Home Course In Modern Agriculture

XIV.—Some Points on Stock Feeding

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IN order that the feeds fed to stock may be used to the best possible advantage it is necessary that they should be of the proper kinds and fed in the proper amounts.

One of the important things to take into account in determining the value of a feeding stuff is its digestibility. Some feeds, such as oat straw, are not more than 50 per cent digestible, while in the case of the corn grain over 90 per cent is used by the animal. Feeds with a high percentage of digestibility, like the grains, are called concentrates, while those with a large amount of indigestible crude fiber are called rough feeds.

Every animal must have a certain amount of roughage; otherwise the grain would lie in the stomach in a heavy, sodden mass, which could hardly be penetrated by the digestive juices, and indigestion would be sure to result. The crude fiber, while indigestible in itself, dilutes the more concentrated feeds and greatly hastens the process of digestion. The ruminants are able to obtain a large share of their feed from roughage. Horses use considerable, though owing to their smaller stomach they cannot use as large quantities as cattle do. Swine are usually regarded as grain eating animals, yet they, too, do better for having some roughage. Mature hogs will maintain themselves on a good rape or clover pasture without any grain at all, and fattening swine will make greater gain if fed on pasture.

FIG. XXVII—THERE IS NO FOOD BETTER THAN MILK FOR YOUNG ANIMALS.

In winter, when pasture is not available, hogs will eat considerable amounts of clover or alfalfa hay if they can get it and will be healthier and make better gains for having it.

Another important quality in a feedstuff is its palatability. Stock will make greater gains on feeds that they like, even though they contain no more nutritive material than those that are not so palatable. Closely related to palatability is succulence or juiciness. Cows give a large flow of milk on pasture not so much because of its high feeding value, but because of its succulence and palatability. Stock of any kind will not make the best use of their feed if given nothing but dry hay and grain.

The most satisfactory means of providing succulent and palatable feed during the winter is by the use of the silo. Silage has a high feeding value and is cheap, since from eight to twelve tons can be raised on an acre. It finds its greatest use as a feed for dairy cows, but also makes a profitable addition to the ration of nearly all classes of stock.

The most important point to consider in preparing a ration is the relative proportion of the different constituents. Fats and carbohydrates are interchangeable and can be considered together, since they both go to furnish heat and energy or to build up animal fat. Neither of these substances, however, can take the place of protein, since neither of them contains nitrogen. To build up the muscles, organs and other parts of the body which require this element considerable protein must be fed. The ordinary feeds found on the farm contain too little protein in proportion to the other substances. To secure the best results a balanced ration—that is, one in which the amount of protein is in the proper proportion to the amounts of fats and carbohydrates—must be fed.

It can readily be seen that what is a balanced ration for one class of stock may not be for another. Young calves, colts and pigs require more protein and ash in their food than do mature animals. A work horse needs large amounts of fat and carbohydrates to supply him with energy, but he also needs considerable protein to repair his muscles, which wear out very rapidly. A fattening steer needs only a minimum amount of protein, since he is neither growing nor using his muscles. A milk cow needs a great deal of protein and ash to use in making milk, together with a liberal amount of the other constituents, to supply energy and to make into butter fat. A pregnant animal is in especial need of protein and ash to use in building up the bones and flesh of its offspring. All animals need larger quantities of the heat forming elements in the winter in order to keep the body warm.

Another important point, one that must not be lost sight of in preparing rations for any class of stock, is the cost. It makes no difference how digestible, palatable or well balanced a ration may be nor how rapid gains it will produce, if those gains are put on at too great an expense the feeding operations will result in a loss. For the last two years, for instance, bran and shorts have been so high in price that it is doubtful if they could be fed at a profit. Bran produces a large milk flow when fed to cows, but silage and clover hay are just as good and cost only a fraction as much.

The question of how much a farmer can afford to spend for concentrated byproducts is always a perplexing one. Something is needed to balance the corn, which is the principal feed on most farms. If nothing else is fed with corn it will not be thoroughly digested and much of the nutriment which it contains will be wasted. When corn is cheap this does not matter so much, but when the price goes up to 50 or 60 cents a bushel it becomes an important consideration. This applies not only to corn, but to other grains as well, since all contain an excess of carbohydrates and fat. Oats come the nearest to being a balanced ration of any farm grain, but they are usually too expensive to be fed exclusively. Mixing oats with corn does not make a balanced ration, since the oats have scarcely enough protein to balance their own carbohydrates and fats. Another factor which must be taken into consideration is the health of the animals. This will surely suffer if they are compelled to live long on a single kind of feed, especially one that is as low in protein as corn is.

When grain is high in price the saving effected by the purchase of some supplementary feed rich in protein will usually much more than pay the cost. In buying feed to balance corn or other grain the chief consideration should be the amount of digestible protein which it contains. Ash is also important, especially if it is to be fed with corn, which is low in ash. By dividing the price per ton of a feed by the number of pounds of digestible protein in a ton the price per pound of protein is easily determined. Thus the comparative cost of protein in the different byproducts can be figured out and the one used which will furnish it in the cheapest form.

For hogs there is probably no better or cheaper source of protein than tankage or meat meal. A ration of one part of this to ten parts of corn is an ideal one for fattening hogs. For growing pigs the amount of tankage should be doubled and some skimmilk added if it can be obtained. Milk is an almost perfect food for all young stock, and the farmer who has a large supply of it has a big part of his feeding problem solved.

Another feed that is invaluable for young pigs and calves is dried blood or blood flour. Nothing else will stop scours so quickly nor do so much toward starting along an unthrifty pig or calf. A heaping teaspoonful to a feed is enough for a young calf, with proportionate amounts for the pigs. The reason that these packing house byproducts are especially valuable for young animals is because of the large amount of ash which they contain. The use of such feeds insures strong bones and healthy, vigorous animals.

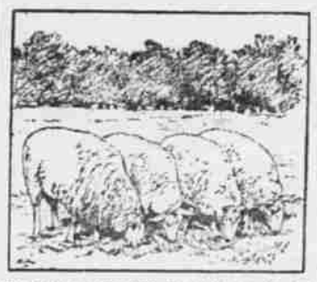

FIG. XXVIII—CLOVER PASTURE IS AN EXCELLENT FOOD FOR SHEEP.

A lack of ash is the chief fault that can be found with the corn byproducts, such as germ oil meal and gluten feed. For this reason these feeds are not so valuable for milk cows and young stock, although they are all right for fattening animals. Oil and cottonseed meals contain more ash than the corn products, but not so much as tankage. They are usually a cheap source of protein. Oilmeal is especially valuable for keeping the system in tone, the bowels loose and the coat sleek and glossy. Cottonseed meal should never be fed to hogs, as they often die from eating it.

There is nothing better than clover pasture to balance the ration of fattening swine. Clover pasture, with perhaps a small allowance of grain, is an ideal feed for milk cows, calves and colts. The little pigs will learn to eat it also, but will need considerable grain and skimmilk in addition if they are to make rapid gains. Clover hay and corn is a ration for fattening cattle and sheep that cannot be beaten. Clover hay and silage with a little corn and oilmeal added is a first class winter feed for dairy cattle. Even for horses clover hay, if not dusty, is the best of roughage. Its liberal use for all classes of stock will reduce the cost of feeding and add to the profits. So it is evident that the wise farmer will not neglect to provide a clover pasture that is ample.

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FRIBBLES OF FASHION.

Girls Are Making Hats, Belts, Purses and Bags of Raffia.

Raffia is enjoying quite a vogue this summer. It used to be a toy. Now girls with clever fingers are making it into hats, and this season raffia parasols finished with fringe are very smart. It makes, too, lovely belts, purses and bags.

Corsets are not nearly so high as they have been in the bust—in fact, the tendency grows daily stronger to eliminate bulk immediately above the waist line. Therefore in selecting a new corset, unless you are full busted, buy a model that is well cut over the hips and very low bust.

Crepe batiste now comes with a mercerized finish in all the new shades and in stripes for 14 cents a yard.

This breakfast jacket is a graceful and comfortable garment for summer

FOR SUMMER MORNINGS.

mornings. It provides the open neck and short sleeves that are such boons instantly the thermometer rises to any considerable height. Worn with a plain skirt it makes a charming combination suit. JUDIC CHOLLET

This May Manton pattern is cut in six sizes—from 34 to 44 inches bust measure—and the skirt comes in sizes from 22 to 30 inches waist measure. Send 10 cents each for these patterns to this office, giving numbers (jacket 6330, skirt 6130), and they will be promptly forwarded to you by mail. If in haste send an additional two cent stamp for letter postage, which insures more prompt delivery.

Some Dairy Pointers.

The leading principle in the care of milk is cleanliness. Milk that is not clean is worse than no milk. You don't want it at all.

Don't be afraid to pay a good price for a cow. If a forty dollar cow clears 7 per cent, one that clears 14 per cent ought to be worth $80.

Any farmer who makes butter or sells the cream from as many as five cows needs a separator to get the best profits.

Cream from strippers is hard to churn because the particles of butter fat do not stick together well. The difficulty is generally remedied by feeding silage or green food and protein.

Cream should be ripened from ten to twenty-four hours and churned at a temperature of 52 to 54 degrees. This will give butter with good grain and body.

TRAINING THE HORN.

Ordinary Gas Pipe Said to Be Best For This Purpose.

Few of us can ignore the dictates of fashion. We wear a certain kind of clothes because it is the fashion to do so. We get into stiff and affected ways in our relation to society because fashion says that we must do this and we must do that. Even in handling farm animals we cannot always have our own way, but must conform to certain decrees of fashion.

The subject is brought up at this time by a farmer who finds himself in possession of a bull having very unfashionable horns, says the Homestead. His desire is to have the horns curve nicely toward the front and downward, but instead of this the points of the horns are getting farther away from the head every day. He asks about the advisability of using "horn trainers" or any other device to bring these into the desirable shape. He calls attention to the fact that one instance came under his notice where a horn trainer resulted in destroying the ends of both horns, making the last stage of the animal worse than the first.

We shall take it for granted that the animal in question is either a Shorthorn or a Hereford, though this matter is not stated. In our opinion no device yet invented will take the place of "weight" applied alike to each horn. We have tried the brass caps that are ordinarily found on the market, but have never been able to obtain caps of sufficient weight to bring about the desired results. One of the best and simplest plans that we have ever tried involves the use of a piece of ordinary gas pipe or, what is still better, the use of two "unions." A union is nothing more or less than the joint used for connecting two pipes of different sizes. The diameter of one side of the union may be three inches and the other side two inches. This lessening of size makes it fit the shape of the horn snugly.

Of course in case of a large animal it may be necessary to use a union four inches in diameter at one end and three inches at the other, but in the case of a young animal the first size mentioned is generally large enough. Place one on each horn and then wire securely from one to the other. So much the better if they go on to the horn so that two or three inches of the tip project beyond the end of the union, because when the weight is applied in that way the effect will be to bend the horn at the base rather than to give the end an undesirable tilt downward. In addition to applying the weight in this way it is a very good thing to weaken the horn at the lower side of the base by a little filing or cutting.

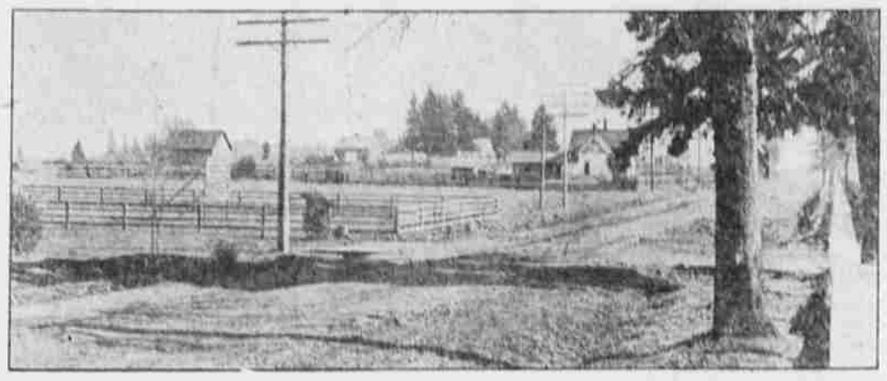
The instructions given above only apply in cases where it is the intention to give the horn a downward curve with an inward tendency, the weight applied in this case tending to bring the horn down, and the wiring will result in gradually training the horns closer together at the point. When it comes to the matter of giving the horns an upward curve, as is desired in the case of Jersey cattle, it must be confessed that this is largely the work of an expert, and an amateur is very apt to do more harm than good.

Cleaning Milk Utensils.

Discard the dishcloth and the dish towel when the milk utensils are being washed. Wash them in warm water first, with plenty of some washing compound and use a brush to do the work, not never a rag. Get into every part of them, after which rinse off with clean warm water and then either put them in boiling water or pour boiling water over them. Stand the parts up so that they will drain and use no cloth to wipe them. The hot surface will dry them quickly, and they will be clean. Leave the parts in a sunshiny place if possible.

$200 Lot Free

An opportunity for you to have a home of your own without paying one cent



This beautiful corner lot 50x100 feet in dimensions, in South Oregon City, an ideal residence section, to be given to the person receiving the greatest number of votes between this date and August 31st, 1909.

This Contest Is Open To Everyone, So Get Busy

To the person receiving the highest number of votes up to August 31st, 1909, we will give a warranty deed to this beautiful lot pictured above.

To the person receiving the second highest number of votes up to August 31st, 1909, we will give a credit of $50.00 on any unsold lot in South Oregon City.

To the person receiving the third highest number of votes up to August 31st, 1909, we will give a credit of $25 on any unsold lot in South Oregon City.

These credits will be accepted by the owners of the property at their face value and will be credited against the purchase price of these lots. Balance may be paid in small monthly payments if desired.

1 year's subscription (new or renewals) paid in advance entitles you to .....150 votes
2 years..... 350 votes
3 years..... 550 votes
4 years..... 750 votes
5 years..... 950 votes
6 years..... 1150 votes

There will also appear in each copy of the Enterprise between this date and August 31st, 1909, a coupon good for Twenty-five votes. Have your friends save them for you.

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Entitles the holder to

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EX-MINISTER LOSES SUIT.

Jury Gives Verdict For $565 in Hadden vs. Purdy Case.

The jury in the case of George W. Hadden against W. E. Purdy Monday morning brought in a verdict for $565 in favor of Hadden. In 1907 Hadden sold a store at View, Wash., to Purdy for $950. Part of this amount was paid down and a balance of $565 remained. Purdy is an ex-minister. He gave Hadden a note signed by William Teeter, which was accepted by Hadden, with the understanding that if it was not collectible the balance would be paid by Purdy. Tetter became insolvent and left for parts unknown and Purdy declined to pay on the ground that Hadden did not use due diligence in enforcing collection of the Teeter note. Grant B. Dimick appeared for Hadden, and Purdy was represented by Attorney Franklin T. Griffith.

Eagles In Rose Festival Parade.

Oregon City Lodge Fraternal Order of Eagles, went to Portland Monday night on a special car and formed a portion of the Rose Festival parade.

HEED THE WARNING

Many Oregon City People Have Done So.

When the kidneys are sick they give unmistakeable warnings that should not be ignored. By examining the urine and treating the kidneys upon the first sign of disorder, many days of suffering may be saved. Sick kidneys expell a dark, ill-smelling urine, full of "brick dust" sediment and painful passage. Sluggish kidneys cause a dull pain in the small of the back, headaches, dizzy spells, tired, languid feelings and frequent rheumatic twinges.

Doan's Kidney Pills are for the kidneys only; they cure sick kidneys, and rid the blood of uric poison. If you suffer from any of the above symptoms you can use no better remedy.

Oregon City people recommend Doan's Kidney Pills.

E. W. Midlem, 410 Main Street Oregon City, Oregon, says: "About six months ago kidney and bladder trouble became very serious in my case. I tried many remedies but they seemed to aggravate the trouble instead of relieving me. The doctors prescriptions did not help me either. My back didnot trouble much but I knew my kidneys to be out of order by the irregularity in action and unnatural appearance of the secretions. I procured Doan's Kidney Pills from Huntley Bros. drug store and was surprised and gratified with the beneficial results I received. After I had taken the contents of one box all the amyptoms of my trouble had disappeared and the action of my kidneys became normal. I give all the credit to Doan's Kidney Pills for my present good health."

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Remember the name—Doan's—and take no other.

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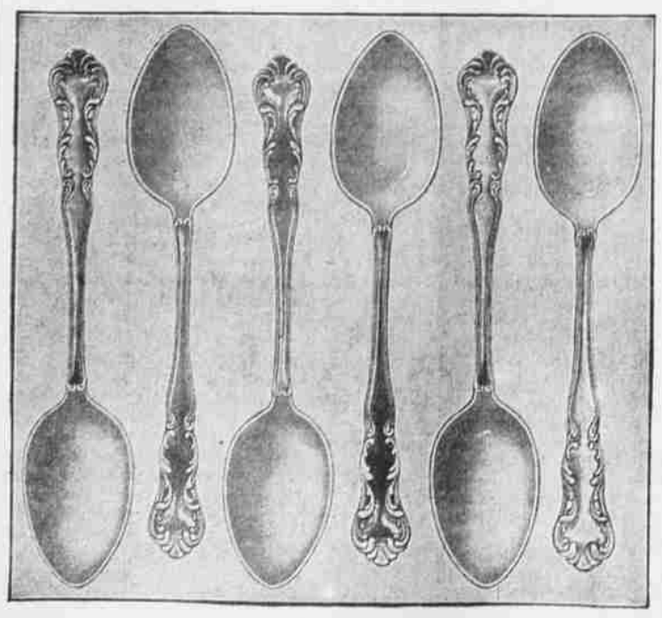

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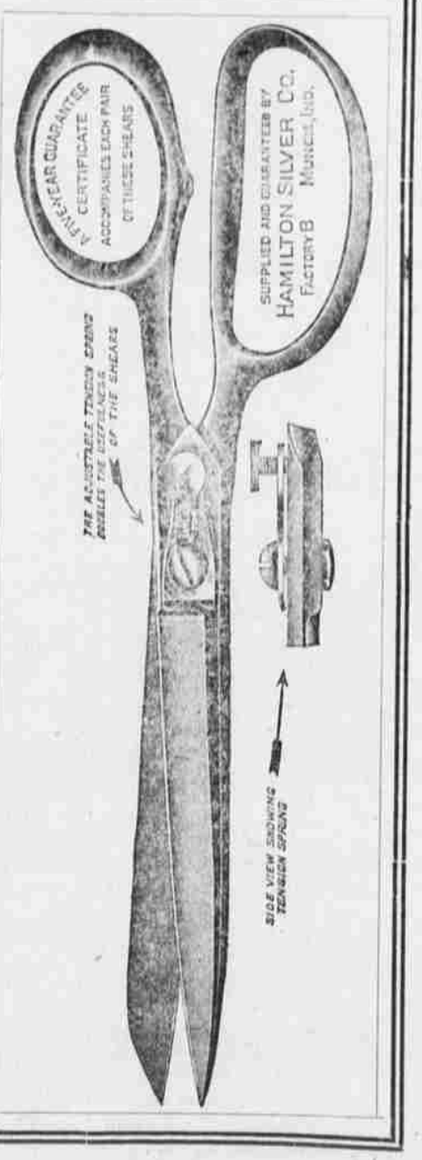

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