

Oregon Agricultural College is the Friend of the Farmer

Page of News Notes and Interesting Articles Specially Written by College Experts For This Newspaper.



View of Oregon Agricultural College, Corvallis, Oregon, the Sole Aim of Which Is to Aid Agriculturalists.

PLANTING POOR SEEDS RAISES PRODUCTION COST.

OF THE 1200 tests made on samples of seed submitted by citizens of Oregon to the co-operative seed-testing laboratory of the Agricultural College, but twenty-five per cent were from farmers. That is, there were 300 samples submitted, but since several of them came in packages of two or more, considerably fewer than 300 farmers sent seed to be tested. The remainder of the samples sent came from seed houses, which in turn sold tested seed to the farmers. Doubtless a good many farmers tested their own seed before planting it, or got the tests made from some other source so that probably more than 300 farmers planted tested seed. But in view of the fact that the government pays the salary of a seed expert during the entire year, and the office and equipment are provided by the college to do this work, a much larger use of the seed testing facilities might be made to advantage.

Any farmer who wishes to do so may prove this for himself. Let him go into his corn field, count off ten hills each way, and then count the hills actually present within the square thus formed. Then let him compare the number of hills with the 100 hills theoretically present, and he will see whether or not he is losing a considerable portion of his crop and his profits by having planted some inferior seed. Within the ten-by-ten space there should be about 300 stalks. If 10 hills are missing there will be about 270 stalks within the area. This is a 90 per cent crop, and if he is getting 45 bushels per acre he should be getting 50 bushels. This 5 bushels represents a clear loss, since it costs as much to grow the 45 bushel crop as to grow the 50 bushel crop.

If this same condition is applied to an entire field of corn and to other crops on the farm, it is seen that the loss is a serious and needless item of expense in the cost of production.

AGRICULTURAL COLLEGE WILL EXHIBIT AT FAIR.

DAIRYING, field crops, livestock, poultry, insect pests, plant diseases, bacteria, mechanic arts and home making products will be exhibited by the Agricultural College at the State Fair this year. It is expected that a model Willamette Valley farm and farmstead will be one of the most attractive features of the agronomy exhibit, while the display of the seed testing department will be highly instructive.

The model farm will show the division of the farm into fields, meadows, pastures and orchards, and a system of crop rotation that is both profitable and economical. The arrangement of farm yards and buildings will serve the purposes of convenience and sanitation.

The dairy exhibit will include cows and calves of the leading dairy breeds, and two additional cows representing the profitable and the unprofitable types. Records of production, cost of feed and profits from each cow will accompany this group, showing how it is that of two cows of the same herd one is profitable and the other unprofitable.

The poultry items will be arranged to exemplify the methods of marketing eggs and poultry direct. Different types of container and packers for shipping by parcels post will be displayed, and methods of securing eggs of good quality for these shipments will be illustrated. Names of producers who wish to contract guaranteed eggs for parcels post delivery, and of consumers who will agree to receive and

pay for guaranteed eggs, will be secured as far as possible, and trade relations between the two classes will be established.

The livestock department will have several pens of fine sheep and lambs. Three hives of bees will be entered in the premium classes by the department of entomology. Plant diseases and crop pests, with standard control measures, will be of much interest to farmers and orchardists. Student made appliances will be displayed by the department of engineering, and a collection of sewing dressmaking and handwork of young women of the domestic art classes will be exhibited by the department of home economics. Problems of domestic science in the rural schools and of convenience in the care of children in the home are special features.

GOPHERS DESTRUCTIVE OF SOME ORCHARD TREES.

"VARIOUS orchard trees are attacked by gophers and serious losses are attributed to their ravages," says J. W. Seudder, in the Agricultural College "Oregon Countryman." "A gopher as he tunnels comes to a tree root, attacks and eats through it, and if the root is palatable will continue eating until close to the tree trunk. From here the rodent follows up the remainder of the rooting system and in a very short time only the loose trunk remains in the ground. Somewhat killed, affording opportunity for fungus or other diseases to secure a foothold.

"Nursery trees are destroyed at a tremendous rate every winter. The trees are in rows and close together so that a gopher in following a row can kill a great many trees in a very short time. Usually the gopher will follow one row for a few yards, destroying practically all the trees, and then burrow to another row and carry on its killing process.

"In attacking nursery stock the roots are not eaten all at once. The gopher cuts the roots into small pieces and packs them into its cheek pouches, carrying them away to be stored for future use.

"Since the roots are cut under ground and generally during the winter months when the young trees are dormant, it is hard for the nurseryman to notice the damage until spring. Should a pointed stick be used and insertions made in the soil along the young tree rows the presence of tunnels could readily be told and means of preventing further damage considered.

"Much of the crown gall found on nursery stock or on orchard trees is attributed to the work of gophers. When the root is girdled or injured by gopher lacerations the conditions are ideal for the crown gall fungus to secure a hold."

METHODS OF SECURING DRAINAGE OF BARNYARD.

DRAINAGE for the barnyard may be secured by preventing water from higher ground and from buildings flowing upon it, and by drawing off the water that falls upon it, according to H. E. Curry in the O. A. C. Oregon Countryman.

Flooding from higher grounds may be prevented by running a ditch or a dyke along the higher sides, making the water go around the yard. From buildings the water should be conducted by eave-troughs and down spouts to tile or pipes leading to a catch basin, built in a suitable part of the lot.

Surface drainage provides for removing the water from the surface by making the surface slope definitely to the catch basin, and by placing tiling

about 20 inches deep every 20 or 30 feet apart over the entire lot. If necessary these tiles may be led to the catch basin for emptying.

The catch basin should be made of stone, brick or concrete deep enough to catch the drainage and hold it until it settles. The water may be drawn off through a large tile or pipe into the most convenient outlet.

The advantages secured by these three processes will soon repay all the costs of carrying them out. The advantages of a clean, sanitary barnyard over the knee-deep one are many and great.

THE INDICATIONS NOW POINT TO LARGER ATTENDANCE.

THAT 142 letters of inquiry from prospective students were received by the registrar on one day last week is taken as an indication that the higher standard of admission to the Agricultural College is in no wise going to decrease the attendance. Indeed this number of inquiries is a record for the college, and coming as it does so early in the season, indicates that the attendance will be greatly increased during the coming school year.

Included in the letters of inquiry were 22 containing credentials for admission. Such credentials are generally not received in large number prior to September first, at which time many school principals return from their vacation and make ready to forward students' certificates of eligibility. Another indication of the public's approval of the higher standard of admission is the increased number of transfers from other colleges and universities.

While the majority of the credentials are from different counties of Oregon, 12 other states and three foreign countries are represented in the day's mail. The states from which credentials are sent are as follows: California, Washington, Idaho, New Mexico, Oklahoma, Arizona, Iowa, Pennsylvania, Montana, Minnesota, Illinois and Ohio. The foreign countries represented in the list are Canada, India and China.

EXPERT VISITS COLLEGE.

DR. H. B. HUMPHREYS, pathologist in charge of investigation of cereal diseases for the United States Department of Agriculture, spent a couple days last week visiting the Oregon Agricultural College. No better work is being done in the entire country along the lines of plant diseases than the work that is carried on here under the direction of the Department of Plant Pathology, so far as has been observed by Dr. Henderson. This work is hardly equaled this side of the Rocky Mountains, and it should prove to be of the utmost value to producers in Oregon. In the quality of its men, equipment and facilities for work, the department is well prepared to care for the interests of the people whom it serves. Attention was also called to the fact that one of the department's men, Mr. Godfrey, had just been appointed to a position in Dr. Humphrey's division after a competitive examination in which he won second place, among well qualified applicants from every part of the country. "This certainly speaks well for the character of the work at O. A. C.," said Dr. Humphreys.

MARKET MEDIATION NEEDED.

"A LITTLE mediation is needed in bringing the producer and consumer together, and Uncle Sam, the mediator, is extending his good offices," says Professor James Dryden, of the Agricultural College, in discuss-

ing the problem of marketing eggs direct. "The marketing problem will not be solved until there is a better understanding and a burying of the hatchet between producer and consumer. Not that the producer must forget his cunning, nor the consumer his, for there will always be degenerate producers and consumers; but the great bulk of them on either hand are honest and willing to fulfill their contracts. Uncle Sam proposes to arbitrate their differences and bring them together to the profit of both by opening the mails to them. A great many differences have been patched up through the mails, and why not the differences that have kept men and women apart for ages because they have not had an opportunity to reconcile their differences in regard to the buying and the selling of the things to eat?"

COOKING FEED FOR SWINE.

COOKING feed for swine has been largely abandoned, thinks Prof. G. R. Sampson, swine specialist at Oregon Agricultural College, since the digestibility of most feeds is diminished by cooking. The potato seems to be an exception to this rule. When cheap enough to be fed to pigs, potatoes will stand the expense of cooking and pay a profit if installing equipment does not make too large a proportion of the feed cost. At the present time one hardly seems justified in installing an expensive cooker for potatoes, since ordinarily potatoes are more valuable for human than for pig feed. Other crops also usually furnish more nutrients at less cost per acre than potatoes. Steaming is more desirable than boiling potatoes, since the purpose of cooking is to decrease the water content and burst the starch cells. If potatoes are boiled the water should be drawn off and the potatoes left over the fire long enough to give them a dry and mealy appearance when they split open.

BREAKING UP "PLOW SOLE."

PLOW SOLE, the tough, impervious layer just beneath the customary plow depth, must be broken up before drainage can be effected, says Ira A. Williams, ceramist at the Oregon Agricultural College in discussing drainage. The action of roots in seeking to penetrate this layer should be aided by deep plowing, subsoiling and use of clover, vetch and alfalfa, which have power to force their way into very refractory soils. The deep plowing should be done when the ground is dry, either in summer or with the beginning of the first fall rains. If the subsoil comes up in big lumps, so much the better for the purpose. They will bring soil into productive tilth all the sooner. The sole was caused by repeated plowings for many years, during which time the horses puddled the stratum with their walking up and down the furrows when the ground was soft, year after year. It requires much work to break up the stratum, but the resulting added crop production will soon repay the cost.

CLUBS POPULAR IN EAST.

FL. GRIFFIN, state agent for girls' and boys' industrial clubs at the Oregon Agricultural College, has returned from an extended visit to New York, Boston and other leading centers of education in the United States, where he has been making careful observation of the work of the clubs in various projects. Corn clubs, poultry clubs, garden clubs and canning clubs have the largest memberships and are generally the most successful, according to these observations.