

Oregon Agricultural College Is the Farmer's Friend

Page of News Notes and Interesting Articles Written by College Experts.



VIEW OF OREGON AGRICULTURAL COLLEGE AT CORVALLIS, OR. ITS SOLE AIM IS TO AID AGRICULTURISTS.

Transforming of Plant Waste Into Plant Food

BEFORE the plant food locked up in crop stubble and other waste material can be utilized by next Summer's crops for their greater nourishment and growth, some amazing changes have to be wrought in its form. It must decay, pass into ammonical forms, then into nitrites and on into nitrates, before it is taken up by the plant's transportation organs and assimilated into plant tissues.

Were it not for the fact that these changes, due mainly to bacterial activity, can to a greater or less extent be controlled by the farmer, knowledge of them could have but slight practical value. But since it is true that conditions under which the cycle of changes is wrought are subject to his control, the farmer should be vitally interested in the processes.

In a series of tests made by Professor T. D. Beckwith, of the Oregon Agricultural College, the influence of lime upon the ammonification and nitrification of soils from six widely varying types of Oregon soils was determined. Since the work is performed chiefly by bacteria that work best under favorable conditions, the scope of the experiments included the finding out of the number and kinds of bacteria in these different types of soils and the effect of lime upon these numbers.

The experiments also determined the ammonifying powers of soils with varying moisture content in order to ascertain the best possible condition. The experiments also considered the effect of soil acidity as well as of alkalinity upon ammonification and nitrification.

The soil types were taken from Hermiston, Redmond, Moro, Oregon Agricultural College, Sherwood and Clatskanie. Each of the soils was typical of the section of the state represented and every farmer in Oregon whose lands are made up of similar types of soil may be able to judge fairly well whether lime would benefit his soils or not.

The Hermiston soil is a fine, sandy type, high in lime content and low in organic matter. Lime caused a decrease in the ammonifying and nitrifying powers of this soil. The Redmond soil was a sandy loam type, low in organic matter and high in lime and was not affected by the application of lime. The Moro soil was a silt loam, well supplied with lime and potash and was not affected by the application of lime.

The college sample was a silt loam deficient in lime and nitrogen and was greatly benefited by the application of lime. The beaverdam soil was a muck soil, low in lime, high in organic matter and was greatly benefited by the lime. The Clatskanie soil was a peat, high in organic matter and low in lime, and was the most responsive of all to the lime treatment. In this soil the nitrifying power was increased 400 per cent.

It is thus seen that proper alkalinity of soils is a great aid in ammonification and nitrification and that lime may be profitably supplied under certain conditions to the acid soils of Western Oregon, but that it is not generally needed in the sandy soils of Eastern Oregon.

Quality in Display.

The tendency to consider quality rather than quantity in apple shows was strongly emphasized in the great National Apple Show recently held at Spokane. Instead of displaying fruit in carload lots, as in previous years, exhibitors at this show had lots of 25, 10 or even five boxes of superior grade. This action of the board of managers and the exhibitors is highly commended by Professor C. I. Lewis, horticulturist at the Oregon Agricultural College, who judged some of the displays. Incidentally the fair was closed with a profit for the first time in its history.

Cadet Guides Care for Oregon Exposition Building

GUIDES for the Oregon Building at the Panama-Pacific Exposition will be supplied from the Agricultural College cadet regiment. This arrangement was made at the request of the Oregon Commission having the matter in charge and has been concurred in by President Kerr, who has appointed a committee to select and train about 60 young men for this special duty.

In making up the eligible list of guides the committee has included all alumni, seniors, juniors and sophomores. The selection will be made largely on the basis of scholarly attainments and good standing in deportment, with due consideration given to military proficiency and personal fitness. Applications of alumni should reach the committee not later than December 19. Blank forms may be secured by application to the registrar.

The special information required of the guides will be supplied by means of a series of lectures by experts in the subjects treated. In order to inform the people of Oregon of the amount and kind of information the guides for their building must have, the following paragraph of the commission's requirements is submitted:

"The guides are required to possess general information in regard to our State's resources, its subdivisions, area, tillable lands, area under cultivation, timber areas and resources, number and location of mines, annual output, and such general details of statistical information concerning the geography, topography and resources of the State as will leave in the minds of the inquirer no doubt as to reliability and accuracy of the information."

Since there will be exhibits from every part of Oregon, it is seen that the qualifications as guides are many and diverse. Special emphasis will be laid on the educational exhibit and exact knowledge of the organization and operation of the public school system will be required. The educational system of Oregon will be presented to the applicants by President Kerr in a special lecture.

It is probable that about 60 members of the regiment will be selected as guides, about six serving in each detail. The time each detail is to be on duty has not been determined, but it will be something like a month. All expenses of transportation and living expenses will be paid, and opportunities will be afforded the guides to inspect the other features of the exposition. As a result the boys are eager to be selected, and are unusually proud of the good standing that gives them a chance to be selected. Many qualities and pleasing personalities, always a big asset, are away above par in this competition, and the people of Oregon may feel assured that their interests will be satisfactorily cared for by the young men chosen for that purpose.

Increasing Farm Incomes.

That a gross income of \$4000 can be realized on the modern well-managed grain farm on which only \$1200 was realized under poorer management, is graphically demonstrated by the model farm and farmstead prepared by the Agronomy department of the Agricultural College and displayed at the Oregon Land and Products Show recently held at Portland. In the design two farms were laid out side by side, duplicates of each other in everything except arrangement and management. The model farm showed four fields of equal size and a four-year crop rotation plan, including clover, grain and cultivated crops. On this farm the fields that were used for sowing and pasturing were divided from the other fields by portable fences, all fences being arranged as far as possible to permit of their being removed.

O. A. C. Movable School Begins Its Year's Work

THE Agricultural College movable school has opened its doors for local instruction during the year throughout many parts of Oregon, the first session being held at Molalla and Estacada the second week in December. Possibly it is more nearly correct to say that the school has started its wheels, since the doors are managed quite largely by local committees of districts in which the sessions are conducted. At any rate this most valuable plan of carrying the college to the people is in active operation, furnishing special instruction in the principal lines of farm and home industry.

The faculty of this school consists of six members of the extension force, under whose auspices the schools are conducted. W. S. Brown will have charge of horticulture; E. B. Fitts, dairy husbandry; J. E. Larson, agronomy; R. E. Reynolds, animal husbandry; C. C. Lamb, poultry husbandry, and Mrs. Dorman or Miss Davis of home-making. With the exception of the members of the home-making course, all faculty members will remain three days in each of the two places carrying the work, and then exchange places. By this arrangement special subjects will be taught principally on specified days, so that farmers and other students attending need attend only on the days in which their specialties are taught.

The daily programme consists of lectures, demonstrations, and as far as practicable, laboratory work. Special lectures by heads of college departments will be given in the evening, combined with entertainment features. No admission is charged and the sessions are open to all who are in a position to take advantage of the work.

The itinerary of the school has not been definitely announced beyond the end of the present year. Sessions will be held at Monmouth and Forest Grove December 15 to 19, and at Lebanon and Albany the first four days of Christmas week.

School Garden Bulletin.

"School and Home Gardening for Elementary School of Oregon," is the title of College Bulletin No. 176, now ready for distribution by the Extension Division of O. A. C. This bulletin was prepared by M. O. Evans, Jr., assistant state leader of co-operative farm demonstration work. Mr. Evans is well qualified to handle this subject, having been director and supervisor of school and home gardening work in Portland during the seasons of 1913 and 1914. The bulletin is issued to meet the constantly increasing demand for something along this line. It consists of 24 pages and is illustrated with 16 cuts of school and home gardens in Portland. It also contains seven diagrams of plans for use in laying out different areas of ground. Among the topics discussed are kinds of gardens, supervision, plans and arrangements, planting systems, ground preparation, and fertilizers, planting directions, marketing, decoration and experimental plots, exhibits, competition and prizes. Useful data on control of garden pests is furnished by Professor A. L. Lovett. A section entitled "Bird Visitors to Our Gardens," is contributed by Professor G. F. Sykes. The bulletin is indorsed by State Superintendent of Public Instruction J. A. Churchill and will be distributed to all teachers of Oregon outside of Portland.

A mountain lion recently killed in the Grand Canyon game preserve, which adjoins the Tusayan National forest, measured 10 feet from nose to tail. Mountain lions and other beasts of prey, such as wolves, coyotes and wildcats, are killed by forest officers and game wardens because they are a menace to stock and to game animals.

Pacific Slope Fruitmen Seek Better Inspection

UNIFORM fruit inspection laws of types best suited to protect growers from insect and disease pests, both within the states and from other states, are being sought by leading fruit men of the Pacific Slope. A conference of leading horticulturists from these states was called by Governor West to meet at the Agricultural College for the purpose of considering the laws best suited to this purpose and of taking steps to have the measures recommended enacted into laws.

The conference, which met early in December, was presided over by E. C. Roberts, president of the Oregon Horticultural Commission. Members of the Commission from four horticultural districts were also in attendance, as were a number of specialists from the Agricultural College. Dr. J. A. Cook, horticultural Commissioner of California, was present and took part in the proceedings. The National Nurserymen's Association, the Oregon State Nurserymen's Association and the American Pomological Society were represented.

The state legislative committee, consisting of Judge Charles L. McNary, chairman; Albert Brownell, of Portland, and Ray H. Roberts, of Lebanon, was appointed. The legislative committee for the nurserymen's association was composed of W. M. McDonald, president of the Oregon Nursery Company, and Professor C. I. Lewis, chairman of committee on handling such matters in the American Pomological Society. Drafts of proposed bills were presented by both of these committees. After a close comparison of the two measures submitted a joint committee was appointed to select and unite the best and necessary features of both bills in order to have them presented to the Legislatures of the various States represented, with the earnest recommendation that they be enacted into laws.

In drafting the final measure to be submitted to the Legislature the joint committee called in as advisory members, Professors Wilson and Jackson and Mr. Vickers.

O. A. C. Short Course.

The annual short course of the Oregon Agricultural College begins January 1, 1915, and runs to January 30. All the leading departments of the college will be represented in the work of the course, and practical instruction and demonstration in the principal farm, shop, office and home industries will be offered to the students. The growing demand for special work in the leading activities of the state will be cared for in a larger way than ever before, new buildings and equipment having been added to the college resources. Special announcements will be made as soon as the final details have been worked out.

Some Diversified Crops.

Field peas in rows, either for seed or for hogging off; alfalfa in rows for seed production, or for forage for hogs or sheep; rape as forage for hogs or sheep, and corn, for hogging off, are some of the crops unqualifiedly indorsed for dry-farm diversification by the agronomists of the Oregon station. On irrigated lands corn for green feed or for silage or for hogging off, mangel-wurzels and rutabagas for winter succulents, and other crops which with alfalfa or clover permit intensive dairying and pork production, are said by Professor Scudder frequently to have proven profitable. Methods of culture of each of the foregoing crops are fully described in the College Experiment Station Bulletin, a Report of Experimental and Demonstration Work, copies of which may be had on application.

The gossip's tongue never asks for a vacation.