

It is frequently very expedient to apply these manures to the same soil and crop with Peruvian Guano, the best quantities are from seventy-five to one hundred pounds of Peruvian with from one hundred and fifty to two hundred pounds of phosphatic guano containing about fifty per cent. of phosphate of lime. The phosphatic manure should be applied broad-cast and the Peruvian Guano be applied with a drill in the case of wheat, or mixed with wood earth, and in the hill with corn, tobacco, cabbage, &c.

The equal mixture of large quantities of substances is very difficult, and indeed useless when done in the case of the guanos before being applied to the soil. If, however, Farmers and Planters prefer such an admixture, they should in EVERY INSTANCE DO IT FOR THEMSELVES, and not buy the mixture from others. The guanos can easily be reduced to very fine powder by means of the corn and cob crushing mills now sold, and by the same means as thoroughly mixed as can be done by other means used by manufacturers and venders. After the grinding of the guano, the mill can then be easily cleansed for use by running a few corn shucks and corn cobs through it. I have frequently seen guano prepared in this way in first rate style, and have heard the most favorable reports as to its efficiency from many sound practical farmers.

Phosphatic guanos should be applied to crops which have a broad leafy development, as this class of plants can more readily obtain nutriment from the air of the kind furnished by Peruvian guano, than those which have narrow leaves.

The above rules apply with equal force to the Superphosphate of Lime, of which large quantities are being used, especially for corn and tobacco.

The indications for the use of this class of manures, is the absence of a proper quantity of Phosphate of Lime in the soil, and in a form so that the growing plant cannot assimilate it.

There is no manure, which in its use, shows more clearly and distinctly, the intimate connection which should exist between analytical chemistry and practical agriculture than this, and how either, without the aid of the other, is liable to error. In the analysis of a soil by the most approved means, sometimes there is shown a quantity of Phosphate of Lime sufficient for crops for a series of years, and yet on this soil, Phosphate of Lime may frequently greatly increase the quantity of the crop. This seeming contradiction can be most truly explained by the fact that, the Phosphate of Lime is so associated with other minerals of an insoluble nature, *as not to be available in proper quantities for plants,*