

importance is attached to size and quality of udder, placing of teats, length and fullness of milk veins, and number and size of milk wells. Fleece and fleshing are important in sheep, fleshing and form in beef cattle, and feet and legs in horses. Whether comparing animals in the home stable or in competitions, go at it systematically. "As the twig is bent the tree is inclined," consequently if system in sizing up animals is practiced in youth it will come natural when called upon in later years to make awards at large shows. Get all the practice at judging you can. Enter competitions for the experience rather than solely for the cash prizes. Those who think only of the money they will get out of it are not likely to become prominent judges of live stock or farm products.

THE DAIRY.

Stable the Cows and Calves on Cold Wet Nights.

In order to avoid having extra chores while threshing and silo filling are in full swing, the cows are turned out at night so long as the weather is at all favorable, and even when the temperature drops quite low cows are to be seen shivering in fence corners on some farms. So long as the nights are dry and not too cold the cows do not suffer, but wet, cold nights sometimes occur early in September so that no hard and fast rule can be laid down as to the time cows should be stabled. They may be able to secure plenty of feed in the fields so that shelter is all that is required. Failure to provide shelter in shed or stable in inclement weather results in a decrease in the flow of milk. It only takes one bad night to seriously affect production for the remainder of the fall, and probably to start inflammation of the udder which may terminate in loss of one or more quarters. The extra work entailed in stabling cows in bad weather is amply repaid. If the pastures become short corn or hay may be used instead of too much high-priced concentrates, to keep up the fall milk yield. Some claim that they cannot afford to supplement the pasture. It depends somewhat on the quality of cows. If they do not respond at the pail to extra feed, it might not pay to increase the ration, but it will pay to make the cows comfortable at night.

Calves also suffer in bad weather and a few days' exposure to cold and dampness have stunted thrifty, growthy calves. No one can afford to allow young stuff to fail in flesh in the fall, at the commencement of the expensive feeding period. If young stock go into winter quarters in good heart, a comparatively cheap ration made up of silage or roots, straw and a little hay will permit them to at least hold their own, and should make them gain a little in flesh. Neglect of the heifers affects the quality of the cow and neglect of the cow results in small cream or milk checks. From now until stock goes into winter quarters is a critical time for milkers and youngsters. To be so absorbed with fall work as to neglect the stock is robbing one department of the farm to keep things going in another.

Choosing a Sire.

If proper attention were given to the choosing of sires to head our dairy herds the average yearly production of the cows milked might easily be increased 50 pounds of butter fat per cow. According to government reports we have about 22,000,000 so-called dairy cows in the United States. However, about one-third of these are "Slackers" due to the lack of proper conformation, environment or breeding. Careful selection of the dairy sire must be emphasized as the dairy cow of to-day is the result of breeding selection and a system of care, feed and management quite foreign to her ancestors. Unless care is taken in our selection, breeding and feeding operations, the ever-present tendency to reversion is likely to be felt and instead of a dependable uniform increase in production there is often a decrease. The variation in the ability of sires to transmit milk producing ability is well known by up-to-date dairymen and as our herds reach a higher standard this factor becomes of greater importance.

A good dairy sire that will raise the average production of the herd 50 to 100 pounds of butter-fat is a bargain at almost any price, while the inferior bull costing \$50 to \$100 may be a source of great loss. It is needless to state that only pure-bred sires should be used and people interested in the advancement of the dairy industry should do everything in their power to discourage the use of grade dairy sires, regardless of the production records of the dam.

In the selection of a bull breeding, type and individual characteristics are entitled to due consideration, yet it is impossible to prophesy accurately by the outward looks of the bull just what sort of calves he will sire. A great deal of attention should be given to the performance of his ancestors and especially his dam. A great producing cow is likely to reproduce her characteristics through her sons and the most successful breeders of dairy cattle, after careful study of the bull himself inspect the sire and dam of the bull and if possible make it a point to see the grand sire and granddam as well. Not only should the production and individuality of the bull and his parents be emphasized, but also the question of health should receive proper consideration. As for age it is safe to say that better results are attained by buying tried bulls, although this rule is not usually followed. Bulls capable of siring useful daughters are plentiful, but those capable of siring daughters that are phenomenal producers are very few and the majority of these are sent to the shambles before their full worth

has been determined. Many of our most successful breeders are now following a scheme of constructive line breeding in developing their herds and we can readily appreciate the many reasons why constructive line breeding is growing in popularity in all sections of the country and with all breeds of live stock. By breeding within certain family lines and with proper emphasis placed upon type, production, scale and health, the breeder is in a fair way to success.—Prof. H. H. Kildee, in Ayrshire Quarterly.

HORTICULTURE.

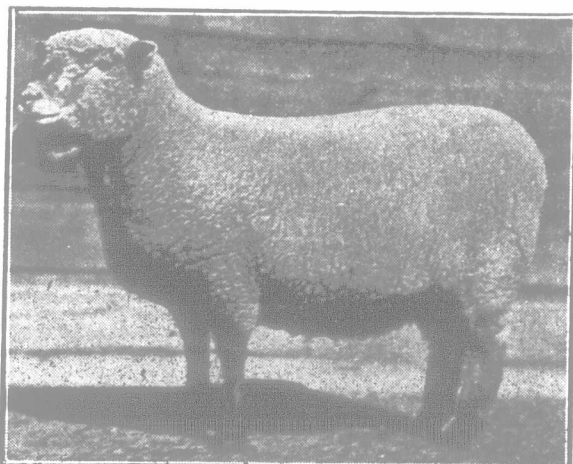
Keep the pack up to standard.

Before the ground freezes up obtain a load of good, clean sand in which to store vegetables this winter.

Bring the leaves together over the heads of the cauliflowers and tie them, or pin them with toothpicks. This treatment ensures a white, tender head.

One drawback to the household consumption of grapes is the immature state in which they are frequently put upon the market. Grapes do not ripen properly when picked from the vine in a green state and when an unsatisfactory basket is purchased the influence is against the further use of the same product. Immature grapes should be left on the vines to ripen.

Many of the diseases and insect pests which affect raspberries could be eradicated or controlled if the old canes be taken out early in the fall and burned. Generally speaking, this is more effective than any spray



Southdown Ewe.

Champion at Toronto and London for Robt. McEwen, Byron, Ont.

material. Seven or eight of the strong canes of red raspberries to a hill and three or four of black raspberries, are sufficient to leave. If grown in a row the weakest canes should be removed, leaving those which are to bear fruit about six inches apart.

There is a peculiarity about pears which does not apply to fruit in general. Some varieties can be harvested a little on the green side and yet develop a good flavor. In "Fruits of Ontario" the following advice is given: "The picking of pears requires good judgment. If they are picked too early the fruit will not give its best flavor, but if picked too ripe it will spoil before reaching the market. Pears, unlike most fruits, ripen well and develop a good flavor when picked while still green and hard, but to obtain this flavor the fruit should have reached its full size."

POULTRY.

Relationship of the Increase in Price of Feed and Eggs.

The price at which eggs have been selling the past year has induced many people to take an interest in fowl. Some amateurs in the city have had their eyes opened to the fact that the price of eggs is not too high when compared with the price of grain. There are many factors which influence egg production and, incidentally, the profit in poultry. In an exhibit put on by the Poultry Department of the Ontario Agricultural College at the Canadian National, there were three Barred Rock hens which looked very much alike. They had been fed the same, were about the same size and had been housed under similar conditions. However, records showed that one hen had made a profit of over five dollars during the past year, while one of the others had not laid enough eggs to pay for the feed which she consumed. The other hen was an average producer and gave a profit of a little over one dollar and fifty cents. From the appearance of the birds one would be as likely to pick out the unprofitable one as the heavier producer, although when comparing the birds in detail a difference would be found. As in all classes of live stock, breeding counts, and the poultrymen who keep a laying strain of their chosen breed, usually gather more eggs when eggs are high in price than do those who pay no attention to the strain. It costs practically the same to feed a heavy layer as it does the hen which is a slacker. The profit in poultry depends almost

entirely on the number of eggs laid in a year. Owing to the high price of feed it is more difficult to make a profit now than it was three or four years ago, as the price of eggs has not increased in proportion to the increase in cost of feed.

On a pamphlet issued by the Poultry Department of the College a chart is given which shows the average price of eggs per dozen for the past eleven months as compared with the price during the year previous to the war. Another chart also gives the average price per bushel of grain per month for the past eleven months as compared with 1913-14. The figures are based on a ration composed of one-third of a bushel by weight of wheat, oats and corn and the advance in price is considerably more marked than in the case of eggs. However, if the birds are of the right strain and are given reasonable attention and proper feed there should be a fair margin of profit even at the high prices of grain. The following table gives the price of eggs in 1913-14 and in 1916-17 for eleven months:

	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
1913-14.....	27	31	40	50	37	23
1916-17.....	37	40	50	63	50	50

	Mar.	Apr.	May	June	July	Aug.
1913-14.....	25	20	20	18	20	23
1916-17.....	38	36	41	36	30	—

This is an increase varying from twenty-five per cent. to a trifle over one hundred per cent., as eggs in May this year were over twice as dear as in May 1914. However, the price of feed in May this year was 150 per cent. higher than it was in May, 1914. The difference in price of grain for the same months of the year previously mentioned is as follows:

	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.
1913-14.....	71	70	70	72	70	68
1916-17.....	93	105	111	115	127	129

	Mar.	Apr.	May	June	July	Aug.
1913-14.....	71	73	74	77	76	84
1916-17.....	133	150	186	174	160	—

The price of feed was for fifty pounds of the mixture given above. Feed records have shown that the average laying hen will consume seven pounds of grain per month. The other constituents of a ration, other than grains and mash, have increased about twenty per cent. since the war started. On account of eggs having a higher cash value than they had four years ago, a heavy layer is a more profitable bird now, and consequently culls and old stock should be weeded out so as to prevent overcrowding and to conserve the feed for the producers. Supply and demand largely regulate the price of eggs, and the supply is influenced by the strain of fowl and the method of feeding and housing. Wheat is generally recognized as the best all-round grain for poultry. It is high priced this fall, and all that is suitable for milling purposes is required for bread making. Corn, oats and buckwheat can be used to replace part of the wheat at least. Many look upon oats as an unsuitable feed for hens, owing to the high percentage of hulls. However, they are practically a balanced ration in themselves, and if the kernels are plump the hens will consume the oats quite readily. Rolled oats are an excellent feed for laying stock; they may be kept in the hopper at all times. The more oats, either rolled or whole, which the fowl consume the less the quantity of other grains required. Of course, it is not good practice to feed oats alone; other grains are necessary, but good mealy oats can profitably be fed in larger quantity than they usually are. If the birds are kept on a limited ration the egg yield will not be high, no matter how good a laying strain is kept. Proper feeding is necessary for profitable production.

FARM BULLETIN.

Canada's Enlistments.

Some figures on enlistments which may interest our readers were recently brought down in the Senate. Up to July 15, 1917, Ontario had enlisted 184,545; Quebec, 46,777; Maritime Provinces, 40,101; Manitoba and Saskatchewan, 77,804; Alberta, 35,934; British Columbia, 41,461; a total of 426,622 from a male population, between 18 and 45 by census of 1911, of 1,720,070. Taking these figures it is found, according to Brigadier-General Hon. James Mason, that Ontario enlisted 40,133 more than her share, Manitoba and Saskatchewan 7,943, Alberta 5,448, and British Columbia 2,206, while Quebec fell 50,176 short of her share, and the Maritime Provinces, including Prince Edward Island, Nova Scotia and New Brunswick, also fell short 5,554. At the end of June, Canada had 329,943 men overseas, and there had been discharged in Canada 76,038.

The figures show that Ontario had, on July 15, already enlisted 8,404 men more than necessary for her share after 100,000 have been raised by conscription from the rest of the country. According to figures brought down by General Mason, Canada has 665,000 men between 20 and 35 in the first class under conscription, viz., single and widowers with no children.