	2,083	8,995	1,083	5,301	1,000	16,882	1,554	10,645	823	6,237	731
Western Washington												
County group #6	2,034	216	1,160	114	874	102	4,828	217	2,540	115	2,288	102
7	1,435	105	964	50	471	55	5,500	269	2,707	120	2,793	149
8	3,011	328	2,120	139	891	189	8,925	472	4,593	159	4,332	313
9	1,398	190	604	85	794	105	4,184	176	2,580	101	1,604	75
10	1,934	231	1,007	101	927	130	3,400	236	1,754	114	1,646	122
Total	9,812	1,070[3]	5,855	489	3,957	581	26,837	1,370[3]	14,174	609	12,663	761
Douglas-fir Subregion	24,108	3,153	14,850	1,572	9,258	1,581	43,719	2,924	24,819	1,432	18,900	1,492
Eastern Oregon												
County group #11	483	169	275	140	208	29	989	140	489	109	500	31
12	1,829	724	1,528	712	301	12	1,632	353	879	278	753	75
Total	2,312	893	1,803	852	509	41	2,621	493	1,368	387	1,253	106
Eastern Washington												
County group #13 14[4]	1,033	355	891	269	142	86	1,599	522	1,162	348	437	174
Pine Subregion (Less group 14)	3,345	1,248	2,694	1,121	651	127	4,220	1,015	2,530	735	1,690	280
Total Oregon	16,608	2,976	10,798	1,935	5,810	1,041	19,503	2,047	12,013	1,210	7,490	837
Total Washington (Less group 14)	10,845	1,425	6,746	758	4,099	667	28,436	1,892	15,336	957	13,100	935
Total Pacific Northwest (Less group 14)	27,453	4,401	17,544	2,693	9,909	1,708	47,939	3,939	27,349	2,167	20,590	1,772

1/ Class 3 forest in which some cutting for commercial purposes was done between January 1, 1947 and December 31, 1952 -- were classed as operating.

2/ Counties within each county group are listed on page 4.

3/ Operating and nonoperating total 100,000 acres less than TRR, the difference is due to Forest Survey re-inventories made since the TRR.

4/ Data not available.

STAND AGE AT TIME OF CUTTING

The age at which timber is harvested in Oregon and Washington's 83,696 small ownerships is important as they represent half of the private commercial forest land in the two states.

For example: 44 percent of the operating Class 3 owners in western Washington cut timber from stands less than 60 years of age.

Class 3 forest owners will continue to cut younger stands as the market for smaller materials improves.

While better markets, which use thinnings, salvage material, etc., make it possible to improve the growing forest at a profit, they can also create an incentive to cut prematurely.

Class 3 owners need to adopt approved methods of managing young-growth timber. Progressive forest managers have not only the immediate operation in mind, but succeeding ones as well.

Take a good look at your trees before cutting.

TABLE 5 Operating Class 3 Forest Ownerships by Stand-Age Class at Time of Cutting, Oregon and Washington -- 1952

County unit[1]	Total Ownerships	Stand-age when cut: Under 60 years	60 - 99 years	100 - 159 years	160 years and older
	Number	Percent	Percent	Percent	Percent
Western Oregon					
County group #1	1,841	23	52	24	1
2	2,513	31	48	16	5
3	4,173	27	45	18	10
4	3,989	3	58	32	7
5	1,780	-	40	30	30
Total	14,296	18	50	23	9
Western Washington					
County group #6	2,034	45	40	13	2
7	1,435	34	56	6	4
8	3,011	61	35	1	3
9	1,398	24	55	17	4
10	1,934	40	30	19	11
Total	9,812	44	41	10	5
Douglas-fir Subregion	24,108	29	46	18	7
Easter Oregon					
County Group #11	483	-	6	47	47
12	1,829	-	4	27	69
Total	2,312	-	4	31	65
Eastern Washington					
County group #13 14[2]	1,033	-	15	39	46
Pine Subregion (Less group 14)	3,345	-	8	33	59
Total Oregon	16,608	16	44	24	16
Total Washington (Less group 14)	10,845	40	38	13	9
Total Pacific Northwest (Less group 14)	27,453	25	41	20	14

1/ Counties within each county group are listed on page 4.

2/ Data not available.

DEGREE OF STOCKING FOLLOWING CUTTING [1/]

Forest capacity for continuous yield in growth and dollars relates directly to whether or not each acre grows the proper number of trees.

The local merchant is judged by the stock he carries on the shelves. Likewise the forest manager is judged by the degree of stocking on his land.

For the immediate future, each forest manager should strive for at least 70 percent stocking following cutting.

Much remains to be accomplished since only 59 percent of the operating Class 3 forest ownerships for the Douglas-fir Subregion and 53 percent for the Pine Subregion were in the 70 percent-or-better catagory.

Both farm and nonfarm forest owners must take a second look; there are still too many acres not stocked, just occupying space.

1/ This study includes both existing and prospective stocking. Each observation point that was not stocked with an existing crop tree or seedling was rated according to standards as to whether or not stocking was in prospect. TRR standards for prospective stocking: "The factors affecting prospective stocking in these types were classified into three categories: (1) adequacy of seed source, (2) condition of seedbed, and (3) slope and exposure. At each observation point not stocked, the adequacy of seed source was examined and given a numerical rating ranging from 0 to 4. Seedbed condition was assigned a rating of 0 to 3, and slope and exposure was given a rating of 1 to 3 depending on the degree of severity. These three separate ratings were then added together and if the sum was 7 or more the point being examined was classed as 'stocking in prospect'; if the total amounted to less than 7, the point was recorded as 'stocking not in prospect!' Any point with a zero seed source or a zero seedbed rating was classed as 'stocking not in prospect' regardless of the rating assigned the other two factors."

TABLE 6 Operating Class 3 Forest Ownerships by Degree of Stocking Following Cutting by Size Group, Oregon and Washington — 1952[1/]

County unit[2/]	Total Operating Ownerships	Stocking All size groups			Size group: 2,000 - 4,999 Acres				500 - 1,999 Acres				100 - 499 Acres				10 - 99 Acres			
		High	Medium	Low	Owner-ships	Stocking High	Medium	Low	Owner-ships	Stocking High	Medium	Low	Owner-ships	Stocking High	Medium	Low	Owner-ships	Stocking High	Medium	Low
	Number	Percent	Percent	Percent	Number	Percent	Percent	Percent	Number	Percent	Percent	Percent	Number	Percent	Percent	Percent	Number	Percent	Percent	Percent
Western Oregon																				
County group #1	1,841	56	29	15	8	25	50	25	94	59	23	18	413	43	33	24	1,326	60	28	12
2	2,513	61	24	15	11	46	27	27	220	59	27	14	580	69	19	12	1,702	59	25	16
3	4,173	62	32	6	11	45	55	-	72	85	11	4	497	66	24	10	3,593	61	34	5
4	3,989	62	30	8	18	33	45	22	308	64	29	7	1,979	62	34	4	1,684	63	23	14
5	1,780	62	26	12	44	84	16	-	120	72	28	-	663	74	22	4	953	52	28	20
Western Washington																				
County group #6	2,034	58	32	10	8	25	62	13	69	61	27	12	410	77	12	11	1,547	53	37	10
7	1,435	64	29	7	-	-	-	-	40*	44	56	-	150	63	27	10	1,245	65	28	7
8	3,011	48	42	10	3	75	-	25	70	69	29	2	791	65	26	9	2,147	41	49	10
9	1,398	38	41	21	5	40	40	20	38	32	68	-	618	25	46	29	737	50	35	15
10	1,934	71	25	4	10	80	10	10	69	68	16	16	568	69	28	3	1,287	72	24	4
Western Oregon	14,296	61	29	10	92	60	30	10	814	65	26	9	4,132	63	29	8	9,258	60	29	11
Western Washington	9,812	56	34	10	27	55	30	15	285	58	34	8	2,537	58	29	13	6,963	55	36	9
Douglas-fir Subregion	24,108	59	31	10	119	59	30	11	1,099	63	28	9	6,669	61	29	10	16,221	58	32	10
Eastern Oregon																				
County group #11	483	46	37	17	10	30	40	30	104	45	39	16	158	55	30	15	211	40	41	19
12	1,829	53	40	7	70	36	43	21	314	36	54	10	1,125	58	39	3	319	56	28	16
Total	2,312	51	40	9	80	35	43	22	418	38	50	12	1,284	57	38	5	530	50	33	17
Eastern Washington																				
County group #13, 14[3/]	1,033	55	27	18	18	44	28	28	177	45	36	19	166	49	25	26	672	60	25	15
Pine Subregion (Less group 14)	3,345	53	36	11	98	37	40	23	595	40	46	14	1,450	57	37	6	1,202	55	29	16
Total Oregon	16,608	60	30	10	172	48	36	16	1,232	56	34	10	5,416	62	31	7	9,788	59	29	12
Total Washington (Less group 14)	10,845	56	33	11	45	51	29	20	462	53	35	12	2,703	58	29	13	7,635	55	35	10
Total Pacific Northwest (Less group 14)	27,453	58	32	10	217	49	35	16	1,694	55	35	10	8,119	61	30	9	17,423	57	32	11

* Combined with next larger size group to prevent disclosure.

1/ Includes both existing and prospective stocking. For definition of prospective stocking see footnote page 14.
The degree of stocking was subdivided into three broad percentage classes. High - when 70 to 100 percent stocked
Medium - " 40 to 69 " "
Low - " 0 to 39 " "

2/ Counties within each county group are listed on page 4.

3/ Data not available.

REASONS FOR MEDIUM AND LOW STOCKING 1/

The most important project following cutting is to provide fully stocked conditions for the next growing period and harvest.

Table 6 on page 15 pointed out that low and medium stocking occurred on 41 percent of the operations of the Douglas-fir Subregion and 47 percent for the Pine Subregion.

Table 7 indicates ground cover to be the principal reason for poor stocking. Generally it is brush in the Douglas-fir Subregion and a combination of brush and perennial sod in the Pine Subregion. Other things no doubt contributed to brush and sod conditions, such as inadequate seed source and rodents eating the seed or damaging the seedlings to the extent brush and sod took over.

Table 7 also clearly points out the importance of "pre-regeneration plans" prior to cutting. The important thing is to prevent excessive cover competition by providing for:

1. An adequate seed source.
2. Ground preparation.
3. Protection from fire, rodents, grazing, insects, and disease.
4. Planting or seeding if nature fails.

Keep each acre growing a forest product by filling in the blanks.

1/ Includes both existing and prospective stocking. For definition of prospective stocking see footnote page 14.

TABLE 7 Factors Contributing to Medium and Low Stocking Following Cutting on Class 3 Forest Ownerships, Oregon and Washington — 1952 [1]

County unit [2]	Total ownerships with medium & low stocking	Ground Cover					Inadequate seed source	Severe [3] site conditions	Animals [4] rodent and other damage
		Brush	Perennial sod	Cull or non-commercial species	Deep slash, logs, stump, etc.	Total ground cover			
	Number	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Western Oregon									
County group #1	819	43	5	17	5	70	10	11	9
2	978	51	17	4	11	83	2	14	1
3	1,585	22	15	14	2	53	17	6	24
4	1,500	25	21	11	19	76	6	17	1
5	674	25	21	2	21	69	28	3	-
Total	5,556	29	17	12	12	70	10	13	7
Western Washington									
County group #6	856	41	5	4	20	70	13	4	13
7	517	38	-	24	14	76	-	24	-
8	1,568	40	15	37	6	98	-	1	1
9	860	30	15	15	21	81	4	7	8
10	559	35	1	32	15	83	7	7	3
Total	4,360	37	10	22	15	84	4	6	6
Douglas-fir Subregion	9,916	32	14	16	13	75	8	10	7
Eastern Oregon									
County group #11	262	21	5	3	18	47	26	26	1
12	861	19	18	10	8	55	21	23	1
Total	1,123	19	16	8	10	53	23	23	1
Western Washington County group #13 14 [5]	460	7	23	2	21	53	49	2	-
Pine Subregion (Lese group 14)	1,583	17	17	7	12	53	27	19	1
Total Oregon	6,679	26	17	10	12	65	13	16	6
Total Washington (Less group 14)	4,820	33	12	20	16	81	9	5	5
Total Pacific Northwest (Less group 14)	11,499	28	15	14	13	70	12	12	6

1/ Includes both existing and prospective stocking. For definition of prospective stocking see footnote page 14.

2/ Counties within each county group are listed on page 4.

3/ Exposure was the principal element contributing to severe site conditions.

4/ Apparently rodent losses are not easily identified in this type of survey. No doubt ground cover conditions could have been traced back to rodents eating the seed or damaging the seedling -- thus explaining why brush or less desirable species took over.

5/ Data not available.

CONVERSION OF CLASS 3 FOREST LAND TO OTHER USE

During 1952 some 56,000 acres of recently cutover Class 3 forests were converted to use other than forest production. Some of these uses were: agriculture, suburban development, rights-of-way, reservoir sites, and industrial expansion.

As population increases, so will demands for the conversion of forest land to other uses. Better than 40 percent of the land area of the Pacific Northwest is classified as commercial forest land at the present time. There is no excess of commercial forest land. Further withdrawals, unless carefully planned, may adversely affect future timber supplies.

It is also evident that as population increases, additional commercial forest lands may be needed for recreation, watershed protection and similar uses that would curtail somewhat the use of those lands for commercial timber production. Such use largely involves back-country areas, thus placing additional responsibilities on the Class 3 forest landowner to supply the additional needs.

Sapling stand being converted to other use.

TABLE 8 Class 3 Forest Land that was Converted to Other Use, Oregon and Washington — 1952[1]

County unit[2]	Total Forest land		Total Operating forest land		Class 3 forest land converted to other use	
	Area	Ownerships	Area	Ownerships	Area	Ownerships[3]
	Acres	Number	Acres	Number	Acres	Number
Western Oregon						
County group #1	533,000	4,586	270,000	1,841	817	213
2	507,000	6,018	330,000	2,513	3,930	445
3	638,000	7,691	358,000	4,173	10,103	914
4	1,202,000	8,423	679,000	3,989	15,455	1,043
5	757,000	4,460	446,000	1,780	3,062	163
Total	3,637,000	31,178	2,083,000	14,296	33,367	2,778
Western Washington						
County group #6	433,000	6,862	216,000	2,034	2,245	484
7	374,000	6,935	105,000	1,435	1,766	518
8	800,000	11,936	328,000	3,011	4,115	660
9	366,000	5,582	190,000	1,398	588	280
10	467,000	5,334	231,000	1,934	2,822	342
Total	2,440,000[4]	36,649	1,070,000	9,812	11,536	2,284
Douglas-fir Subregion	6,077,000	67,827	3,153,000	24,108	44,903	5,062
Eastern Oregon						
County group #11	309,000	1,472	169,000	483	1,897	114
12	1,077,000	3,461	724,000	1,829	8,935	63
Total	1,386,000	4,933	893,000	2,312	10,832	177
Eastern Washington						
County group #13	877,000	2,632	355,000	1,033	604	27
14[5]						
Pine Subregion (Less group 14)	2,263,000	7,565	1,248,000	3,345	11,436	204
Total Oregon	5,023,000	36,111	2,976,000	16,608	44,199	2,955
Total Washington (Less group 14)	3,317,000	39,281	1,425,000	10,845	12,140	2,311
Total Pacific Northwest (Less group 14)	8,340,000	75,392	4,401,000	27,453	56,339	5,266

1/ Recently cut class 3 forest land which was cleared for agricultural use, rights-of-way, etc. during calendar year 1952.

2/ Counties within each county group are listed on page 4.

3/ Number of ownerships affected by land conversion.

4/ Timber Resource Review figure is 100,000 acres higher — the difference is due to Forest Survey re-inventories made since the TRR.

5/ Data not available.

TIMBER STAND IMPROVEMENT

About 1 percent or 646 Class 3 forest owners in the Douglas-fir Subregion are doing some type of stand improvement work on areas other than those recently cut over.

Each year additional owners are undertaking stand improvement work such as pruning, releasing crowded conditions by thinning, eliminating cull trees, brush eradication, etc. Stand improvement measures for the forest are comparable to the improvement work of an orchardist.

Forest owners can accomplish stand improvement work on a cost-share basis through the Agricultural Conservation Program (ACP). Information concerning this program may be obtained by contacting the local county Agricultural Stabilization and Conservation Committee (ASC) or the farm forester.

The purpose of the Agricultural Conservation Program is to encourage forest owners to do improvement work that benefits both the owner and the public.

Unthinned

Thinned

TABLE 9 Class 3 Forest Land Ownerships on which Timber Stand Improvement (T.S.I.) Work was Done[1/]. By Size Group Douglas-fir Subregion January 1, 1947 to December 31, 1952.

Unit	Total Ownerships All size groups	Ownerships with T.S.I. All size groups	Size group: 500 - 4,999 Acres		100 - 499 Acres		10 - 99 Acres	
			Total Ownerships	Ownerships with T.S.I.	Total Ownerships	Ownerships with T.S.I.	Total Ownerships	Ownerships with T.S.I.
	Number	Number	Number	Number	Number	Number	Number	Number
Western Oregon	31,178	282	1,237	20	8,088	132	21,853	130
Western Washington	36,649	364	466	12	5,352	139	30,831	213
Douglas-fir Subregion	67,827	646	1,703	32	13,440	271	52,684	343

1/ To qualify for recognition, sufficient stand improvement shall have been accomplished to show purposeful intent to improve growing conditions on the forest. The pruning of a few trees or establishment of a few experimental plots did not qualify.

SUMMARY

There is no place for complacency in the Pacific Northwest when only 58 percent of the Class 3 forest ownerships qualified for 70 percent-and-better stocking following cutting.

Acre for acre, Class 3 forest landownerships represent a productive potential that cannot be ignored.

Class 3 forest acreage makes up half of the Northwest's private commercial forest area.

Class 3 forests are: Close to market - Better utilization and cheaper transportation costs.
On better sites - Faster growth and early returns.
More accessible - Regular harvests and cheaper logging.

Collectively, these owners have not taken advantage of the growth potential. In fact many owners had no conception of whether good or poor practices were being followed.

Some Class 3 owners handle their forests on a business-like basis and derive a good income, others do not.

The practical small forest owner takes a critical look before he cuts. What needs to be done and how it should be cut is often a difficult decision to make. Richard E. McArdle, Chief, U.S. Forest Service, emphasized this in his talk before the 81st annual meeting of the America Forestry Association when he said:

> It's at this point that you probably will need some expert advice. Each and every forest property is a law unto itself. You can learn from your neighbors and from others, but you are not going to get anywhere until you apply that knowledge to a specific property--your own. Your situation may be entirely different from the forest next door. The steps I would take on my land probably are not the steps I'd advise you to take on yours. There is no simple, easy rule of thumb that can be applied everywhere. Designing a practical plan of management for growing good timber--or any other aspect of forest conservation--requires at least as much skill, experience, and technical knowledge as does the production of any crop. You won't get the answers you need by reading a 4-page pamphlet, by looking at a 20-minute movie, or by attempting to use some rule-of-thumb guide. So don't underrate or undervalue the technical skill required to do a profit-

able forestry job. It's easy to make a mistake that will cut your long-time income to a third or a fourth of what you could have. You are going to have time and money tied up in this enterprise. It's your time, your land and your money. Get some good out of it.

Previous tabulations indicate certain soft spots that can be strengthened. Some suggestions are:

1. Number of Class 3 ownerships

Small forest owners are a heterogeneous group comprised of farmers, ranchers, businessmen, professional people, wage earners, housewives, retired people, widows, realtors and many others. Most of these owners are engaged in full time occupations which are not particularly connected with timber growing.

The modern approach to healthy living is for the wage earner or family to have an avocation. What better one is there than growing timber?

Farm foresters, who provide on-the-ground assistance to the small owner, report that the hobby approach has developed many competent small forest managers.

As mentioned on page 2 each forest manager should be encouraged to assist a neighbor.

2. Nonoperating Class 3 forest ownerships

Approximately 64 percent of Class 3 forest ownerships were nonoperating during the six-year period from January 1, 1947 to December 31, 1952. Of this nonoperating group, 43 percent are nonfarm owners. Eventually nonoperating forests will become operating ones. Therefore, it is doubly important that these present nonoperating owners appreciate and understand proper forestry practices before they sell or cut.

Recent reports indicate that a sizable portion of the 64 percent which were nonoperating during the 1947-52 period have since become operating.

3. Degree of stocking

Stocking is one of the forester's most important yardsticks. Proper stocking spells the difference between productive and nonproductive forest ownerships.

There are still too few trees on too many acres.

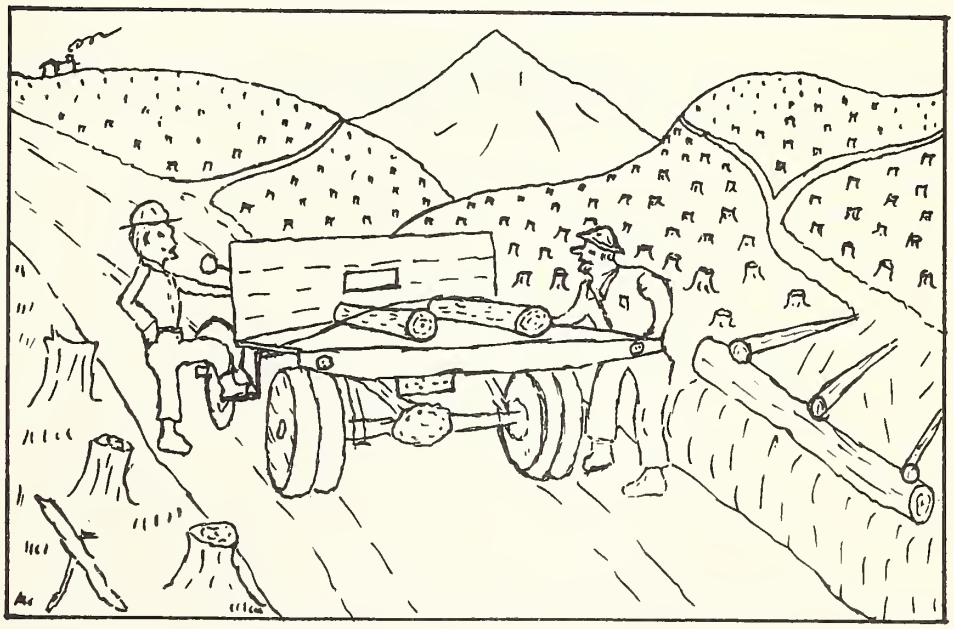
As pointed out in Table 7--"Medium and Low Stocking Following Cutting"--ground cover, principally brush and perennial sod, caused most restocking troubles. Therefore, immediate regeneration following harvest is generally the best answer.

Natural enemies, which are detrimental to seedling establishment and growth, increase with each year's delay in reestablishing the stand.

New emphasis must be placed on pre-regeneration plans. In other words, provide for the next crop before cutting the present crop. Some important items for consideration are:

1. Provide an adequate seed source.
2. Ground preparation suitable for the establishment of seedlings.
3. Rodent control when necessary.
4. Protection from fire and excessive grazing.
5. Eliminate unwanted species.
6. Provide a reforestation fund. For example, set aside so much for each thousand board feet sold.
7. Plant or seed promptly when nature fails.

Regeneration is the most important part of the harvesting plan--don't wait until it's too late.



"... and don't forget to bring back some seedlings!"

4. Converting Class 3 forest acres to uses other than growing forest products

A sharp increase in population, plus additional demands on the forest resource, clearly points out that there is no excess of forest land.

Further withdrawal of commercial forest lands needs careful planning.

The forestry part of the recently activated Soil Bank Program will help bring land previously withdrawn back into forest production. For information on this program, contact local county Agricultural Stabilization and Conservation Committees or the farm forester.

5. Timber stand improvement

A mistreated forest, like a neglected garden, tends to produce weeds. A healthy productive forest is the result of good management and is the mark of a progressive forest manager.

OBJECTIVE

Each forest acre growing a commercial forest product