

less than these. Dry fodder corn would be excellent to feed in connection with the pulp.

5th.—The precaution necessary in feeding pulp is to watch the state of the bowels, and the feeder's judgment must be used accordingly, as it is of a laxative nature.

6th.—As a stock food, I should consider green pulp worth a dollar and a half per ton, delivered. Of course, as it is so largely composed of water, the drier it becomes the more in proportion will be its feeding value per ton. I base my estimate on actual experience, and comparison with other foods.

When boiled and mixed with meal, I have found it an excellent feed for pigs, but of little value fed alone.
Bay Co., Mich. JAMES WILCOX.

Securing and Preparing Seed Corn.

By Leonard H. Newman, B.S.A., Seed Division, Ottawa.

The condition of seed corn throughout the Province of Ontario is, at the present time, such as to cause the gravest apprehension. A great number of personal examinations have been made of seed corn, which the growers, in many cases, wrongly imagine to be capable of producing a strong growth. But this year we must not be deceived. We are all aware of the great loss sustained last year on account of the failure or partial failure of the corn crop. True, the early growth of the corn was very much impeded by climatic and soil conditions, and it was to these conditions that many people attributed the failure of their crops. However, we know for a certainty, and say without hesitation, that hundreds of bushels of seed corn were planted last year which would not have grown under the best of conditions. This spring we are face to face with the same danger, and the question, therefore, is not "what are the causes?" but "what is the remedy?" In reply we give the following suggestions: Begin at once to prepare your seed corn, by selecting the best ears and testing each ear which you intend to plant. This may at first sight appear to be a laborious undertaking, while in reality it is a comparatively simple and easy one to carry out. The method may be outlined as follows: Lay out all the ears to be tested in rows on some planks or on the floor. Then prepare a shallow box of sand, placing on the surface of the sand a cotton cloth ruled off in checker-board manner into squares, having the squares numbered consecutively. Remove six kernels from opposite sides of each ear, taking one from near the tip, one from near the butt, and one at the center of each side. Place the six kernels of ear No. 1 in square No. 1, and so on, until the ears as arranged have kernels in corresponding squares on the cloth. Place over these kernels another cloth, and spread more sand or earth over the cloth again, and moisten the whole, leaving in a warm place for four or five days. The upper cloth and sand may then be removed, exposing the kernels, which, by this time, should have germinated. In this way you are able to reject those ears from which the kernels which have not grown were taken. When we realize that for every fifteen or twenty ears we reject we are practically saving an acre of corn, the importance of such a system as this will be apparent. Under present conditions, the usual way of testing a number of kernels from several bushels of shelled grain is of little value, since it is practically impossible to secure a representative sample to test. On the other hand, where representative kernels are taken from each ear and tested, and are arranged in such a way as to enable one to trace back the ear from which all kernels were taken, we are in a position to throw out all bad ears, and this is the only way of ensuring a perfect stand of corn, at least as far as the seed is concerned. We would also advise the shelling off of tips and butts of all ears to be planted. While the ordinary tip kernels will germinate more quickly than those from any other part of the ear, and will give an equally strong growth early in life, yet they have not the vitality to produce good strong plants, especially under unfavorable conditions.

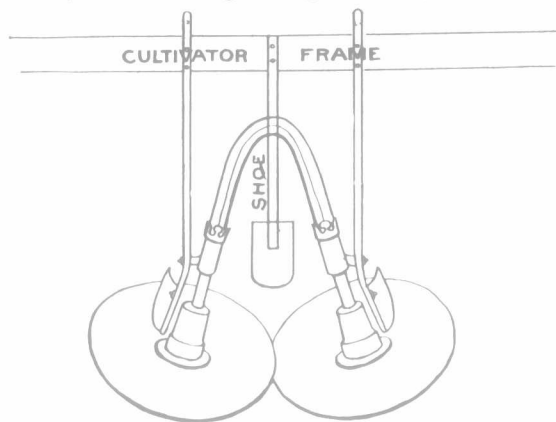
Many growers require to buy seed corn for various reasons, and some may object to paying the extra freight which would be incurred where the seed is purchased on the ear. However, if these people will but consider the question for a moment, and realize the great risk they are running in buying in any other way, I have no hesitation in saying that the extra cost for freight will, to them, be too small a factor to be worth considering. Again, the question of time required to test and shell each ear may, by some, be overestimated. Such extra time, however, becomes insignificant when we compare it with the days or even weeks of cultivating which are given to our corn fields, no matter whether the crop is a full one or whether the land is largely a summer-fallow. Let us, therefore, endeavor to have the full number of stalks in every hill, and produce not only "the blade and the ear, but the full corn in the ear."

Up Against a Hard Job.

Enclosed find my subscription for 1905. I have been waiting in hopes of getting a new subscriber, but that is hard to do, as all enterprising farmers in this part of the country take the "Farmer's Advocate." I have taken it for thirty-three years, and would not like to be without it. Wishing you every success.
York, Ont. JAMES PEARSON.

A Sugar-beet Topper.

The sugar-beet topper that I used is made by a blacksmith in Tupperville, Kent Co., Ont. It is two disks, same as those on a disk harrow, lying almost flat or level on the ground, tilted a trifle up behind, attached to a strong arched frame that is attached to our beet cultivator. It goes on any of the beet cultivators. The friction of the disks on the ground makes them revolve, turning toward each other, and lapping over about one inch, they cut anything in their way. The depth of cutting is regulated by a shoe that

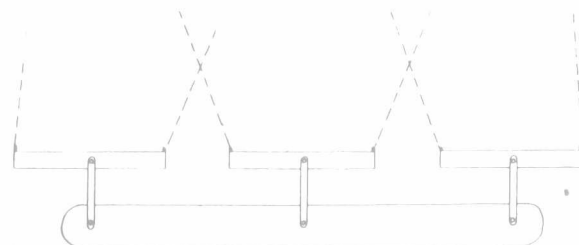


Sugar-beet Topper.

runs on the row of beets just ahead, which regulates the topper almost perfectly. This shoe is set a trifle to one side, which causes the tops to all turn that way, so that the driver can see what he is doing. There was only a limited number, made last year and placed in different places to see how they would take. I do not know the name of the maker, but it can be had from the Wallaceburg Sugar Co. I send a hand-drawn cut of it that may help to describe it better. It cost twelve dollars last year. E. NEWELL.
Lambton Co., Ont.

Another Three-horse Ewener.

In your paper of March 16th you ask for a three-horse ewener. We have used one like cut in that paper for plowing, but for a seeder or



wagon found one like the accompanying plan better, as there is less space between the team and their load. G. R.
King's Co., N. B.

Three-horse Ewener

The sketch shows a three-horse ewener that can be used on wagon and disk harrow. A hole is made in the tongue six inches back of the regular



one, and a hammer strap with two holes in it (to match the two holes in the tongue) is put on. Strap iron is used to connect the two-foot and three-foot eweners. This is one I made for myself, and I find it very satisfactory. W. G. K.
Perth Co., Ont.

Better Prices Wanted for Sugar Beets.

We fall in line with the Lambton Co. beet grower, whose letter appeared in the "Farmer's Advocate" of March 9th, and wonder why the high price of sugar does not affect the price of beets. The cost of production is more now than formerly, when labor was cheaper, and now when the finished product is higher why should not the producer, as well as the manufacturer, share equally in the profits. If we understood the advertisement in the "Farmer's Advocate" of the Berlin factory, they are paying the farmer fifty cents per ton for the pulp, and here our manufacturers are behind the times again. Hoping to hear better offers soon. EQUAL RIGHTS.
Lambton Co.

Wood Ashes as a Clover Fertilizer.

From time to time there have appeared articles and inquiries in the "Farmer's Advocate" in reference to the value of wood ashes as a fertilizer, and I am sorry to say, occasionally there have appeared letters speaking depreciatorily of this excellent and valuable by-product. For thirteen years I have been a constant buyer of ashes, and during this time I drew on my farm between five and six thousand bushels. Some fifteen years ago, while still under the parental roof, I had my first object lesson on the value of ashes as a fertilizer. We had occasion to rebuild a portion of a line fence. The rubbish was piled in small heaps a short distance over in the field and burned. In this particular field wheat was sown that fall, and from the very first the wheat on the spots where the ashes lay took on a very dark-green color, and could be distinctly seen at a distance to differ from the balance of the field, but the greatest difference was seen next year. Clover was sown on the wheat, and at harvest time the clover on the ash spots was so large the top was cut off by the binder, but the balance of the field showed no such growth, and on these same spots the following year the clover in every instance was lodged, while the remainder of the field was just an ordinary crop. This was an eye-opener to me, and when I came in possession of a farm of my own, I went immediately into the ash business. Living but a short distance from two mills, I secured practically all that was made. My farm is mostly a sandy and gravelly loam, of a rolling or undulating nature, and I may just say here, that I am convinced that there is a more marked difference in the results of an application of ashes on this kind of land than on clay or clay loam. My first experiment on my own farm was on a piece of land I was preparing for potatoes. I applied at the rate of about 150 bushels per acre, which was twice too much. My potatoes were good, but scabby, and I have demonstrated since that ashes applied directly for potatoes will invariably make them scabby, but the next year the ashes got in their good work. I planted the field to beans, and on the potato ground there was the most magnificent crop I ever saw. The beans were followed by wheat, and sown to clover, and the ashes again came to the front. The clover on the potato ground was just as heavy as it could grow, while the balance of the field was only a fair crop, and even to this day the effects of the ashes can be seen on this piece of land. I then made a systematic experiment in my own way, as to how and on which crops I could secure the best results. The trials proved conclusively that clover and beans appreciated a dressing of ashes more than any other crops, with corn, oats and wheat following in order. I believe there is no crop that in the end will give such good returns for a little ashes as clover, and for the last number of years I apply what ashes I get either directly to the clover or on my fall wheat land that I intend to seed to clover, and I may say I prefer the latter plan, because I am almost always sure of a good stand of clover wherever a few ashes are thrown. Many farmers know how hard it is to get a good seeding of clover on high, dry, sandy loam, and the old saying is, "Where we can grow clover we can grow anything." I say, where we can get ashes we can grow clover. I have frequently taken a load of ashes as a test, and driven through the field in a zigzag fashion, and scattered them off, with the result that the clover always showed a luxuriant growth on these strips of land, and they could easily be distinguished from other parts of the field.

In the year 1897 I had a ten-acre field in wheat; this field had grown five different crops in succession. None of them were heavy, and some rather light. During this time the field had only 20 loads of barnyard manure. In the fall of '96 and spring of '97 I gave the field a dressing of ashes, and seeded to clover, with the result that I got a fine catch. Next year I had 32 large loads of clover hay off the ten acres. I let the clover grow up again, and in the latter part of August plowed it down and again sowed wheat. In 1899 I threshed off that ten acres 405 bushels of wheat—Dawson's Golden Chaff. I drew it directly from the threshing to the mill, and it tested from 61 to 62½ lbs. to the bushel without going through the fanning mill. It may be said this superior crop was largely due to the clover, and perhaps it was, but had it not been for the ashes, I would not have had the clover. I could cite many other instances, but I have said enough.

The only thing I regret is that ashes are getting scarce, the supply of wood is falling off, and coal is taking its place. Where ashes can be secured, my advice to farmers is to use them. Buy every bushel available. They are a lasting fertilizer; the effects can be seen in your clover crops for years. Clover is always thankful for a few ashes. If you think not, take a bushel or two out to some poor spot in your clover field, and see what it will do for you.

Those who have made a study of the clover plant, know that it is a ravenous feeder on potash. The potash supplied, it has the faculty of drawing on the atmosphere for its nitrogen supply, of which it also requires a large amount. Where, then, is there a better financial proposition than this? The clover says supply me with potash, which can be had for about two or three cents per pound, in seven-cent-per-bushel ashes, and I will gather in from the air and store up in your land pretty nearly pound for pound of nitrogen, worth 15 cents per pound, besides adding large quantities of humus to the soil.

Where ashes can be had, do not use valuable barnyard manure for the production of clover, and tempt