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Table VII

Diameter Class In.	Before Logging P.A.G. in Cu. Ft.	After Logging P.A.G. in Cu. Ft.
6	0.07	0.43
7	0.10	0.26
8	0.17	0.43
9	0.15	0.44
10	0.26	0.65
11	0.37	0.79
12	0.52	1.24
13	0.40	1.46
14	0.51	1.49
15	0.87	1.77
16	1.03	1.73
17	0.99	2.47
18	0.78	1.18

It is evident that the P. A. G. has increased more in the lower classes because of greater release in these classes at the time of logging as well as their slow growth before that time. It should be noticed, however, that there is a substantial increase in annual growth throughout the classes.

Table VIII, showing the average P. A. G. by crown classes as follows:

Table VIII

Crown Class	Before Logging P.A.G. in Cu. Ft.	After Logging P.A.G. in Cu. Ft.
Dominant	0.60	1.28
Co-dominant..	0.29	0.71
Intermediate	0.20	0.48
Suppressed....	0.14	0.33

The individuals in the suppressed class, having lost to a certain extent their ability of rapid recovery, do not show an increase in their P. A. G. which compares with that of the other classes.

From the figures given in this article, it is possible to determine quite accurately the growth which will take place in the trees left on an area after logging, for example: if an area should be cut over and approximately 100 per cent release was given each tree and the trees left should be growing at the rate of one hundred board feet a year, the owner might well expect an annual growth of three hundred and five board feet after logging. The figures also show that material left on areas should not be considered valueless. If enough trees are left per acre to make logging profitable when the trees reach merchantable size, the time elapsing between the first and the second cut will be materially shortened.

The results of the study show what takes place in a stand when it is thinned. The stimulation will vary with the degree of cutting and the method of thinning used but, if enough can be removed and marketed to offset the cost of the operation, the length of the rotation may be shortened and this would result in a reduced cost of growing a timber crop.

THE NEW SCHOOL FOREST

By C. W. WATSON

The State Land Board has granted to the School of Forestry the use of Section 9, T. 40 N. R. 5 E., Boise Meridian, as a school forest. The need has long been felt for a field laboratory where students might learn to apply classroom theories, and the acquisition of this area is the first step in the formation of such a laboratory. This laboratory makes a valuable addition to the School's attractive Arboretum. One shudders to think of what havoc might be wrought in this beautiful, miniature forest by a large class armed with axes. On the School Forest, however, there is plenty of chopping that may be done with only benefit to the timber.

This section is, at all seasons, easily accessible from Moscow, the seat of the University. It lies due north of the town and about seven miles distant by road. One has six miles of hard, surfaced road—part of the North and South Highway—and the last mile is over a country dirt road, which is good for automobile travel from April to November. This road penetrates the south side of the section at the quarter corner, recently a mill site and the main point of drainage to the south. The tract is folded like a blanket over a high ridge, which runs east and west through its middle, descending in long spurs and steep slopes to valleys on the north and south.

The south slope has a many branched system of roads and trails—the logging operation's bequest. Some are very steep but the majority is quite usable, except for the occur-

rence of obstructing windfalls. The north side of the section has a few roads, it is very steep and brushy, and it is more difficult of access than the south side. On the mill site there remain only the foundation timbers and the floor. The dam nearby has a bad breach, so that the log pond—a miniature about 30' x 70'—is little more than a frog pond. However, let us not despise this humble, slimy pool; its bosum may support many a hotly contested log rolling contest when the foresters assemble there for the annual barbecue.

The name "School Forest" would seem to indicate a tract of land covered with mature trees and containing much valuable lumber, but such is not the true condition in this case. Practically all of the mature timber has been cut off, leaving at best only scattered seed trees. The south one-half is good, yellow pine land, and the southwest one-quarter has a dense growth of pine reproduction, about thirty years of age and averaging in the neighborhood of 1,000 trees per acre. The draws and east exposures have small, mixed stands of white fir, Douglas fir, larch and cedar, but the bulk of the growth on this south slope is yellow pine. Aside from the reproduction, there are numerous, mature pines, widely scattered and acting in the capacity of seed trees, and many thrifty firs are also in evidence. In the middle of this south slope an open, brush area of about one hundred acres takes the form of a "V" with its point at the mill and opening to its full width on the top of the ridge. This patch was heavily cut and severely burned, so that very few seed trees were left standing and the only conspicuous reproduction is represented by a five acre plot of three to five year old yellow pines. Otherwise seedlings are very rare. The site would appear to be unusually adverse and it will be well suited to studies of artificial planting.

The greater part of the north side of the ridge is an old burn covered shoulder high with brush. This site, judging by adjacent timber areas of the same character, once bore a good, mixed stand of yellow pine, white fir, Douglas fir and cedar. Many young seedlings of these species are gaining a foothold under the brush, but the struggle is severe, and it is a question whether this reproduction will be successful in overcoming the brush. This area also will be an excellent one for artificial planting, and it may prove to be a good white pine site.

Planting is one of the interesting developments planned for on the School Forest and during the past spring, an experimental planting of Scotch pine was made on a student field trip. Five of these field laboratory periods were spent on the Forest, each consuming an entire day. The men carried out various problems in silviculture. Early in the spring the slash from the recent logging was burned on several acres, some being piled and burned, while the remainder was burned by throwing it on the fires. Two sample plots of four acres each were laid out and one of smaller size will be made to complete the series. These plots are to serve as indicators of the effect of different methods of brush disposal on future reproduction and to show how fast slash will decay if not burned. On Plot A all slash was burned; on Plot B the tops will be lopped and the brush scattered; on Plot C no disposal of the slash will be made and it will show how the other plots appeared before treatment. Temporary plots were used in studying the density of reproduction, and some time was spent in collecting data on stump ages and diameters, heights of trees felled, and the diameters to which they were cut in the top. This work will be carried forward upon the opening of the School next fall.

During the years to come this School Forest will gradually be developed until it will serve as a demonstration of many phases of forest practice, and as an excellent field laboratory where classroom theories may be tested in the light of actual field conditions. Forestry students will welcome this opportunity to make their work practical, while those for whom woods work is new will receive a mild initiation. The social and recreative side of the forester's nature will be appealed to by the construction of a fine, large log cabin which will be available for camping trips and for an occasional forest club meeting.

We consider that the acquisition of this tract of forest land will prove to be a stroke of fortune for the School of Forestry and we all look forward to the time when the institution will be able to give its men the best of field training in adjacent forest areas, controlled if not actually owned by the School.

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FORESTERS, A COSMOPOLITAN GROUP

Just one-half the states of the union, besides India, the Philippine Islands, and Canada were represented in the enrollment of the School of Forestry for the year of 1924-25. In point of numbers, Idaho, of course, stands first, with a total of 52. Naming the other states, and countries alphabetically, with the number of students from each, we have: Arizona 1, California 2, Connecticut 1, Delaware 1, Florida 1, Illinois 6, Indiana 1, Iowa 1, Kansas 3, Louisiana 1, Massachusetts 5, Michigan 2, Montana 1, New York 8, Ohio 2, Oregon 5, Pennsylvania 2, South Dakota 1, Tennesee 1, Texas 1, Utah 4, Washington 15, Wisconsin 1, Canada 5, India 1, Philippine Islands 3. Of the 127 registered, 108 were long course students, and 19 were members of the ranger course.

Students are attracted to Idaho on account of the superior advantages for forestry training; for situated as the school is, near extensive private, state, and national forests, large logging, and milling operations, as well as secondary wood using industries, unusual opportunity is afforded for practical experience in the woods to supplement class-room work. These conditions also make it possible for students to secure ready employment both during vacations and on the completion of their courses.

RANGER COURSE

The ranger course to be offered again next winter, will open January 4, and close March 26. The giving of the course is one of the major activities of the school, and is conducted independently of the long courses. It is planned for men either in the Forest Service, or connected with some phase of the lumber business. Admission is by special application, and only a limited number of high class men will be accepted.

DEMONSTRATION FOREST, A BOON

The recently acquired 640 acre forest, near Moscow, for use by the School of Forestry, as a field laboratory, and demonstration forest, is more than meeting expectations. It is especially valuable for field work in silviculture, and the class in this course, the past semester under the direction of Prof. C. W. Watson, made an intensive silvicultural description of the entire tract.

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