

eat it in preference to hay, and kept in a good, thrifty condition. Although it does not contain nearly so much feeding value as does silage, it makes a very good fodder for wintering cows and feed for growing stock, but in the months of April and May it seems to lose its strength and then is when the silage has the advantage.

Middlesex Co., Ont.

A FARMER.

A Few Points About Seed Corn.

Corn which is to be kept for next spring's seeding should not go into a pile in the corner of the granary, it should not be hung up in a bag, it should not be piled one ear on top of the other along a beam or stringer of the house or barn; in fact there are one hundred and one things that should not be done with corn that will be kept for seed. One thing that should be done with this corn, however, is to stab it on to nails that have been driven through a board, and then hang the board up in a well-ventilated place. If one cares to procure finishing nails they can be driven into the four sides of a small, square piece of lumber and since the heads of these nails are very small the ears of corn can be easily impaled on them. There are dozens of ways of preserving corn in good condition for seed, but any method that allows one ear to touch another or permits the corn of the ear to rest on a sill or board is not to be recommended.

It only requires a small stock of corn to plant a good-sized field, so any grower can afford the time to care for it in the most approved manner. There are several stages in the production of a good crop of corn. First, we must get the germination and the young plant which results from that germination must be virile and strong. After this the crop depends upon the condition of the soil, the cultivation and climatic conditions. The winter is the season for testing the germination of the corn. Try it out and if the home-grown article is not what it should be procure a sample elsewhere and test it. Winter is the proper time to do such work. Don't leave it till the 24th of May, 1916, and then take a chance. There is too much chance-taking connected with farming.

THE DAIRY.

Treatments for Calves With Scours.

Fall and spring calves are liable to be attacked by scours, and we are not obliged to seek far for the reasons why. In some cases the disease may be caused by indigestion while in other instances a germ is responsible and preventive measures must be adopted. It is well to be able to distinguish between these two conditions, for the lives of many calves depend, both fall and spring, upon the wisdom and knowledge of stockmen. Epidemics are not uncommon and these columns in the past have told sad stories of how whole crops of calves have been lost through a sudden attack of scours and the inability of the owner or herdsman to cope with the situation. Only a year ago the writer happened into a stable in Wellington County, Ontario, where contagious or white scours was prevalent. The farmer was allowing it to take its course, which usually ends fatally, without much effort towards a diagnosis of the case or the administration of any treatment that might bring relief and prevent considerable loss. In these days young cattle are valuable, and a real up-to-date, progressive farmer and stockman must be alert to just such circumstances which are liable to appear at any time. It is first necessary to be able to discriminate between contagious scours and scours caused by irregular and improper feeding.

Contagious or white scours will attack the young calf when from a few hours to a few days of age. It may die inside of 24 hours or linger on for days. The ordinary or non-contagious type of scours is usually the result of over-feeding, irregular feeding, or giving milk that is too cold and using unclean pails. The former is believed to be caused by a germ that enters through the umbilical cord at time of birth or soon afterwards, thus an antiseptic should be used freely on the navel of the calf as soon as born and for a few days afterwards. One part of formalin to ten parts of water has proved useful for this purpose. As a preventive measure a stall should be thoroughly cleaned and disinfected in which the cows may freshen. Any of the coal-tar products such as carbolic acid, creolin or zenoleum diluted will be effective disinfecting agents.

As a stock solution to be used for internal administration mix one-half ounce of formalin with 15½ ounces of distilled or freshly-boiled water and keep this in an amber-colored bottle to prevent chemical changes from taking place. Of this mixture add one-teaspoonful to each pint or pound of milk fed to affected calves or as a preventive it may be mixed with the skim-milk just after separating and fed to all calves at such times as there may seem to be danger of trouble appearing. In treating a diseased calf

first administer 2 ounces castor oil, shaken up in milk, and when this has acted give the formalin mixture also in milk. While one teaspoonful of this mixture per pound of milk is said to be the proper dose for a young calf as much as one tablespoonful three times daily in a little milk has been given in the case of older calves. Some veterinarians have also claimed success from a mixture of one part salol and 2 parts of subnitrate of bismuth. The dose of this mixture is one to two teaspoonfuls, according to the size of the calf and severity of the case. It may be repeated two or three times daily. This preparation may be administered in addition to the formalin treatment.

When calves which have acquired some age and size and are being pail-fed are attacked with scours it is first wise to remove the cause of the trouble. It will usually be found that the calves are either getting too much milk, they are getting it irregularly or it is being fed to them too cold or from unclean utensils. In the first place have their drinking pails thoroughly scalded. Feed the milk about the same temperature as milk drawn from a cow and at first reduce the quantity fed. In cases that are not very severe lime-water will be effective. This is easily prepared by slacking a piece of burnt lime in water. The clear liquid which rises to the top will be the lime water required for use. Make about one-third or one-quarter of the calf's allowance of this material.

Many readers have declared that black tea, almost cold, will give results, while other breeders have recommended a mixture of powdered chalk, 2 ounces; powdered catechu, 1 ounce; ginger, ½ ounce; opium, 2 drams; peppermint water, 1 pint. Give a tablespoonful night and morning. It is well to first dose with castor oil as previously recommended after which the cordial may be administered for several days.

The Season of Difficult Churning.

In the fall when most of the spring-calved cows are well advanced in their periods of lactation, we get more complaints than at any other season about difficult churning. Many of our readers seem to have trouble to get the butter to come in anything like a reasonable time and those who have such difficulty, and are called upon to churn an hour or more time after time should look for the cause of the trouble. Very often the cream is not at the proper temperature and generally is too cold. Too cold cream should be brought up to the proper temperature by standing in a vessel of warm water and not by the 'all-too-often-practiced' method of placing near the stove the night before churning is to be done. Be careful not to over-heat the cream in the hot water. Remove it from the hot water vessel when the temperature is up within two or three degrees of what you desire it to be. Remember that the poorer the quality of the cream is, so far as butter-fat is concerned, the higher the temperature required to churn it within reasonable time. If your separator is set to skim a thin cream then you will require a high temperature for churning. Experts tell us that cream which contains from 23 to 26 per cent. butter-fat is the most satisfactory for farm churning. Such cream will contain about three pounds of butter to the gallon. Cream up to 30 per cent. or a little more will not give difficulty.

Be careful also in the filling of the churn, as the amount in the churn has something to do with the temperature of the cream. The more cream the higher the temperature of the cream, and on the other hand when the churn is carrying only a small quantity it should be at a lower temperature.

In churning it should be remembered the churn works best when about one-third full, and never should it be more than half full if the best success is to be had in churning.

The length of time the cows have been milking must also be taken into consideration when adjusting the temperature of the cream. The longer they have been in milk the higher the temperature necessary for quick churning. As a cow advances in lactation the composition and size of fat globules change somewhat and if all the cows in the herd have freshened in the spring considerable difficulty may be had in churning unless the temperature is brought up a little above that at

which the cream is ordinarily churned when the cows are fresh or are on good summer pasture. A fresh cow in the herd will add greatly to the churnability of the cream and also improve the quality of the butter.

Then, again, the feed of the cow has some influence upon the temperature required for churning. The drier the feed the higher the temperature necessary. Cows brought in fresh from the pastures and placed on dry feed with little or no silage and roots will give milk the cream from which will require a few degrees higher temperature before going into the churn. Dry feeding, without any succulent feed whatever, causes the butter-fat to become harder and consequently more heat is required to bring it to churning condition.

And never should the temperature of the room be forgotten. You cannot churn cream of the proper temperature in a very short time in a cold room.

If it requires forty minutes or longer to bring butter it is more than likely that the temperature is too low. If the butter comes in ten minutes or less, the temperature of the cream is undoubtedly too high and soft butter will result. Temperatures often recommended are 54 to 58 degrees in summer and 56 to 62 in winter. Some variation may be required according to conditions as outlined in this article. The butter should come in half an hour. Be sure not to get too much in the churn and make it a point to have a sufficiently rich cream that the fault does not lie in this direction. You do not want too much skim-milk in your cream.

If all these precautions fail, set the vessel of cream in hot water and stir the cream frequently until it has reached the temperature of 160 to 170 degrees, after which the cream should be placed in a vessel in cold water and the temperature reduced to 60 degrees. If the cream is not ripe, then add about 10 per cent. of ripe cream or sour milk and keep it at about 55 to 60 degrees until the next day when it should be ready to churn. Most of the difficulties which arise in churning are under the control of the operator and most of them arise at this season of the year when the cows have been milking for some time and when the cold weather and dry feed are factors against churning in proper time.

POULTRY.

Work for Winter Eggs.

To most people the winter production of new-laid eggs is a mysterious question and is attributed to secrets kept secret by those who have mastered the methods of the winter production of hen fruit, that which can be placed upon the table within a week or 10 days from time of being laid. How often the free knowledge given to the would-be winter producer is questioned, and he or she charged up with keeping some secret way of feeding and caring for the winter layers in the background. It is not the most satisfactory thing after spending a good deal of time in giving detailed information to find the beginner ignoring some few details absolutely necessary to the work. To us the winter production of eggs seems a simple easy matter. We turn winter into summer, that's all. We have secrets but none that are kept secret. Haven't done so for a half century, but have dispensed by word, lecture and pen, our knowledge freely, and find that those who honestly and persistently go at the business and put our experience into practical shape will have new-laid eggs every day in every year during the life of the business.

There are a few little things that must have been attended to for months before winter sets in or a great deal of the winter care of laying hens will be of little avail. The time to begin is the winter previous. Chicks must be early produced from strong, well-cared for stock of good quality and quantity. These chicks must be well fed and cared for during the spring and summer months and at four and a half months should be beginning to lay about November 1. So much for pullets. Hens must be about 16 months of age and must have laid during the previous winter and have rested during the summer months when cheap eggs are the go. A hen can lay only so



Four Winning Ayrshire Bulls at Toronto.