

a fork. If the soil is in need of lime, a dressing of 2 lb. of air-slaked quicklime per square yard should be mixed well with the surface soil. If lime has been applied not more than two years previously, $\frac{1}{2}$ lb. per square yard is sufficient, while, if given regularly every year, 4 oz. per square yard is enough. A month or three weeks before the vines are expected to start new growth a fertilizer, consisting of 2 oz. bonedust, 1 oz. sulphate of potash, and 1 oz. sulphate of ammonia per square yard should be applied and scratched in with a sharp-toothed rake. Just before the vines begin to flower, nitrate of soda, 1 oz. per square yard, should be applied, and later, when the grapes begin to colour, 2 oz. per square yard of sulphate of potash should be applied by being watered in.

Prior to the setting of the berries the surface of the border should be open to the sun. On the other hand, if some protection against sun and wind is not provided during summer the surface soil becomes dried, causing the roots to go more deeply in search of moisture, which is very undesirable. Therefore, when the berries have set, a mulch, about 6 in. thick of rather fresh and littery stable manure should be applied. The fertilizing substances in the manure are washed into the soil by the rain or by watering, and no other fertilizer is needed. If stable manure is not available a dressing consisting of sulphate of potash (1 part) and blood and bone (2 parts) may be applied at the rate of 1 lb. to 2 square yards. With this a mulch of some kind should be provided: this may be spent hops, straw, or any suitable material that is available. Pumpkins or marrows make an excellent mulch when grown from hillocks outside the borders and led over them.

WATERING.

The grape-vine is a vigorous plant, and is expected to carry a fairly heavy crop of soft fruit which contains a good deal of water. If the vines are flourishing the border becomes full of roots, and a liberal supply of water must be assured. Outside borders rarely require watering till the stoning-period is past, and with inside borders watering should be of a minimum character during the stoning-period. It is after this time that the demand for water is greatest. When it is applied it should be in volume sufficient to penetrate the whole of the border. There is no danger of over-watering provided drainage is good. If drainage is not good, it is a defect that should be remedied the following winter. A thorough watering twice a week is sufficient for dry situations. It is a matter for which no hard-and-fast rule can be laid down; each grower must be guided by local conditions. Applications of liquid manure are advisable when the vines lack vigour. These should follow the watering.

VARIETIES.

The appended list is confined to those varieties which already are in cultivation under glass in this country, which have given general satisfaction, and which can be most strongly recommended. It is not suggested that other varieties are not worth growing, but it is claimed that the varieties mentioned supply all needs. The greater part of commercial crops consists of two varieties—Black