tion. Across country, though somewhat headstrong, he was as clever as a cat, and would face anything, no matter how big, how yawning, and on parade bore himself bravely as became his ancestry. Great depth through the heart, strong shoulders, a muscular neck with marked breadth in front of the withers and immediately behind the ears, denoting lung, staying and weight-carrying power."

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## ABOUT RAISING A CROP OF FLAX.

MR. GERALD HOWATT —I wish to know about the successful growing of flax, and address you on the subject, as a friend tells me he has seen a very fine crop raised by you, and that from remarks heard in your neighborhood, he had no doubt you would be willing—as you certainly had proved yourself able—to give me practical directions for its growth and after treatment. I have a clayey soil, sandy soil, and muck bottoms. I have been told that any soil suitable for oats will grow it. Does it require much manure, or any? Is superphosphate good for it? You will understand that I am entirely ignorant, as to culture and treatment of flax, and any suggestions will be most thankfully received.

G. M. *Fairwood, N. J.*

(*Answer by* Mr. HOWATT.)

On all farms there is a specialty; it may be hay, corn, potatoes, cows or horses. Every other crop is a side issue, and gets what spare time there may be from the specialty. But flax will not play second fiddle to any other crop or animal, and from the plowing of the ground to its sale, it wants no boy's work; indefatigable zeal and attention to all its wants--on that depends your financial success; expending $10 per acre will give you $5 of flax to sell. A cabinet manufacturer once said to me, "Oh, how I should like to be a farmer!" I asked his reasons. "Why," he said, "a farmer has nothing to do all winter but sit by the fire and eat buckwheat cakes." I mentally concluded that the profession had not lost a great star; the man who wishes a big success in flax-growing must have ambition above the cabinet-maker.

From no plat culture, nor for fancy purposes, I have realized as follows: Flax and seed, $65 per acre; culture and preparing for market, $25 per acre; growing specially for flax (no seed), $58 per acre, and $20 for culture. The last result has the most money in it. Flax allowed to ripen its seed is the most exhausting crop of any we grow on the soil. (1) By growing for fibre alone a three-year rotation will do, if for seed and fibre, a five and six-year rotation is required. Start out to excel this and you will succeed.

Following is my system of culture and treatment: There may be some details omitted, covering too much space, but to the intelligent cultivator or director they will develop themselves as he proceeds in the work. A good fibered loam is best, such as a wheat soil, and the best preparation is a grass to be plowed in the fall to the subsoil. First crop, potatoes; these to be manured in the drill, and land kept perfectly clean of weeds; this is a main item—to have your ground perfectly clean for flax. After the potatoes are off, plow and leave without harrowing; frost will mellow this; leave it so until first week in May. If your land is not of an equal quality, give the thin places a dressing of manure (2) —your point being to get your growth of flax of an equal length as far as possible. By this time, any seeds of weeds that are in the soil will show themselves. Cross plow; then harrow thoroughly with straight-tooth harrow, which will draw any potato haulms or other weeds to the surface. Leave these in winrows; then burn, and run a chain harrow over all, which operation should be continued until all is as fine as a tobacco seed-bed. Should there be any lumps, run the roller over it and follow with chain harrow.

Select good seed, of a brownish color and oily to the hands, using one and a half to two bushels of seed per acre. Sow one-half across the land, the other half the reverse way, to have it as evenly dispersed as possible (this sowing is broadcast); cover with chain harrow, then bush harrow, letting the roller follow. If fibre and seed are required from the same plants, half this quantity of seed will do, drilled in, and only rolled when finished, as the plants in this case will throw out laterals, but the former is preferable. If specially for seed, six quarts is ample, putting it in with a garden-seed hand-sower; drills 18 inches apart. When plants are over ground, hoe them before the laterals touch on either side; hoe again. All further weeds are killed by shade.

When your flax plants of the broadcast system are yellow at the *bottom*, about same color as denotes wheat when ripe—the difference being that the yellow in wheat is below the ear—the flax will then be out of flower, and proper time to pull for extra fibre. In pulling lay your handfuls across each other, heads lying each way; try and keep your hands of an equal length together—a deft hand will easily accomplish this in running the fingers of one hand through for the short and the other for the long—leave on the ground in this position until dry, then gather and tie in bundles about size of oats when so gathered, but do not tie tight; set up, one sheaf against the other, thus leaving an air cavity between them. When you are convinced that the outside is *quite* cured, reverse them; see that all your straw is thoroughly ripened.

If your propose to sell it the same season, and you have a running, stream, cut from it a canal or pit to what we term "bog;" let this be four feet deep and six wide, and in, or adjacent to an old pasture. Let the water into this pit for three or four weeks before you are ready to soak it, as this is to get the water soft and of an even temperature *all through*. Water that has iron in it will not answer, as it will stain your fibre, making it second class. Should your ground be porous, or any doubt of the water keeping through it, flush bottom and sides with a subsoil clay, either yellow or blue, and make it of same consistency as cement mortar; lay this on with a plasterer's trowel, ¼ inch thick. If the sides are dry have a white-wash brush and bucket of water and wet sides; this makes your earth mortar adhere more easily. Should this crack before letting your water in, moisten and smooth over with trowel. If you have not a stream get it from a well or pump; allow in filling for evaporation. The water when you are ready for immersing the flax, will feel *all through* warm to the hand. By having it an equal temperature it will facilitate and equalize the separation of the fibre from the bark. The length of time for soaking in dry, warm weather is a week or ten days, but should be carefully watched, that it does not rot. When the fibre slips from the straw, great judgment must be observed to avoid waste; when it comes off a little stiffish, is the surest to a beginner, as it can be allowed a little longer on the grass. In immersing the flax, let your bundles be one-half the roots at top.—in other words, tops and bottoms. Should have said in proper place, when your pit is opened, before slushing, place three wattles (poles) at the end—first one 18 inches from the bottom, next one 12 and third one 6 inches, letting six inches of each end, into the sides. This keeps the whole in a slanting position. When your pit is full, place some green branches on top, and on them plank or any material to keep the flax under water.

When the flax is ripe, remove to grass land, which should

(1) But if the seed is used at home?

(2) Manure should invariably be applied to previous crops.

A. R. J. F.