

## One Year Course in Dairying

Oregon Agricultural College Giving Opportunity to Young Men Who Have Only Completed Eight Grades of School.

**I**N ADDITION to the four-year degree courses in Dairy Manufacturing and Dairy Production, the Dairy Department of the Oregon Agricultural College will offer this year a one-year course in dairying.

The one-year course is provided especially for those who have had no opportunity to pursue their public school courses beyond the eighth grade, or who, from necessity or choice, desire, upon completing the work of this grade, to obtain as quickly as possible a working knowledge of the science of dairying. The courses are designed to provide the largest amount of practical information and training that can be given in one year. The courses are so arranged that the student may specialize in either dairy manufacturing or dairy production.

The Pacific Northwest, on account of its even temperature and abundant growth of forage crops, is peculiarly adapted to dairying, and the rapid growth of this industry is creating splendid opportunities for young men in the various fields of dairying. The one-year courses in dairying will fit students for such positions as butter-makers, cheese-makers, creamery helpers, testers, operators of creameries and cheese factories, managers of dairy farms and for official testers in cow-testing association work.

### Dairy Production Course.

In this course special emphasis will be given to the breeding, feeding, care and management of dairy cattle; judging of cattle, pedigree work, growing of forage and soiling crops, diseases of dairy cattle, organization of cow-testing, bull and community breeders' association, dairy accounting, dairy mechanics, dairy bacteriology, the composition of milk and cream and the testing of dairy products, the operation of the hand-separator, farm butter-making, the construction and arrangement of dairy barns, milk houses and silos.

### Manufacturing Course.

Instruction will be given in this course in all phases of creamery work, such as the receiving and grading of milk and cream; pasteurization; the preparation and use of starters; the ripening and churning of cream; packing and marketing butter; the location, organization and construction of creameries; creamery refrigeration and creamery management, and other studies designed to fit the student to manage and operate creameries. The course in cheese-making will include practice in receiving and sampling milk; the use of the various tests for acidity, ferments, etc., the making and curing of cheddar and other varieties of cheeses. The course in ice cream making will include practice in selecting and aging of cream; standardizing and preparing the mix for the various frozen products and the freezing, packing, bricking, molding, coloring and sale of the various products. The creamery course will include a course in dairy mechanics, dairy bacteriology, the judging of butter and cheese, creamery accounting and the testing of dairy products.

### New Building.

The instruction work will be given in the new dairy building, erected and equipped especially for instruction and investigation in dairying. The equipment is such as to permit the handling of milk and cream on a commercial scale, thus giving the student practice under actual factory conditions. On the first floor are offices and manufacturing rooms, the latter including a boiler room equipped with a 15-horsepower internal furnace boiler and a 10-horsepower Jewel automatic steam engine; a farm butter-making room, in which are found hand churns, butter workers and the various types of separators found on the market; a churn room, which is equipped with modern ripeners, combined churns, various forms of butter molding appliances, refrigerating machine, cooling room and ice cream freezer; a market milk room, with milk cooler, bottle filling machine and bottle washer; a cheese room which is equipped with cheese vats, automatic pressure cheese press and other equipment used in the cheese factory; a

cheese curing room, and a reading room.

### Laboratories.

On the second floor are located recitation rooms and advanced and general laboratories. The latter will accommodate two hundred students in sections of forty each, and are equipped with a full line of appliances for testing milk and milk products. In the advanced laboratory will be found moisture tests, salt tests, curd tests and various other forms of apparatus suited to the needs of the advanced student. A circulating hot water system connects the wash sinks in all of the laboratories. Both steam and electricity are used for power purposes.

The College dairy herd consists of thirty-five head of high-producing dairy cattle of the Jersey, Holstein-Friesian, Guernsey and Ayrshire breeds. These cattle are housed in a modern dairy barn.

To enter this course a student must have completed the eighth grade course of study and be at least eighteen years of age.

For further information write R. R. Graves, Professor of Dairy Husbandry, Oregon Agricultural College, Corvallis, Oregon.

## Pasturing Sheep

**A**N IDEAL WAY to manage sheep on pastures is to have them graze one pasture down reasonably and then put them on another pasture until the first springs up again. In this way the pasture is kept fresh and sweet. But in practice it may be frequently impossible to do this. However, where the rearing of sheep is an important part of the farmer's business it can be done to some extent.

When pastures get far ahead of sheep they should be grazed down if possible with cattle. In such a condition the sheep will not graze down the grass that has become rank and woody. By preference they will feed upon those parts where the grass is short. In such places it is shorter and sweeter than elsewhere. Where it is not practicable to graze it down with cattle it ought to be mown if possible. Whether it should be left to mow the ground or drawn off should be determined by the quantity of the grass and its value for hay. When thus cut off grass fresh and nutritious springs up in its place.

Some object to grazing sheep with other stock. Much depends upon the way in which this is done. If the pasture is large and not in any way overstocked, there is probably no objection to the plan, but, should the pasture be overstocked or should the sheep be relatively too numerous, then the cattle will be worsted in the grazing. Sheep eat more closely than cattle and can do well on shorter pasture. Where the grazing is plentiful sheep can feed upon what is most palatable to them, and the cattle eat what they relish most. Sheep will eat off many weeds that cattle avoid and in this way they help to clean the pastures.

Fog winter grazing long pastures are the best. They are best for the reason that they protect the grass underneath, so that when the sheep are grazing they get some grass with more or less succulence in it, along with what is dead.

## Little Whinnies

**B**E GENTLE but firm with the colt; like a boy, its training should begin early. Keep the paddock and pasture free from loose sticks and barb wire. Many a valuable horse has been ruined by not paying attention to these two points. Woven wire fencing for the pasture is the best way.

Be kind to the horse; he is your friend.

Water the horse before feeding.

Never use blinders on the horse; it is a cruel practice.

Keep a watchful eye on the colt. You cannot afford to neglect it.

See that the collars fit the horse. Have a collar for each animal and do not change from one to another.

Feed the brood mares when nursing their colts with feeds that produce milk.

Keep the colt growing from birth to maturity. Any setback before growth is made will tell in dollars and cents.

In choosing the sire, do not pick out one because he happens to be near at hand, but rather send the mare to a breeder who has a stallion of the type you wish to secure in your colts.

A swift gait in walking is acquired best by the team when it is being broken. Early habits become permanent inclinations.

In raising horses for the market remember that there is a greater demand for the horse worth \$200 and upwards than there is for the one worth \$100 or less.

### Keep Constant Watch.

Keep a sharp lookout for vermin. No stock can do their best where these pests appear. Spraying in the winter is not always convenient, though a dash of kerosene about the stalls will help materially in keeping the pests down. If applied with a fine sprayer it soon evaporates, yet not until its mission is filled. Insect powder rubbed into the hair does not inconvenience the stock and if fresh it is sure death to mites. But unless it is strong enough to "make you sneeze" make up your mind you have been humbugged.

### Keep Calves "Coming."

Keep the calves "coming," whether they suck the cows or hand fed. Skim milk calves will grow strong and thrifty if they are given a chance. The milk should be clean and enough of it be used, for they need something to take the place of the cream that has been taken away. Corn and oats crushed together or just plain corn coarsely ground and fed dry makes a good substitute.

Some men are all the time complaining that the reason they do not get as much money from the cows is because the cows are no good. Better get good ones then, but nine times out of ten the other fellow does better by his cows than the man who complaining.

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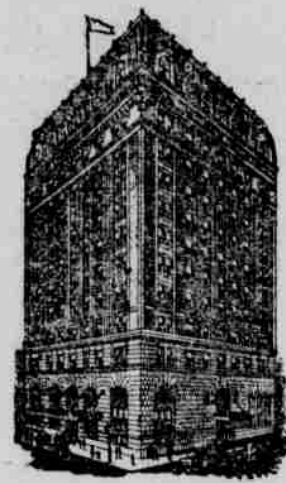
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