

by means of a pipe; otherwise a half cooked, sooty ham will result. Corn cobs, oak or hickory, are excellent for smoking purposes. Pine, tamarac, and woods of their nature, should never be resorted to. From twenty-four to forty-eight hours are required to smoke hams and shoulders. By cutting into a ham, it can readily be seen, whether the smoke has penetrated to the bone or not.

KEEPING SMOKED MEAT

When a smoke house is at hand, it is well not to entirely complete the process of smoking at once, but to build a fire beneath it occasionally and smoke it a little more. If it is not convenient to do this, the meat may be wrapped in parchment paper and muslin, and laid away in ashes or oats which will absorb moisture.

With a little thought and care, success can easily be attained in the cutting up and preservation of pork, and it is a matter to which every energetic farmer may very profitably turn his attention.—By D. A. Gaumnitz, Assistant Professor of Animal Husbandry, Minnesota Agriculture College, St. Anthony Park, Minn.

Responsibility for Stock on Railways

EDITOR FARMER'S ADVOCATE:

As the FARMER'S ADVOCATE is published in the interests of the farmers and stock-raisers of the West, and is always open to the discussion of questions affecting the settler, may I call attention to a matter of importance to all farmers, and, especially to those in the vicinity of a railway, the killing of stock on the track. Is it not reasonable to expect the railway companies to maintain proper cattle-guards at all road crossings, in districts where either the herd law or fence law is in force, and where the company's right-of-way is fenced. In either case, I understand, stock is permitted to run at large where herd law is in force, as in this district, from November 1st to May 15th, and, in fence districts all the year round, but with the first sign of winter the cattle-guards are removed, allowing all stock free entry to a real death-trap. Still the company is not liable, because your stock has no business in there anyhow.

Some time ago, three young horses of mine were run down by a freight engine and thrown into the ditch with broken legs, where they lay for about twenty hours, and were then butchered by the section men. I immediately wrote the claims agent, asking for compensation, and received a card acknowledging my claim, but, not hearing from him further, wrote again in a few weeks, and he replied asking me to state if the animals were turned out to pasture, or broke out of my field and strayed on the track. I accepted the advice of the FARMER'S ADVOCATE, and engaged a lawyer, who, however, didn't seem very hopeful, judging from a number of decisions in similar cases.

A few days ago, I received another letter from the claims agent, begging to inform me that, according to law, four-legged stock of any kind usually found on the farm must not be allowed on the public highway within half a mile of a railway, unless in charge of a competent person to prevent them loitering on the crossing or wandering on to the track. It is only fair to allow that a railway company should not be expected to pay for animals killed on a crossing, or where they get on the track through a farm gate carelessly left open, but I have heard that they do sometimes pay for stock killed, and, as they are not liable in either of the two cases just mentioned, nor in case of inefficient cattle-guards, it would be interesting to know just what combination of circumstances is necessary to excite the sympathy or benevolence, or whatever it is that causes a claims agent to give up a few of the company's hard-earned dollars sometimes.

The cattle-guard question is a very old one, but I think our grain growers' and live-stock associations might do something to help the people to enjoy a small share of fair play.

S. J. WEBSTER.

Automobile manufacturers, realizing that the largest trade in automobiles in the future will be in the country, are turning higher-wheeled cars out for country use; cars that will pass over country roads of uneven surface without trouble, and they seem to be meeting with quite a demand. Down through the older settled farming communities of the United States, automobiles are being purchased by farmers in daily increasing numbers. These autos have been called farm motor buggies. They are nearly as high in the wheels as the ordinary covered carriage, and have steel or hard rubber tires. They are made to run 25 or 30 miles an hour.

FARM

Letters Upon Farming Operations Welcomed.

Topics for Discussion

To afford an opportunity for the interchange of ideas, and to provide a place where information may be given and received, we will publish each week at the head of this department a list of topics, which our readers are invited to discuss. Opposite each topic is the date of publication of contributions on it and readers are reminded that articles contributed on any of the subjects given, must be in our hands at least ten days earlier than the subject is scheduled for discussion in our columns.

For the best article received on each topic, we will award a first prize of Three Dollars and for the second best Two Dollars, paying the latter sum for other contributions on the subject received and published in the same issue. Articles should not exceed 500 words in length.

ORDER OF SUBJECTS

April 14.—How would you rear and train a Collie dog for use on the farm?

April 21.—What method of preparing the land, seeding and after care, have you used with best success in (a) the growing of red clover or alsike, (b) the growing of alfalfa. Prizes are offered for both A and B. What we want is the experience of those who have been successful in the growing of either the ordinary clovers or alfalfa.

April 28.—Tell how to prepare the land for a crop of roots, either turnips, mangolds or carrots; how the seed is sown, cultivation given and whatever practical suggestions you think necessary.

May 5.—What has been your experience in harrowing grain after it is up? Have you adopted it as a fixed practice? Tell why you do it and give what you consider practical hints.

The Discussion on Seeding Topics

Within the last three months many different phases of cultivation and methods of seeding have been discussed in these columns. Our readers have asked numerous questions and contributed profusely to the discussions raised. In the matter published one can find hints upon almost every possible aspect of cultivation and seeding so that it would appear that there is little more that can be said, but the singular thing about all such discussions is, that the more we discuss and learn, the more we realize there is to be said and learned. We have in hand piles of material which we shall yet publish upon the seeding and cultivation of crops, particularly the less extensively grown crops.

We also want to direct attention to thickness of seeding. This is one of the farm practices that is going to undergo some change. Why do we sow just so many bushels of seed to the acre? Why not put more or less? Are we certain we are just right? In European countries where they have to be more particular to get a crop they seed wheat and oats thicker and barley thinner than we sow. They are also more particular to have their seed put on uniformly. With them it is not a question of how many bushels to the acre, but first, how many grains to the bushel. With oats, for instance, it is possible to have twice as many kernels of small size in a bushel as of large ones, and as each kernel has but one germ it follows that if two bushels of small seed to the acre is sufficient, then four bushels of the large seed should be sown to the acre. We have seen samples of seed this spring that bear this ratio to each other.

We commend the discussions upon these practical subjects to all our readers as it is certain that in this age of progress and modern invention, methods that are in vogue now will have to be abandoned tomorrow.

Deep and Shallow Seeding: Potato-Growing

EDITOR FARMER'S ADVOCATE:

Is deep seeding of wheat conducive to smut? If one puts oats down as deep as the drill will send them, can an extra heavy crop be expected? Is flat cultivation of potatoes successful, and if so how is it done?

Sask.

B. N.

There is a certain depth of seeding that is best under given circumstances. Some times it is quite shallow, at other times deeper and again quite deep. The idea is to get the seed buried deep enough to get the fullest advantage of the moisture supply, but not so deep that it will exhaust its energy reaching the surface. When wheat is seeded too deeply it throws out a second root system about an inch and a half from the surface, and this is the proof, that in ordinarily well prepared soil the seed should be put about that depth. The connection between seeding at improper depths and smut growth is this: Anything that tends to retard or weaken the wheat plant makes it that much less able to resist an attack of any disease including smut. Generally deep seeding has this ill effect, but if shallow seeding weakens the vitality of the young plant owing to greater exposure of its root system to frosts, or drouth, than shallow seeding will have the same ill effects as deep seeding. It is seldom, however, that wheat is sown too shallow.

These observations will apply also in the case of oats but as oats are generally sown on spring plowing there are more modifying circumstances that effect their growth. It is often necessary to put oats down deep to get them next to the moist earth in which case they would do better than if sown more shallow and the weather remained dry. One cannot always tell what the weather is going to be like, so unless the land is plowed very light the seed had better not be put unusually deep.

Some of the best potato growers in Manitoba prefer not to mould up the plants. They plant in furrows, cover the seed and harrow until the plants get too high, then cultivate the rows as long as is necessary and leave them. Moulding them up gives the ground a chance to dry out too much.

Pickling Seed: Grass and Flax

Should barley be treated with bluestone, or with formaldehyde?

I intend to break this spring a ten-acre piece of ground, and seed it to either brome grass, or Western rye grass, with flax as a nurse crop. Would you advise to do so?

Sask.

O. K. LIPTON.

For both wheat and oats I prefer formaldehyde, as a treatment for smut, but the bluestone treatment has always given me the best results with barley. After several years' experience, I have found the smut of barley much more difficult to eradicate than either the smut of wheat or oats. By a careful treatment of the latter cereals, with either chemical, I have usually completely prevented smut, whereas I have often failed with barley.

If the land your correspondent intends to break up has been reclaimed from scrub, the seed of either brome, or Western rye grass, will probably catch and produce a good crop of hay when seeded with flax, but I would hesitate to recommend this plan if the land is open prairie with a fairly tough sod.

I am still in favor of the good old plan of breaking the new prairie sod as thin as possible, then backset it before harvest, plowing up from two to three inches of additional soil, and afterwards harrowing well, without putting in a crop the first year. This plan thoroughly rots the sod and ensures a large crop of wheat for some years.

By sowing flax on the breaking, it prevents the sod from rotting properly, and, as it is almost impossible to purchase clean flax seed, you are pretty sure to seed the land from the beginning with noxious weeds. It is bad enough to get the land weedy by a gradual process, but it is infinitely worse to start out with your land infested with such weeds, as are usually found in flax seed.

M. A. C.

S. A. BEDFORD.

A horse should be directed by contact with his nerves of sensation and by spoken words. He has no business to be looking backwards for orders. If he does, he soon imagines that he is "bossing" the job himself. Strict and prompt obedience is best secured when the highest intelligence directs. A small projection, not a blind, attached to the headstall of the bridle, does not keep the eye hot or obstruct the side or front vision, while it does prevent the horse from looking backward, thereby conserving his vision and attention for the objects in his pathway.



A TYPICAL NORTH

A Farm All

EDITOR "FARMER'S ADVOCATE":

I have a section and a half into quarters and fenced with section, there is brome and timothy nearly all plowed. In cattle onto the quarter-section summer-fallow when they are eaten down. They are turned with grass on, and the other the hay is cut, they are put mer-fallow again. There are where the stacks are put; so done they are turned on the Wapella District, Sask.

Wheat on J

Writing from Arelee, Saskatchewan asks for experiences in breaking. In our February issue a letter from D. B. C. Ca the excellent crops of fall wheat after disking four times, but heard of spring wheat doing Experience points to the back-setting as being the best flax is sometimes sown on br necessary to have some return

Renewing B

EDITOR FARMER'S ADVOCATE:

Could you tell me in your brome grass meadow? At what it and how deep, and how to Would it give a crop next after having this summer?

Pembina, Mun., Man.

I have always found that will sooner or later become doubt, caused by the abundance so freely that they occur is not enough moisture to condition is reached, the sufficient number of stems crop.

The remedy is obvious, viz. plants and the remaining growth and produce a payable I have noticed that the results: After haying, the with a breaking plow; the and straight so that the la when rolled immediately a be easy to mow the follow this treatment kill just enough plants to ensure a good crop years and also leave the la to mow.

On breaking up a field of surprised at the mass of root The soil is perfectly matted erable depth and when th large amount of humus to th M. A. C.

"I am writing to thank knife which I received the with it and think it as good the stores for seventy-five many of my friends who to get one like it. As for it speaks for itself. I think magazine going."