

# Oregon Agricultural College is the Friend of the Farmer

A Page of Bulletins and News Notes Concerning the Staff at Corvallis.

## A GOOD POULTRY RATION.

**P**ERFECT ration for laying hens contains the required food elements in approximately the right proportion, and in the forms most economical in the locality where the feeding is done. Professor James Dryden, head of the poultry department, Oregon Agricultural College, has prepared a list of five more or less exact rations for one laying hen for one year. The following is ration No. 4, considered to be one of the best for most places in Oregon:

| Material     | No. of Pounds | Cost |
|--------------|---------------|------|
| Wheat        | 30            | .45  |
| Oats         | 10            | .15  |
| Bran         | 10            | .12  |
| Corn         | 5             | .10  |
| Beef scrap   | 5             | .20  |
| Corn meal    | 5             | .10  |
| Linseed meal | 5             | .12  |
| Middlings    | 5             | .07  |
| Shell        | 3             | .03  |
| Charcoal     | 2             | .05  |
| Green food   |               | .05  |

Total ..... 1.48

While the cost of the above ration will vary in different seasons and at different places, it is thought to be very close to the average cost. Most of the material, such as wheat, oats and corn, can be produced more cheaply on the farm, and is marketed more economically when converted into poultry products. Other material such as green food, charcoal, grit and shell or their substitutes, can be furnished from natural sources with but little cost. Often milk and other farm products can be substituted for some of the materials that otherwise would have to be bought. By a careful study of the given rations the poultry men will be able to supply the necessary food elements by substituting a more economical material. Of course the amounts should vary slightly with the difference in egg production and in size of fowls.

If it is to be conceded that the cost of maintaining a hen for one year is \$1.50, the necessity of securing better than the average six dozen-egg hen is at once apparent. The yearly product of such a hen has an average value of about \$1.50. The yearly production of a good layer is worth twice that amount; and most of the increase represents a clear profit.

## WEED PESTS OF OREGON.

**S**ORREL is spreading rapidly over large areas and because of the large number of seeds formed on each plant bids fair to become a serious weed pest in Oregon," writes E. P. Walls, of the Agricultural College botany and plant pathology department, in the Pacific Homestead. "Weeds may be objectionable because of their poisonous qualities and on account of their crowding out more valuable plants. Sorrel seed is said by some writers to be poisonous when eaten in large quantities by horses, but the plant can hardly be called poisonous."

"In addition to spreading by seed the plant has large rootstocks that live in the ground from year to year, which send up shoots every few inches. The leaves are stalked, have ear like appendages at the base, and are shaped somewhat like an Indian arrow head. Flowers are of two kinds, pollen bearing and seed bearing, and seeds very small. They are found in clover and many kinds of grass seed, which they resemble so closely that their presence is hard to discover until after seeding. The chief injury of the plant is in crowding out crop plants.

"Clean cultivation and liming the soil will eradicate the plant. The cultivation should include plowing the stubble to throw the root stocks to the surface, keeping the surface free from the pest during the summer, and growing a cultivated crop the next year. Liming the soil will stimulate the crop plants making them outgrow the sour sorrel, and thus curtail the number of weed seed matured."

## DETAILED FIELD WORK.

**W**HILE acting as the local representative of the Agricultural College department of entomology at Hood River, Professor V. I. Saffro, assistant entomologist, will conduct some experiments in the control of codling moth

and apple leaf hopper. Professor Saffro will carry on this work during the summer and remain in charge of the local department until next fall.

## STUDYING PEACH-TWIG MINER.

**E**XPERIMENTAL work is being done in the Hermiston district by the Agricultural College entomological department with the peach-twig miner. Professor Wilson, entomologist of the college, spent last week in that territory looking after the work.

## SUMMER SCHOOL COURSE.

**A**NNOUNCEMENTS of the summer school at the Oregon Agricultural College have been made by Professor E. D. Bessler. June 15 and July 24 are named as the dates of beginning and ending the summer sessions. Special railway rates of one and a third fares have been granted by all railroads operating in Oregon, good between the dates of June 5 and July 28. The two college dormitories, Waldo for women and Oasthara for men, will be opened to the students and will accommodate more than 200 students with board and lodging. The use of the rooms with beds, mattresses, tables and chairs, will be free to those who make their homes in the halls. Two dollars will be charged for light, heat and use of laundry. Table board will be \$3.50 per week at Waldo.

"The college realizes its responsibility in fitting the teachers for teaching elementary agriculture, manual training, domestic science and art, and other branches of industrial learning in the schools of Oregon," declares the announcement. Experienced teachers who devote their whole time to training for these duties will be able to secure sufficient training to introduce some branch of industrial work in their schools. Definite courses will be provided, lesson plans worked out, and detailed instruction given. These teachers will be further helped by correspondence courses throughout the entire year and by personal visitation and supervision."

Prospective students and all teachers who are interested in the O. A. C. summer school will receive a copy of the Bulletin upon request mailed to H. M. Tennant, Registrar O. A. C., Corvallis, Oregon.

## STUDENT APPOINTED.

**F**RANK M. Harrington, of Cresswell, Oregon, who was graduated from the horticultural department of O. A. C. last year and has since filled a position in the Iowa experiment station at Ames, has been appointed an assistant horticulturist in the United States department of agriculture. Mr. Harrington's appointment is based on a competitive examination which he wrote up while attending O. A. C. and is to be made effective at once, provided it is accepted. Whether the position will be accepted or not has not been decided by Mr. Harrington. His position at Ames is exceptionally good, and he is receiving rapid promotion. Hence, he may decide to remain with the state work, according to Professor C. I. Lewis, head of the horticultural department.

## SECURING GOOD LIBRARIES.

**S**ECURING good libraries for towns too small to purchase and manage a public library and too large to depend upon the small traveling libraries is one of the greatest library problems the people have to solve," said Mrs. Ida A. Kidder, librarian of the Agricultural College. The need of good books and the influence of good literature are quite generally admitted, while the disastrous results of sensational reading are quite as well understood. The great question in the small town is to supply the right kind of reading in attractive form.

"Perhaps one of the best ways to secure the advantage of a good library is by co-operation between a number of small towns of the same county. A good general library can be purchased by all the towns co-operating and located in the most accessible place. In this way all the patrons of the library who contribute to its support may have all the advantages of a good library without undue cost to any one. "This community library idea has

been used to good advantage in many parts of California for several years, and no doubt the benefit of the experience gained in conducting it could be had by writing to any of the librarians in charge. Also much useful help may be had by writing to Miss Marvin of Salem, who is in charge of the state library."

## PROFITABLE POTATO CROP.

**F**ARMERS in different parts of Oregon who are making a specialty of potato growing, get almost uniformly profitable results, netting from \$40 to \$50 per acre," says Professor Scudder in his Agricultural College Bulletin on growing potatoes. "It is for this reason that in all diversified farming in this state the potato might profitably be given more attention. The use of a little extra care in growing potatoes added to the natural advantages of soil and climate would insure steady maximum yields and profit. The market for Oregon potatoes is usually excellent.

"Potatoes are an intensive crop—that is, they will give an increasingly higher yield per acre with every bit of extra care added. At this time much of the crop is grown by the general farmer, for whom the potato crop often gives an excellent cash return with very little care. Rather than giving the potato crop the additional care required to get the best results in unfavorable seasons, the farmer depends upon other crops for his cash income.

"The potato permits the farming of high-priced lands close to shipping points and is of great value in a well-planned, intensive crop-rotation system, helping to maintain fertility because of the excellent condition of tilth and the destruction of weeds that its cultivation brings about. This improvement is needed in many parts of Oregon where poor farming methods have left the land fouled with weeds and in poor tilth, so that each succeeding crop becomes poorer."

## RAISING SPRING LAMBS.

**R**AISING spring lambs is well adapted to the climatic conditions of Western Oregon and does not require great capital or special skill, according to Professor E. L. Potter, head of the Oregon Agricultural College animal husbandry department. The industry so fits in with approved crop rotations and is valuable in building up depleted soils. Neither is it in immediate danger of being overdone.

The industry may be made profitable on farms where grain, hay, clover, vetch and rape are grown. Much the same conditions are required for this industry as for dairying, except that it need not have the same accessibility to market and that some range land may be used. It is just as profitable as ordinary dairying, although it may not pay so large a profit as dairying conducted in the most approved manner.

No expensive equipment is needed in the way of buildings. The sheds necessary to shelter the flock may be constructed at a very small cost. A shed 18 feet wide and 60 feet long was recently constructed at the college at a total cost of \$25. It accommodates about 50 sheep but does not provide storage room for hay.

The most profitable time for growing a good, cheap lamb in Western Oregon is March, April, May and June. The best results are generally obtained by pasturing the lambs on sown pasturage. It is necessary to have several fields in order that each kind may be utilized in its proper season. It is also necessary to have a special pasture to be used for finishing.

Ordinarily no grain need be used but it may occasionally be fed with profit when it is very cheap or when mutton is high. The grain should be fed in a creep so that the lambs may get the grain while the ewes are kept from it. The gain should be about one half a pound a day which by extra feeding and care may be increased to nearly one pound.

## GOOD ROADS MEETING.

**S**ERIES of good road meetings were held at various points in Coos county during May 11-16. These meetings were presided over by County

Judge John F. Hall and addresses were made by Professor G. E. Skelton, of the highway engineering department at the Oregon Agricultural College. The dates for the good roads meetings in Coos county were: Myrtle Point, May 11; Coquille, May 12; Bandon, May 13; Marshfield, May 16.

Professor Skelton has recently returned from a good roads tour of the middle and eastern parts of the United States which was made primarily to investigate the most approved methods of highway construction in other states. He comes prepared to consult with farmers and officers of the Oregon counties in regard to the construction of highways throughout the state. Professor Skelton advocates primarily the use of local material for the construction of Oregon highways.

During his work in Coos county Professor Skelton desires to meet road supervisors and with them take up the problem of highway construction and maintenance.

## GUMMOSIS CANKERS.

**T**HE cherry gummosis fight is now on," says Professor H. P. Bess, of the Oregon Agricultural College department of plant pathology, "and many new infections can be prevented by cutting out the old cankers. The canker disease that causes most of the gummosis west of the Cascades, is due to an organism that lives over winter in the edges of the old cankers, especially in the larger ones that were formed the previous season. From these hold-over cankers the disease begins to spread in late winter, enlarging the old injuries and infecting many trees growing near by."

These old cankers should be cleaned up at once and new infections should be watched for and treated upon their first appearance. With a draw-knife or similar tool cut away all bark that is affected, being careful to remove all discolored tissue. If the disease shows signs of spreading up or down the tree, the bark should be cut away considerably beyond the discolored area. All infected substance should be removed. The wound should then be washed with a 1 to 100 solution of corrosive sublimate, which can be bought from the druggist, who will give directions for preparing and using the wash. It is a deadly poison, and should be labeled Poison, and kept in glass, not metal, containers.

After washing out the wound, which is absolutely essential to success, it should be allowed to dry, and then covered with a good tree or pruning paint to protect it from fungi and heart rots.

Do not depend upon exuding gum to indicate cankers. Bad ones sometimes form with very little external gum. Watch should be kept all spring for the faintest signs of canker and for blighted fruit spurs and buds. No other successful treatment for this disease has come to the attention of the experiment station here. But if extreme watchfulness is maintained and the above treatment thoroughly applied, the damage done annually by the disease will be materially reduced.

## HARMFUL EXTERNAL PARASITES.

**E**XTERNAL parasites frequently cause heavy poultry losses, and poultry men should quarantine their flocks against them. Special methods are required for the control of the various kinds of pests, but certain general measures are often advisable.

One of the best general methods is fumigation. While not very effective against any of the external parasites, it should be employed for its great sanitary value. It is conveniently applied by slipping a tent that has been treated with linseed oil or carbolineum over the colony chicken house and weighting down the sides with a little dirt. The fumes are then applied, after which the tent is removed to the next house, and so on.

An account of the special methods for most of the common poultry parasites is given in College Bulletin "Some External Parasites of Poultry," written by Dr. H. E. Ewing, research assistant at the Oregon Agricultural College. Free copies may be had by sending for them to R. D. Hetzel, Extension director Corvallis, Oregon.