

garden riddle, preparatory to their immediate application to the earth, and sufficiently dry to be used with the drill, if required.

5. *Preparation for gravel, sand, or any light soils.*—Strong clay or marl (not calcined), earth from ditch bottoms, decomposed soils, or good black garden earth, and if not sufficiently dry may be exposed to the sun, or open air, sufficient time to pass through the finest mesh sieve they will admit of.

6. *The April and May top-dressings, for grazing land*—Clay and strong soils, per statute acre, three cwt. of Peruvian or Bolivian guano, with three times its bulk of mixture named in rule 4.

7. *For meadow land, gravel, sand, or any light soils.*—Two cwt. of guano and two cwt. of gypsum, or two cwt. guano, with three times its bulk of rule 5.

Observe, when four cwt. of guano, &c., is applied to the acre, it will be better to divide that quantity and introduce two cwt. of guano, &c., before the land is laid down for meadow, and two cwt. of guano, &c., as early as possibly convenient after the grass or hay is taken from the field. Should, in any instance, a smaller or larger quantity of guano be preferred, as an experiment, in that case quantities of each, proportionately, according to the nature of the soils, and after applied to the ground, in all top dressings to be immediately well rolled and brushed.

8. *Moor, peaty, springy, or mossy grounds.*—Three cwt. of guano, with three times its bulk of mixture named in rule 4.

N. B.—All artificial grasses and clovers the same as meadow land, nature of the soil to be considered.

Although the increase of grass will be very considerable indeed, the aftermath and hay taken out of the field, it is not of a coarse quality, neither does it injure the crops for the following year; but it is recommended, the spring following, to apply two cwt. of guano, and three cwt. of soil, ashes, or what is properly adapted for the land, in quantity, as it will increase the crop and bring it forward considerably earlier, and the grass and hay will be of a superior quality. But if no additional top dressings are applied in spring, or after the field is cleared of grass or hay for three years, the crops will be stronger than those manured with farmyard dung—for manure is the mainspring in all farming and garden operations.

We may drain well, subsoil, or plough deep; but without a sufficient quantity of manure, land cannot be more profitably worked than a horse can that is only half-fed.

9. *Top dressing for wheat, barley, and oats.*—For April, May, and beginning of June, for all soils deficient in plant, or in a weakly state, the following application will prevent the wire-worm destroying the roots, and, in a great many instances, has destroyed the wire-worm altogether, and prevented mildew.

10. *For gravel, sand, and light soils.*—Two cwt. of guano, and two cwt. of gypsum, or two cwt. of guano with three times the bulk of mixture named in rule 5.

*For clay and strong land.*—Two cwt. of guano, with three times the bulk of mixture named in rule 4. The above, if applied to crops of corn in a healthy state, will give additional increase, render the quality finer, the bulk of straw greater, and earlier at maturity, than farmyard manure, with less labor and half the expense.

11. *Potatoes (for land generally).*—Three cwt. of guano, with three times its bulk in ashes or earth, with ten tons, or half the usual quantity of farmyard manure, to be strewed at the bottom of the furrows, by hand, before the sets are planted, will not only increase the crop one-third in quantity, but will be earlier, and render the quality superior.

It must be particularly observed, in drilling guano, or ploughing it in after being sown broadcast, previous to having been turned over, the depth of the furrows should be calculated according to the nature of the soils. If cold, nearer the surface than gravel, or light soils; and to those farmers who have not experienced the increase by the introduction of guano, it is advisable, to show the marked alternation, to leave a quarter of an acre of each in its original state, and to notice the difference in produce and quality, also that of farm-yard manure, if used in the same field as an experiment.

12. *For turnips and mangel wurzel.*—The machines used for drilling the manure and seed at the same time may be adopted, providing five times the mixture with the guano, laid down in the rules of this treatise, be strictly attended to; by which means the guano compost is deposited so much deeper, and so much in advance of the seed, as to allow a portion of the soil to intervene between the seed and manure below it.

It is highly important for turnips and rape not