adding a little sulphate of ammonia to a mixture in water of oxalate of ammonia and of freshly precipitated phosphate of lime, mutual decomposition of the last two salts took place in a few hours. The sulphate of ammonia renders the phosphate of lime somewhat soluble, and thus promotes its decomposition by the oxalate of ammonia.

The action of guano is therefore two-fold; depending, in the first place, on its soluble nitrogen compounds; and in the second, on its soluble phosphates. In this last respect its effect is similar to that of a superphosphate.

The foregoing decomposition in guano depends evidently to a greater or less extent on the weather. Continued moderate moist weather. Continued moderate moist weather promotes the conversion of the insoluble phosphoric acid into a soluble form, whilst heavy falls of rain retard it, by washing out the oxalate of ammonia. Hence, from this dependance on time and moisture, we are not always certain of this manure in the soil.

I have discovered a very simple method of rendering the action of guano constant in connexion with the conversion of the phosphoric acid into a soluble form. It consists in moistening it a day or two before its application with little water, to which a small quantity of oil of vitriol has been added, so as to render it distinctly acid. Under these circumstances decomposition takes place rapidly, and is completed in a few hours. The whole of the phosphoric acid, corresponding to the quantity of oxalic acid present, is separated from the lime, and rendered soluble by union with ammonia; and the oxalic acid disappears entirely as an insoluble oxalate of lime.

I am very anxious that agriculturists may be induced to make comparative experiments with guano alone, and after being moistened with dilute sulphuric acid.

I am, my dear Blyth,
Yours very truly,
JUSTUS VON LIEBIG.

Dr. Blyth, Queen's College, Cork.

Horticultural.

THE EGG PLANT.—(*Solanum Esculentum.*) This vegetable has not yet attained the popularity it deserves. It is quite extensively grown by market gardeners, near cities, but we have seldom seen it on the farmer's table. Some have not yet learned to like it, more's the pity, for one accustomed to the taste, finds it, if well cooked, almost equivalent to both meat and vegetable. The plant is of African origin, and of too tender breed to be grown in open ground from the seed at the far North; but by starting in the hot-bed, or in pots in the house, six or eight weeks before corn-planting time, it can be transplanted in June, and brought to maturity.

In that latitude there is a chance that plants may be grown to bear from seed, sown even as late as June 1st. We have generally found it most convenient to obtain a dozen or two plants from those who grow them for sale.

The Egg Plant needs a very rich soil, with warm exposure. Fork into the ground devoted to it, a liberal supply of horse manure, and set the young plants, three feet by two apart. Hoe frequently throughout the season, and hill up freually till the blossoms appear.

Under good treatment the fruit will grow to the size of a large muskmelon. When it has attained the size of a goose egg, it is ready for cooking, and continues good until its deep purple color changes, and the seed turns brown.—They are cooked in various ways. Usually, slices one-fourth to one-half an inch thick are fried in butter or lard.—*American Agriculturist.*

The Dairy.

THE DEPTH FOR SETTING MILK.—A correspondent of the Homestead relates the following experiment:—"On the 5th of April we set two pans of milk, weighing forty-seven pounds two ounces, in two tin pails ten inches deep. The next day we set the same quantity of milk from the same cows two inches deep in pans. These were placed on the same shelf with the first, and of course in the same temperature, which was near 50 degrees. In four days the first milk was sour and skimmed, yielding three pounds two ounces of cream, which, being allowed to stand one day, made one pound eight ounces of butter. The other milk, standing the same length of time, yielded four pounds eight ounces of cream, making two pounds one ounce of butter—a difference of nine ounces in favor of setting the milk shallow. This is a gain of 37½ per cent. over the depth of ten inches."

From the Boston Cultivator.

Washington Butter.

Messrs. Editors:—In the Cultivator of May 11th, I noticed an article on washing butter. It is true that water is injurious to butter that is to be kept any length of time; and I here briefly state my mode of preparing butter for winter. I wash it in *sweet* skim milk, then salt it and let it stand until sufficiently cool to work into lumps, then pack it. This has been my invariable rule, for more than thirty years, and I have never been troubled with rancid butter in the spring.

S. W.

TO KEEP BUTTER SWEET.—E. E. Smith contributes to the *American Agriculturist* the following directions for preserving butter in