

One passage in Mr. Barnard's letter I must presume to differ from. He says that "seed that he sowed in 1887, at Three-Rivers, was completely ruined by the drought." (1. Now, sainfoin, like lucerne, is emphatically a dry-season plant. This spring was dry enough in all conscience, and, yet, the sainfoin on the Dawes farm at Lachine beat all the clovers and timothy by its side into fits. If, however, the seed, which is as big as that of the wild vetch (*pois sauvage*), is not covered in sufficiently—say 1 inch—and a period of drought follows, the first sowing (*Scottie* "braird") will very likely perish. Sainfoin seed should be drilled, in rows 5 or 6 inches apart, or, if broadcasted, well harrowed in. at all events, it must be buried.

There are two kinds of sainfoin: the common and the giant-sainfoin. The former has been grown in England for more than 200 years, and is the one more commonly sown as it stands longer than the giant, which later is of modern introduction.

The seed is sent out by the growers in the capsule, but the seedmen "mill" it, which is a convenience, as in the former state four or five bushels are required to seed an acre, whereas, of the milled seed,  $\frac{3}{4}$  of a bushel—say, 45 lbs.—are enough. I always sowed the rough seed in England, because the drill buried it sufficiently, but here, where drills are not common, the cleaned seed is more likely to be harrowed deep enough into the land, and there will be little risk of the harrow-tines pulling it up to the surface again. I should sow sainfoin after a heavily manured hood crop—potatoes, roots, or corn—and at the same time as the barley or other spring-grain, crossing the rows of grain with the sainfoin seed, and finishing with the roller.

After the barley, or oats, is cut, a fair dressing of dung will both act as a mulch, and tend to increase the crop of the following season. The plant is a shy grower, and never looks promising the first autumn, indeed, it does not come to its best till the third or fourth year, wherefore I always recommend sowing from 4 lbs. to 6 lbs. of common yellow or hop-trefoil (*trifolium procumbens*) with it, as the first cutting of sainfoin is always dis-appointing, but the plant standing from 6 to 10 years makes up for this defect.

Some recommend sowing sainfoin, and lucerne too, in double rows a foot apart with an interval of 30 inches between the double rows. If any one likes to try it he can, but I cannot advise it, as the hoeing, by horse and by hand, must be kept constantly going all the season and it won't pay.

Sainfoin came to England originally from France. I cannot help wanting to spell the word saint-foin—*holy-hay*—though *sain*, which signifies *wholesome* may be right. At all events, the meaning of the botanical name, *onobrychus sativa*, is clear enough—*asses' food!* I won't make a pun on the word, though I could.

If you wait to cut this crop for hay till the blossoms are expanded, you will not please your animals. It can hardly be cut too soon; in fact, "the best sainfoin hay," says old Jethro Tull, "is that cut before the blossom comes out at all. This hay has kept a team of working horses, all the year round, fat without oats. The same fattened some sheep in a pen, in winter, with only it and water, they thrived faster than other sheep at the same time fed on pease, oats, and meadow-hay."

The *Giant-sainfoin* came into notice about 1842, and when I went into Essex to live, in 1852, had become pretty well established in the eastern counties. It is said to produce three crops of hay a year, but I never saw more than two, and it certainly does not stand so long as the common sort. The seed is much cheaper. Wholesale price, as quoted me by Messrs. Raybird and Co Basingstoke, Hants., England.

Common English milled sainfoin..... 50/ par 112 lbs.  
Giant French " " ..... 36/ " "  
Cash, less 2% Dis., on board cars at Basingstoke—sack extra.

Never having grown the *Giant* sainfoin, I cannot speak either in its favour or against it. The common seed seems costly, but as it stands so long it does not come to much per annum.

And now for facts about the crop I grew at Lachine:

The land was in pretty good heart, to begin with, the previous crop oats. On the 18th May, 1889, the seed was sown and harrowed in, after the barley was harrowed, and a rolling finished the job. The barley was a very heavy crop in patches, and, here and there, lodged and injured the plant of sainfoin. The seed was not put in thick enough, though very equally distributed over the ground. In the autumn, a fair coat of dung was applied, but the following winter—1889 90—was, as my readers will, perhaps, remember, a very changeable one, frost, rain, snow and thaw, succeeding one another with great rapidity. In fact, in the month of February, I never hoped to see any plant of sainfoin at all. But, when the first gentle breezes from the east began to blow, and the south-west rains began to rouse the life-blood of the plants into action, my hopes rose with the barometer's fall, and the sainfoin bravely vindicated its right to the confidence I had placed in it. In other words, it began to tiller out and thicken on the ground as soon as the weather gave it a chance to grow. Still, the first year's was not a satisfactory yield, in spite of the bush—or rather chain—harrowing and rolling Mr. Tuck gave the land. At all events, the sainfoin stood, and though I was half-afraid the Messrs. Dawes not being acquainted with the crop would be inclined to have it ploughed up, it was allowed to remain. This spring, the third from seeding, things were very different. The sainfoin had gathered together and looked like yielding, as the season advanced, appearances improved, and towards the end of May were all that could be expected.

Now, on either side of the sainfoin were two pieces of clover, the one being the *cow grass*, *trifolium pratense perenne*, or perennial clover, the other, the common red-clover, or *pratense*. The former was sown on the same day as the sainfoin, 1889, the other sown, with the barley, after a heavily manured crop of roots. On June 2nd of this year, 1891, the sainfoin, in spite of the hot, dry spring, was 15 inches high and just coming into bloom, the perennial red-clover 7 inches high, and the common clover 5 inches. Between the above date and the 17th of the month, a wonderful growth, aided by the rain of the 2nd and 3rd, took place, for on that day the common clover had attained a height of 15 inches, the perennial 18 inches, while the sainfoin stood 33 inches high; and whereas neither of the clovers had put out the blossom, the sainfoin was covered with its beautiful pink flowers, and should have been cut for hay a week before, i. e., on the 10th.

Need I insist on the value of such a plant in a country like this? I think not. It is good for all stock, it yields largely; it will cure the scours in calves and the green-skitt in lambs, it is at least a fortnight earlier than red-clover, and it will stand from 8 to 10 years if decently attended to.

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#### DE OMNIBUS REBUS.

Mr. John Boyd, of Elmhurst, Ill., who is a practical dairyman, and a close and careful observer, says he has examined many cows and finds the size of the milk veins no indication of their milking capacities. The milk-vein is a subcutaneous vein and has nothing to do with the udder. It

(1) The seed never came up

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