

## Common Grains Grown At Home Cheapest For Cows

Can Be Supplemented With Protein in the Form of Fish Meal.

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It is a well recognized fact that the greater part of the ration necessary for economical feeding of dairy cows should and could be grown in Eastern Canada. Data collected at the Dominion Experimental Farm, Nappan, over a period of years, show that our common grains can be produced more cheaply than they can be purchased.

The greater part of the necessary purchases, therefore, should be in the form of high protein concentrates to balance the ration of home-grown feeds.

The most highly concentrated protein feed on the market is produced in the Maritime Provinces, namely, fish meal. For some years it has been recognized as having a distinct value as a protein supplement for poultry and hogs. In order to determine its value for dairy cows, experiments have been conducted at this farm, during the past three years, comparing it with linseed oil meal as a source of protein in balancing a ration of home-grown grain for cows in milk. The fish meal used contained 70 per cent. protein, 2.5 per cent. oil and 18 to 22 per cent. bone phosphate. The oil meal was 39 per cent. protein. The grain ration was made up of oats and barley, approximating a 2 to 1 ratio of these feeds. It was found that 1,714 pounds grain plus 286 pounds fish meal, totaling one ton, were equal in protein content to 1,412 pounds grain plus 588 pounds oil meal. Each of these rations contained 20 per cent. total protein, but the fish meal ration was 1.5 to 2 per cent. higher in minerals.

The results of the feeding experiments comparing these rations may be summarized as follows:

No significant difference was noted in production between the two rations, nor in the feed consumed per unit of production.

No difficulty was experienced in feeding the fish meal ration, either as to palatability or effect on the milk produced, by way of unpleasant flavors, etc.

Fish meal may be recommended without hesitation as a source of protein and minerals for feeding dairy cows, providing it is of good quality (60 per cent. or higher in protein, below 6 per cent. oil, and 18 to 22 per cent. bone phosphate).

In these experiments roots were fed. When succulent feed is not available, the fish meal ration would be improved somewhat by including some bran to offset any danger from constipation, particularly with cows receiving over 6 pounds of grain ration per head per day.

### IMPORTED POTATOES

Ottawa.—Complaints regarding the U. S. agreement are not coming entirely from manufacturers. The fruit and vegetable growers of British Columbia and Ontario are very critical of the tariff cuts, particularly on three items—lettuce, celery and strawberries—where new rates are lower than those of the Dunning budget of 1930.

More than that, an unexpected inflow of U. S. potatoes has alarmed the potato growers of the central provinces. The general tariff on potatoes is 75 cents per cwt., the intermediate tariff is free.

The Canadian negotiators apparently never contemplated imports of potatoes and the appearance of U. S. tubers on the Toronto and Montreal markets is resulting in much head scratching.

# AGRICULTURE

## DEMAND FOR CANADIAN HORSES NOW SHOWING A GOOD INCREASE

### Canada's Livestock Showed Increase During Last Year

Improved Demand and Higher Prices Brighten Outlook.

By Press and Publicity Division,  
Department of Agriculture,  
Ottawa, Ontario.

Farm barns in almost all Provinces of Canada are well stocked with feeder cattle this winter and in most cases an abundant supply of feed is available. The number of hogs is also showing an increase across the Dominion. "During 1935 cattle prices were somewhat higher than in the previous year. This was a result of improvement in domestic demand and substantial exports to the United States where prices were higher than for some years," states the "Agricultural Situation and Outlook" for 1936, to be issued shortly by the Dominion Department of Agriculture and Trade and Commerce.

Discussing the export market for cattle, the "Outlook" states in part: "During 1935 total exports of Canadian cattle and calves exceeded those of the previous year by over 100 per cent. Substantial shipments of cattle and beef were made to the United Kingdom during the first quarter of 1935, but the rapid rise in prices in the United States, without a similar improvement in the British market, caused a diversion to the United States."

The United States Bureau of Agricultural Economics does not anticipate a recurrence of the high prices of beef cattle during the spring and summer of 1936, but with tariff barriers lower on Canadian cattle the influence of the United States is expected to be an important price factor in the Canadian market during 1936.

The number of hogs is increasing in Canada, United States and the United Kingdom. The increase in output in Canada is not expected to be so pronounced until the latter part of 1936. "The British bacon market has been a very important factor affecting prices of Canadian hogs and the most important factor in the disposal of production over and above Canadian requirements. This market should continue to have a beneficial effect on prices during 1936," according to the "Outlook." A study of the probable domestic demand and export possibilities leads the Ottawa authorities to the conclusion that "Canadian hog prices during 1936 will probably remain fairly remunerative despite the expected increase in volume."

Application for free copies of the "Outlook" should be made to the Publicity and Extension Branch, Dominion Department of Agriculture, Ottawa.

### UNHEALTHY CONDITIONS IN GROWING TOMATOES

In looking for the cause of unhealthy conditions in tomatoes, one should first consider to what extent they may be due to unfavorable soil, temperature, and moisture conditions. Some of the earlier-formed leaves of tomatoes die naturally. Many of these before they are cast show leaf spots, dead areas, and a yellow surface. Apart from serving as a possible breeding ground for leaf spot and other fungi, the conditions of such leaves is generally of no importance and should occasion no alarm.

### Interest in Breeding Is Being Revived Throughout Dominion.

In Canada at the present time the revival of interest in the breeding of horses is one of the most striking of the many activities of the Dominion in livestock production. There should be no question as to the necessity for this increased activity. There is a shortage of draft horses not only in Canada but in the United States and Great Britain and it takes at least five years to produce and raise a horse to the age of four years. Also the annual wastage of horses in the Dominion due to disease, old age, and other natural causes, is very considerable.

While the number of horses on farms in June, 1935, showed an increase over that of June 1934, it has taken the increased production of colts in 1933 and 1934 to reach the point where the annual increase exceeds the natural wastage of mature animals. At the same time, it must be remembered that the colts of 1934 and 1935 will not enter the ranks of the four-year-old work horses until 1938 or 1939, while the annual wastage goes on all the time.

In appreciation of the situation, the Dominion Department of Agriculture has continued its policies for horse improvement, and breeders in increasing numbers are availing themselves of this means of assistance. The Clubbing Policy, for example, which is effective in the Prairie Provinces makes it possible for communities of farmers to secure the services of the best stallions available and retain them in the district from year to year, thus fostering community breeding and co-operative effort. The Dominion Department of Agriculture on its part makes a grant to organized horse-breeding clubs of 50 per cent. of one-quarter of the service fee for each mare proving to be in foal. In 1935 there were 206 such clubs in operation.

Under the Dominion-Provincial Premium Policy, effective in the Provinces of Eastern Canada, in British Columbia, and in Saskatchewan, the Dominion Department of Agriculture and the Provincial Departments concerned join on a fifty-fifty basis in inspecting stallions and paying an annual premium to the owners of approved registered stallions, based on the number of mares left in foal. In 1935 the owners of 539 stallions were eligible for the premium.

To encourage the production of saddle horses, hunters, and horses suitable for remount, police, and light delivery purposes, an annual grant is made by the Dominion Department of Agriculture under the Breeding Station Policy to the proprietor of a stallion who owns or controls at least three thoroughbred stallions of hunter type, and the services of which are available for mares of the district served by the station. Nine such stations operate across Canada, and in each of the past three years Canadian station-bred horses have been purchased by the Governments of Trinidad and Barbadoes where the animals have proven highly satisfactory in constabulary work. Taken all in all, the present outlook for the horse breeder in Canada is very promising, and the raising of good horses should be a sound and profitable business for years to come.

### HONEY AS ANTISEPTIC

Honey smeared on linen strips is used as an antiseptic in Scotland for cuts and burns.

## Carcass Grading Of Hogs Is Proving Popular In Canada

To Be Extended Under Service Arranged by the Livestock Branch.

By Press and Publicity Division,  
Department of Agriculture,  
Ottawa, Ontario.

The increase in the number of hogs being carcass graded under the service arranged by the Livestock Branch, Dominion Department of Agriculture, indicates that this system is proving very popular among farmers in Eastern Canada and arrangements are therefore being made to introduce it into Western Canada.

Dressed grading means that hogs are graded as carcasses after being slaughtered and hung on the rail, and consequently the farmer is paid on the basis of quality and weight after slaughter. The results of this system have shown very clearly that the top quality hogs yield higher returns to the producer than under the live grading system.

It is possible to grade the hog much more accurately after it has been dressed because then such characteristics as thickness and distribution of back fat, balance of carcass, thickness of belly and other characteristics can be noted correctly. In addition only by this system can the exact weight be known.

These points are very important for a large proportion of Canadian hogs are exported to Great Britain as Wiltshire sides and if these are not up to the exacting standards demanded a sharp discount in price is the result. Moreover, the hog which produces the best Wiltshire side for the export market is also the one that commands the premium price on the domestic market. It is by the dressed or carcass grading system that the producer can get the information which will assist him in learning the value of raising the best quality of bacon hog.

The market both at home and abroad is never glutted with quality products; it is the low grade product that sags on the market. There is always a ready demand for the highest grade product.

Incidentally Canada is the only country exporting bacon that does not have a general system of carcass grading.

## A Survey Made Of Mixed Feed Trade

Bureau of Statistics and Feed Division Co-operating.

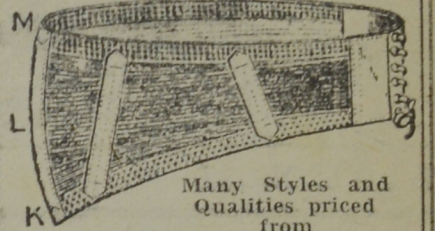
By Press and Publicity Division,  
Department of Agriculture,  
Ottawa, Ontario.

Ready mixed feeds for livestock and poultry to the extent of 198,055 tons with a value at the manufacturing point of \$7,725,177 were purchased by Canadian feeders in 1934, according to a survey conducted by the Dominion Bureau of Statistics in co-operation with the Feed Division of the Seed Branch, Dominion Department of Agriculture. The only other similar survey covered 1930, when 175,987 tons valued at \$7,714,739 per purchased.

Poultry feeds led all others in volume by a large margin and accounted for about 70 per cent. of the total. Cattle feeds, principally for dairy cattle, came next, with 27,130 tons, followed by swine feeds with 16,252 tons and horse feeds with 4,228 tons. Sales

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of only 14 tons of sheep feeds were reported.

These figures include but a part of the farmers' outlay for feeds. They cover only mixed feeds and do not indicate the extent to which single materials such as bran, shorts, linseed oil meal, gluten feed, tankage, fish meal, etc., are purchased to supplement and balance farm grown feeds. A complete survey would not only show a much greater volume of purchases, but undoubtedly also a proportionately greater amount of feeds for livestock as compared with poultry feeds, since in general livestock feeders depend more extensively on supplemental materials and less on complete mixed feeds than do poultrymen.

## Methods Of Cider Making Tried Out In Lab. At Ottawa

Some Comments Made Here On One Method.

By Press and Publicity Division,  
Department of Agriculture,  
Ottawa, Ontario.

Discussing cider as a fruit product, "Scientific Agriculture," the monthly publication of the Canadian Society of Technical Agriculturists mentions several methods of cider making. In the fruit products laboratory of the Central Experimental Farm at Ottawa, what is known as the closed Cuvee process is used in one of the cold pack methods and it is believed that this process holds the best possibilities for cider making in Canada. No hard and fast routine is laid down but a fairly regular procedure is as follows: Pressing—The fresh fruit is dumped into a large tank of water which is kept agitated. The clean apples are then paddled onto a pulley which conveys them to the press. They are crushed into a pomace which is dropped on the press-cloths in layers about one inch thick. The cloths are folded over, completely enclosing the pomace. A series of these layers of pomace (usually six) is built up, one on top of the other, and each separated by an open lattice press-board. Such a series, or cheese as it is termed, is placed under the hydraulic press for about 12 minutes. Storage—The juice may be clarified by passing through a high-speed machine, then either an asbestos pulp pre-filter or a plate filter using diatomaceous earth as a filter-aid. The delivered juice is clear and free from all visible suspensions. A further filtration through Seitz E.K. plates completely sterilizes the juice, allowing it to flow into a sterile vat where it may be held indefinitely in a sterile condition.