

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: Agronomist, care of Wilson Publishing Co., Ltd., 73 Adelaide St. W., Toronto.

Making Fur Count for the Most.

Some farmers own a farm and work on it. Others own a farm and manage it. The latter works just as much as the former, but in a different way. He works his head along with his hands. He doesn't get up at four o'clock in the morning just because that is the time all farmers are supposed to crawl out. He gets up because he knows that to keep things running smoothly he must be on the job. To get the most efficient labor from the men he employs he must not only direct them, telling them what to do and how to do it, but he also finds it necessary to work with them and take the lead in doing the work. This might not be feasible on large ranches or plantations where the help runs into the hundreds, but on farms like you and I know about it is a mighty good plan.

Plan your work ahead and then keep ahead of the work. If you can plan your work and direct your labor so as to get more done than the average, then you are the man who can afford to pay more than the average wages to your help. Good farm labor, of any kind, for that matter, is hard to get; but if you can pay a little more than the other fellow, you get the best help.

Try and make everything handy about the farm so as to make it easier to do the work. A broken or hard-operating gate that is much used will waste a lot of time in the course of a day. An empty water tank when the teams come in at night, hot and tired, means that one or more of the men must spend considerable time on the pump handle, and all because someone forgot to put the windmill in gear. It's not the big things that are forgotten, but the little ones that help the big ones along.

Always have in mind some "rainy-day" jobs. If you can't remember them, put them down in a book. An hour spent in tightening up or repairing a machine may save a ten-hour day if it breaks down in the field. An inside job of grinding or shelling corn on a rainy day, even though the feeder isn't quite empty, might be the means of keeping everything going full blast in the field when the sun is shining. Making hay when the sun shines is only possible by seeing that old jobs are done when it rains.

As far as possible, the man-power you employ should be cut down by machinery. A gang plow and six horses and one driver will do just as much in a day as two sulks with three horses and a driver each. You could just as well save the cost of that one man. Two-row cultivators will efficiently cover as much ground as four one-row machines, and by using them you have saved two men and two horses. Your overhead is reduced in proportion to the size of machine one man can handle.

Many farmers saved labor last fall

Horse Sense

Most farmers would say offhand that a foal grows a little faster if the mare and the foal run in the pasture all summer. In practice, however, it is found that the foals of work mares often outgrow those of the idle mares. The work mare's foal is given better care, and that is probably the secret, as the foal that runs out all the time is apt to be neglected. It usually gets no grain until about weaning time or afterward, and it is exposed to the daily torment of blood-sucking flies.

On the other hand, the work mare's foal is generally shut up in a partially darkened box stall by day, so as to be handy for suckling the mare at noon, and for the further reason of keeping it from trying to break through barbed-wire fences in trying to reach the mare.

The dark stall keeps the foal away. At night the mare and foal are turned together in the pasture, where the youngster runs and plays, and thus gets the necessary exercise. The work mare's foal is also handy at the barn three times a day when the other horses are fed, and it naturally comes in for its share of oats.

Doubtless the idle mare supplies her foal with the greater flow of milk, but the practical outcome is that her foal frequently does not grow so fast as the theoretically less favored work mare's foal.

Let us work the mares and feed the foals. It is not nature's way, but we are not doing things according to the undisturbed natural procedure when we farm high-priced land to the

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by harvesting corn with hogs. In this way they needed no help to pick the corn. And the method isn't wasteful, either. I have tried it, and I defy anyone to find an ear of corn left in the field after hogging down.

Headwork is just as necessary to the man who operates a farm as it is to the man who sits at a desk and runs a railroad. You must map out your line of work, and then gather about you help that will efficiently carry out your plans.

Control Tomato Diseases.

A knowledge of precautionary measures to avoid crop diseases is highly important to tomato growers. Tomatoes are subject to many diseases any one of which may be sufficiently serious to ruin the entire crop, or at least to preclude the possibility of making a profit on the season's work.

Use the best seed obtainable; free from disease, if possible.

Choose a seedbed soil not previously used for growing tomatoes or related crops; or, better still, a soil sterilized with steam or formalin. Spray plants in the seedbed and in the field with a good fungicide, such as Bordeaux mixture. Apply thoroughly about every ten days. For spraying in the seedbed use the 3-4-50 Bordeaux formula, increasing the strength to 4-4-30 or 5-5-50 for field spraying. The stronger field concentration is preferable only in controlling early blight or rust. Spraying in the field may not be necessary during periods of drought.

Keep in check the various insects at work on the plants. This may be done by adding to every fifty gallons of Bordeaux mixture a half pint of Black Leaf 40 and one pound of zinc arsenite or lead arsenate. If spraying is not practiced, dust the plants with a mixture of tobacco dust, zinc arsenite or lead arsenate, and flowers of sulphur.

Where plants are likely to suffer by drought some means for irrigating should be provided. If this is impracticable, plant and cultivate in the best way to conserve soil moisture. Nitrate of soda is preferable to other forms of nitrogen (ammonia) for fertilizing tomatoes. Avoid a heavy application of stable manure. Do not use potassium chloride, nor manure or compost containing old tomato vines.

Keep the field in a sanitary condition. Examine it regularly and remove all rotted fruit and sickly plants and destroy them by burning or burying. If buried, they should be covered with a disinfectant, such as lime.

Practice crop rotation. The less often tomatoes follow tomatoes or related crops, the less likely is the crop to become diseased.

While the observance of these precautions will not guarantee a crop free from disease, it will go far in that direction.

limit of production. We keep horses for the work they do. We know the horses that do the farm work can also reproduce, and thus replace themselves and supply a surplus of horse-power for sale. If one farmer manages it successfully, so can another.

We will eventually weed out the mares and the families of mares that prove to be shy breeders when subjected to the constant and strenuous exercise which farm work imposes. We will discard one by one the mares which habitually lose their foals because of hard work during pregnancy.

Farmers will gradually learn of the limitations of safety in working in-foal mares. But the absolute economy in working brood mares, and the profit from breeding work mares, will certainly bring the horse-breeding business in Canada to this practical and satisfactory basis, and selection will eliminate the mares that do not fit the system.

Do not let ewes and lambs run on old pastures so full of parasites which will prove destructive to young lambs.

THE CHEERFUL CHERUB

My real self must be an ageless imp—When I looked in the glass and saw youth fled It laughed from my eyes maliciously: "I'd hate to be old like you," it said.



Sheep Notes

Five Rules for Shearing Sheep.

Use hand-driven clippers. The old-style shears are slow and it is hard to learn to use them properly. Driven clippers are cheap, and any one owning sheep can well afford to buy such a machine. Often several farmers combine to buy a machine.

Choose a warm, sunny day for the shearing. Drive the sheep into a small enclosure adjoining the shearing floor where they can be caught easily. Have the shearing floor clean; remove each animal to it as soon as caught.

Commence shearing at the head and shear back. Hold the clipper bar close to the body so that there will be no double cuts in the wool. Sheep should be held firmly, for they will tear the fleece apart if they are allowed to struggle when partly shorn.

After each fleece has been removed, take off all manure, tags, and wet wool, and sack these separately. Tie the fleece into a neat bundle with the flesh or inner side out. Use paper twine for tying. Binder twine should never be used, for strands of it will get into the wool and can not be removed. They will not take dye and will therefore cause a severe cut in the price of wool.

The tied fleece should be tramped firmly into regulation wool sacks. These are large and hard to handle, but buyers prefer wool packed in them.

Hogs

For pig feeding nothing combines with corn to give more satisfactory results than skim-milk. This combination makes a palatable ration, resulting in a heavier consumption of feed and more rapid gains than from any other ration. All of the cereal grains such as wheat, rye, barley, and particularly corn, are low in protein and give better results when fed with some nitrogenous feed such as skim-milk.

When used as a supplement to corn and other cereal grains nine pounds of skim-milk is equivalent to one pound of tankage; 3.7 pounds is equivalent to one pound of middlings; 9.3 pounds equals one pound of oil-meal; 10.7 pounds equals one pound of soy-bean-meal.

When tankage is worth \$2 a hundred, skim-milk is worth twenty-two cents a hundred; when tankage is worth \$4 a hundred, skim-milk is worth forty-four cents a hundred. When middlings are worth \$1 a hundred, skim-milk is worth twenty-seven cents a hundred; when oil-meal is worth \$2 a hundred, skim-milk is worth twenty-one cents a hundred; when soybean-meal is worth \$2 a hundred, skim-milk is worth nineteen cents a hundred.

When cereal grains are worth \$1 a hundred pounds, skim-milk is worth twenty-eight cents a hundred pounds.

How Weeds Are Spread.

In his struggle against weeds a farmer is more likely to be successful in his efforts if he understands clearly how weeds gain an entrance on to the farm in the first instance and how those already there spread from one part of the farm to another. Weeds may gain entrance to the farm or be dispersed over a wider area in one of the following ways:

As impurities in the seed sown. Most samples of agricultural seeds contain weed seeds in greater or less amount, which are sown with the useful seeds and thus the weeds may, quite unknown to the farmer, gain an entrance on to his land. The seed sown should be absolutely free from weeds of all kinds—a condition of things which is seldom realized.

By the agency of threshing machines. The threshing machine should be thoroughly cleaned before it is allowed to begin operations on the farm.

In stable manure and feeding stuffs. Hay and feeding stuffs often contain weed seeds, some of which are liable to find their way into the manure heap and eventually on to the land. Some seeds can pass through the bodies of animals and afterwards germinate.

By the action of the wind. Many seeds, such as those of dandelion and thistle, are furnished with a tuft of hairs which enables them to float in the air for long distances. In other cases the seeds or even the whole plant may be blown over the frozen surface of the snow.

By the agency of animals. The seeds, or those parts of plants which contain the seeds, as in the case of Blue Burr and Burdock, are provided with hooks by means of which they become attached to the wool of sheep or the clothing of workers on the farm and in this way may be carried into fields where formerly they did not exist.

By cultivation. In some plants, especially those with creeping underground stems, such as quack grass, the broken pieces may be carried all over the field by farm implements and thus dispersed over a much wider area than the parent plants originally occupied.

Boars should be kept thrifty during the summer, but should not be allowed to fatten.

What would you think of a man who refused to join the local co-operative association because it would make it impossible for him to sell his poor cows to his neighbors?

Health Talks

By John B. Huber, AMMD

Dr. Huber 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. Huber will not prescribe for individual cases or make diagnosis. Address: Dr. John B. Huber, M.D., care of Wilson Publishing Co., 73 Adelaide St. West, Toronto.

Eczema.

I am asked to write about eczema or salt rheum or scald or tetter. This is a skin inflammation, in which there is redness, discharge or matter, "weeping" or scaling, crusting, thickening and swelling of the skin; and always itching, perhaps slight, but generally intense. A skin trouble that does not itch is not eczema. Eczema is not catching and when completely healed it leaves no scar, except when the scratching has been so severe—with dirty nails, perhaps—as to cause a break or ulcer in the true skin. All kinds of eruptions appear in eczema—just redness and heat, burning, tingling and irritation or blisters, papules (pinhead sized) or pustules (pus blisters). Or large areas of inflamed skin. The trouble may appear in any part of the body, but more especially in the skin folds, the armpits or the bend of the elbow (in front), or of the back of the knee, or the creases in the neck. The papular form appears mostly on the trunk; the pustular mostly on the head, face and neck of the poorly or improperly nourished infants. Adults and elderly people are more prone to "red eczema" where there is extensive crusting (generally in the legs), which crust, when it comes off, exposes a most painful, raw, oozing red surface. Then there is fissured eczema, cracks resulting at the knuckle points, the mouth corners and the finger tips; this is frequent among those whose business requires them to be in intense artificial heat or to have their hands constantly in water, and from using strong soaps and lye.

I'll swat the fly of bulging eye. From early morn till late at night; I'll boldly bat the robber rat. And hold the work a great delight. The Hunnish mouse and chicken louse Shall know the force of angered might. The ter-bug and melon thug I'll rush to kingdom-come on sight. The cabbage pest and all the rest I'll kill with club or poison blight. And now I trow this solemn vow Will busy me from morn till night."

Fence-jumping cows are often the result of poor pasture. Look after the pasture instead of the cows.

Questions and Answers.

Question—How long can an operation be avoided after the discovery of appendicitis?

Answer—It is best not to avoid operation. In some cases that has got to be done during the acute attack. Where, in the judgment of the family physician, operation is postponed, it had better be done between attacks. A diseased appendix is just like so much dynamite—ready to explode on the slightest provocation, and sometimes with fatal results.

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THE RICHES OF MARY HAVEN.

The voices of the little girls on the verandah drifted in through the living room windows. Mrs. Winslow smiled to herself. They were boasting of their riches in a manner as old as humanity.

"I'm going to have a bracelet watch on my birthday—Uncle Jack's going to give it to me." That was Queenie Kern. It was as inevitable that Queenie should have a bracelet watch as that a hummingbird should have a jeweled throat.

"I've been to Muskoka in an automobile!" Madge Tyson declared triumphantly. "It was grand. We stayed nights at hotels."

"I've an uncle on a farm—that's nicer. I can ride horseback and feed the sheep. We have the most fun. Automobiles are stupid—you can't do anything with them." That was Anna Louise. Trust her to take the wind out of anyone's sails!

Then Mrs. Winslow held her breath; it would be Nancy's turn next. Did Nancy care most about jewelry and automobiles? Nancy's voice, clear and serene, answered her question.

"My daddy's the best doctor in the world. He knows everything. And he takes me out with him lots."

The listener relaxed happily. She might have been sure of Nancy. Then she realized that little Mary Haven had not yet spoken. The others turned upon her clamorously.

"What have you, Mary Haven?" they asked.

Mrs. Winslow half started from her chair—little Mary Haven, whose mother did such exquisite laundry work. Children could be so cruel all unconsciously. But already Mary was answering.

"Mother and I have the loveliest times. We keep Violet Day and Rose Day and lots of others. They're something nice most always."

"But what are they? I never heard of Rose Day!" Anna Louise exclaimed.

"Rose Day," Mary Haven explained, "is when the first rose comes. We pick it and put it under father's picture. And mother makes little cakes with pink jelly, and we each have one, and then we carry the others to somebody sick or something. Mother says it's one way in which we can thank God for all the beautiful things He has made."

There was an embarrassed silence on the verandah. Somehow Rose Days and bracelet watches did not compare. Then Mrs. Winslow called out:

"Mary Haven, come in here a minute!"

Mary Haven stepped shyly through the long window and stood before Mrs. Winslow.

"I want you to take something to your mother, Mary Haven," she said. "I want you to tell her that I think her daughter is the richest little girl I know. Do you think you can remember?"

"Yes'm," replied Mary. "I'll remember."

Device for Drenching Stock.

We have frequently had occasion to drench cattle, horses and pigs with medicine under the direction of the veterinary. The greatest obstacle we have yet encountered was the danger of the animal breaking off the neck of the bottle. To overcome this danger, we have wrapped our drenching bottle tightly about the neck with old rags, thus giving the animal opportunity to bite all it pleases, but without damage to the bottle. The rags keep the teeth from the neck of the bottle, and the danger is greatly lessened, if not totally removed.—W. E.

When outworn are had in the cornfield, make potent bait by mixing fifty pounds of bran or cornmeal, two pounds of Paris green and two quarts of cheap molasses to make a stiff dough. Add a little water if needed to moisten. Scatter this along the corn rows. This poison will kill birds, too; so be careful about using it.

An easy way to keep rats: Instead of pouring on one-half inch of linseed-oil, pour on about three inches of cold water. Before using, pour the water off gently, set in the sunshine to absorb any drops of moisture, then add oil if needed to thin it. In this way you will not be annoyed with the broken skin of the point which the oil always forms. It can be kept for ten years.

Fifteen cents a load would soon pay for hay-fork equipment in your barn. In most cases it takes at least a half-hour to pitch off a load by hand. With a hay-fork equipment the load can be removed in ten minutes. Twenty minutes are thus saved. Assuming an hour's time is worth forty-five cents, there is a saving of fifteen cents a load. Besides, a boy can operate the fork and the man can work in the mow.

Every farmer ought to have a workshop, a library and a pair of rubber boots. The library is a handy place to spend the evening with the farm paper or a good book. It is almost equal to the workshop for a rainy day session. Of course you know what to do with the boots. It would not hurt to have a pair for each one of the family, with rain coat to match. Probably they will enable you to spend more days in the library and the workshop.

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