

# Soils and Crops

By Agronomist.

This Department is for the use of our farm readers who want the advice of an expert on any question regarding soil, seed, crops, etc. If your question is of sufficient general interest, it will be answered through this column. If stamped and addressed envelope is enclosed with your letter, a complete answer will be mailed to you. Address Agronomist, care of Wilson Publishing Co., Ltd., 73 Adelaide St. W., Toronto.

## The Raising of Calves.

This subject could be very well divided into three parts, viz., (1) Breeding, (2) Feeding, and (3) Housing.

(1) Breeding.—In order to get the most profitable results for feed consumed and labor spent in raising calves it is necessary to see that the breeding of the calves is of the best, that their sires and dams are good individuals of the breed which you are working with, and that they have good records of performance behind them. This applies to beef breeds as well as dairy.

(2) Feeding.—As soon as the calf is dropped it should be separated from its dam and not given any food for twelve hours, when it will have developed a good appetite and be ready to take its first food which should consist of 5 pounds of its mother's milk. This should be duplicated in 12 hours which will make 10 pounds per day, which amount the calf should receive for the first two weeks.

At the end of two weeks the calf should be getting 6 pounds twice a day, which should be continued for three weeks, at the end of five weeks commence feeding the calf a small quantity of skim-milk mixed with the whole milk, gradually increasing the skim-milk and decreasing the whole milk until at the end of the seventh week the calf would be getting 15 pounds skim-milk per day. This amount should be continued until the calf is six months old.

As soon as the calf is getting skim-milk alone, there should be added to the milk a small quantity of equal parts of oil cake and ground oats with hulls taken out. This is a good cream substitute which partly takes the place of the butter fat which is lacking in the skim-milk. An ounce of this mixture, at first, twice a day, is sufficient, but should be gradually increased as the calf develops.

When the calf is six or seven weeks old, there should be placed before it some nice, sweet, clover hay and equal parts of ground oats and bran which it will soon learn to eat. It should have as much of this feed as it will eat up readily twice a day. Always be careful that there is no feed left over in mangers and that all pails and boxes in which calves are fed are kept perfectly clean and sweet.

They should be fed an accurate quantity at regular times which is very important in keeping the calf's digestive organs in the best condition possible, which is very essential for rapid and robust development.

(3) Housing.—All quarters in which calves are kept should be clean and they should be given all the room possible so as to allow chance for exercise. They should always be well bedded with plenty of light and good ventilation, so that the calf will develop a good strong constitution in order to be a healthy acquisition, when grown, to the farm herd.

Importance of Knowing the Milk Yield of the Bull's Dam.

Not much headway can be made in breeding up a dairy herd if the dam of the bull is not a good milker. This is now a well-known fact and very high prices have lately been paid for bulls out of heavy producing cows.

At the Cap Rouge Experimental Station a very fine French Canadian bull, which will be called Z, was bought a few years ago, one that would easily have won championship honors at any exhibition in Canada against all comers. Moreover, this bull, according to ordinary standards, was of a conformation which induced one to believe that he was of a heavy milking strain and would produce good heifers. But, unfortunately, such was not the case and he did not leave a single heifer which was worth keeping as a milk producer.

Cow A, to the service of another bull, produced a daughter which later qualified for Record of Performance

with 7794 pounds of milk whilst the service of Z, she gave a heifer which never gave fifteen pounds of milk per day during her first lactation period.

Cow B qualified for Record of Performance as a three year old with 5332 pounds of milk, gave 4624 pounds during her first period of lactation and averaged 6117 during her first five years in milk. Her daughter, by Z, only gave 3040 pounds during her first period of lactation.

Cow C was out of a dam which qualified for Record of Performance, with 9747 pounds of milk, but herself failed to qualify though tried two different years. She only gave 3297 pounds during her first period of lactation and her daughter, by Z, only gave 2309 pounds during her first period of lactation.

Cow D qualified for Record of Performance with 8358 pounds of milk and her daughter, by Z, only gave 2776 pounds during her first lactation period.

Cow E qualified for Record of Performance as a two year old with 4547 pounds of milk and as a three year old with 5530 pounds whilst her daughter, by Z, only averaged 2731 pounds during the first two periods of lactation.

Cow F is the dam of a cow which gave 10229 pounds of milk in 365 days and her daughter, by Z, only gave 2401 pounds during her first lactation period.

Cow G averaged 5271, pounds during four lactation periods, going up to 6221 in one of them and her daughter, by Z, only gave 2947 pounds during her first 365 days in milk.

The cost of barn room, care, feed, has gone up faster than the price of milk, so that every dairy farmer must see that he does not use a bull like Z.—Experimental Farms Note.

## Farm Butchering.

The cheapest meat a farmer can use is the product of his own farm, say the specialists. This is also true of the suburban or town farmer who fattens one or two hogs on kitchen and truck garden wastes. Many farmers, it is said, will have their own meat supply for the first time this year.

This is the equipment needed for slaughtering: An eight-inch straight sticking knife, a cutting knife, a four-inch steel, a hog hook, a bell-shaped stick scraper, a gambrel, and a meat saw. More than one of each of these tools may be necessary if many hogs are to be handled and slaughtered to best advantage.

A barrel makes a very convenient receptacle in which to scald the animal. It should be placed at an angle of about forty-five degrees at the end of a table or platform, of proper height. The table and barrel should be securely fastened to prevent accident to the workmen during the scalding. A small block and tackle will reduce the labor of handling the animal.

Only hogs which are known to be healthy should be butchered. There is always danger that disease may be transmitted to those who eat the meat, while the quality of the meat is always impaired by fever or other derangements. Hogs can be killed for meat any time after eight weeks, but the most profitable age at which to slaughter is eight to twelve months.

An animal in medium condition gaining rapidly in weight yields the best quality of pork. Hogs intended for slaughter should remain unfed for at least twenty-four hours, or better thirty hours, and all the clean, fresh water they will drink should be provided. Temperature can not be controlled on the farm but it is possible to kill when the weather is favorable. In the fall it is best to kill in the evening, allowing the carcass to cool over night. In winter a day when the carcass can be cooled before it freezes should be selected.

ment to save seven or eight and the five that come through the winter in the best condition can be retained for the breeding pens. It costs money to feed the extra males but not as much as it costs to purchase more birds in the spring if they are needed. Sometimes a cockerel that appears like a fine vigorous bird in the fall will not look as good as expected in the spring and then it is encouraging to have a substitute without paying five, ten or fifteen dollars or more for such a bird. Farmers will undoubtedly find that good breeding cockerels will be very scarce next spring and it will pay to study the requirements of the home flock this fall.

In the view of efficiency a square-shaped kitchen is best, as in this range, sink, cupboard and refrigerator can have the best relative places.

Do not throw away the small pieces of soap. Put them into a saucepan with a little water and set over a slow fire until melted. Pour off into a jar and when cooled you will have a soap jelly that can be used for boiling clothes or for dish washing.

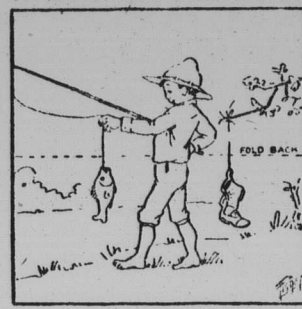
## FUNNY FOLD-UPS

CUT OUT AND FOLD ON DOTTED LINES



BILL WENT TO FISH THE OTHER DAY AND CAUGHT A DANDY RIGHT AWAY.

HE COULDN'T WAIT TO LACE HIS SHOES BUT HURRIED HOME TO SPREAD THE NEWS.



## The Sunday School

INTERNATIONAL LESSON  
NOVEMBER 10.

Lesson VI. Jacob's Deception—Genesis 27. 18-29. Golden Text, Eph. 4. 25.

Verse 18. Who art thou, my son?—Isaac seems to have been totally blind, the sense of hearing also probably dull; touch and taste still acute.

19. I am Esau, thy first-born.—The utter deliberation of this lie shows the Christian conscience exceedingly. Duplicity seems to be a besetting sin of Orientals. Some allowance must be made for the low state of primitive morality, but the record nowhere countenances the lie.

20. How is it that thou hast found me so quickly, my son?—Isaac had doubts concerning his identity to start with, but they were intensified by the speed with which the venison had been killed and prepared, on the face of it an improbable thing. Because Jehovah thy God sent me good speed—Jacob met the objection with the pious sounding observation that the Lord had prospered him in his hunt. He was a master of religious sentiment.

21. Isaac said unto Jacob, Come near.—He still doubts. This pathetic struggle with intrigue is wonderfully worked out in the narrative. He hoped to find out the truth by the sense of touch. Rebekah had put the shins of kids upon the hands and neck of Jacob. It is difficult to see how this stratagem could succeed unless Isaac's sense of touch was also dull.

25. I will eat my son's venison.—Skillfully prepared with spices and rich seasoning, the flesh of a young goat might pass for venison.

27. He smelled the smell of his raiment.—The garments were the official robes of the first born, probably kept in a special place with aromatic herbs to sweeten and preserve them. Isaac was familiar with the smell of the garments and was finally convinced of the identity of his son.

28. God give thee of the dew of heaven, etc.—It is said that the fall of dew is copious and of great value in Palestine, especially in the summer months when the rainfall is scarce. Temporal blessings occupy a large place in the Jewish conceptions of the favor of God. So the first part of the blessing refers to the gifts of nature. In this Esau also shared (verse 39), but the possession of the land was in a peculiar sense the heritage of Jacob. Such was the promise made to Abraham.

29. Let peoples serve thee.—The second part of the blessing relates to the political and national future of the descendants of Jacob. It is the supremacy of the Israelites over surrounding tribes, whether kindred or alien. Cursed be every one that curseth thee.—Taken literally these words do not harmonize with the spirit of Christ. The form of the expression is according to the ancient Hebrew point of view, but the essential meaning is true. The purpose of God to the human race through the descendants of Jacob could not be defeated. In them all the families of the earth would be blessed. Israel stood for righteousness, and all who stood for righteousness would be blessed, but all who arrayed themselves against the kingdom of God would be crushed in the end. It is simply the doctrine that wrong and wrongdoers cannot go unpunished. It may be that God's judgments are delayed sometimes, but sooner or later cruelty, barbarism, injustice, and everything that turns against God will be overwhelmed. The curse is upon evil, and there is no escape from the curse except to cease to do evil.

A handy pocket for storing paper bags, strings, etc., can be made by tacking a square of stout material on the pantry door.

Calves dropped in the fall are apt to do much better when turned on grass in the spring than those that come along later in the winter.

Azoturia rarely appears among horses at pasture or among those doing regular work; but almost invariably during exercise after a period of idleness on full feed which has succeeded a previous period of work.

## Sheep Notes

Sheep raising must be made safe, for there is a serious shortage of wool. Two arch enemies which cause great loss of life and vitality in sheep are the lung-worm and stomach-worm.

Modern munitions have been developed for fighting these foes. The old method of fighting lung-worms was to "gas" them by fumigating the animals with burning sulphur, or by sticking each animal's head into a sack containing a hot brick from which iodine was evaporated by the heat. The new method is to inject chloroform directly into the sheep's nostrils.

The injection may be made with a medicine dropper, fountain-pen filler or small syringe. The dose is from thirty to sixty drops, but we scarcely can advise any one other than a trained veterinarian to give the treatment. If it must be done by the layman one lamb should be treated with a half dose and the effects watched; then others may be experimentally treated with increasing amounts until the safe dose is found.

The chloroform stupefies the threadlike worms in the wind-pipe and air-passages of the lungs, and they are coughed up and swallowed by the sheep. This being true, it is well to give a full dose of Epsom salts shortly after the chloroform has been administered. The dose for an adult sheep is four ounces dissolved in warm water. This is the best purgative for sheep.

More important than medicinal treatment to keep lambs free from lung-worms is to pasture them upon new grass each spring, never allowing them to graze bare-bitten, sheep-tainted pastures. It is also imperative to keep the lambs thriving at all times by supplying plenty of nutritious feed. A mixture of oats and bran may be fed in addition to grass, if the pastures become short; and other green feed should be supplied as a soiling crop.

The old method of fighting stomach-worms was to give three doses of gasoline on three successive days, the gasoline being mixed with new milk and raw linseed-oil to make an emulsion. This treatment did not always kill the worms, and sometimes killed the sheep. The new plan recommended by experts, conserves time and man power, and those who have tried it say that it is much more effective than the gasoline treatment.

A one per cent. solution of pure sulphate of copper (bluestone) is made by adding one and one-quarter ounces of the bluest crystals to one gallon of hot water; of this the dose is one ounce for a lamb of comparatively small size and one and three-quarters ounces for a large, strong lamb or sheep. Only one dose is needed and no physic need be given after this drug. The solution may be measured in a glass graduate and administered by means of a small rubber tube and funnel inserted in the sheep's mouth, or it may be given from a long-necked bottle.

## GOOD HEALTH QUESTION BOX

By Andrew F. Currier, M.D.

Dr. Currier will answer all signed letters pertaining to Health. If your question is of general interest it will be answered through these columns; if not, it will be answered personally if stamped, addressed envelope is enclosed. Dr. Currier will not prescribe for individual cases or make diagnosis. Address Dr. Andrew F. Currier, care of Wilson Publishing Co., 73 Adelaide St. West, Toronto.

### Styes.

I have been asked to write a short article on the subject of styes. The border of the eyelids is supplied with a row of simple glands called Meibomian glands which dip rather deeply into the space between the skin and the cartilage of the eyelid.

They have a secretion somewhat like that of the sebaceous glands and just as this is designed to keep the hair soft and properly lubricated so the secretion of the Meibomian glands performs the same function for the eyelashes and the skin at the border of the lids.

When these glands become infected and inflamed or when the mouth of one or more of them becomes sealed, shutting in the secretion, we not only have dryness of the lids and eyelashes but a small tumor which is commonly called a sty.

The inflammation in this case is very similar to that of boils, only there is usually no core to a sty.

It is painful and suppurates and after a few days the swelling and hardness disappear.

Styes are often associated with a weakened or debilitated condition and frequently come in connection with eczema or boils.

They are very apt to come in crops of a dozen or more, one after another or perhaps several at a time.

The treatment of styes is usually simple enough. The first thing to be done is to empty the bowels freely and keep them open with castor oil or salts or some form of antiseptic cathartic, remembering the reciprocal relation between the intestines and the skin.

A good tonic like cod liver oil or a mixture of iron, quinine and strychnia will also be desirable.

The tumor itself must be dressed antiseptically as a boil would be dressed and it is not wise for the one who suffers from the styes to attempt to do this himself; it is a matter of

some delicacy on account of the proximity of the eye.

If the eyelids are glued together they must not be separated forcibly; but a stream of hot boric acid solution may be allowed to trickle upon them from a tube or from absorbent cotton.

This should be done as often a morning and evening.

The tumor may be dressed with any suitable antiseptic ointment, carbolic zinc ointment serving the purpose very well, or an antiseptic powder, like bismuth or stearate of zinc may be frequently dusted upon it.

The ointments seem to me preferable and more likely to prevent adhesion of the lids.

It is particularly necessary to protect the eye by scrupulous cleanliness after the sty has commenced to discharge to prevent auto-infection.

There may be cases in which the pain and tension will be so great that an incision will be required to relieve them.

Of course this can be done only by one who is skillful and accustomed to delicate manipulations.

It may be done painlessly under local anaesthesia.

### Questions and Answers

Mrs. E. G.—For thirty years I have been deaf but only recently have I had a discharge from the ear. Could you tell me the cause?

Answer—If you will send stamped, self addressed envelope I will be glad to send you my article on Middle Ear Disease, which will give you the information you desire.

Perplexed—Am sometimes troubled by what I have eaten—particularly if I go away from home. When something disagrees with one, is it best to take any medicine?

Answer—If you will send stamped, self addressed envelope I will mail you my article on Indigestion, which contains the information you are seeking.

### Prepare For Winter.

Before putting away scythes and sickles for the winter wipe them off and give them a thick coating of heavy oil, vaseline is good, to prevent rust.

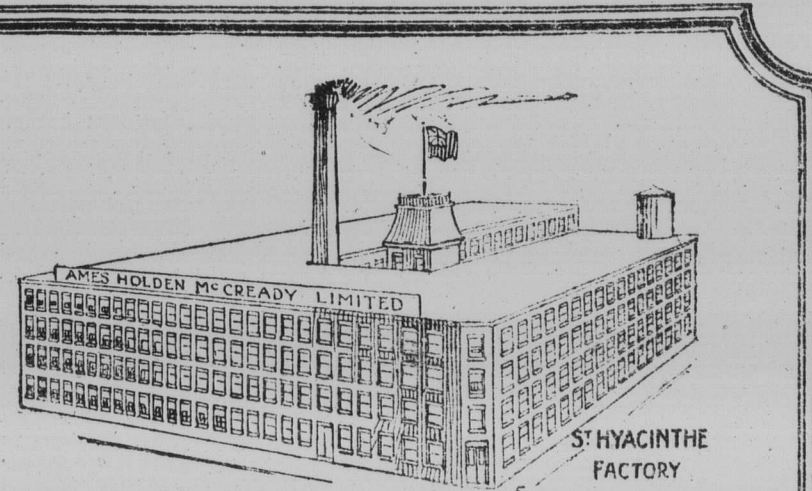
Keep all the tools in a dry place. The mud and dirt should be wiped from the spades, shovels, garden forks and hoes. The trimming shears should be wiped always after using and oiled before storing for winter.

All canes and plant stakes should be collected and assorted according to lengths and tied up in bundles of convenient size.

Gather all implements, wheelbarrows, hammers, etc., also pots and flats, and put them away where they will be safe and ready for use as soon as wanted next spring.

The hand forks and trowels should be cleaned and oiled. Heavy machinery oil applied heavily will keep the tools in condition, and with proper care they will last for years.

To remove ink from the fingers wet the fingers and then rub with the phosphorus end of a match. Wipe the fingers and repeat until stain disappears.



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## Poultry

In saving over cockerels for use with the farm flock it pays to keep a few extra birds to make up for any illness that may occur or accident that may happen. If five males will be needed in the spring it is good judgment to keep six.

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