

Soils and Crops

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: *Agonomist*, 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 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 milk producer. 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 5882 pounds of milk, gave 4624 pounds during her first period of lactation and averaged 517 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 2800 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. He did not worry about fires as he had "plenty of insurance," and forgot the safety of his wife and children upstairs.

He stuffed up the chimney holes with paper and rags. She cleaned her gloves with gasoline and saved fifteen cents, but paid the doctor and druggists fifteen dollars.

She poured kerosene into the lamp while the wick was burning. She put gasoline into the wash boiler on the stove to make washing easier.

She dried clothes too near the stove. She used the wrong oil can. She burned sulphur all over the house to fumigate.

She used the wood-box back of the range as a waste paper receptacle. She gave matches to her children to go out to burn leaves in the yard. The cotton dresses burned easier than the leaves.

She was "coming right back," so left the electric current on in her iron. She swung the gas bracket too close to the curtains. She fixed up a fine tissue paper shade for the lamp.

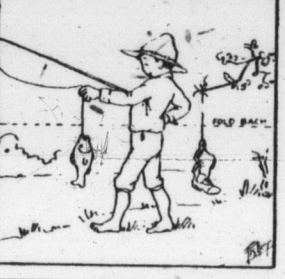
She filled the tank of her gasoline stove while one burner was going. The comedies have turned to tragedies; many of the scenes of action were in ashes and too many of the actors, are maimed or dead, more will follow, no doubt, as they are prone to ignore the advice and experience of others instead of profiting by their errors and sufferings.

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



Hogs

There are three things which should be looked after carefully in caring for the brood sow: feed, shelter and exercise. If a man is to succeed he must not neglect any one of these things.

One of the things which must be guarded against, if strong litters are to be produced, is constipation in the brood sow. The causes which commonly cause constipation in the brood sow are too little water and exercise.

A sow should also have bulk and mineral matter in her ration. Corn, when fed alone, is too fattening, and the fat is added internally, which is injurious to the development of the unborn pigs.

Corn is all right if fed with judgment. When fed to sows, however, it should be supplemented with some feed like linseed meal or tankage, shorts, and perhaps a little bran. Another good feed to use is alfalfa hay or alfalfa meal. Clover hay, if not too coarse, also supplies bulk, protein and the laxative effect desired. Every hog man will want to plan a special ration, using the feeds which he has at hand that will give the best results; but a few good ones for the brood sow will be suggested, taking the following as a basis: corn, 50 parts by weight; shorts, 25 parts; alfalfa hay or bran, 15 parts; linseed meal, 10 parts.

Of course, the feeder will want to use alfalfa hay and other home-grown feeds as far as possible, but if they are not available, bran or similar feeds should be purchased to go with the corn. If tankage is used instead of oilmeal, only half as much of it need be fed.

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 sipping 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 comparative 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.

A Comedy of Errors.
The Fire Marshal of the state of Wisconsin has issued a bulletin which he terms a "Comedy of Errors." It says:—

He looked for a gas leak with a match, and found it. He lighted a match to see if his gasoline tank was empty. It was not. He smoked while filling his auto tank, but will do so no more.

He smoked in bed; so did the bed clothes. He threw the matches into the waste paper basket. He is wiser now. He threw a cigarette stub into some rubbish.

He saved his oily waste and oily rags and they burned the shop. He washed his hands in gasoline near the stove. The doctor washes them now.

He did not worry about fires as he had "plenty of insurance," and forgot the safety of his wife and children upstairs.

He stuffed up the chimney holes with paper and rags. She cleaned her gloves with gasoline and saved fifteen cents, but paid the doctor and druggists fifteen dollars.

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GOOD HEALTH QUESTION BOX

By Andrew P. 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 P. 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

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 machine 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 phosphorous end of a match. Wipe the fingers and repeat until stain disappears.

HOW MUCH DO YOU WANT IT?

A woman whose work as a public speaker has taken her for years before audiences of young people tells this story:

I was speaking in the West to a large convention of young people when I noticed in the audience a youth who had the largest hands and feet I think I ever saw. Every few minutes my eyes wandered back to them, and my sympathy went out to him in his efforts to dispose of them. He was as ungainly a specimen of young manhood as you could find anywhere. He had a voice in keeping with his hands and feet, big and booming. His idea of singing was to make a noise, and how that voice did dominate that gathering!

At the close of the meeting he waited until the others were gone, and then he awkwardly confided to me his desire for an education. Of course I encouraged him. I spoke before that same audience four or five times, and each time he waited to talk with me. Finally he told me of his great desire to be a preacher. I gasped inwardly. A preacher, with that voice and those hands and feet!

After my last address he was waiting for me as usual. "Do you think I can ever make it?" he asked wistfully. "Is it worth while for me to try?"

I looked him straight in the eye. "How much do you want it?" I asked. "Why, I want it very much," he answered promptly.

"But how much?" I persisted. "Are you willing to work to the limit of your strength? Are you willing to go hungry? Are you willing to go so shabbily dressed that people will laugh at you? Are you willing to give up everything in the way of pleasure for it? Are you willing to fight when it seems that there isn't a chance of winning?"

He hesitated only a moment. "I believe I am," he said slowly.

"I never went back to that place; I heard nothing more from him until some eighteen years later when I was in Toronto. I had been invited to speak in a suburb of that city and was entertained at the home of a friend. An hour before train time my hostess received a telephone message from a man who refused to give his name. He asked if I were going back to the city that evening, and when told that I was he begged that I would come to the station at least twenty minutes early. "Tell her," he said, "that a gentleman who could not possibly get to her meeting wishes very much to see her."

So I went to the station twenty minutes early, and as I stepped into the waiting room a man of more than ordinary distinction of appearance came to meet me with outstretched hands.

"Do you know me?" he asked. "He was gracious, polished, a perfect gentleman in manner and bearing, but I knew him at once. He was my boy of the big hands and feet and the booming voice. He drew me over into a corner.

"I suppose," he began, "that you never saw a greener specimen than I was when I nearly bored you to death at that convention. If I am of any use whatever in the world, it is because of something you said to me then: 'How much do you want an education? What are you willing to pay for it?' Time and again, when things have seemed hopeless, I'll quote myself. How much do you want it? How much are you willing to pay for it? If you, big as you are, can't pay the price, you don't deserve it." And it's your message I am endeavoring to pass on.

He was a preacher, he told me; and I learned afterwards of the great work he was doing. His big voice had been trained and had proved one of his most valuable gifts. In the twenty minutes till train time he told me something of the price he had had to pay. It was a story of unusual perseverance in the face of difficulties.

"But it's worth all it cost," he said as he bade me goodbye. "And now I am busy telling other young people that there isn't anything in this world that is worth while that they can't have if they want it badly enough to pay the price."

Growing Dahlias.

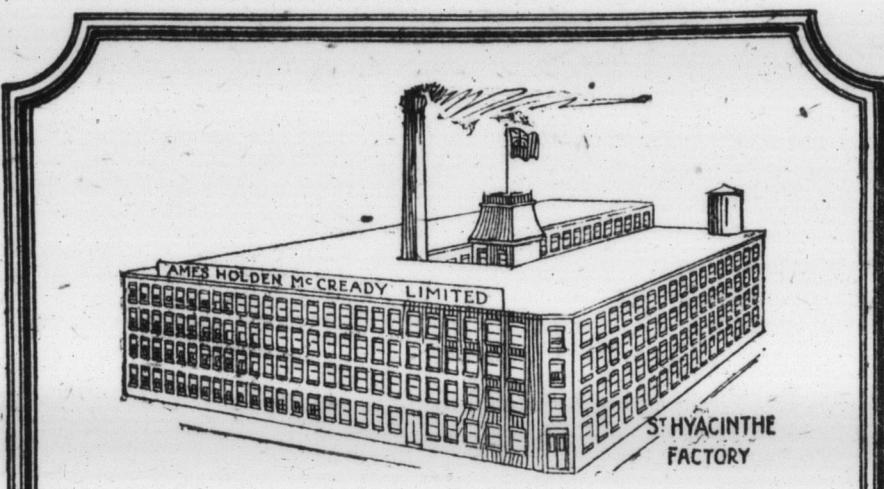
Dahlias do best in light, sandy soil, where the tuberous roots can develop and expand. Here the drainage is good and the capillary attraction of the light soil supplies plenty of moisture from below even when the surface of the ground is dry.

The dahlia plant is largely composed of water; the flower is large and heavy, and this too is composed chiefly of water; without water and plenty of moisture in the soil constantly dahlias cannot produce their best flowers.

Where dahlias are grown in heavy soil, lighten it up as much as possible by working in sand, coal ashes and manure. Turning under large quantities of leaves this autumn, and timing heavily will help break up heavy clay soil in which dahlias can be planted next spring.

Where furrows run up and down the slope washing is greatly increased.

The greatest waste of all is the waste of our children, the wealthy through their riches, the poor through their destitution. Is it not time that we took the necessary (and quite practicable) steps to stop this waste?



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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 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.

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