

40,000 Degrees Are Conferred by OSU During 93 Years

Corvallis - The number of degrees conferred by Oregon State University has passed the 40,000 mark and a degree report prepared by Assistant Registrar Eva Blackwell points up the growth of higher education in recent years.

Two-thirds of the 40,268 degrees conferred by OSU since 1870 have come in the past 25 years, Miss Blackwell notes.

And two-thirds of all master's and doctor's degrees awarded during the 93 years have been conferred in the last 10 years.

Two-thirds plus of all degrees over the years have gone to men, she pointed out, but women graduates are now gaining ground each year.

A breakdown of the 40,268 degree total shows 34,695 bachelor's degrees, 4,744 master's degrees, 617 doctor of philosophy degrees, 89 doctor of education degrees, 64 professional engineering degrees, and 59 honorary degrees.

Degrees Conferred

The degrees have been conferred on 28,352 men and

Math Teachers to Meet in Eugene

Eugene - The 23rd summer meeting of the National Council of Teachers of Mathematics will be held at the University of Oregon Aug. 22, 23 and 24.

Dr. George Polya of Stanford University will present the opening address, "Choosing Instructive Problems." The Friday general session address will be presented by Andrew M. Gleason of Harvard University on "Information Theory." On Saturday, Raymond H. Wilson of the National Aeronautics and Space Administration will speak on "The Importance of Mathematics in the Space Age."

Approximately 50 section meetings are planned. There will be meetings of general interest to elementary, junior high, senior high, and college teachers, administrators and supervisors.

Israel Repertory Group To Visit U.S.

New York - UPI - Israel's national Habimah theater, the country's oldest repertory group, will play 18 weeks in the United States beginning in February, 1964. At least half of the period will be in New York city, with key cities being visited on a subsequent tour.

Basic Research by Scientists May Help Control Forest Beetle

Corvallis - Basic research being done by Oregon State University forest entomologists may open the door to practical control of the Douglas-fir beetle, the insect which periodically ravages Pacific Northwest forests.

The work being done at OSU has taken on new importance this year in the face of an expected bark beetle "population explosion" next spring due to the large amount of timber toppled by the Columbus Day windstorm. Downed

timber less than a year old is the favorite breeding place of the beetles.

Although scientists will be helpless to stop next year's expected outbreak, they are hopeful that some control method can be found before the stage is set for another epidemic. The last outbreak following severe winds in 1950 and 1951 destroyed some three billion feet of standing timber before the population returned to "normal" in 1956.

Now in Eighth Year

Dr. J. A. Rudinsky, forest entomologist in the OSU Agricultural Experiment Station, is now in the eighth year of concentrated study on the biology and behavior of bark beetles. Work is supported by two grants from the National Science Foundation.

Utilizing both laboratory and field studies, Rudinsky is concentrating this year on flight patterns of the beetles as well as the attractant which brings them together in a localized area.

Rudinsky and research assistants, Orlo Jantz and Gary Daterman, are studying beetle behavior in the field in a forest plot high on the eastern slope of Marys Peak. Using sampling nets, field olfactometers and other research tools, they are studying the flight patterns of the insects and the factors which influence their movement.

Through observation and use of the mechanical devices, the researchers hope to learn more about temperature, light, wind and other conditions which affect dispersal flights of the beetles from their breeding grounds to new areas.

Scientists already know that the beetles will not fly when the wind blows continuously at more than 5 mph. They also know that a certain temperature is required for flight. They are now more clearly pinpointing the necessary conditions for the dispersal flights.

Last year, Rudinsky found that beetles are drawn to new areas by an "attractive" substance produced by sexually mature, unmated females when they first invade a new log. The attractant produced by the "pioneers" causes mass invasions of beetles in a particular forest area.

The substance is produced by the "pioneers" only when they invade Douglas-fir. Females do not produce the substance once they mate. The power of the attractant is important, he pointed out, because it is the key factor in concentrating beetle population.

Breaks Resistance

This helps explain why the Douglas-fir beetle can "break" the resistance of a healthy standing tree within a few hours, Dr. Rudinsky said. Although normally resistant to beetle invasion, the healthy Douglas-fir can be killed when large numbers of beetles respond to the attractant produced by the invading pioneers.

OSU researchers have been successful in isolating the attractive substance in alcohol and then using it as "bait" in the field olfactometers to learn how long it takes beetles to react and invade. The baited olfactometers are able to successfully compete with naturally occurring attraction centers which indicates their usefulness in bark beetle control.

In the laboratory, female beetles are being studied in an attempt to find exactly which part of the body produces the attractive substance. When this is learned, Rudinsky is hopeful biochemists can chart the exact composition of the substance and perhaps duplicate it in a synthetic creation which can be used in controlling the beetle population.

Companion Study

A companion study, under the supervision of Dr. William Nagel, assistant professor of forest entomology, is being made of the natural predators of the Douglas-fir beetle.

Eventually, Rudinsky is hopeful that the work being done at OSU will provide a practical, economical way to control the bark beetles. No practical chemical control is now possible as the insecticide does not reach the beetle which lives under the bark.

It may be possible in the future to set-up traps baited with the species attractant to lure the beetles to their death and to prevent the severe timber loss which comes with periodic outbreaks, he said.

Resistant to Invasion

Since Douglas-fir beetles prefer freshly downed timber and healthy, standing trees are normally resistant to invasion, forest conditions work



UNWANTED BIRTHDAY GIFTS—Cousins Jackie Hutton, left, and Gary Eikay celebrated their ninth birthdays in a Pittsburgh, Pa., hospital with broken legs. Both boys were hit by the same car at a busy Pittsburgh intersection. (UPI)

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Dr. Woodell Invited To Nevada Seminar

Ashland - The American Political Science Association has invited Dr. Marshall E. Woodell, director of graduate studies at Southern Oregon college, to participate in the Western Regional Seminar on "Political Science for the Sixties" which will be held at the University of Nevada in Reno Aug. 18-24.

The seminar is financially supported by the Ford Foundation and will bring together about 50 representative professors of political science from the western region of the country.

Medford Mail Tribune