

the property. I have heard your name mentioned by the farm hands in conversation. One said you could not get men to remain with you. "Why," asked another. The reply was, that you expected too much work for too little money, and that you were continually blackguarding your men. By such a course, you gain nothing, and lose a great deal with good men. My plan is this. If a man does not do the work assigned to him properly, I speak to him kindly, at the same time giving him to understand that I am paying him to work, and that it must be done, and that if he will not do it some person else will. If he still persists in not doing it, I at once tell him his services are no longer required. Do not stop to bandy words with him. By doing so, you place yourself on an equal footing with him, and nothing pleases him better. Above all, do not let the other men see that it gives you any annoyance. They will respect you the less, and your prestige as a farm manager is gone."

"That is all very well," continued neighbour N, "but, if you had the trouble that I sometimes have, you would not talk so favorably."

"I am surprised to hear you talk in that way," I replied, "you that have your brother and nephew to assist you. I have no person to give me a helping hand in any more at the mercy of a poor class of men. Every day's work I have to pay sweetly for, but withal I hope to yet see my poor farm deserve a better name."

FARMER

How He Raised Roots.

I raised two acres of ruta-bagas as follows. I had half the ground from my corn-stubble, and hauled out twenty loads of short barn-yard manure, spread it over two acres, ploughed beam deep, harrowed it, and let it lie till the middle of May, and in the interval scraped the barn-yard after every rain, and mixed the hog manure (six loads) among that, and had twenty-five loads more short manure, which I spread as before, and ploughed beam deep again, harrowed, and let it lie till the 1st of June; ploughed again beam deep. I now had a soil fifteen inches deep, with the manure well incorporated through the soil.

On the 5th day of June I lack-furrowed the ground, leaving room between the rows, so to speak, for a horse to walk. The rows or drills stood up about a foot high. I then took a stick, an old broom-handle, and made a crease on the top of the drill about one and a half inches deep. I got three pounds of ruta-baga seed of that year's raising (there is no safety in sowing older seed); I then took one peck of wood ashes, sifted and put the three pounds of seed with the ashes, sifted the seed and ashes two or three times so as to have them well mixed; then, with two boys and myself and a small tin pail, we took a pinch of the ashes and seed—about as large as a pinch of snuff—between the forefinger and thumb, and dropped each pinch in the crease on the top of the drill—say about one inch deep and six to eight inches apart. In each pinch there were two to three seeds.

A small insect about the size of a flea, and resembling it very much, as it jumps like the flea, does its work of mischief the first twenty-four hours after the plants are up. For a remedy I took fresh hardwood charcoal put it in a tin, sized fine, and sifted it through a timothy seed sieve, and put the sifted charcoal in a tin grater with a handle such as painters use for shaking sand on fresh paint. I had three of these made at the tinners', they hold about a pint and a half; and just as soon as we could see the leaves emerging through the ground, we went down the drill shaking or dusting the charcoal on the young plants, and the fleas flew in every direction. This we repeated every morning, while the dew was on, till the second leaf was well developed, when the plant is out of danger. With two corn-ploughs every morning, while the dew was on, but never while the dew was off, we went through them and kept the ground raw. We then went to work thinning them out, and had a mess for seventeen cows and ten hogs every morning for three weeks.

We harvested the two acres the middle of November, just before being frost-bound, and have 1,670 bushels, or, in other words, 100,200 pounds. Some of them weigh 20 pounds. We harvested them, leaving the tops on, and cut them up, tops and all, with a cutting-machine; fed seventeen head of cattle on them all winter, and sold 100 barrels of the smallest at \$1.50 per barrel. *Cor. New York Times.*

DANGER TO STOCK FROM GYPSUM.—Most farmers know enough not to turn stock upon newly-plastered grass-land, but it is not so generally known that fatal results may follow such turning out. A correspondent of the U. S. Department of Agriculture mentions a case where some stock was turned upon a field on the same day on which it was plastered, and they all died in a few hours. There were no indications of "hoven," the stock being in good condition, and the sudden death was believed to be solely the effect of the sulphate of lime.

Burning Lime without a Kiln.

The beneficial effects of lime upon all sorts of land and crops are now admitted. The use of lime is now known to conduce greatly to the increase of the yield of cereal crops, giving strength and brightness to the straw and food to the plant. Added to this, its property of attracting to itself all the moisture that may be present in the air renders land to which it has been applied able to stand drought to a much greater extent than can land not so treated. The only place where lime can easily be misapplied is to land where water lies constantly. It should never be put on such land until the same has been thoroughly drained.

Every farmer to whom limestone is accessible can burn his own lime, be he so minded, without a kiln. A Pennsylvania farmer gives through the *New York Tribune*, the following description of the way to do it:—Lime may be burned without a kiln, by laying a foundation of blocks of stone, covered in such a manner as to make draft passages to the centre of a round heap of say 12 feet in diameter. The form of the foundation is shown in fig. 1, and the

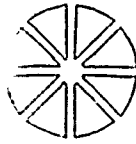


Fig. 1.

manner of making the draft-flue is shown in fig. 2. The draft-flues are filled with dry kindling-wood, a layer of coal slack 3 inches thick spread over the foundation, and a layer of limestone 12 inches thick placed upon the slack; then a layer of slack, then limestone, and so on alternately, until a heap is made like that shown in fig. 2. This is covered with leaves, soda, or coarse manure and litter 12 inches thick, and then with earth for 6 or 8 inches. In the centre of the heap, as it is built up, a chimney about a foot in diameter is left, and this is filled with kindling wood and slack.

When all is ready, the top of the chimney being left open, the fuel is kindled. When well on fire, the chimney is closed by throwing limestone in it until filled, and then covering it with leaves or litter and earth. The fire is made to burn gently by regulating the draft-holes, which should be closed with pieces of limestone covered with earth, and only one or two kept partially open to draw the fire to the side where it is wanted. In short, the fire



Fig 2

should be managed exactly as that of a charcoal pit, except that a greater heat is needed. As the pit sinks down, earth and leaves, or litter should be thrown over the cracks, lest the fire become too strong.

In about a week the lime will be burned, when the draft-holes may be closed and the heap left too cool. Then the earth is raked off, and the partly-burned stone from the outside laid on one side for another pit, and the lime may be removed. By this method forty loads of lime (1,000 bushels) may be burned with six loads of coal-slack and one cord of wood. The lime thus obtained should not cost over 5 or 6 cents a bushel.

Growing Rutabagas Cheaply

J R Hendryx of Van Buren Co, Mich, writes to the *Michigan Farmer*, giving his way of raising rutabagas. The chief feature of his plan is the cheapness with which he claims it can be carried out. He annually raises from one to three thousand bushels, and no crop has yet cost him for labor more than three cents per bushel. He chooses a high, dry, sandy loam—old soil—or next best, corn ground, or potato ground, which had been well cultivated the year before. If he had neither, he would take the nearest and most mellow piece he could select.

"I cover such soil, "he goes on," with the finest and best manure I can get. This manure should be ploughed under as early as the 15th of May. Drag and roll immediately;

harrow and cultivate at intervals, no matter how often, when the ground is in condition, being careful not to disturb the manure, up to the last of June or the 6th day of July. Cultivate very shallow, draw a smoother over the surface made of two slabs about eight feet long, with a two by four scantling spiked on the flat sides, say two feet from each end, so as to leave the slabs about eight or ten inches apart. Have the ends of the scantling run over on one edge, say 15 inches, for hitching the team. This will crush the lumps and leave the ground perfectly smooth and in good condition for the seed. Drill in the seed with hand seed drill in straight rows three feet apart. Put in plenty of seed, and as soon as up, thin out so that no two plants will stand together. When the plants are past all danger, thin to twelve or fifteen inches. Keep clean by shallow cultivating until last time through, then cultivate deep, and the work is done till harvest. If the ground is well fitted, three times through is sufficient. If you can sow the seed just before a rain, the plants will appear very quick. It is well to watch the weather for such a chance, but don't plant earlier or later than the time above mentioned."

A CHEAP FERTILIZER.—A North Carolina correspondent says:—Many of our best planters use a compound composed of 60 pounds of sulphate of ammonia, 40 pounds nitrate of soda, 4 bushels of salt, 250 pounds fine-ground bone, 250 pounds land plaster, 3 bushels of ashes, and 20 bushels of stable-manure or rich earth. They apply the above amount to 6 acres. Labor in preparing included, it costs about \$15. It gives as good results as most of the commercial fertilizers costing \$50 per ton.

WATER CONSUMED BY AN ACRE OF WHEAT.—From the results of a series of observations made in France it is calculated that a quantity of water equal to twelve inches in depth upon the surface of an acre of ground passes through the leaves of a wheat crop of twenty-five bushels, and is used in the process of maturing the grain and straw. This does not include the amount of water which evaporates or drains from the soil; nor does it include any portion of the rainfall which occurs between harvest and seed time.—One third of the average rainfall is required for the transpiration of the plant when twenty-five bushels per acre is obtained—and this twelve inches of rain, in weight, would amount to the enormous mass of twelve hundred tons to the acre.

THINNING CORN.—Prof. Roberts, of the Cornell University, made some experiments in growing corn upon the College farm last season, the results of which are valuable. He planted three plots of three-sixteenths of an acre each with corn, and thinned the hills in one lot to three stalks, another to four stalks to a hill; the third was not thinned. The first plot yielded at the rate of 160 bushels, the second 125 bushels, and the third 106 bushels (of ears) to the acre. Mr Roberts states, as the result of many experiments prior to these, at the Iowa Agricultural College, that the heaviest crops of corn were made by growing three stalks to a hill, and that two stalks to a hill will produce more corn than five stalks. If every stalk produces an ear, and corn is planted three feet apart each way, there will be nearly 100 bushels of shelled grain per acre. To grow maximum crops of corn then, it is only necessary to grow one ear upon a stalk, and ears of such a size that a hundred of them will make a bushel of grain.

A WRINKLE ABOUT CORN-PLANTING.—A correspondent of a western paper, who has for years been conducting experiments with corn, has arrived at a very valuable result. So far from replanting of corn being of little value, as is the common impression, he says, it is of so much consequence he replants whether it is needed or not—or rather, he plants two or three weeks after the crop is planted a hill every fifteenth row each way. He says: "If the weather becomes dry during the filling time, the silk and tassels both become dry and dead. In this condition, if it should become seasonable, the silk revives and renews its growth, but the tassels do not recover. Then for want of pollen, the new silk is unable to fill the office for which it was designed. The pollen from the replanted corn is then ready to supply the silk, and the filling is completed." He says nearly all the abortive ears, so common in all corn crops, are caused by the want of pollen, and he has known ears to double their size in this second filling.

FORESTALLING CUT-WORMS.—Cut-worms having done much damage last season and previously, I was induced to keep a record of my experience with the pests. Two years ago I planted a piece of sod to corn. My corn came up even and looked very fine, but in three days there was scarcely a stalk left on the ground. I let it remain two weeks, then cultivated it, and planted it to beans. While planting the beans I noticed the worms crawling away, and they attacked a piece of wheat adjoining, and destroyed a strip a rod wide along the edge. I came to the conclusion that the worms must have green food to sustain life. Last year I tried four acres of same sod, turning it over early before the grass had started much. I dragged it to bring up the roots and dry them. In a week I gave another dragging, which destroyed everything green. I then planted it to corn and had no more trouble from cut-worms. They do but little damage except on newly turned sod. Corn on such ground should be worked early and often, and be kept clean, so that worms and other insects have no shelter or food. Gardens kept clean are but little troubled with cut-worms. The best remedy is exposure and starvation.—*Country Gentleman.*