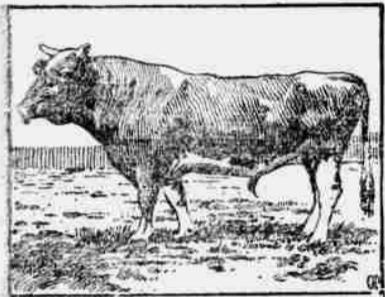


The following extract is taken from an address by Burton W. Potter before the New England club at Waterville, Me.:

Having fixed our ideal as to size and dairy qualities, there arises the interesting question, "How shall we attain it?" As the bull is half of the herd, I will begin with him. The first requisite of a bull to head a herd of cows is one that will sire deep milking offspring and endow them with vigorous constitutions. In the selection of a young dairy bull we must take into account his individuality and his pedigree. When he is old enough to have his offspring speak for themselves it is reasonably safe to select him upon his record of performance. But as a matter of fact we usually select him when he is quite young, and in that case we are obliged to fall back upon his pedigree and the performance of his forebears, for it is hard to tell what a calf is going to be before he is six or eight months old.

In the beef breeds a calf can be judged by points much easier than in the dairy breeds. For them a square form is the chief qualification, while in the dairy breeds many of the dairy points do not show up prominently in a calf.



MAINSTAY'S GLENWOOD BOY.

If we find the color good, the hair fine and soft and the skin pliable, with indications of a strong constitution, we are pleased, and if these points are fortified by good breeding, we are reasonably safe in selecting him for use in our herds, but there is always some chance for disappointment when a bull is chosen in this way. I think we run more chances in this respect than we need to.

If we would utilize the services of the good old bulls more than we do, we should avoid some chances of disappointment and improve our stock also. We have fallen into the bad habit of sending our bulls to the shambles when three or four years old and generally before we know the qualities of their offspring, and in this way many of our finest bulls have been slaughtered prematurely.

I think our breeding bulls should be kept in service until their offspring have been tested. If their offspring prove to be unworthy, then the sooner they are slaughtered the better. On the other hand, if their offspring prove to be worthy, then they should be kept in service for many years. Of course there is danger of too much inbreeding when kept in the same herd, but it is not necessary to keep them in the same herd. They can be sold for use in other herds, or their owners might profitably exchange them. Farmers sometimes trade horses, and why should they not trade bulls also?

The Danes are certainly excellent dairymen, and they do not sacrifice their aged bulls as we do here. They keep their breeding bulls until they have been tested, and when one has proved himself of merit as a sire he is kept until he has reached the maximum age. A bull is not eligible to registration as a pure bred till he is three years old and has demonstrated his usefulness as a sire. Would it not be well for us to change our rules of registry to conform to this sensible system of the Danish breeders?

How often we are ready to exchange the old bull that has a splendid crop of calves to attest his merit for some young bull with good conformation and pedigree, but without any record as a sire! And how often at public sales of pure bred cattle do we see some aged bull with a splendid record sold at a great sacrifice, while some young bull with no record is purchased at a big price by some one with great expectations! This sacrificing of good old bulls is a foolish practice, and it is time for us to show more judgment than to let good sires go begging.

The handsome Guernsey bull shown in the illustration, reproduced from Country Gentleman, is a son of Glenwood's Mainstay and Jewel of Haddon. He is in service in the highly select and very choice Morven Park Guernsey herd, property of Westmoreland Davis, Leesburg, Loudoun county, Va. This herd was recently enriched by one of the most important importations of pure bred live stock that have been made into this country in years.

Need of Nutritious Food.

In all pure breeds the original scrub blood at the foundation is ever seeking to restate itself. In short, there is a tendency in all pure bred animals to degenerate or retrogress toward original and less perfect types, and nothing will more surely and speedily stimulate this tendency than lack of nutritious food. In the absence of sufficient nutrition the possibilities of perfection inherited from pure bred sires or dams but partially materialize or wholly fail to assert themselves.—Wisconsin Experiment Station.

MAKING GOOD BUTTER.

Knowledge of Starters Necessary For Turning Out the Best Grades.

The creamery buttermaker must be familiar with starters. They are a necessity for making the best grade of butter. Their value cannot be over-estimated, nor can too much care be practiced in handling a starter. In making a good starter cleanliness is the first principle to be observed, and it is the buttermaker's duty to see that the utensils used are properly cleaned and sterilized before the starter is put into them. They should never be exposed in places where dust or bacteria of any kind will have a chance to lodge in them. In fact, the value of sterilization immediately before use cannot be too fully realized, and the much to be condemned habit of wiping the cans with a cloth afterward, though the cloth is seemingly clean, should never be practiced.

Neither should the inside of the vessels be touched by the hands, although they may seem clean, nor should cold water be poured into them for cooling purposes, but always applied on the outside. It is necessary that the man handling starters should wear clean clothes, so that dust or other foreign matter will not drop into them while being propagated. Many times can be seen the practice of dipping unsterilized vessels into the milk after it has been pasteurized, or a finger will be stuck in for a quick estimate of the temperature, thus inserting undesirable germs and defeating the object sought.

Skill in Finishing the Product.
When it comes to the finishing of the product skill means much, for the more neatly it is done up the higher will be the score and the price. There are quite a few important points to be observed in the process of manufacturing butter. First, of course, is to have the cream properly ripened and cooled to the desired temperature.

Next is to stop the churn at the right time, get enough salt and color added to suit the market, get the butter worked just right, for a good body means a higher score; put it up as neatly as possible and in a shape that will be most desirable for the market, and finally to observe as much sanitation as possible from the beginning to the finish. The grade of butter depends somewhat upon the style of churn in use, but it is expected that most creameries will have one of the more up to date and improved styles installed. They are a little more complicated than the box or barrel churn, and, it may be said, they are considerably harder to keep clean. They must be kept clean from the beginning, and it is the butter maker's duty to see that they are.—F. A. Jorgenson, Illinois Dairy School.

Value of Careful Stripping.

Stripping the cows thoroughly has a tendency to increase the milk flow. Leaving a little milk in the udder has the opposite effect. The principal difference between a good milker and a poor one is that the good milker is gentle with the cows and conscientiously finishes the job. Any one can milk a cow right, but not every one does it. Leaving a little milk in the udder increases the bacteria content of the next milking slightly, which is another reason for careful stripping.

Dairy Wisdom In Brief

Cows are more sensitive and susceptible to cold than most other animals, on account of the double drain upon them. There are two extremes in caring for the cow—negligence and overpanpering. Avoid both.

A dairy thermometer is quite inexpensive, and it is certainly a labor saving device.

Each individual in the herd should be studied and given the care that she requires for best production.

Two sisters stood side by side in a herd. One required bulky, light food to cause her to do her best; the other required more concentrated food with less bulk.

A separator if not properly looked after is a source of many disagreeable taints. Take it apart every time after use and clean it thoroughly, and finish cleaning with boiling water or steam if possible.

Scrub brushes are the best articles for use in cleaning dairy utensils. Coarse linen cloths may also be used, but they require more care in keeping them clean. The same method for cleaning utensils should be followed for cleaning cloths.

To produce a heavy milker continue to milk up to within a few weeks of the cow's second freshing; then before she has had her third calf dry her off for two months. After the third calf you will have a well developed cow that will continue to be a large milker.—Mrs. Addie Howie to Connecticut Dairymen.

Experiments show that a cow when in full flow of milk drinks from 1,500 to 2,000 pounds of water per month, the average quantity determined by testing a herd being 1,600 per cow. This fact shows the importance of unlimited supply of water at all seasons of the year, says the American Cultivator. In every 100 quarts of milk the farmer sells about 88 quarts of water, and when the cow cannot procure water at all times she will fall off in yield. Milk cows should always have plenty of pure water to drink. The best water comes from a good well, with the surroundings clean and right. A clear running stream that is not contaminated is all right, but one never knows for certain about the contamination. Ponds usually become foul and stagnant and altogether unfit for cows to drink from.

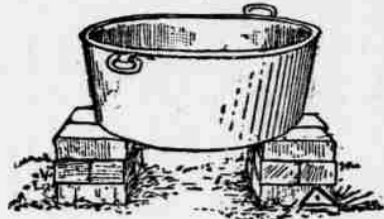


SLAUGHTERING HOGS.

Conveniences For Butchering on the Farm.

It is an easy matter to plan an ideal equipment for butchering hogs and caring for the product—on paper. One could figure out just the form of tables and scalding vats that would afford the greatest convenience, but such description would be of small practical benefit, because the average farmer has use for such equipment for only a few days in the year. Slaughtering devices must therefore be simple, inexpensive and such as will not take up needed room when not in use.

The accompanying illustrations, as described in American Agriculturist, are



TUB FOR HEATING WATER.

given with this idea in view. Three important points arise in considering fall butchering upon the farm where the object is simply to secure a supply of meat for family use. First is the easy and convenient heating of water; next, the making of a simple table and scalding receptacle; lastly, a simple device for smoking meat, for it is not often that a closed room can be given up to this special use.

The first cut shows a big galvanized iron washtub set upon a few bricks piled up for the occasion. A small fire can be built beneath, which will, of course, melt off the coating of zinc on the bottom of the tub, but this will do no great harm. Such a tub can be purchased anywhere. It should be set up close to the slaughtering table, and when the water in the tub is hot two men lift the tub by the handles and pour contents into the scalding vat. This latter may have a blanket thrown over the top if another tubful of water must be heated. This is much more convenient to heat water than by means of a set tub, from which all the water must be taken out in pails and carried perhaps a considerable distance.

The slaughtering table and vat are shown in the second cut. The vat is a sugar hogshead. Make two wooden horses exactly as high as the hogshead and arrange two wide, stout boards, as shown in the cut, with the "tackle" above, suspended from a beam or from a tripod of three stout poles set up over the table and chained



TABLE AND VAT.

together near the top. The hog can be lowered into the tub of scalding water by slipping the boards to one side, these being slipped into place again when the carcass has been hoisted out.

Effects of Irrigating Sediments.

With such crops as wheat, barley and corn, in which the ground is plowed, disked or cultivated in a manner impossible with alfalfa, the sediment blanket is broken up, turned under and incorporated with the soil. In this situation not only is the blanketing effect lessened or done away with, but the sediments are free to exert a fertilizing influence or otherwise, impossible so long as they lie upon the surface inaccessible to the roots of plants, says S. Fortier.

If therefore sediments of beneficial character preponderate in such a mixture the result of their incorporation with the soil will be favorable, and vice versa.

Farm Brevities.

Those who have no silos will find it not only more economical, but better for the live stock, to run all the hay and corn fodder through a cutter.

Put the sleighs, bobs and sleds in order before snow flies, and then when they are wanted they will be ready.

Make the pigpens warm and comfortable. Don't be afraid to give the pigs a warm bed. Frozen swill has caused a loss of many a good porker. Look out for decaying vegetables in the cellar. A few will soon cause the loss of a great many.

Sawdust makes excellent bedding and can usually be had for a dollar a two horse load.—Country Gentleman.

Grinding Grain For Sheep.

Sheep are better fitted than other animals to grind their own grain, consequently it is not necessary to do this work unless the sheep have poor teeth. Valuable breeding ewes are sometimes kept until quite old, and their feed should be ground.

ICE HOUSE.

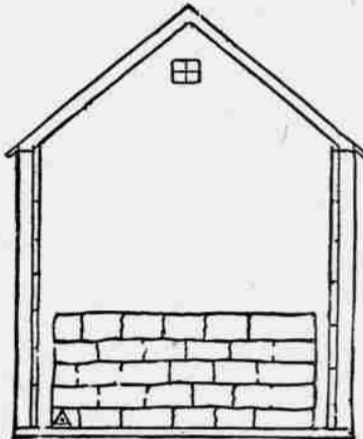
A Quickly Built Structure Proved Satisfactory.

For many years hundreds of farmers have gone without ice during the long, hot summers because they supposed it would cost considerable money and time to secure and preserve the congealed fluid. But at very little expense an ice house can be constructed that will hold and keep well all the ice needed for any farmer's family.

For several years we used a small cheap ice house that kept the ice as well as a more costly building constructed over twenty years previously. Some have an idea they must forego the luxury of ice on account of expense, when almost any kind of a shed will preserve the ice very well, provided it is properly packed.

Our last ice house was a cheaply constructed shed that took less than a day's work in its construction. We used white oak poles set into the ground about two feet. Some cheap hardwood bill stuff of 2 by 4 and 2 by 6 pieces were used for plates, nail ties, braces and rafters. A fair grade of pine stock boards twelve inches wide were used for siding. The siding was nailed on the inside of the poles horizontally the better to resist lateral pressure from the packed ice and sawdust. A better grade of stock board one foot wide furnished a good roof. Such a board roof should be made quite steep to shed water. The kerfs cut on each edge of the roof boards make the roof practically water tight. Fifteen inches should be left between the ice cakes and the walls, as shown in the cut. Locate the ice house where good natural drainage may be secured. The may be laid to secure more adequate drainage if needed.

Cut the cakes so as to break joints, say 18 by 36 inches or 15 by 30 inches, as required by conditions. It will be impossible to make the cakes fit perfectly, no matter how expert the saw manipulator may be. On this account



CROSS SECTION OF ICE HOUSE.

we always put in one layer, then fit it as closely together as possible. Then we shave over the upper surface of all the cakes with a carpenter's adz. The shavings of ice were swept into the crevices between the cakes. When freezing cold a little water was sprinkled over the whole surface to cement the layer solidly together. As each layer is completed the sawdust should be filled in around the sides level with the top and solidly tamped down. Allow no sawdust to remain on top of any layer of ice while filling. Fig. 2 shows the sixth layer in and ready for the sawdust. Ice is preserved by being packed away from the air. As hot weather comes on the ice will settle some. Be sure to keep the sawdust tamped down around the sides frequently during early summer, and see that no air holes form, advises a writer in Hoard's Dairyman.

When the ice is packed in, cover with ten to fifteen inches of sawdust. Leave the gables open more or less to allow free circulation of air over the ice. Remember there will be some waste during the hot summer months, no matter how much pains are taken, and this would be true in the more costly ice houses.

Checking Rot In Potatoes.

A thoroughly satisfactory treatment for checking rot in potatoes is yet to be found. What has proved best in my experience is, first, keeping the storage cellar at a temperature as near 33 to 38 degrees as possible; second, sorting the potatoes after they have completed their sweat in case any indication of wet rot is shown to prevent the rot spreading from the decaying tubers to the sound ones. Dry rot is very rarely if at all transmitted from one potato to another, according to a writer in Orange Judd Farmer.

If the potatoes are left in pits in the field to sweat prior to putting them in the cellar they will usually show rot that may be in them when they are taken from the pit. Potatoes which are nearly clean of dirt usually show more rapid spread of the wet rot than do potatoes which are covered with a considerable coating of dry soil. Possibly the reason for this may be the fact that the dry soil is not a good medium for passage of the rot from one potato to another.

A Few Reflections.

The man who keeps books learns to turn everything to account.

The farmer with a well filled silo and a cellar full of mangels is well shod for winter travel.

Work smartly to save all the barnyard manure you can. You will soon want it to put on the spring crops.

Molasses For Feeding Steers.

Some tests made in Texas of the value of black strap molasses for feeding steers lead to the conclusion that the addition of molasses to a fattening ration has always produced an increased gain. Addition of molasses to a ration of cottonseed meal and hulls lowered the cost of gains.

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