

LOCUST TREES FOR FENCE POSTS.

Thos. Alphon, of Wayne Co., Ind., in a recent issue of the Ohio Farmer, gives an account of growing black locust trees for fence posts and other purposes by a Pennsylvania German, who learned the secret from his father. The locust seeds must be gathered in the fall and kept dry throughout the winter. About the middle of April the seeds should be selected, and those appearing to be good should be placed in a vessel and hot water poured over them. This water must be boiling hot, and the seeds must be stirred constantly while the water remains hot. This should be done in the morning. Let the seeds remain in this water over night, when the water should be poured off and boiling water again poured over them, the stirring process being repeated, as on the first morning. This should be kept up for five or six mornings in succession, when the seeds will appear ready to burst open, and perhaps a tiny sprout will appear protruding from the shell.

After digging a trench in the richest part of the garden, take clean sand and place a layer in the bottom of the trench. Then drill the seeds on the sand and cover with a shallow covering of the same kind of sand, clear and sharp, such as plasterers use. Then, on top of the sand place a shallow layer of dirt. The shoots will appear early in May, and will grow large enough the first year to withstand frost. The following April they should be set out in rows ten feet apart each way, and the ground kept clean and free from weeds until the shoots are well started to growing.

Mr. R. Ellenbarger, who introduced this method in eastern Indiana, planted an acre and a half of thin, rough ground in locusts. The piece of ground was so disposed that it was not fit to cultivate. The trees grew rapidly, and when they were ten years old he sold them for \$300 as they stood.

The trees were taken off close to the ground, and almost immediately shoots began to appear through the soil from the living roots or the stumps. Mr. Ellenbarger took a cutter plow and thoroughly tore up the soil between the stumps, cutting as many of the roots as possible. This caused the roots to send up countless shoots, until the ground was fairly thick with them. All these shoots were allowed to stand without trimming. The second year it was seen that the stronger shoots had crowded out the weaker ones, and finally, within three years, the remaining saplings were disposed over the ground about one to every five feet square. They grew in this way to maturity, or to a size fit for posts, when they were removed, and the root-breaking process repeated. The second crop was sold for a larger sum than the first. Again the shoots appeared, and again the strong smothered out the weak, only the fittest surviving. Mother Nature being allowed to make her own selection. How many times this process can be repeated, there is no way of knowing by anyone in this section of the country. Doubtless as often as desired, however.

The tract described is now covered with a growth of trees, many of which are ten inches in diameter, and tall enough to make eight or ten cuts seven feet long. Most of the lower cuts can be split into four posts each. The single trees will yield from 12 to 25 posts each, and some even more than the last number. These posts sell for 25 cents each in country markets, and doubtless for more in cities or places remote from timber lands.

Thirty years ago Mr. Ellenbarger set several hundred of his own raising. Last summer the fence had to be removed, and Rudolph Hoover, a grandson, found the posts apparently as sound as the day they were set. He believes they are good for another thirty years. At any rate, he considered them good enough to use in a fence that otherwise was new. The wood was firm, and held nails like new stuff. That they will outlast iron posts, is well established.

In view of the practical importance of this subject to Canadian farmers, we submitted the foregoing to Prof. E. J. Zavitz, Forestry Department, at the Ontario Agricultural College, who replies as follows:

"We have been growing black locust from the seed for some time, as described in the article. All such seeds are immersed in boiling water before planting, and then planted in the nursery lines as we would any other seed, this giving good results. Instead of soaking these seeds several times, we simply put them in boiling water once, stirring until cool, and leave them in the water for a few hours.

"Regarding the financial side of black-locust planting, this is a more difficult matter for me to answer. We know that black locust has been grown successfully and with great rapidity, as described in the article, in Indiana, Kansas and other Middle West States. So far as I can learn, most of this planting has been done on what we would call first-class agricultural soil. Another point to be taken into consideration is the fact that in some of these States fencing material is very scarce, and crops of trees for fence posts

would probably bring a much better figure than in Ontario. It is questionable whether it would pay in Ontario at present to use good agricultural soil for such work; in fact, I do not believe many farmers would undertake it.

"We are supplying black locust trees and advising the use of them for waste-land planting, but cannot give definite figures as to rate of growth on such soils. We know one thing; that is, that black locust will thrive comparatively well on very poor soils, and I might add that we are using now a nitro-culture on our seed, so that our nursery stock will have the nitrogen-producing nodule, which we hope will be beneficial both to the waste land and to the tree.

[Note.—The locust belongs to the botanical order Leguminosae, which includes the clovers, alfalfa, peas, beans, etc.]

"Regarding the black locust as a fence post, the black locust, from various records, has proven to be one of the most durable woods in contact with the soil, and I would not consider the life of the post spoken of in the article as being an exaggeration, although these posts may have been in very favorable soil, as regards decay."

THE OXFORD COUNTY ROADS.

The Oxford County Council decided to take advantage of the offer of the Ontario Government to pay one-third of the cost of road machinery and road construction under certain well-defined regulations. But it appears there has been considerable difficulty in realizing just what the regulations were. After several attempts to get the by-law in shipshape, it has now been fixed up to the satisfaction of the Legislature and the County Council.



Shearling Leicester Rams.

Purchased by the Government of Nova Scotia to be sold at public auction and used for breeding purposes in the Province. Photo taken on Agricultural College Farm, Truro, N. S.

There are about 260 miles of these county or designated roads in the County of Oxford, and this mileage is allotted amongst the different townships, and, for the purpose of being better managed, the County has been divided into two divisions, the north and south. Mr. Louis Kaufman is superintendent or inspector on the northern division, and Mr. John Whittton on the south, both capable men, having considerable experience in road construction. These men are acting under the direction of a committee of the Council.

The committee purchased two steam road-rollers, four stone-crushers, two working engines, and several dump-wagon boxes; besides, they have two engines hired. They have also lately got a hauling traction engine of 30 horse-power and five large cars. These and other small tools have been purchased at a total cost of about \$25,000. When the traction engine is in good working shape, it is expected to effect a saving of from \$12 to \$15 per day on horse-wagons on hauling over three miles, but it is deemed not wise to use it on short hauls. Gravel suitable for making crushed stone was obtained at 35 to 40 cents per cord. There are three stone-crushers at work in one pit, and the north-end teamsters commenced making road about Lot 9, on the old tenth-line gravel road, and have been working south towards Thamesford village. This is a road on which there is a great amount of traffic, and the road-bed was almost worn out, as very little expenditure had been made on it for a number of years. The road-grader was first used to make a depression and leave shoulders at the side to hold the crushed stone in place. This depression was made 10 feet wide, and was filled in with coarse crushed stone to the depth of about 9 inches in the center, with a coating of fine crushed stone on top. The steam roller is kept rolling all the time, with a

sprinkling-wagon going ahead. The grade is from 1 in. to 1½ in. to the foot, so that no water will lie on the road; and it makes an excellent road and leaves nothing to be desired. There are gangs of men, also, putting in tile drains, in many places on both sides of the road. This work, where done on both sides, has cost about \$500 per mile. About three and a half miles of the road has thus been constructed, at a total cost, draining, included, of about \$3,500 per mile. The County Council have decided that it is costing rather too much, and have reduced the roadbed from 10 feet to 8 feet, and from 9 to 7 inches. A part of the work which has not been rolled is not nearly as satisfactory a road. It has been computed that, where the crushed stone has only to be hauled a short distance, the road can be built for from \$1,200 to \$1,500 per mile, as on the long hauls the cost mounts up very fast.

The question may naturally be asked, "Will the road last long?" Of course, this remains to be seen, but, with reasonable care, we think it will be a good road for a very long period. In all probability the road-grader will have to be used in the spring, after the frost has gone out, to smooth it off, to be followed by the steam road-roller. In many of the wettest places the drains will not have the ground thoroughly dried out until they have had two or three seasons to run, but they certainly will help very much to maintain the road.

How is the work to be paid for? The total estimated cost of the 260 miles is \$354,000. Of this, the Provincial Government are to pay \$118,000, leaving \$236,000 to be provided for by the County. This is to be raised in five years, at the rate of \$50,000 for each of the first four years, and \$36,000 for the fifth year. The de-

bentures are to be for 30 years, and will likely be sold so that the annual payment for each debenture will be about \$3,252, on a total assessment in the County of \$28,000,000. Therefore, the taxes to the average 100-acre farm will not be over 64 cents; or, say, for the five years, there would not be over \$3.20 per year added to every 100-acre farmer's taxes, and then, in seven years the debentures for the County Buildings and House of Refuge will expire, which will be quite a relief. A wise man said that money is very much like manure, it is of no use unless it is spread.

When the first settlers came in and cleared the country, they were glad to get up a log house and to build a corduroy road, but those days are past and gone, and now we have fine brick and stone houses, and why should we not have good roads as well? Some are saying these roads are costing too much. Well, we cannot get a good thing without paying for it, and, as we have tried to show, we will not feel the paying very hard. The roads were so bad here last spring that we believe, next spring, when the farmers ride over this county road, they will say it is worth a dollar a trip, in place of travelling over the road as it was last year. The County now has this valuable machinery, and if it were to be thrown aside, it would rust out nearly as fast as it will wear out. By all means, let us keep it going. Of course, we cannot get all the details of the work managed to suit each ratepayer. There is no one perfect, and mistakes will creep in. But we believe, with the experience gained this season, better work will be done another season. The management is in good practical hands, and the County roads will be used by nearly every ratepayer in the County more or less.

The next step will be to improve the roads leading to these finished County roads, and one great step will be to abolish statute labor and have all the cost of maintenance of township roads raised by taxation, as in many instances the statute labor is a mere farce. D. L.

Under the present conditions of American farm practice, one of the most prominent defects in the management appears to be a lack of attention to thorough drainage as a means of diminishing the cost of production and insuring uniformly remunerative returns by increasing the fertility of the soil and avoiding losses from unfavorable seasons.