

### QUICK LIME.

Quick lime, or fresh burnt lime, is more active than the carbonate and, where there is a great deal of acid to neutralize, it may be preferable to the carbonate forms. It hastens the decay of the organic matter. On deep swamp lands it may be a decided advantage, but on light arable soil it may be a disadvantage. Unless there is a large amount of acid to neutralize, it should not be applied at heavier applications than about a ton per acre. This may be dropped in small quantities on the field at convenient distances for spreading, covered with a little soil, allowed to slake, and then spread with a shovel. It should not be plowed in but thoroughly worked into the soil by surface cultivation.

### MARL AND CARBONATE OF LIME.

Marl is rich in carbonate of lime and may contain traces of phosphoric acid. The marl beds in this Province are associated with our swamp lands. The carbonate of lime is simply ground limestone rock. Some experiments seem to show that the dolomite rock is more valuable as a fertilizer than the purer limestones. To secure quick results limestone should be finely ground. We need, however, large quantities of dust from the stone crushers preparing stone for roadmaking that is very suitable for this work. It is not all fine enough to act quickly, but nearly 50 per cent. of it will pass through a sieve with 10,000 openings to the square inch. This material can be procured at 50 cents per ton in abroad lots. The freight charges will, in many cases, be greater than the cost of the materials; consequently, as it can be procured in a number of places in the Province, care should be exercised in purchasing at the nearest point and thus reduce the cost of transportation. In applying ground limestone rock it is well to remember that it takes practically two tons of this material to supply as much calcium as one ton of quick lime. The ground rock is not so active as the quick lime and therefore may be applied in very heavy quantities without doing any harm.

### GYPSUM.

Gypsum, land plaster, or sulphate of calcium, exerts a similar effect to that of lime in improving the mechanical condition of clay soils. It serves as a source of calcium, as a plant food, and it serves to stimulate the beneficial soil organisms at the roots of leguminous plants like the clovers, alfalfas, peas, beans, etc. In these ways it acts in the same manner as lime, but gypsum will not, like lime, react or neutralize the acid of a soil. Nor does it hasten the decay of organic matter as does the quick lime. As an aid to the growth of the legumes it may be applied at the rate of 300 to 500 pounds to the acre. If used to "lighten," to improve the physical condition of clay soils heavier applications will be required.

### SALT.

Agricultural salt was formerly used in this Province in considerable quantities, but of late years very little has been applied. It supplies no essential plant food constituent and its value appears to be due to indirect action, and thus it acts more as a stimulant.