than cattle, and perhaps, their value to them would not be in as great a proportion.

Product.—Four hundred bushels is a fair yield in field culture, but six or eight hundred per acre is about as common. We have grown at the rate of 1300 bushels to the acre on a hard clay soil, and our average field product is usually 600 bushels. We have heard of 3000 bushels being produced to the acre of rich loams. The roots will frequently weigh from 17 to 20 pounds each, and 10 pounds is not unfrequent; now admitting this last weight to each root, and that seven rows stood in the width of a rod, which would make them about two feet apart, and the roots one foot apart in the rows, and allow 60 pounds to the bushel, we should have the enormous product of 3080 bushels to the acre, but roots so large are coarse, stringy, and not unfrequently hollow, and have much less saccharine matter in proportion to their bulk, than smaller ones. Those of about 5 pounds weight are far superior; and these standing one foot apart in the rows, and five rows in the width of a rod, making them about three feet apart, give the large yield of 1100 bushels per acre, which is quite as great a product as it is desirable to strive for, and upon the whole, perhaps the most profitable.

Raising the Seed.—There is as much in choosing proper roots for this purpose, as in selecting animals to breed from, and the same general rule holds good in both cases—a medium size and fine true form. Roots weighing four to six pounds, and of four to six inches diameter at the top, and nine to thirteen inches long, and smoothly and evenly tapering to a point, without straggling branches, and of a creamy white colour and smooth grain, are the most desirable. "Like produces like," and with such selections followed up, the crop will soon run evenly of the same shape and size as the roots from which was grown the seed. Plant out the seed-roots about the 1st of May, three feet apart; and as the stalks grow, set small stalks round them in a circle, and tie a cord from stake to stake for their support. When the seed shells easily, which if planted in May, will be in September, is the proper time to gather it. It ought to be spread out a few days on the floor of some high, dry, room, or on boards in the sun till well dried; it may then be packed away in boxes or barrels, or be put up in bags. We have generally found this essential to a proper preservation of all seeds. If not well dried before packing, they are apt to heat and mould, and lose their germinating powers. Two or three dozen roots will grow seed enough for acres, and at one tenth the cost usually asked for it at the seed-stores. When *grown* at home, one knows what he gets, and as it comes to him abundantly and cheap, he can, without grudging, give to his neighbours, and thereby greatly promote the culture of this most valuable of roots.—*American Agriculturist.*

SAINTFOIN.

The saintfoin is a taprooted perennial plant, which, like to lucerne, strikes very deep into the soil, and is considered by many as a most valuable crop. The late Mr Brown of Markle states, that he tried it in East Lothian, but altogether unsuccessfully; and no instance of its cultivation occurs since. Sandy, chalky, and gravelly soils, resting on a calcareous bottom, are thought best adapted for its growth, and are the lands it is most commonly grown on in England. Manure is considered improper for it in England and when any is applied, it is generally a top-dressing of peat, turf, or coal ashes. The ashes of coal are considered the least likely to do harm, having less tendency to wear out the plants by bringing them too suddenly forward. Sir John Sinclair looked upon this as a highly valuable plant, and mentions that poor soils, not worth more than from 2s. 6d. to 5s. per acre, will, under this crop, yield a ton and a half, or even two tons and a half of hay, worth a guinea per ton more than meadow hay. He considers that a number of lands might be brought to grow saintfoin, by being manured with calcareous matter. The time of sowing should be about the end of February or beginning of March, as the plant will not vegetate when the weather is very dry. In England the common practise is to sow saintfoin at the close of a seven or eight crop rotation, along with barley; and if kept properly free from weeds, it will yield good crops for seven or even ten years. The quantity of seed required is from three to five bushels per acre; and some farmers mix with it a small quantity of white clover and rye-grass which are said to improve the crop. Saintfoin does not arrive at perfection till the second year; and although not considered equal to clover, it has this advantage, that it will grow on soils where clover will not succeed.—*Agriculture and Dairy Husbandry.*

LUCERNE.

The lucerne is a deep-rooting perennial plant, analogous to the trefoil, and is much cultivated in France the south of Europe, and England. It has had strange vicissitudes in Scotland. At Portobello, near Edinburgh, it has produced crops equal to any in England, while in higher and exposed districts it has proved a complete failure. The soil considered best adapted for its growth in England is a rich, deep, light loam, while at Portobello it grows upon thin poor sand, resting on a bed of clay. The seed is either sown in drills or broadcast, the former being the method most commonly practised. The drills should be from twelve to eighteen inches apart, and they should be kept perfectly free from all weeds and grass. If drilled, from 10 to 15 lbs. of seed per acre will be sufficient, according to the width between the drils; the greater this is, the thicker should the seed be sown. If sown broadcast, 20 lbs. will be necessary; and although this method is practised with success in England, the crop by it has never been so abundant in Scotland as by drilling.

The land should be hoed or scarified between the drills every time the plant is cut, which will be generally three times a-year; but four and even five cuttings are not uncommon. At Portobello, we have seen it growing eight years old, and still yielding a very fine crop. The lucerne is almost exclusively used for soiling, and for this purpose it is very valuable, as it is found greatly to improve both the quantity and quality of milk. In the Transactions of the Highland Society it is stated, that the milk of cows which alternately fed on pasture and Lucerne was invariably more abundant on the latter.

This plant gives no taste to either milk or butter; and it is stated, that in the above experiment the butter was of the finest quality. It is thought not right to allow animals to graze upon lucerne; and great care should be taken, as with clover, not to give it when moist, or it is apt to produce in cattle the disease called *hoving*. Like clover, lucerne loses nearly half its weight when converted into hay, and it is therefore thought most profitable for soiling; but it makes very good fodder when dry.—*Ib.*

NEWS.

True Benevolence.—Our readers may remember that on the night before the late dreadful storm four of the Brighton fishing boats put to sea, and were in consequence exposed to all the fury of the tempest, escaping narrowly destruction by running for Hastings. Yet on that evening, as is well known, the barometer had fallen unusually low, a sure indication of the approaching change in the weather, and therefore it would, if consulted, have shown the danger incurred by our hardy fishermen. To guard against such occurrences hereafter, a barometer has within these few days been placed by Sir Adolphus Dalrymple at the Custom house, with the permission of the Customs' authorities, as the most convenient spot for the purpose, where it may be inspected at any hour of the day or night, being fixed within a window fronting to the cliff, which is without shutters, so that by the aid of a lantern the barometer may at all times be seen. Such a plan is acted upon we believe, at Whitby, where the barometer is invariably consulted by the fishermen before putting to sea; and it is the object, we understand, of some influential parties interested in nautical matters to have a similar measure adopted in all our ports, and even where required at the intermediate coast guard stations. We sincerely trust that this benevolent scheme may be carried into effect, for there can be no doubt whatever, that it would be the means of saving many valuable lives.—*Brighton Gazette.*

[Should not the above plan be adopted in our Lake ports, such as Kingston, Toronto, Port Dalhousie, &c.?—Ed. C. T. A.]

The *Solway* West India Mail Steamer has been lost near Corunna in Spain, thirty-five of the passengers and crew, including the captain, perished. This is the third steamer, belonging to the same company, that has been lost.

The prices of wheat, flour, and pork, have further declined in Britain. Butter is in good demand, at higher prices. Care and attention, on the part of dairy farmers, might make butter an important article of export from Canada.

There was a considerable improvement in the manufacturing districts generally, particularly in Paisley.

Mr. Charles Buller had, in a masterly speech, introduced in Parliament a plan of systematic colonization, which had excited much attention.