

other kind of diet, crunching up the leaves, as well as the root with great gusto,—in which process their snouts and other anterior parts become completely bathed in the sanguinary juice, as if the animals were weltering in blood. Beet is a favorite food for sheep and proves highly acceptable in the lankling season when milking and not fattening is required.

In the case of breeding sows it has been thought that Mangold Wurzel is injurious, causing miscarriage, &c., but this has been contradicted by a correspondent of the "Agricultural Gazette," who successfully fed his sows upon it alone for many years, except while they were suckling their young, when in addition to the supply of small roots a small allowance of boiled ones and bran (warm) was given 3 times a day. No one has ever doubted the propriety of *cooked* Mangolds for pregnant sows and we imagine the objection to giving them raw root would hold equally with any other crop.

*As Food for Horses.*—Boussingault states that horses readily get accustomed to field Beet, when the root is sliced and mixed with cut straw. For 11 lbs of hay which he retrenched, he allowed 44 lbs of Beet; the ration consisted as under:—

Hay,	- - -	11.00 lbs.
Straw,	- - -	5.50 "
Oats,	- - -	7.23 "
Beet,	- - -	4.40 "

A horse after having been kept on this diet for some time was weighed, and the regimen having been continued for a fortnight, he was weighed again:

First weighing,	- - -	1014.0 lbs.
Second weighing,	- - -	1023.3 "

Gain in a fortnight, - - 9 lbs.

The horse was all the while doing rather hard but very regular work, being for eight hours every day in the shafts of a grinding mill; health good.

*As Food for Cattle.*—In the feeding of cattle, Mangold Wurzel is almost equally successful as for the other purposes we have mentioned.

With regard to the practical results of feeding with Mangold Wurzel, they appear to indicate so far as hitherto published a value far above that of the common turnip, and rather equal to swedes, inferior to that root indeed for early winter feeding, but equal if not superior to it for spring use.

*As a Sugar Crop.*—The culture of Beet for sugar has principally taken place in France under the protection afforded by the political measures of the Emperor Napoleon I. It has, however, extended to other European countries; and a few years ago some valuable documents were laid before Parliament from Sir Robert Kane, with the view of show-

ing the probable advantages derivable from the culture of sugar Beet in Ireland.

*Varieties of the Mangold Wurzel adapted for Field Culture.*—The varieties of this plant are not very numerous.

1. **COMMON OR MARBLED FIELD BEET, OR MANGOLD WURZEL.**—Leaves reddish or reddish green; roots thickly fusiform or spindle-shaped, of a dullish red color on the outer surface, and marbled, or of a mixed white and reddish color of various shades in the interior.—This variety is the most generally cultivated for feeding cattle, from its being a free grower, and also from its producing a much greater weight of roots per acre than any other. The marbled or mixed color of its flesh seems particularly liable to vary, being in some specimens of a nearly uniform red color, while in others the red is scarcely, and often not at all perceptible. These variations in colour are however, of no importance in regard to the quality of the roots.

2. **LONG YELLOW OR GOLDEN MANGOLD WURZEL.**—Leaves green with yellow or orange-colored ribs; root pretty regularly and thickly fusiform, with a deep yellowish colored skin, and light yellow, or almost white flesh. Compared with No. 1 the roots in this variety are in general much smaller, but they are considered finer in texture, to contain more saccharine matter, and therefore more esteemed for feeding horses, as well as for the manufacture of sugar, and also in the distillery.

3. **WHITE MANGOLD WURZEL.**—Leaves green, with very light green colored ribs; skin and flesh of the thickly fusiform roots white. This variety is used in the manufacture of sugar, and for the distillery.

4. **TURNIP-ROOTED MANGOLD WURZEL.**—Roots globular or heart-shaped, being generally lightly tapered towards the bottom, with reddish colored skin, and slightly marbled red and white or entirely white flesh. This is admirably adapted for shallow soils, in addition to which it is also said to be particularly suited for such as are of a light sandy or siliceous nature.

5. **YELLOW GLOBE.**—Very productive, and a good keeper; recommended also as giving milk of milder flavor than some of the other sorts, besides increasing the quantity.

6. **LONG WHITE OR LONG SILESIA.**—Not so productive as some others, but valuable on account of the large proportion of saccharine matter it contains. Mr. Reeve of Randall's Park Farm, near Leatherhead, states in the Minutes of the Royal Agricultural Society of England, that his stock prefer this to any other kind.

To the Editor of the Agricultural Journal.

### ON MANURE.

SIR:—Being an ardent lover of Agriculture, and everything connected with the profitable working of the soil, I beg you will allow me to address your readers upon a subject, which, of all others, stands pre-eminent as the one thing needful to farmers, and without which all the good seed, or improved implements that may be supplied by Agricultural Societies, will be but partial benefit to the country.

How limited and unremunerative generally, is all our labour on land, without the requisite quantity and quality of manure. True it is, that manure ill-applied, almost invariably results in loss; but it is equally true, that without a good supply of manure of the right quality, our labour however well applied will be profitless, and it is therefore that I hail the advent of your paper with delight. I hope and trust its circulation will be great, and that it will be the means of inducing countrymen to think more highly of their occupation, and to give more attention to the science of practical agriculture, and at the same time lead them to appreciate every—even the smallest—matter that bears upon the successful cultivation of the soil, for so sure as they become educated up to the mark of scientific farmers, just so sure will they be, to measure the capacity (I had almost said size) of their farms by the amount of fertilizing ingredients within their control, rather than by acreage.

In the same way will they measure their future manure heaps, not by the number of cattle they may keep to make it, but by the amount of labor and skill, they themselves are able and willing to devote to the increase, and improvement of it.

I can scarcely imagine any country more dependent upon manure for good crops, than is Nova Scotia, or at least that part of it with which I am acquainted, and yet, do we as a rule, ever see the manure-heap so considered, as to give us an idea that the owner thought much of it, or relied upon it as his chief stay and staff to help him to raise good crops? No! decidedly no, for although we frequently see a big pile of stuff leaning against the barn or stable, it is often under the eaves, and as frequently on the sunny and stormy side of the building. It is here that the first A B C of improvement and reformation in agricultural pursuits should take place; for here, as on a hinge, hangs the first great gate through which we have to bring our future improved harvest.

The manure thus exposed to view, is commonly said to be "saved" but the plain English of it is, that it is not saved at all, it is simply thrown out of the way, and allowed to take care of itself. In