crops, such as peas and beans, are benefited by potash, and the period of bearing extended; root crops, such as potatoes, sweet potatoes, and artichokes, are improved in texture. Potash bears the same relation to the fruiting properties of crops as nitrate of soda does to the vegetative growth of plants. Potash is fairly abundant in most New Zealand soils, especially those of a clayey nature, but it is not always in a readily available state, and it is good practice, at least in the case of short-lived crops, to add a small amount in an available form.

Sulphate of Potash.—This, the most generally useful form of potash, is a purified potash salt. It grades usually 90 or 95 per cent., which is nearly four times as rich in potash as kainit.

Kainit contains sulphate of potash mixed with a good deal of common salt (chloride of sodium), Epsom salts (sulphate of magnesia), and chloride of magnesia. It will be evident that to get the same equivalent of potash as from sulphate of potash about four times the weight would have to be used. Kainit is often used for asparagus, for which the salt-content is useful. For other crops it should be applied during winter several weeks before sowing or planting, so that the salt may be washed out by rain. Potash is not readily leached from the soil, so that sufficient for the season can be applied in spring.

Muriate of Potash is the potash equivalent of common salt. It is highly irritating and injurious in contact with plant-roots. The way to apply it is as a top-dressing soon after the plants have started, taking care to keep it from actual contact with the plants. It should be scratched lightly into the soil.

Wood-ashes contain varying but always useful amounts of potash, which, being in the form of a carbonate, is immediately available to plants. The ashes should be protected from rain until they are applied to the soil, as the potash is highly soluble and is quickly washed out. Once in the soil, however, it is held till plants take it up, or, at any rate, it is only very slowly leached out. About 7 lb. per square rod is a fair dressing.

LIME.

Besides being a plant-food lime helps most soils by improving their physical condition—the structure of the grains. Clayey soil is made more open, and sandy soil closer. Lime sweetens the soil—corrects acidity—thereby aiding the little organisms called bacteria. It liberates potash already in the soil, and its relation to potash is such that authorities state that it is useless to apply potash to soil deficient in lime. The disease of crucifers (cabbage, &c.) known as club-root has never been known to occur in the first place where a sufficiency of lime was present, the disease being promoted by an acid state of soil.

Lime is obtainable in two forms—burnt lime and ground limestone, known as carbonate lime. Burnt lime is also known as roche-lime and quicklime. It comes from the kiln in lumps, which break down to a very fine powder when water is taken up. Quicklime on exposure to air gradually takes up moisture from the atmosphere and breaks up; it is then known as air-slaked lime. It is in this form that it is useful for killing slugs and other garden pests. The caustic properties of quicklime cause it to burn up humus in the soil, therefore it should not be used on land poor in humus. It is the best form for