

OF INTEREST TO FARMERS

CLUBROOT OF CABBAGE.

What a lot might have been saved if we could have applied to crop production 20 years ago what we know now about the control of plant diseases. And equally true, what a lot we could save in future crops if we would only apply the knowledge that we have. "Future crops" is written advisedly for the introduction of a disease into new soil may affect for years to come the crops planted on that soil unless radical and expensive measures are taken to eradicate the disease from the soil.

Take, for example, the case of clubroot of the crucifers, i.e. cabbage, cauliflower, mustard, etc. The setting of a few clubrooted plants may give the start that in a single season will make for unsuitable for cabbage and other crucifers. A case is known in which a cabbage patch in Pennsylvania was abandoned 27 years ago because of the prevalence of clubroot. When cabbage was again planted the crop was badly affected. The disease had been kept alive during all those years by wild mustard and other crucifers that had grown upon the land as weeds.

Clubroot is not manifested in the top in early stages of development, but may always be seen on the roots if it is present at the time the plants are taken from the seed bed. An abnormal swelling of the roots is the first indication of the presence of this disease. In its later stages the swelling may involve the entire root, and will invariably cause the production of a poor head.—Ex.

GREATEST SOURCE OF MILK POLLUTION.

The external condition of the cow is a most important factor in the production of clean milk. One of the greatest sources of milk contamination is the dirt on the outside of the animal's body. It is therefore essential that extra care be given to keeping the cow free from accumulations of mud and manure.

Grooming is usually dispensed with, yet there is far more reason for the daily grooming of an animal that produces human food than of a horse which hauls manure spreader or a garbage wagon. Custom, however, demands that the horse be kept clean and this custom must be extended to include cows on farms where clean milk is produced. Cows on pasture usually keep

Keep Children Well During Hot Weather

Every mother knows how fatal the hot summer months are to small children. Cholera infantum, diarrhoea, dysentery and stomach troubles are rife at this time and often a precious little life is lost after only a few hours illness. The mother who keeps Baby's Own Tablets in the house feels safe. The occasional use of the Tablets prevents stomach and bowel troubles, or if the trouble comes suddenly—as it generally does—the Tablets will bring the baby safely through. They are sold by medicine dealers or by mail at 25 cents a box from The Dr. Williams' Medicine Co., Brockville, Ont.

cleaner than when in the barn but though they appear clean they may be very dusty and should be brushed before each milking period. When kept in stables they require thorough cleaning at least once every day.

It is well to clip the long hairs from the udder, flanks all fall, in order that dirt may not cling to them.

It is desirable that the bedding be clean, dry, and used in sufficient quantities to promote the comfort of the animal, especially where the floor is of concrete.

The cow should not be groomed, bedded, or fed immediately before milking, as these operations fill the stable air with dust and bacteria. Frequent attention to the distribution of bedding is just as important as to supply a large amount of it. Often a tour through the stables the last thing at night and a few minutes' attention to the distribution of the bedding at that time will save half an hour's work of cleaning the cows in the morning. If the manure is daily removed a considerable distance from the stable, bad odors from it will be kept from tainting the milk.

KEEPING CHICKS IN GOOD HEALTH

Colony poultry houses are easily handled when built on skids. They are also easily made. The skids can each be made of two large planks nailed together with the end beveled like a sled. A large hole can be bored in the end of each skid to hold a rope or chain. The floor is built directly on the skids. Notches are made and half an inch wide and one-half inch deep are cut in the floor boards can be nailed down. The skid-like foundation for the building gives it strength. The floor is raised high enough from the ground to keep out rats. The building can be easily moved when fresh soil seems necessary for the young growing in it.

It is not necessary to have only houses unpainted and scrappy looking. Even a roughly built small building can be greatly improved by painting the corners white and the remainder a barn red. The paint saves the lumber and increases the life of the equipment. It pays to remember that poultry equipment costs money to replace and when the surface is protected the building is saved.

Sometimes a large poultry house on a concrete foundation will have a space between the sills and the cement where the wind can blow through. This makes a draught across the floor. Be sure that the foundation is tight and it will help prevent colds. In building a poultry house it pays to set large iron bolts in the cement foundation and then bolt the sills down. This makes you feel easier when severe wind storms sweep over the farm.

In planting the garden it pays to remember the needs of your next season's chicks. Chickens relish onions, beets and mangels when confined in the brooder house and this succulent feed is of great value in keeping chicks healthy.

In some cases where chicks have had digestive trouble a few feeds of boiled rice have been useful in improving their condition. A drop of castor oil which a medicine dropper will often brace up a chick that has started to waste up. The

chicks must be studied and treatments given promptly. Nearly all chick troubles are easier to prevent than to cure. No hurried treatment can quickly make up for a week of neglect.

Give brooder chicks water as well as sour milk, although some poultrymen recommend only sour milk for the first two or three weeks. But brooder chicks become very thirsty during the hot weather and they seem more contented when they can drink both the water and the milk.

BOLTS IN CEMENT.

Frequently we want to fasten something to an old cement wall or floor where no holding work was done. By the following plan one can install embedded bolts that are almost as strong as if they were put in at the time of construction.

First secure bolts of the required size and about two inches longer than the part that is to project from the cement work. Provide each with a large washer. Take an old three-cornered file and grind one edge to a bevel. Break off all but one-quarter inch of the untempered stem of the handle end of the file. This tool is used to drill holes in the cement work in which to fit the bolt heads and their washers. Use light taps with a hammer on the tool, turning it slightly after every blow. The cement will come away in a fine dust, but it does not take more than about ten minutes to make a hole which should be only large enough at the surface to get the bolt head and washer in, but should be about twice as wide at the bottom. After drilling, wash out the hole with water, place the bolt in the center of the hole, with the washer or up against the head and fill round the bolt with a rich mixture—one-half cement and one-half sand. Keep a wet cloth over the place and allow about a week for the cement to set thoroughly before using.

CARE OF HORSES TEETH

The average horse owner does not appreciate the necessity, or the advisability of frequently examining his horse's mouth to ascertain the condition of the teeth. Of course, it requires some knowledge and skill to enable a man to examine a horse's mouth properly and detect any abnormal condition that requires attention, but the necessary knowledge of normal conditions and skill to detect abnormalities can readily be acquired. In the first place, he must become conversant with the normal condition of the teeth, else he cannot recognize an abnormal state or one that requires attention. The knowledge of what to remove either by shears or rasp, is very important, as it is quite possible to remove too much, and instead of improving matters, make conditions worse; or on the other hand, not remove enough, and do little or no good.

LOW EGG PRODUCTION

Egg production is sometimes of a mystery and the problem of keeping the hen on the job is constantly in the minds of both students and experts in poultry culture. Individually seems to be the outstanding characteristic of the barnyard bird. In a flock, all of one breed and all fed alike there will be good layers and poor ones, fat birds and skinny ones; healthy hens and sickly ones; vigorous birds and droopy ones. Much of this cannot be accounted for by external conditions nor by rules of heredity. Why do some hens lay well in winters while others loaf? Why do some lay well in summer while their sisters molt, go broody and generally prove unprofitable, being finally consigned to the soup kettle? There are general reasons but individuality furnishes many problems.

There are three well known causes for decreased egg production during the summer season. First, the hens become broody and therefore stop laying; secondly, the poultry keeper, especially the farmer who has hens on range assumes that they will get abundant feed, which is not true; thirdly, it is true that there are many poor hens that lack capacity for egg production, which can lay but during a short season. On the whole however, the drop in egg production is a condition over which the poultry keeper has some control and might be maintained much better than it is to the financial advantage of those owning the flocks.

To this end, first, broody hens should be broken up. This can be done quickly and easily if the hen is taken from the nest the very first night she shows a disposition to sit.

There are a lot of devices and methods used to accomplish this object which should be eliminated because they are not only real, but detrimental to the health of the hen and therefore to the welfare of her owner.

As soon as a hen shows a disposition to remain on a nest over night, she should be removed and placed on a roost in a pen which has been stripped of everything except roosts, dropping boards, feed hoppers and water cans. Nests and floor litter should have been removed. In such a pen as this, if well fed and cared for, a hen will lose her inclination to sit in perhaps four or five days—certainly in a week or ten days. On the average, if the best methods are used, hens will be laying in ten days after they first show the inclination to sit and will lay for some considerable period thereafter. When catching them dust for the body lice. Do the same when returning them to the pen.

HEALTH OF DAIRY CATTLE

If dairymen in particular, and farmers generally, would know how to have healthy cattle, they should lose no time in sending to the Publication Branch, Ottawa, for a copy of recently issued Pamphlet No. 16 of the Dominion Department of Agriculture, prepared under the immediate supervision of the Veterinary Director General. It contains 85 definite questions and 85 explicit answers couched in plain straightforward language, regarding the accredited Herd system and the identification, prevention, and eradication of tuberculosis; also relative to the requirements of and provision for official inspecting and testing.

CHARACTER INHERITANCE.

Will the daughter of a high producing animal be as good as her mother? Such a question often faces the breeder and is perplexing because each of the parents must have some influence in the progeny. This study of character of offspring comprises many features which are not only interesting but instructive to the breeder.

There is but little definite information on the subject and improvement, even by the most careful selection and attention to the laws of heredity, cannot be made in leaps and bounds, except in instances where the animals are very poor to start with. It is useful, however, to know the little that has been discovered on the subject in order to progress in the right direction.

Investigation has probably been carried farther in regard to poultry than in other classes of farm stock. High egg production and low egg production are separate characters which may be transmitted separately from the parent to the chick. Most birds possess the low egg-producing character, for the high egg-producing character is a difficult one to breed. It has been found that the male bird transmits the character for high egg-production to the female offspring and that the hen has the power of giving the same character to the male offspring only.

From the information the necessity of using a male bird of a good laying strain is apparent. If a male bird that does not possess the high-laying character is used, there is apparently no chance at all of getting high producing hens. Even if the hens that raised the flock were all high-layers, their offspring still would be only mediocre layers because the male bird cannot transmit the character of high egg production to them.

On the other hand, if a good male bird could be secured and used with even mediocre hens, the product of the mating would be high laying females. True as this may be, the great difficulty remains of getting a good male bird. This is the greatest task of any poultryman and also the greatest hope. A rooster with the high egg-laying character cannot be recognized by appearance. He is not only most difficult to produce, but there is no way of determining whether he will transmit the high egg-laying character except by studying the records of his matured daughters. Under ordinary conditions, the rooster has been consigned to the boiling pot before that record is established.

The inheritance of milk production in the dairy cow is another subject that has been studied by many scientists. The results have been slow in coming and very meagre owing to the time it takes to produce a mature cow and study her records. A few points, however, have been definitely established and chief among these is the knowledge that milk yield and milk quality are inherited characters.

But milk production is not inherited in the same way as egg production. The theory is that the parents are jointly responsible for the milk yield of the offspring. This means that every improvement in any part of the herd will result in a corresponding improvement in the offspring. It also indicates that one side of an animal's pedigree is as important as the other, as far as their character goes.

In regard to milk yield it is also known that calves resulting from the cross of a high producing parent or a low producing parent are in general much nearer in their milk yield to the high producer. This is explained by the fact that high-yield and low-yield are separate characters within an animal, and the high-yield is stronger, or the dominant one.

Quality in milk means a high percentage of butter-fat. This character is also known to be inherited rather than a matter of feeding. In this instance, however, the parent has the greater influence on the offspring and its test will be nearer that of the lower parent than that of the higher.

These few facts not only aid in explaining some breeders' disappointments but they are helpful in the building of a herd or flock, and show that pedigrees and milk records when wisely used should be helpful, and in fact that little can be done to raise the general standard, unless they are both freely studied and used. Pedigrees in any class of stock have their greatest function in aiding the breeder to make the most intelligent use of the laws of heredity to bring about improvement through the wisest matings.

Summer time brings many children back to the old home—among pleasant memories renewed will be the Tea they used in childhood—"RED ROSE."



RED ROSE Crushed COFFEE pleases particular folks.

Dew-Retting Versus Water-Retting

(Experimental Farms Note.)

Retting flax is the process of dissolving the gummy material, which causes the fibre or outer skin of the flax plant to adhere to the pith or woody material which composes the inner portion of the plant. Several methods have been devised to accomplish this retting process, but up to the present only two of them, namely, water-retting and dew-retting, have met with wide approval.

The process of water-retting is briefly as follows: After the flax has been deseeded, the sheaves or beats are placed in tanks of water, preferable with the root end down, and inclined at an angle of about 20 degrees. The beats are usually placed in rows across the tanks or retting dams, so as to facilitate handling when they are being removed after the retting has been completed. When the tank has been filled, weights of some kind

should be placed on the flax to keep it submerged until the retting has been accomplished. The period of retting will vary according to the temperature, but the average time during the months of August and September, when most of the retting is done, is about two weeks. The other method of water-retting flax that is sometimes practised, consists of placing the deseeded straw in crates in running water and allowing it to remain there until retting is completed. The time necessary in this case is usually three or four days longer than when the same water is used throughout, as is the case in tank retting.

In order to get satisfactory results with either method of water-retting, it is necessary to have soft water. The presence of even a very slight amount of mineral matter renders it unsuitable for retting flax straw. For this reason water-retting is very little practised in Canada, almost the entire crop being dew-retted. Dew-retting is accomplished by simply spreading the deseeded flax straw on a pasture or tea net

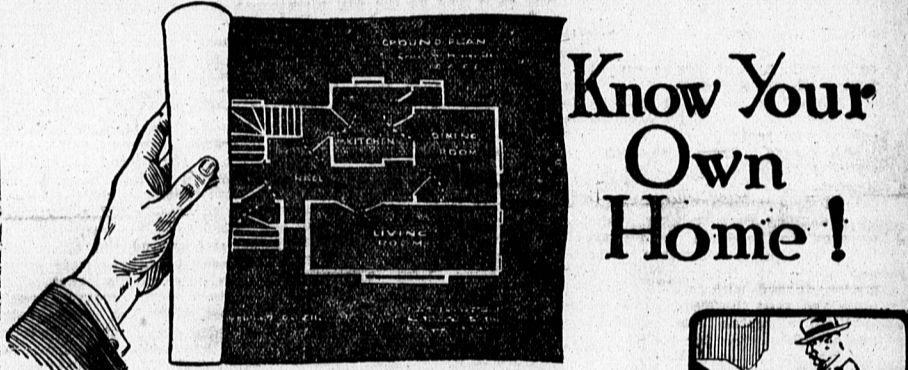
and exposing it to the weather until such time as the retting has advanced to the proper stage. This usually requires about 12 to 15 days, but if the weather is dry and the nights void of dew, of course a much longer period is necessary.

The importance of having flax properly retted cannot be over-emphasized, and it requires considerable practical experience in order to be able to determine when the proper stage in retting has been reached.

As to the relative value of water-retting and dew-retting, water-retting where possible is by far the more superior method. Not only is the yield of fibre from a given quantity of retted straw considerably greater—as much sometimes as 10 per cent.—but the fibre is also very much superior in nature and spinning quality, and it demands a higher price.

All information regarding retting methods will be furnished upon application to the Fibre Division.

GEO. KNOWLES, Assistant, Fibre Division.



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