ROTATION AND BURNING FOR CORN SMUT.

Editor "The Farmer's Advocate":

Seed corn has been treated in many ways for the destruction of smut spores, but as yet no method has proven satisfactory. Since infection may take place in any growing point at any time during the season after the corn plant has become sufficiently advanced, the treatment of the seed cannot be expected to give such good results as in the case of smut in wheat or oats. In seasons of very heavy rainfall, or in years of severe drought, the number of smut pustules is generally low. Thick planting, in seasons favorable to vigorous, prolonged growth, is generally conducive to the spread of the fungus. Where the area in corn is not large, the pustules may be gathered and burned before they become ripe, but the most effective remedy practicable in general corn-growing is rotation of crop.

L. S. KLINCK.

The Macdonald College.

A SPLIT-LOG DRAG COMPETITION IN NOVA SCOTIA.

Among the many local papers in Canada which have assisted the split-log-drag propaganda, the Outlook, of Middleton, N. S., deserves especial commendation. The enterprising editor of this weekly was one of the first to seize upon the idea, and with the object of introducing the drag into Nova Scotia, the Outlook has opened in Annapolis County a competition in road-making by the split-log-drag method. A $25 prize is offered. The municipal council has passed a resolution approving the competition, and asking road surveyors to do everything possible to facilitate the experiments. The Warden and Deputy-Warden also have agreed to assist, by acting as judges, visiting each piece of road in May, and again in October. The prize will be awarded for the most improved road. The Outlook generously acknowledges that for the idea of a competition it is indebted to "The Farmer's Advocate." By a recent letter we are informed that there is a great deal of interest being taken in the competition in Annapolis County, and that a paper in Queen's County is instituting another competition with the drag. All this is encouraging. It was hoped that we might start the ball rolling, but we scarcely expected it would gather impetus so quickly. Speed the good cause.

THE DAIRY.

DAIRY RESEARCH BY THE U. S. DEPARTMENT OF AGRICULTURE.

The 22nd annual report of the Washington Bureau of Animal Industry, for 1905, just published, contains some important suggestions for dairymen. Under the heading, "Research Work Contemplated," the Chief mentions the following: "Creamery and Cheese-factory Management," under which it is stated that hundreds of co-operative factories have failed in the States, due to a lack of knowledge of the numerous and sometimes obscure details of dairy work, and it is proposed to investigate these causes of failure and suggest remedies. It is proposed to investigate the centralization of the cream business, which is looked upon by the producers with considerable misgiving." It is suggested that persistent effort should be made to induce manufacturers to make such dairy machinery as can be easily kept in a sanitary condition. This is an excellent point which Canadian manufacturers might well consider carefully. The first, last and most important point in any dairy machine is, Can it be easily and effectively cleaned? If not, no matter what other qualifications the machine may have, it is not satisfactory for dairy work.

"Inspection of Dairy Products in the Markets," is the next topic, and the writer makes the statement, "From one-half to three-quarters of the butter that comes to the great markets will not score as 'extras,' which means that it is not a good quality of butter." The Dominion Dairy Service is to be commended for arranging to have a competent man stationed at Montreal during the coming season to inspect shipments of Canadian dairy goods. It looks as though we should be compelled to adopt some system of grading butter and cheese before long, in order to compete in the British markets.

"Dairy Products Other than Butter, Cheese and Milk," deals with suggestions on the need of research work in the ice-cream industry; manufacture of condensed and evaporated milk; manufacture of palatable skim-milk cheese for those who are forced to economize; the use of milk products in the arts, so as to find profitable outlets for skim milk and whey, and the use of 'buttermilk as a drink,' in order to devise means to put this wholesome product more generally on the market."

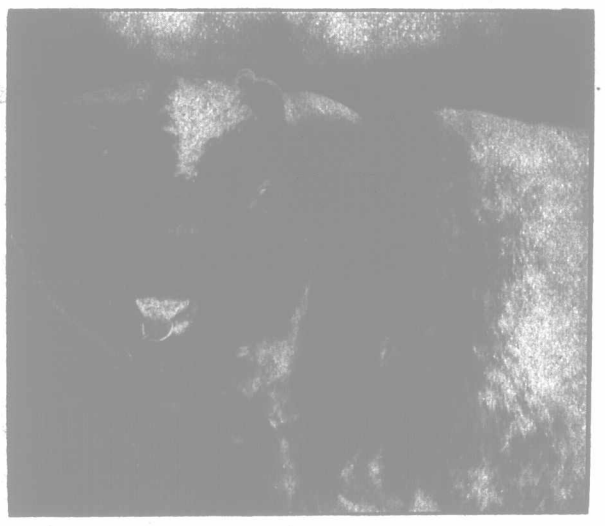
The foregoing is quite a formidable programme, and indicates that we on this side of the boundary need to be up and doing if we are to keep pace with our friendly American rivals.

The report contains two lengthy and exhaustive articles on dairying, one by Dr. C. Thom, on "Soft-cheese Studies in Europe," and one by C. B. Lane on "Records of Dairy Cows: Their Value and Importance in Economic Milk Production."

Dr. Thom says that the number of highly-flavored soft cheese described in books upon cheesemaking has been estimated at 250, but the examination of large numbers of these cheeses in the market only adds to the conviction that many of the distinctions are those of size, shape and packing, where the material might come from the same vat. These names are interesting, because they may nearly always be traced back to particular localities and often to particular factories, such as Limburger, Roquefort, Camembert, Brie, Gorgonzola, Cheddar, Stilton, Neufchatel, Muenster, Edam, Cheshire.

For the purpose of discussion, the writer divides these soft cheese into two groups, (1) the bacterial cheese, and (2) the mold-ripened cheese. The Limburger is placed in the first group as being a typical bacterial cheese, while Brie, Camembert, Gorgonzola, Roquefort and Stilton are given as types of mold-ripened cheese. Detailed directions are given of the methods followed in Europe in the manufacture of these various kinds of cheese, which it would be impossible to give in the short space allotted for review. The article is nicely illustrated with factories and scenes from the various countries where the soft cheese are made.

The author makes the interesting announcement that "The making of the genuine Roquefort is confined to this restricted area in Southern France. The companies concerned in its manufacture and ripening have succeeded in maintaining in the French courts their claim that the Roquefort is a sheep's-milk variety of cheese, which must be ripened in the village of Roquefort, in



Head of Linksfield Champion (86401).

Champion Shorthorn bull at Royal Dublin Society's Show, 1906 and 1907; reserve champion at English Royal, 1906.

Aveyron." The use of that name for any other cheese whatever, no matter where or by whom made, would, according to this view, be misbranding, and therefore illegal. But, with the typical American ingenuity, he adds: "We could, however, appropriate to our own use the suggestions as to methods derived from the practice of the makers of Roquefort, Stilton and Gorgonzola cheese, and in that way produce an improved cow's-milk cheese under a new or definitely modified name."

The writer concludes by saying that the equipment for making these soft cheese is simple and cheap, and the labor calls for no special technical knowledge. He is confident that a proper study of the principles underlying the manufacturing of these soft cheese will enable American makers to reproduce these cheese in America. There is undoubtedly an excellent field for a practical cheesemaker and a mycologist to work out some of these principles in Canada, as we import quite a large number of the European cheese, and the demand will increase as our foreign population increases.

The opening paragraph of the article on Dairy Records contains some strong statements about profit and loss in the dairy business, such as, "The records of progressive and unprogressive dairymen indicate that there is no business which shows a greater range of profit than that of dairy farming; one dairyman frequently makes double the profit of his neighbors; one creamery patron makes $2.30 for every dollar invested in feed for his cows, while a neighbor made $1, and another lost 50 cents—all had the same soil and market; good judges believe that one-fourth of the cows in the entire country kept for milk do not pay for the cost of keeping, and nearly one-fourth more fail to yield an annual profit." The foregoing statements are calculated to make American dairymen think. Are there like conditions in Canada? If so, what are we doing to bring about a change? Surely it will not be said of Canadian dairymen,

"To follow foolish precedent and wink
With both our eyes, is easier than to think."

The objects of the article are to show dairymen the importance of keeping records of every cow in the herd, in order to enable them to weed out unprofitable cows, make more profits, increase interest and business methods, show possibilities of production, and encourage farmers to adopt higher standards and increased profits. The scales and the Babcock test, combined with better care and feed, would double the production and profits of many herds, with little expense. The article contains full directions for making records, and is nicely illustrated with apparatus, cows, tables of performance, etc.

The writer concludes with the following fundamental steps in improving dairy herds:

1. Take advantage of variation. While the tendency of nearly all cows raised is to become average cows, a number fall below and a few reach a yield of 500, 600 or even 700 pounds butter.
2. Those above the average should be carefully selected and bred with care and judgment.
3. While the test must be used to detect variation and make selections, it is needed particularly to test the progeny, to determine whether the good qualities of the parent have been perpetuated and to see if any improvement in the offspring has been made.
4. Feed, care and management are of the highest importance. Having been carefully selected, and having stood the test, the cows must be well fed and cared for if their good qualities are to be retained and improved.

H. H. D.

THE COW ON GRASS.

Prof. C. W. Melick, of the Maryland Experiment Station, points out, in the Jersey Bulletin, that, after the unnatural conditions of stabling during winter, the dairy cow is very susceptible to ailments. For about three months she has been producing only a few pints of milk per day. Then, in the highly-developed state, the digestive system of the large producer of rich milk is easily thrown into a feverish condition in warm spring days. When cows are changed suddenly from dry feed to green grass, this condition is greatly intensified, and the milk from a cow in such a condition may produce disastrous results when fed to infants or invalids. Any volatile substances, such as garlic, green weeds and grass, when taken into the system of the cow, readily throw off their flavors, which are absorbed by the blood and carried through the mammary glands into the udder.

It may or may not be detrimental to the consumer, depending on his physical condition at the time the milk is consumed. In this respect it is similar to milk containing large quantities of undesirable bacteria. If the consumer of such milk is in sound physical condition, he may not experience any ill effect. If in the spring or summer, and his digestive apparatus is weak, it may produce a variety of troubles.

Thus, for the benefit of the cow and the consumer of her milk, Prof. Melick suggests allowing the cow from thirty minutes to an hour a day on the pasture for the first week, and gradually lengthen the time, depending on the condition of the cow, meanwhile continuing her dry feed, with a gradual reduction.

DAIRY-STOCK JUDGING CONTEST.

Arrangements are being made to accommodate students in judging dairy cattle at the National Dairy Show, to be held in Chicago next October, but, owing to the season, there will be no performance tests. Classes from the various agricultural colleges will be admitted, and a trophy is expected from each of the five leading dairy breeds—Holstein, Ayrshire, Jersey, Guernsey and Brown Swiss—for the college team scoring the highest number of points in any breed, while the Show Association will offer a sweepstakes for the college scoring the highest number of points in all breeds. There will be diplomas for individual animals. The rules of the International Live-stock Judging Show will be used, subject to amendments that may be made by Mr. E. H. Webster, Department of Agriculture, Washington, Prof. Erb, of the Kansas Agricultural College, and Professor H. H. Dean, of the Ontario Agricultural College.

ENGLISH REMEDY FOR CAKED UDDER.

Editor "The Farmer's Advocate":

I see in your issue of April 25th questions, etc., re swelled quarters in cows. An old Country remedy for this complaint, caused by lying on wet, cold ground, is rubbing the affected quarter vigorously with plain yellow soap and cold water until a good lather is produced; continue rubbing for a few minutes afterwards. As a rule, one application is sufficient.

ENGLISHMAN,

Prince Edward Co., Ont.