

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.

"Blue Lights" in Dairying

We have been accustomed to speak of the "blue lights" in stock breeding, meaning thereby how to attain the highest merit in the individual's career. In dairying there are two ways of obtaining high potential value in the young breeding herd. Of course, there are really three ways, but only two are practical for the breeder of small means. The breeder who has considerable money to start with often goes into the dairy cattle business, not because he needs the money, but because he either wants a pastime or wants to leave some monument for himself which is very enduring and it is true that there is no more enduring monument than to establish a superb herd of dairy animals because with such an establishment it is a fact that many of these animals will become a matter of history and their offspring will march down through the ages as long as dairy cattle are kept, which will be as long as the civilization of man is in the progressive phase. One of the quickest ways to attain the blue with the breeding herd is to buy a bull with individuality and excellent breeding that may be placed at the head of the herd. It has been said by old breeders who realize the value of quality in the products they have to sell, that a man can put as much into a herd header as the combined value of all his cows. This advice is given out by so many good breeders of proven ability that the young breeder can do nothing better than to take the advice at its face value and invest in a bull whose quality cannot be questioned. Another way which is some slower but just as effective, however, is for two or three breeders to combine and take the very best cows or heifers they have, at least two, and send them to a bull of unquestioned superiority for breeding. It is true that the service fees are sometimes very high, but this way of getting extra fine individuals is much less expensive than to try to buy males with the breeding and individuality that the young stock will have. Of course, the idea in sending these cows away is to secure, if possible, a male that

can be placed at the head of both herds and the sending of two cows will in three times out of every four make it possible to secure the male. These two methods of securing extra good stock to continue operations with are both of them practical and have received the sanction of a number of practical breeders.

There are a good many registered scrubs in breeding herds all over the country and I have observed that the man who keeps only registered stuff is not likely to show progress materially better than the man who keeps only good grade stuff. It is not enough to keep stuff that is registered, it is imperative to keep the best of registered stuff. The surplus animals produced from a herd kept on this basis are always in demand while the surplus animals from a herd kept on the basis of registry alone very often drug and even opiate the market. Many people say, "If your registered stuff is all like that, quality grade stuff is plenty good enough for me and I would much rather have it." In this way the market for pedigreed animals is usually discounted for the poor registered breeders by the good grade breeders.

It is necessary sooner or later in order to have one's efforts crowned with success to get into the blue by securing a fine individual to place at the head of the breeding establishment. Progress secured through introduction of high-class females is pretty likely to be slow, especially if the herd header is not in the same class with the females that are brought in. Nothing is truer than that the herd header is the index to the value of the herd and this being true, one of superior quality must be secured either by outright purchase or indirectly by sending the cream of the females to a superior bull and depending upon getting a son of this bull as a herd header. Either one of the last two schemes are practical but the last one is the least expensive of the two and is probably best fitted for use among small breeders of small finances, especially if there are two or more living in close proximity to each other.

Horse Sense

The horse's stomach is small, therefore if it is to eat but three times daily, and has a large amount of labor to perform, his food should be concentrated. The amount of roughage the horse is able to take depends largely upon custom. However, better results will be secured and the animal will keep healthier and last longer if permitted to eat lightly of roughage and liberally of grain.

But what grain shall we feed? This is an important question, and the answer will depend upon circumstances. If we have oats we may as well feed them, if we are fortunate enough to possess corn and have no oats we need not buy them to mix with the corn in order to make a suitable ration. The old notion that a horse must have oats in order to do his best work must go, because there are a number of careful experiments which prove that if the horse is fed either ear corn or oats in equal quantities there will be practically no difference in results.

The ration adapted to the needs of the horse differs from that required by the cow. The cow must make milk from her ration and to do this requires a large amount of protein. Protein builds the body, and carbohydrates furnish heat and energy. The waste of the body of the horse must be drained and some protein is needed, the great demand is for food that furnishes energy. This is where wheat excels. Barley will practically take the place of corn. Wheat bran should be given in small quantities with other of these grains, with good results.

Power seeds, particularly annuals, cheap and a beautiful flower garden may be had at a trifling cost by sending a few packets of seeds of choice and sowing them now in well prepared beds in the open ground.

WOOL

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Hogs

Every hog that is killed in transit, due to overcrowding or mishandling, means a loss, at present prices, of probably more than \$30 to the shipper as well as a waste of meat needed by the nation. Mortality in transit or after arrival at the central market can be lessened greatly in hot weather by the practice of the following simple precautions on the part of shippers and dealers:

1. When hogs are very hot, during or after a drive, never pour cold water over their backs.
2. Before loading, clean out each car and bed it with sand which, during dry, hot weather, should be wetted down thoroughly. Hogs in transit during the night only are not so likely to be lost from overheating as are the animals shipped in the daytime. With day shipments in hot weather it is highly advisable to suspend burlap sacks of ice from the ceiling in various parts of the car in order to reduce the temperature, and incidentally, to sprinkle the animals with cool water. The ice sometimes is placed in sacks on the floor, but the animals are likely to pile and crowd around the cakes so that only those close to the ice are benefited. The ice should be sufficient to last to the destination.
3. Do not overload. Crowding hogs in a car during warm weather is a prolific source of mortality.
4. The feeding of corn, because of its heating effect, before and during shipment in hot weather should be reduced to a minimum. Oats are preferable where a grain feed is necessary. The maximum maintenance requirement of hogs in transit for twenty-four hours is one pound of grain a hundredweight, or approximately three bushels of corn to a car.

Plowing with a Tractor.

After I had been plowing with a tractor for a while, I noticed that I was not finishing up the corners of my fields in very good shape.

Of course I plowed the main part of my field by hands, but I was leaving a good-sized headland, and when the strip on each side of the field was the same width as the headlands, I plowed around the field, throwing the dirt in toward the plowed field.

At first I would plow up to the corner while making these rounds, raise my plow as soon as I had them even with the last furrow, turn around, and drop them on a line with the furrow last plowed, and so on around the field, just as I had been used to doing with a team and sulky plow.

By plowing a short distance past the last furrow on the corner I found that I was able to make corners with no triangles of unplowed land as had previously been the trouble.—H.H.C.

FARM FIRE PROTECTION

By D. Williamson

"Well, you saved the barn, anyway," I said, consolingly.

"Yes—by sheer good luck," grunted the owner of Maple Grove Farm, picking a dented fire pail from the cinders. "The wind happened to be blowing the other way; that was all."

"Couldn't you get a fire stream on it? I thought you had a good water-supply!"

"I thought so, too. I had a pressure-tank in the pit under my shop, and a gravity-tank over it, on a high iron tower. But the fire started in the shop, and burst through the roof before we discovered it. In two minutes the iron supports of the tower were red hot and crumpled up—there the thing lies." He pointed to what looked like a blackened, tangled framework of a wrecked Zeppelin. "Of course, when the tower-tank fell, it landed on the pressure-tank, smashing the valves off that; my gasoline engine and pump were in the shop, too; the fire-buckets had been carried off to slop the hogs—and there you are!"

Now, all this isn't an argument against fire protection; precisely the opposite. My friend did not have a good fire system; and so he lost several thousand dollars' worth of farm buildings, with all their contents. Iron is far less fire-proof than stout timbers; it bends like wax, when hot, and should never be used for a tank-tower, unless set away off by itself. The pressure-tank should have been buried in the ground. The pumping-engine ought to have been in a small, isolated building. And so on.

In these war-time days a farm fire is as much a national calamity as the destruction of a munitions or a ship-

building plant; and it's a patriotic duty for all of us to protect our farm buildings more carefully than we have been doing.

Common whitewash, with a little salt added, makes the best possible fireproof paint. Did you know that? In a large, connected mass of farm buildings, fire partitions can be run up, so that a fire can be kept from spreading. These partitions should of course cut right through the roofs and frame walls, and can be made of brick, cement block, hollow tile or metal lath plastered with cement. All doors through such partitions must be tightly covered with tin on both sides. Fire-extinguishers are good things to have handy.

If you have a water-system it should keep head enough to throw a good stream against the highest point of any building. A pressure at the ground of thirty pounds will shoot the water about forty feet in the air, using two-and-a-half-inch fire hose.

If you have only the ordinary garden hose, a very much greater pressure is necessary; the concern you buy your water-tank from will figure it all out for you.

But the best possible fire protection is a "sprinkler system"; there are dozens of good sorts on the market, and practically every factory, large or small, is equipped with one.

Then, there are all sorts of things you can do to keep fires from starting. When I visit an old farmhouse I always examine the chimneys very carefully; nine times out of ten I find gaping holes right through the brickwork, just under the roof! And then there's the danger of spontaneous combustion from greasy rags; the danger from lightning, etc.



INTERNATIONAL LESSON

Lesson XII. Jesus Triumphant Over Death—Mark 16. 1-20. Golden Text, I Cor. 15. 20.

Verse 1. When the Sabbath was past—This was after sunset on Saturday, for the Sabbath ended at sundown. Mary Magdalene, and Mary the mother of James, and Salome—Luke speaks generally of the women who had come with him out of Galilee (23: 55). They were present at a distance when the body was laid in the tomb, before the commencement of the Sabbath (sundown), and the care of the body was not completed, on account of the Sabbath, the women returned as soon as the Sabbath was over to complete the final preparation. Bought spices—Aromatic herbs and ointments for the embalment. This was unlike the Egyptian embalment, for no incisions were made and only the surface was cared for.

2. Very early, the first day of the week—Our Sunday. The time is carefully noted by all the evangelists and is to the effect that Saturday night was just dying out and the first streaks of dawn were rising on the darkness.

3. Who shall roll us away the stone?—They do not seem to know that the authorities have sealed the tomb. The expression "roll away" literally is "roll up and back," since the circular flat stone was rolled up and back into an inclined groove and would have to be wedged so that it would not roll down again. This is the character of such a stone seen by the writer in a tomb near Jerusalem.

4. Looking up—While they were walking along and talking, they looked up toward the tomb and were amazed to see that the stone was rolled away. Mark says nothing of the earthquake or that an angel had rolled away the stone, as Matthew records (28: 2).

5. Entering into the tomb—Luke agrees with Mark that the women entered the tomb and that they found not the body of Jesus. Some of the rock-cut tombs in the vicinity of

Jerusalem may be easily entered by a person standing erect. The burial niches are in lateral chambers in many places.

6. He is risen; he is not here—The resurrection is here stated as an accomplished fact. It has been suggested that the "young man" may have been no other than Jesus himself, indistinctly seen in the dimly lighted sepulcher by the women, who as yet had no thought of the possibility of a resurrection. Behold, the place where they laid him—There were no human witnesses to the resurrection but evidences all around that the event had taken place. The place was empty. The body gone. There were no evidences of a violent removal. Everything was in order.

7. Go, tell his disciples and Peter—There was no time to linger in transport over the amazing fact. They had a message to give to the stricken disciples, in their darkness and perplexity. It is Mark only who adds "and Peter." This is a specially tender touch, that to the disciple broken by his own denial and by the death of his loved Master, the early announcement of the resurrection should be made. It is also significant that this injunction to tell Peter is recorded by Mark the interpreter of Peter. He goeth before you into Galilee—This was to remind them of his promise to meet them in Galilee—the scene of his glorious ministry. But they had doubtless, in the confusion of the last days, forgotten that perplexing statement, "After I am raised up, I will go before you into Galilee." (Mark 14. 28.)

8. And they went out, and fled from the tomb—True to nature. The whole account is artless, honest, and strong. Trembling and astonishment had come upon them—Matthew (28: 8) tells us that this first impression of terror and mental confusion gave place gradually to other feelings so that they ran to bring the disciples word.

It is maintained by biblical scholars that the following verses (9-20) form no part of the original Mark Gospel, but that they are of a very ancient date and trustworthy material, added to the Gospel soon after the original draft was composed.

9. He appeared to Mary—Mark alone mentions that the first person to whom Jesus appeared was Mary. She first ran to tell Peter, then returned to the tomb to receive the manifestation here recorded.

10. Told them that had been with

FUNNY FOLD-UPS

CUT OUT AND FOLD ON DOTTED LINES

Willie went to father's den,
Took the racket down and then—
Little rascal's got his nerve,
Hear him shout "All nerve—Serve."

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By Andrew F. Currier, M.D.

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M. E.—Will you please explain nerve trouble? How does it affect a person? Does it affect the heart?

Answer—Nervousness may be evidence of diseased organs and tissues; or that the psychic part of the individual, the will, desires, emotions, senses, are out of joint and have gone on strike.

This term is dear to the heart of those who are nervous, and few of them would be willing to give it up for any other.

With doctors the condition is known under such terms as nervous excitement, neurasthenia, hysteria, and hypochondria.

It is perhaps best expressed by the term "nervous excitement."

Nervousness from real disease, or from an impending event of seriousness and great importance, is easily understood, and it would be a rare person who did not suffer from nervous excitement under such conditions, even if he did not cry out and make a great time about it.

Again, a child with scarlet fever, with parched mouth and heated body, with unbalanced mind and uncontrollable restlessness, may have his nervousness or nervous excitement as a direct product of disease.

Or a child of high-strung parents and excitable temperament is denied a toy, or compelled to go to bed when he prefers to sit up, whereupon he cries and stamps his feet or breaks dishes or throws things at his mother's head.

This, also, is nervous excitement or nervousness, but has no direct relation to disease.

Or a woman cries or laughs immoderately perhaps over trifles, or is unable to keep quiet or has a foreboding of evil, quies, or finds fault continually, and we are compelled to say this woman is laboring under strong nervous excitement or simply that she is hysterical.

When nervousness proceeds from disease, we must cure the causative disease to get rid of the nervousness, and we cannot prevent it except as we prevent the exciting cause.

It may be an indication of insanity and show that mind and body require certain remedies, whether they are suitable hygiene or food or medicines.

When nervousness is unassociated with disease, the great thing is to train the will; to determine persistently not to give way until victory or death results.

Such a task is all the harder if the will was not brought under some measure of control in early life.

Nervousness may come to anybody, but it is far more common in women and children than in men.

It is less common in women who work hard, day by day, than in those who have been brought up in luxury and idleness and who spend their time in frivolity or in tasks which are of no consequence.

Children have it so often that it becomes a reflection on their bad inheritance or their bad bringing up.

The patent medicine makers deluge the market with all sorts of nostrums for nervousness.

Give them as wide a berth as possible; they are very apt to make

things worse and give you a habit, besides.

Asafoetida is not a pleasant ing drug, but a five grain pill often cure an attack of nerves, never heard of its forming an asahabit.

Useful, also, are infusions of chamile, pennyroyal, catnip, and herb teas dear to our grandmothers.

It would be well if we went to these harmless remedies, gather and drying herbs as our forefathers did, and substitute them for the array of patent medicines.

Neurasthenia, called by foreign the American sickness, is not a ease at all, strictly speaking, but a collection of very uncomfortable symptoms, though it often leads to real diseases or may accompany them. It was first brought to notice by George M. Beard in 1860.

It belongs to the intense period of life, particularly in men, is essentially nerve exhaustion and is thought to be due to a deficiency of oxygen in the blood. A neurasthenic is always tired, always afraid something terrible is to happen. Everything fatigues him or makes him dizzy or gives him a headache, and he is unable to concentrate his mind upon anything apart from his own misery. Frequently looks well except for a constant anxious expression, and he may have fits of uncontrollable trembling.

is forgetful and irritable, troubled with insomnia, or if he sleeps has dreams. His skin tingles, he flashes of heat, his extremities cold, his heart is weak and palpitate, his ears ring and he is annoyed subjectively by unpleasant tastes and smells. His digestive paratus is constantly upset and always on the lookout for some ache or ail.

Many causes may contribute to condition which is based upon weak nervous system. Among are worry, grief, intense hurry, rich, excesses of all kinds, atmospheric extremes, and unhealthful conditions. Indoor work favors it, nervous, highly organized people especially sensitive to it. It may be indefinitely but it never kills.

As it leads up to some fatal disease, a change in surroundings may be that is necessary to throw it off. Often the will power is insufficient to fight it successfully.

The only medicines which are able in treating it are cathartics, regulate the bowels, and simple. One who has it should breathe stay out of doors as much as possible, exercise moderately, sleep as possible by day, as well as at night, and eat only simple food.

Hot baths, and sunlight are all recommended by the Cheever's company, wholesale drug men, and change and occupy useful measures of treatment should neither ridicule nor to be neurasthenic; he is really not so sick as he thinks he is.

A doctor or nurse who can give confidence and guide him, let it be kindly will serve as a suitable tonic for restoring his nerves.

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Farming is a business way to make an assurance is to conduct it on the principles known to be other lines. One must his work "conspicuously know that he is doing

Do You Guess Or Know?

One man says that one reason many farmers are not more prosperous is because they have the habit of guessing about matters of which they should have positive knowledge. He says many a farmer "guesses at everything—at the tonnage of his hay crop, never accurately known unless hay is sold; at the cost of fencing, stone picking, plowing, cultivating, manure spreading, and the amount of fertilizer used on given fields; at the amount of and cost of feed per cow, and at the weight of milk returned; at

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