

our veterinarian has in the past given to questions on the various diseases, that readers may know how to treat some of the commoner diseases of their horses this fall.

## LIVE STOCK.

Salt is cheap, but cattle like it.

Some alfalfa or clover leaves are excellent for swine.

Provide a box containing ashes, bone meal, charcoal and sulphur for the swine.

Don't forget the importance of palatability and succulency in winter feeding.

Trim the tails of feeder cattle and run the clippers along the back, then apply the louse powder.

Small entrances to sheep pens are dangerous. When frightened they are liable to rush in and injure some of the flock.

Make some provisions for the breeding swine so they can be out doors and get plenty of exercise. The colony house makes this possible.

For best results, separate the lambs from the ewes, but do not confine either in close quarters. Give them plenty of range and a dry shelter, free from strong drafts.

Cattle to be fattened should be fed a full ration of cut straw and silage or roots for the first month. Then introduce the grain gradually. Just as good gains are made in this way as though chop be fed from the first.

The cattle should be rid of lice as soon as they come into the stable. One part hellebore to four parts of cement makes a good louse powder. Sift it along the back and work it into the hair with the currycomb. Its weight will carry it down their sides.

There is considerable inspiration for Shorthorn breeders to be derived from the recent auction sale held by William Duthie, Collynie, Scotland. An April bull calf, Clipper King, brought 2,200 guineas (approximately \$11,000) which rather suggests that Old-Country breeders are still in the business. Clipper King was by Masterstroke, and out of Collynie Clipper VI., by Adbolton Rosy King. He is a red-roan in color, thick and smooth and good behind. He is not big, but is full of quality throughout. The same atmosphere and associations that enthused Cruickshank, Bates, Booth, and all those makers of Shorthorn history, still inspires the men of Britain, but perhaps there are other reasons for their grand success. Regarding this the Scottish Farmer says: "A British-bred Shorthorn has merits which no other Shorthorn in the world possesses. For this the British breeder is less indebted to himself than to the indefinable something in the soil and climate of these Islands which makes them the stud farm of the world."

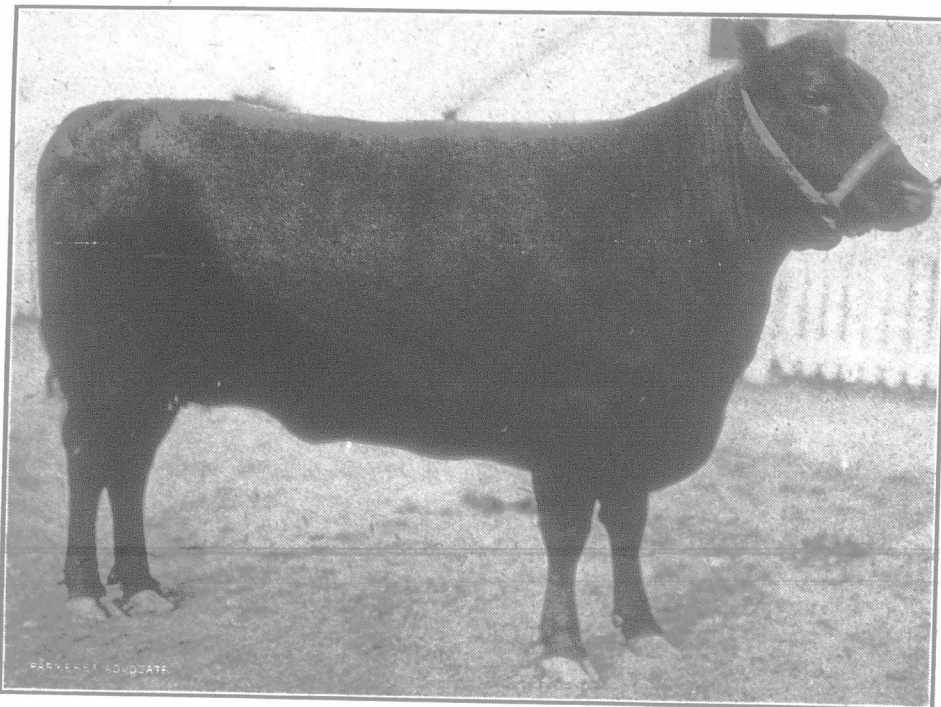
## Some Mill-Feeds and Their Special Uses.

We cannot get away from the fact that mill-feeds are an important factor in live-stock husbandry. He is not a poor farmer who buys this class of feeding stuffs, provided his farm is also yielding him a reasonable supply of grain and fodder. Good stock farming depends in part on so tilling the land that it will produce abundantly of grain, hay, roots and corn. These are the first essentials in the way of feeds and often the occasion arises when some cottonseed meal, oil cake, gluten, bran, middlings, etc., can be used to an exceedingly good advantage, both in the way of providing variety and securing protein to augment feeds that are not rich in that constituent. Roots and silage are hard to surpass for the succulency that makes thrifty breeding stock and sappy, lusty youngsters in the herd. Clover, alfalfa or mixed hay are necessary, and so are straw, corn fodder, etc. We can do without some of them, but the more variety there is in the roughage and concentrates the more palatable is the mixture. Then come the grains so necessary to produce gains and milk. Oats, barley, corn and wheat are staples, and from all these different grains and roughages mentioned it is possible to combine a ration upon which almost any class of stock will do well, provided plenty of clover or alfalfa hay is available. Under such circumstances the need of buying mill-feeds is not, at first, apparent, but many cattle feeders find that with the use of some cottonseed meal or oil cake they can feed enough more steers to make the investment profitable. Such feeds have much fertilizing or residual value, so there is a second source of profit that will subsequently be returned in heavier crop yields. Furthermore, we must consider instances where some part of the stores are light. It may be grain or it may be roughage, but in either case mill-feeds serve a useful purpose. The season of the year and market prices make this an opportune time to consider them in their respective roles.

### The Function of Different Feeds.

In the live-stock department of last week's issue, a table was reproduced showing the composition of our common feeding stuffs. From it we learn that

100 pounds of cottonseed meal contain approximately 37 pounds of crude protein; some of it will average more and some less, but notwithstanding, it is one of the richest of the feeds in nitrogenous matter or protein that we can buy. Prices vary from week to week and slightly with the locality, but generally speaking it can now be obtained around two dollars per cwt. At twenty cents per pound for nitrogen and five cents per pound each for phosphoric acid and potash this meal has a fertilizing or manurial value of \$32.50 per ton. This can be learned from the three columns of the table showing the fertilizing constituents in 1,000 pounds, and it is a factor worth considering. We can buy mill-feeds from time to time, but upon the fertility of the soil we must depend for abundant crops, without them it is no use trying to feed live stock. The uses for cottonseed meal are many, but commonly



**Middlebrook Beauty 6th.**

First-prize two-year-old Aberdeen-Angus heifer at the Canadian National Exhibition 1916. Exhibited by John Lowe, Elora, Ont.

it is not the best feed for pigs, calves or sheep, probably it is the most serviceable in the dairy stable, yet it is now being utilized more and more in the feed lot. Cattle feeders mix a couple of pounds of cottonseed meal with the chop when feeding silage and straw, with excellent results. Live stock do not take to it readily at first, but when it is introduced gradually they soon acquire a taste for it and eventually relish it. Up to five or six pounds per day could be fed to a fattening bullock, but the most economical results should come from about two pounds, when it will add tone to a ration of straw, silage and chop. Stockmen have no reason to look askance at cottonseed meal, for it is

For calves, store or feeder cattle, dairy cows, horses, sheep and swine, some oil cake is an excellent tonic and source of protein. For all classes of stock except dairy cows it seldom pays to feed more than 2 pounds per day. Just a little for sheep and swine is sufficient; calves require only a small portion mixed with some bran or chop, while 1 to 1½ pounds per day is usually ample for a horse. Commonly for this purpose, a good handful twice a day is sufficient. It is a good conditioner of horses and will advertise itself in their hair and general thrift. It will also hasten shedding of the hair in the spring. This concentrate is being used more and more all the time by cattle feeders, who make some gains through the winter and finish on grass. Cattle so fed are thrifty and do well after a period on silage, straw, chop and oil cake. The entire mixture of concentrates in such a case seldom exceeds two or

three pounds per day, except when the bullocks are to be sold on the early summer market. Oil cake comes from the press in the form of a large slab; this is crushed into the nut form, or ground into meal. It is preferred by many in the nut form.

Gluten meal and gluten feed are by-products of the manufacture of starch and glucose from corn. The gluten feed is much the same as gluten meal with corn bran added. Both are rich in crude protein, but only fair in carbohydrates. They make good feed but are usually fed in the dairy stable, so we shall not elaborate on them here.

Middlings and bran are too well known to require comment at this time. Some bran, we believe, could be used to advantage this winter, especially for calves, and where roots and silage are short. It has considerable laxative effect and actual feeding value. If there is any place where

middlings will show profitable results this winter it is in the ration for young pigs. Many are being sold at small prices on account of light grain crops. If these were retained at home and fed middlings, with a little skim milk, slops, and by-products of the household, they could be brought along to a good size. Then, with some chop, and perhaps a little oil cake added to the ration, and a few roots, these swine would finish in the spring very profitably, as the prospects are for high-priced pork.

There are other mill feeds and by-products of the distilleries and breweries that can be utilized to advantage under certain conditions, but those mentioned are in general use. Conditions demand that we understand the feed we have on hand and the concentrates obtainable for the best results accrue to those who study them form the dollars-and-cents basis, and we can only do that when we know their value for feeding purposes.

While we can ascertain the constituents of all feeds, we do not always appreciate the value of succulency and palatability. A feed may be ever so rich, but if the animal does not relish it the chances are he will not do well on it. Roughages and feeds somewhat poor in feeding value can often be so mixed as to have succulency and palatability and make splendid feed. Feeders should try to provide as much variety as possible, and by gathering together some of their corn fodder, clover chaff, straw, and unmarketable hay they can, with a little cottonseed meal or oil cake bring cattle through the winter in good condition to go out on grass and make profitable gains.

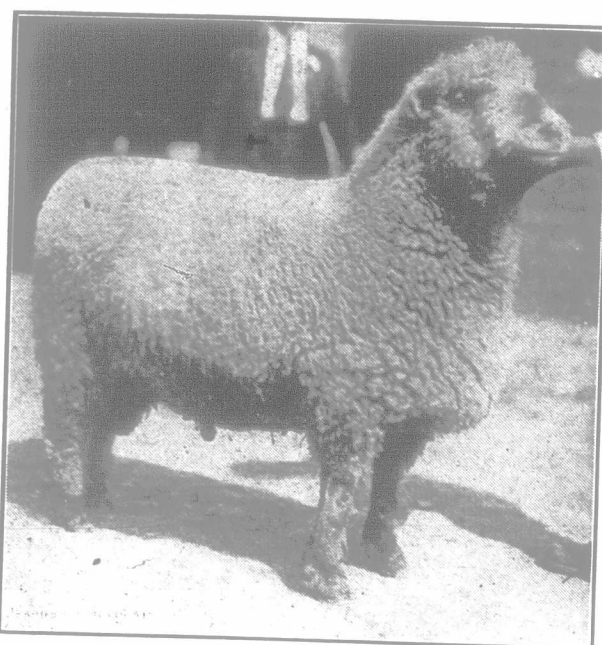
## English Live Stock Prices keep High.

EDITOR "THE FARMER'S ADVOCATE":

Prices paid for pedigree live stock, whenever or wherever it comes into the market, are remarkably high, and there is a set determination in the Kingdom to breed and to keep only the best, awaiting the great expansion that is bound to come the world over after the War is settled.

At Newton Granger, Herefordshire, in mid-October, Edwards, Russell & Baldwin, disposed of the entire herd of Hereford cattle, property of George Butters. The ninety-four animals realized the total of 6,574 guineas, an average of nearly £74. Of the bulls, Newton Realm, a yearling, sold for 230 guineas to P. & G. Hughes, Crewe, who purchased for the Argentine market chiefly. Sir John Cotterell gave 200 guineas for Newton Dogma, and J. H. Williams, Castel Du, Pontardulais, was the buyer of Newstead, a three-year-old bull, for 175 guineas.

Among the cow and calf transactions were the following: Dorothy 4th, 115 guineas, Lord Rhonda; Bountiful, 125 guineas, Mr. James, St. Fagans, Cardiff; Lady 3rd, 100 guineas, Mr. James; Gay Lass 2nd, 185 guineas, Mr. James; Mabel 4th, 150 guineas, Mr. James; Elsie, 115 guineas, Mr. Coxon, Webton Court, Hereford; Laura 2nd, 115 guineas, Captain Hinckes; Bounty, 115 guineas, Mr. Thomas, Warnham; Lady 4th, 110



**A Typey Oxford.**

Champion Oxford ram at the Canadian National Exhibition 1916. Exhibited by Peter Arkell and Sons, Teeswater.

one of the cheapest sources of protein on the market and an excellent concentrate to feed with roughage or to conserve grain.

Oil cake, or linseed-oil meal, is another protein-rich concentrate that is liked very much in the stable. It is useful for practically all kinds of stock in two ways; first, for its nitrogenous constituents, and second, for its laxative effect on the digestive system. It usually carries in the neighborhood of 30 per cent. protein. The nitrogen, phosphoric acid and potash contained in oil-cake meal are worth approximately \$26.50 as fertilizer and a considerable portion of them is voided. In some localities this feed is retailing at \$2.25 per cwt., but in ton lots no doubt a better rate would be bequoted.

guineas, Mr. Myrtle 3rd, Amaze, 110 guineas, 110 guineas, bull calf, 105 guineas, Leominster; Aston-on-Clun, Lulsley. The fourteen two-year-old heifers, 404 guineas.

Those who wrong. At Hackneys, a fourteen head nineteen yearling colt was paid by J. King. This famous Forest for Towthorpe Briggs gave a stallion Adbolton mare, Adbolton Lysaght.

For the late Shire Horse Society stallion King to him at 20 guineas. Society have a deal, but the flected in the small tenant farm him and getting instance, at Cre colt foal, bred after winning se Collins for 300 guineas, Row bred by another near Chester, was the price. Ash Childwick, another tenant son of Childwick the English far

High figure Spurling and H The top figure 1913, sire Sudb of Bricklesham, the purchaser b Suffolk filly by Agnew, M. P., appears from th in popular favo

Some good of W. W. Poll's horn cattle at was realized by bred by M & P Wills, of Bristol E. Wills gave 3 Northern Star, also secured Hin of 10.36 lbs. of Captain Buxton by Eva's Prince for Honeydew (three years) fe heifer, Eva's Pr Dimmock for 11 realized for fifty 16s. 2d., and five

The London Islington, from December 8th, w are concerned— The schedule, in classes are provi every section, ho what reduced, £2,509 against £

The Thorough place on the last National Pony S whilst the Hack days of the fol Horse Show will that being the c poses, a return to "Records" in just now, as plen land, with its Co with many indiv up Shorthorn " George Harrison, has just got 1,10 Gainford Ringlea and sired by Colly by Pride of Tees prize Royal Sho Harrison consider or owned.

George Harris and, as the resul foremost place. prizes, more than ships, have been the Royal Dublin mals purchased fr selves in the Br foreign countries Mr. Harrison from the show-rin show were includ