

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 Agriculturists.

ESSENTIALS OF BREAD MAKING.

GOOD BREAD can be made from either good hard wheat flour or from good soft wheat flour," says Dean Henrietta Calvin of the Oregon Agricultural College, "but you should know which you are using because they require different treatment. Hard wheat flour may be made into a soft dough, and if it is very hard wheat then the bread should be kneaded down several times. Soft wheat flour should be made into a very stiff dough and the bread will not need to rise more than once before it is put into the pans.

"Home-made yeast is much better than the dry yeast. It can be likened to the seed saved by a good gardener from his own healthy plants. When properly prepared it contains millions of live, growing, microscopic plants. Liquid yeast can be kept in a cool, dark place about two weeks.

"Sweet milk is the best of all liquids for bread making. It should be scalded and then cooled. The micro-organisms that cause sourness in milk are thus heated until they all die. Milk bread will be a little yellow but its flavor is better and it is more nutritious than water bread. Water may be used instead of milk, however, and good bread can be made with it.

"Sugar is a good yeast food. A little added to the bread does not affect the flavor of the bread but does quicken the action of the yeast. Salt is used for flavor. Such a small quantity as is used in bread does not materially retard the growth of yeast but does whiten the bread.

"Bread while rising must not be kept too warm. More bread is spoiled by too much heat than too little. Bread that feels warm to the hand is too warm. The bacteria which cause sourness, and are to the bread baker as weeds are to the gardener, grow rapidly in the dough if it is quite warm."

The foregoing information in comprehensive form, together with detailed directions for making good and wholesome bread, is found in Extension Bulletin Series 8, No. 29, "Essentials of Bread Making," which may be had by writing the Extension Division, O. A. C., Corvallis, Oregon, for a copy.

WHERE FARMERS PROFIT BY SEED-TESTING WORK.

DURING the three years of operation at Baton Rouge, La., the cooperative seed testing laboratory doubled the number of samples of seed tested each year. Last year there were about 900 tests made and 90 per cent of them were for individual farmers.

This is in marked contrast to the record at the Oregon Agricultural College, where fully 75 per cent of the tests made are on samples supplied by seed houses. Farmers have not been so ready to take advantage of the work in Oregon as they are in Louisiana, with the result that there is greater loss due to imperfect seed in this state.

There is likewise greater need of seed testing in Louisiana. The viability of many kinds of seeds is greatly reduced by the heavy rains and hot weather. Northern grown seeds that keep their vitality well in the north rapidly lose it in the humid warmth of the south, and after a year alfalfa and clover seed are generally worthless for plant. But little of these crops are grown in the Red River Valley, with the exception of crimson clover, which is grown on sandy lands.

Lespedeza, or Japan clover, takes the place of clover in rotation, nitrification of soils and forage, and is especially important in diversified farming. The seed is threshed with hulls on, so that it is likely to heat badly and become

worthless. One plantation farmer sowed 350 acres to lespedeza with untested seed, and reports that he secured only a ten per cent germination, resulting in entire loss of time, labor and seed.

Activity is greatest in the months of December, January and February, during which time many planters gave a great deal of thought to the selection of seed. Seed dealers also take a great deal of interest in seed testing, and one seedsman publishes advice to his customers recommending a frequent resort to the seed testing laboratory. Next to lespedeza the seeds most largely submitted for test are rice, cotton, cow peas and velvet beans.

AGRICULTURAL BULLETINS.

THE following bulletins, issued by the Extension Division of the Oregon Agricultural College, have been published since January 1, 1914, and copies may be had by residents of Oregon upon request:

- Oregon Corn by H. D. Scudder.
 - How to Conduct a Fly Campaign by H. P. Wilson.
 - Fruit and Vegetable By-Products by C. I. Lewis and W. S. Brown.
 - Feeding Young Chickens by Miss Clara Nixon.
 - Making Babcock Test and Keeping the Records, by W. A. Barr.
 - Feeding and Care of Dairy Cows by E. B. Fitts.
 - Fowl Tuberculosis by T. D. Beckwith.
 - Septic Tanks and Absorption Systems by T. D. Beckwith and T. A. Teeter.
 - Feeding the Dairy Cow by R. R. Graves.
 - Raising the Dairy Calf by E. B. Fitts.
 - Farm Butter Making by O. G. Simpson.
 - Silo Construction and Silage Feeding by R. R. Graves and W. A. Barr.
 - Improving Oregon Dairy Herds by R. R. Graves and E. B. Fitts.
 - Breeds of Chickens by J. Dryden.
 - Handling the Fruit Crop by C. I. Lewis and W. S. Brown.
 - Growing the Oregon Potato Crop by H. D. Scudder.
 - How and When to Spray the Orchard by H. S. Jackson.
- In addition to the foregoing list 31 Industrial Club bulletins have been issued for special use of the members of the Boys' and Girls' Industrial Clubs of Oregon.

USE POISON BRAN MASH TO CONTROL CUTWORMS.

CUTWORMS are menacing various garden truck and field crops at points throughout the valley. The attack is so general and the cutworms are present in such numbers that drastic measures seem warranted to prevent the occurrence of an epidemic of the pest.

Arsenical sprays some times prove practical, according to A. L. Lovett, insect specialist at the Agricultural College. The best general treatment for this cutworm is, however, the poison bran mash. This material is prepared as follows:

Bran.....	50 pounds
White arsenic or Paris green.....	2 pounds
Salt.....	2 pounds
Syrup.....	2 quarts
Oil of lemon.....	2 ounces

Mix these materials thoroughly and add sufficient warm water to make a coarse crumbly mash. Don't get the material sloppy; it should fall apart readily after pressing together in the hand.

This material should be sown broadcast over the field in the early evening. About five pounds to an acre is usually sufficient. Cutworms feed on this material in preference to vegetation.

Some succulent crop, such as hog weeds or alfalfa sprayed heavily with

Paris green, then mowed and placed in small heaps about the field is of some value.

VALUE OF SILAGE FEED.

THE relative value of roots, kale and silage—the usual sources of succulence for winter feeding—depends upon their composition, comparative feeding values, cost of production, keeping qualities, and convenience of feeding," says Professor R. R. Graves, head of the O. A. C. Dairy Department.

"The total digestible nutrients in one ton of corn silage is 326 pounds. In a ton of red clover silage the total is 224 pounds, but the nutritive ratio is 1 to 6.9, while in corn it is 1 to 11. The digestible nutrients in a ton of sugar beets is 224 pounds, with a ratio of 1 to 8.5. In rutabagas the total is 186 pounds to the ton, with a ratio the same as that of sugar beets. The digestible nutrients in a ton of kale are but 139 pounds, while the ratio is very narrow—1 to 2.8. It is also true that the nutrients of apple pomace silage are pretty high, about 216 pounds to the ton. Their nutritive ratio is the widest of any of the common winter succulents, being 1 to 15.3.

"The corn and clover silage contain the greatest percentage of dry matter, while kale and some of the roots contain 90 per cent water. One ton of corn silage contains as much digestible nutrients as a ton and a half of sugar beets, 1.8 tons rutabagas or carrots, and 2.3 tons of kale."

AMMONIA IN SOILS.

THE transformation of nitrogenous substances into ammonia in soils is one of the most important phases of the nitrogen cycle in soils," says Professor T. D. Beckwith, bacteriologist at the Oregon Agricultural College. "It represents a certain stage in the process of decomposition, and bears a close relation to soil fertility problems. The chemical reaction, in which ammonia is one of the end products, depends upon many factors. Moisture and temperature of soils, as well as physical and chemical composition, play an important part in determining the amount of ammonia produced. Soils that are well aerated are favorable to ammonification. Lime is of distinct benefit in acid and heavy soils, sweetening and lightening them so that aeration and chemical reaction can proceed. It may be said in general that while ammonification is a necessary and complicated part of the preparation of plant food in soil, fortunately for the farmer it proceeds most readily in those soils that are in good condition for cultivation, so that is a matter that will regulate itself in soils that are kept in otherwise good condition for crop production."

LIMITING POWERS OF TRUST.

THE problem for the future is the regulation, not the destruction of the trust," says Dr. Hector Macpherson, of the Oregon Agricultural College. "The question of the statesman who is intelligently solicitous for the welfare of our democracy is not 'Shall large combinations exist?' but rather, 'In what form and under what limitations shall they exist.' We want to get rid of the evils of the trust and preserve the economies of consolidation. One way to accomplish this is for the state, by virtue of its police power, to compel publicity, regulate prices, and control the treatment of workmen. Another method is for the masses to take over the control of industry and commerce, and distribute the profits among the many, which have heretofore been

distributed among the few. We have many illustrations of the latter method in European history, and a few cases in America that are right to the point, one of the best of which is the successful struggle of the grain growers of the Middle West with the elevator trust."

ART IN PUBLIC SCHOOLS.

THAT public sentiment in America will demand better and more beautiful architecture, better planned cities, more refinement in the furnishings of homes and more art in dress and daily surroundings, is the belief of Miss Edna M. Florida, instructor in art at the Oregon Agricultural College. It is the purpose of art in the public schools to train the child to meet these demands. The child should be taught to know the needs of our people and the finest ways of meeting those needs. This is where the appreciation and application of art principles are a vital part of the child's training. Appreciation of the beautiful and finer things in life will make him happier, broader, more liberal and an inspiration to his fellow creatures. Thus it is that art is for the many and not for the few.

BASKETRY EXHIBIT.

TO LEARN and to construct articles of basketry, reed and raffia, in a course of forty hours, was accomplished by a number of summer school students at the Oregon Agricultural College. A collection of baskets and basketry arts was made by the instructor, Miss Heles Cowgill, last Thursday afternoon. Some of the individual exhibits showed very great progress by the exhibitors, and one member of the class had five well executed pieces of various artistic designs, all prepared in the space of two weeks.

HITS SCRUB SIRE.

THE SCRUB SIRE has done inestimable damage to the quality of Washington livestock. He is a curse to his owner, who is cursed by his neighbors. The pure bred sire that is backed by parents and grandparents of high merit will add quality to the offspring of your herd." From the foregoing, which was taken from the Washington State College news letter, it is evident that Oregon is not going to be left alone to fight the battles for better sires for the dairy breeds. Better herds, right feeding, proper management and sanitary products are the things sought by the dairy department of the Oregon Agricultural College.

A. H. BURTON



Progressive
Nominee

State Superintendent
of Schools

Principles—I favor longer terms for country schools, consolidation where practical, better teachers, teachers promoted for merit only, practical courses, State's money more economically expended.

Education—
I graduated from Southern Illinois State Normal, 1901; University of Illinois, 1907; University of Oregon Law School, 1912.
Experience—
Taught 6 years in country schools, 6 years as principal and as superintendent, 7 years in large high schools; now teaching in Wash. High School, Portland.