

dairy farmers appreciate this fact, the sooner will there arise, through a medium of a better class of animals, the spirit for successful advancement and the temptation for better management; hence the adoption of wise methods that will materially affect prevailing conditions and tend to raise the standard of excellence of our cows, which will continue to contribute, and more liberally, to the great resources of the state."

Grow Rape for Forage

Though as yet grown in a limited way, the rape plant is rapidly gaining in favor in this country, mainly through the instrumentality of the experiment stations which have brought it prominently to the attention of stockmen. The Dwarf Essex is the variety commonly sown. In some instances, however, bird-seed rape has been sown, resulting in a product of no feeding value. Rape may be sown at any time from early spring until August, the seed being scattered at the rate of three or four pounds an acre broadcast, or, if sown in drills, two or three pounds to the acre.

Cultivation is required only when sown in drills. The crop is harvested by turning stock directly into the rape field to consume the abundant, nutritious leaves and stems which are the parts eaten.

Rape is highly prized by some feeders of cattle for furnishing a succulent feed during the fall months and preparing them for winter. It has also been fed to dairy cows but must be used with caution as it taints the milk. It is well known that rape has a very considerable value for feeding swine, especially during the earlier stages of fattening. This feed is much relished by pigs. Being succulent, it stimulates the digestive tract and prepares it for the heavier grain feeding which follows. On sheep farms, rape will find its largest use. It can be fed to all classes of sheep with advantage and almost the animals harvest the crop, the cost of feeding it is insignificant compared with the returns. Within eight weeks after seeding, the plants are large enough for use and they are then fed off by turning the sheep directly into the field to gather the forage at will.

The rape crop, which will probably grow anywhere at some season of the year, is recommended to farmers and stockmen as well worthy of trial since it is produced at small expense for seed and culture and yields an immense amount of nutritious forage, the flavor and succulence of which are highly appreciated by cattle, especially sheep and swine.—Prof. Henry in "Feeds and Feeding."

Feeding Cows Grain in Summer

There is a time during the summer months when the average pasture is very short. During this time the milk cows must be fed something in addition to grass. Many farmers consider that a ration of grain will do this better and more economically than anything else. As a rule this is not true. In the best conditions under which grain very largely has to be relied upon for supplementing the pasture, but under average farm conditions it is not. It is in other words, summer pasture should be provided. Fodder corn makes an excellent feed during the early fall months. A mixture of barley and oats, often makes a very desirable summer pasture and experiments indicate that such pastures are more economical than grain feeding.

Some years ago the Kansas Experiment Station allowed one lot of cows

the run of a pasture without grain. Another lot was pastured and fed six pounds of a mixture of grain composed of one-third wheat bran, one-third corn meal and one-third ground oats. At the end of the test it was found that the cows at pasture receiving no grain gave larger returns than those fed grain in addition.

At the Cornell Experiment Station, New York, cows fed a pasture were fed six to nine pounds daily of grain mixture composed of 100 pounds of wheat bran, 100 pounds of cottonseed meal and 15 pounds of malt sprouts. Several tests of this kind were made and the conclusions drawn therefrom were that the feeding of grain did not yield increased net returns.

A number of other tests might be cited, but the conclusion would not be changed. This does not mean, of course, that when the pasture is unable to supply an abundance of food for the stock that it is not better to feed grain than to allow the cows to run down, but the meaning is, during, even if annual, pasture crops must be used for tiding over the season of short pastures, is more economical than grain feeding or partial grain feeding. It must be born in mind, however, that unless cows giving a heavy flow of milk have an abundant supply of good nutritious grass they will not be able to get the required amount of nutriment. In such cases some grain should be fed in addition.—Farmer's Tribune.

Healthy Stables

Just now there is considerable agitation throughout Canada or in fact throughout the entire civilized world about the alarming increase of consumption or tuberculosis, commonly called the white plague. This agitation is no doubt well founded, but methinks I hear someone say what has that to do with agriculturists? Well, perhaps it has nothing to do with agriculturists but they have a duty to perform in helping to stay the dread disease in the animal kingdom, which may be a step towards its prevention among humanity.

All medical men are agreed that sunlight and pure air are most necessary for the patient to have in order to effect a cure for tubercular trouble or even to prolong life. If that is the case with human beings that are constantly moving around indoors and out, how much more is it necessary to apply this remedy or prevention to our cattle, many of which are tied up all winter long or nearly half the year, in the stable, especially if they are kept on a diet of milk and meat? Now, let me be misunderstood, I do not wish to put the whole animal kingdom as equally important with the human race, only in so far as neglect of the animal health is likely to affect human health.

I am very strongly of the opinion that dark, dirty and unsanitary stables are largely responsible for tuberculosis in cattle. As to what effect that has on the meat or milk from such animals, I am not in a position to say, but I have my opinion. As this is the season for renovating old stables and building new ones would urge upon anyone contemplating making such changes to put in all the light possible, as well as some system of ventilation. It need not necessarily be an expensive one. However, do not rely upon doors and windows for such ventilation, as it is difficult to so arrange it without throwing dirt upon the eyes of the stock. Build your walls hollow, you will find it much warmer and drier than solid walls, and no more expensive.

It is a good plan to have your window sash made for double glass

about half an inch apart. This will make your stable warmer and will give better light in cold weather as the glass will not frost over.

It is important for the health of the animals as well as for the lifetime of the stable that roots be not kept in the stable. This is easily arranged by having the root cellar under the driveway, and when properly built of cement throughout it should last a lifetime. Another thing that can be done is to have the driveway the water tank. It can be kept high enough up to allow the water to run to the drinking fountain in front of the cows. When built of cement and covered up securely it should last indefinitely.—R. H. Harding, Middlesex Co., Ont.

Farm Water Supply in Manitoba

Ed. The Dairyman and Farming World.—Some few years ago, we erected a modern dwelling and placed therein a dual system of hot and cold water of supply system. Our cistern is in the cellar. From this we pump the soft water to a large tank in the attic by means of a force pump. We pump it by hand and it takes a man 20 minutes to fill the tank. When filled, the supply will last for about two weeks. We have a connection from this tank to the kitchen range and thence to bathroom, thus supplying the bath; with hot and cold water by the usual methods of plumbing found in any modern house.

The well water system is supplied from a well a short distance from the house. It is pumped by means of a windmill and forced into the house through the cellar and thence up through the kitchen where the pipe is tapped into a second tank in the attic. This system is connected with the flush box in the bathroom, thus doing away with the necessity of pumping water by hand for this purpose.

We dispose of our sewage by means of an ordinary system of plumbing which connects with a cess pool. At the bottom of the soil pipe where the sewage would enter the sewer in the regular way we have made a connection with a glazed four-inch tile drain. The joints are cemented so it is as tight as water and gas tight. This drain runs 100 feet out of the house. The length of it will depend upon the nature of the soil, being far enough away so as not to contaminate the water supply of the well. Our cess pool is simply a well dug 20 feet deep. We have a pump in it ten feet from the bottom. During the winter we pump this out about twice for but we expect it to dry away principally. The drain from the house enters the cess pool about eight feet from the surface. In Ontario, it would not be necessary to have it so deep, but in this climate it requires to be six and one-half or seven feet deep to be out of the way of frost. The cess pool is drained by an ordinary two-inch tile. This drain effectually disposes of all sewage during the summer season. The cess pool must be left open or covered with a grate for ventilation in the summer. Provision is made for ventilation in winter.

These were the instructions received from our engineer. I may say I have done it up middling tight in the degrees below zero weather. The ventilation of the soil pipe belongs to the ordinary plumbing, hence it



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During the summer the water from the cess pool when everything is open and ventilated, is not so bad as that from some wells I have seen around some of the barns in Ontario from which water was used to water the stock. In winter, when pumping it out, the smell is none too pleasant, but we have never noticed any inconvenience whatever at the house from this cause. The waste water from the kitchen sink and the water from the washing sink in the kitchen is led into the soil pipe. It is not advisable, however, to run greasy water or dish water through this system as the grease will cause trouble by clogging up the drain. On a farm such matter can best be disposed of through the medium of the hog in the pig pen as it possesses some feeding value.—C. F. Nixon, Marquette Co., Manitoba.

The firm of B. H. Bull & Sons of Brantford is importing at head of Jersey cattle including three bulls. Ten of these animals will be shown at the leading exhibitions next fall. This firm purposes sending two car loads of stock to the Calgary Exhibition.

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