

AGRICULTURAL.

From the New England Farmer.

SOURCE OF DISEASE AND FOOD FOR PLANTS.

A good and industrious cultivator will attend to making the most of such vegetable and animal substances as are too often suffered to waste away, and instead of becoming food for plants are converted into poison for animals. Anything and everything capable of decomposition, which remains above ground in that state of decay in which it smells disagreeably is not only wasting manure, but giving out poison, and rendering the air we breathe, not only noisome, but more or less pestilential. It is so ordered by a kind Providence that sources of disease are indicated by offensive smells or effluvia, and if we will not make use of means to counteract or annihilate the causes, we must suffer the consequences of breathing a tainted, sickly, deadly mixture of fetid gases, instead of the pure oxygen and nitrogen, &c., which constitute the only air, which is fit for the purpose of respiration.

But by what means shall we arrest, or counteract the effects of the effluvia, which emanate from animal and vegetable decomposition? We will give you prescriptions, or recipes from a certain celebrated agriculturist for this purpose:

In an excellent "Essay on Calcareous Manures, by Edmund Ruffin," Editor of the *Farmer's Register*, it is recommended to make use of *calcareous earth* as a remedy for the evils and to secure the benefits of animal and vegetable putrefaction. The writer observes that "calcareous earth, or carbonate of lime, is lime combined with carbonic acid, [formerly called fixed air,] and may be converted into pure or quick lime by heat, and quick lime by exposure to the air, soon returns to its former state of calcareous earth. It forms marble, limestone, chalk, and shells with very small admixture of other substances."

"Calcareous earth has power to preserve those animal matters, which are most liable to waste, and which gives to the sense of smell full evidence when they are escaping. Of this a striking example is furnished by an experiment which was made with care and attention. The carcass of a cow, that was killed by accident in May, was laid on the surface of the earth, and covered with about seventy bushels of finely divided fossil shells and earth, (mostly silicious) their proportions being as thirty-six of calcareous to sixty-four of silicious earth. After the rains had settled the heap it was only six inches deep over the highest part of the carcass. The process of putrefaction was so slow, that several weeks passed before it was over, nor was it ever so violent as to throw off any effluvia that the calcareous earth did not intercept in its escape, so that no offensive smell was ever perceived. In October the whole heap was carried out and applied to one sixth of an acre of wheat, and the effect produced far exceeded that of calcareous manure alone, which was applied at the same rate on the surrounding land. No such power as this experiment indicated (and which I have repeated in various modes and always with the like results) will be expected from clay.

"Quick lime is used to prevent the escape of offensive effluvia from animal matter, but its operation is entirely different from that of calcareous earth. The former effects its object by eating or decomposing the animal substance (and nearly destroying it as manure) before putrefaction begins. The operation of calcareous earth is to moderate and retard, but not to prevent putrefaction."

"The same able writer, in chapter xix, p. 62, recommends calcareous earth "to pre-

serve putrescent manures, and to promote cleanliness and health in towns." In this he states as follows:

"In the neighbourhood of towns, or wherever else the carcases of animals or any other animal substances, subject to rapid and wasteful fermentation can be obtained in great quantity, all their enriching powers might be secured by depositing them between layers of marl, or calcareous earth in any other form. On the borders of Chowan, immense quantities of herrings are often used as a manure, when purchasers cannot take off the myriads supplied by the seines. A herring is buried under each corn hill, and fine crops are made as far as this singular mode of manuring is extended. But whatever benefits may have been thus derived, the sense of smelling, as well as the known chemical products of the process of animal putrefaction, make it certain that nine-tenths of all this rich manure, when so applied, must be wasted in the air. If those who fortunately possess this supply of animal manure would cause the fermentation to take place and be completed, mixed with and enclosed by marl, in pits of a suitable size, they would increase prodigiously both the amount and permanency of their acting animal manure, besides obtaining the benefit of the calcareous earth mixed with it."

From the New York Farmer.

RUTA BAGA.

Mr. Edron:—As I have been in the habit of cultivating the ruta бага for several years past, formerly with poor success, but latterly unusually good, and believing it to be one of the most valuable crops that the grower of wool or the keeper of cattle can cultivate, I beg the liberty of communicating to the public through your paper, the result of my experiments.

I formerly have been in the practice of sowing my seed in the latter part of June, and of having the plants to grow too thick on the ground; in consequence of which, I seldom obtained at the rate of five hundred bushels per acre, the roots being but small, and the tops quite too large.

My late practice has been to sow my seed in some of the last days of May, with Robbins' patent planting machine; rows as near twenty-eight inches between as possible, planting the seed one in three or four inches; taking care, after the plant gets sufficiently large, to thin them so that they may stand twelve or fourteen inches apart. In this mode of planting I have obtained from one half acre of land 700 bushels of roots, the ground being a turf, turned under a few days previous to sowing the seed; soil, sandy loam; sowed on, soon after the seed came up, one bushel of plaster broadcast.

The last season, I raised from four acres of land four thousand bushels of ruta bagas, the account of which stands as follows:

	Dr.	
To use of ground, - - -		\$16 00
4 days' ploughing and harrowing, - - -		8 00
40 loads barn manure, - - -		20 00
4 bushels plaster, - - -		2 00
Seed, - - -		2 00
1 day's labour, planting, - - -		75
22 do. hoeing and thinning, - - -		24 00
20 do. pulling and gathering, - - -		15 00
		\$87 75
	Cr.	
By 4000 bushels ruta bagas, - - -		\$400
4 acres of tops, - - -		21
		\$421 00
		57 75
		\$363 25
Net profit, - - -		336 25

In the foregoing estimate I have called the roots worth ten cents per bushel, a price I considered them worth to fatten cattle and sheep, and the tops six dollars per acre; a price below what I should feel willing to take for them. My custom has been, for some seasons past to take my lambs from the ewes some time in the month of September, and put them into my ruta бага field to wean. The lambs trim the tops from the roots, which causes them to thrive as fast or faster than while taking the milk from the ewes, and prepares them for the winter better by far than any other feed that I have been in the habit of trying; and they eat the tops from the roots so clean, that it supersedes the necessity of cutting with an edged tool.

When the tops are sufficiently eaten off, the roots should be pulled out of the ground and permitted to lie in the sun till the dirt is sufficiently dry to rattle off by handling. No dirt should be permitted to go with the roots, if it can be avoided, for the dirt fills up the crevices and prevents the circulation of air, and causes the roots to heat and spoil. Two or three thousand bushels of roots may be thrown into a cellar together, if dry and clear from dirt, and preserved well; while one hundred bushels thrown in, in a moist state, together with dirt sufficient to prevent the circulation of air, will heat and spoil in a short time.

In raising seed, care should be taken that no cabbage, round turnip, or any other root partaking of its nature, should be permitted to blossom with or near the ruta бага, lest the different plants should amalgamate and injure the seed. T. D. Buck.

BARN-YARD HOG PEN.—SIR—My father, whose farm I inherited and took possession of two years ago, had his hog-stye detached from his barn yard. Immediately on entering upon the farm, I removed my pen by enclosing a portion of the barn yard. I keep my stye well littered with straw, leaves, weeds, soil from the woods, and meadow earth obtained from ditching, by carting, together with that put into the yard, from two to ten loads per week. I sometimes put a few handfuls of rye in different places in the yard and let in hogs. Feeding them thus for a few days, they completely stir up and commute the contents of the yard. I am confident that I make four times the quantity of manure that my father did, and with no increase in number of stock—and of a better quality too, comparatively none of its strength being washed away by the rains, and evaporated by the sun. My farm consists of nearly 70 acres, principally in tillage. I am confident that I shall in the course of a short time, get it all in a state of high cultivation, without laying out any money in the purchase of manure.—*Yankee Farmer.*

POTATOES A CURE FOR THE SCURVY.—A medical use of the potato has been lately suggested in a valuable French publication; namely, as a preventive of and even cure for the scurvy. Roasted potatoes were administered with perfect success to sailors afflicted with the disorder, after other approved medicines had been given in vain. As roasted potatoes are the most effectual, it seems probable that the remedy depends on some of the substances contained in the black liquid which boils out of potatoes, and which is retained in roasting.

POTATO FLOUR FOR CHILDREN.—Another most important use to which potato flour can be applied is to give it, boiled in milk, in the proportion of two spoonfuls of flour to one pint of milk, to young children brought up by hand, and not at the breast, or after they are weaned from the breast.