

A COLD GRAPERY.

Would you kindly inform me how to prepare a border for vines in a cold grapery? Also would it not be better to plant them inside as they would be better protected in the winter and the roots could run into a border prepared outside as well? What kinds are most suitable? The building is to be 45 feet long, and would hold eight vines, say 2 Black Hamburgs, 1 Golden Hamburg, 1 White Frontignan, for foreign kinds, and 1 Salem, 1 Mills, 1 Catawba for hardier kinds. Could you suggest a better selection? Also would you advise to train to one or two stems to top of house? And what distance apart, and how many?

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REPLY BY D. W. BEADLE, ST. CATHARINES, ONT.

Preparing a border for vines in a cold grapery.

If the soil be a retentive clay, and, as is usually the case, cold and wet, it is necessary to provide perfect drainage. To do this thoroughly the whole of the soil to the extent of the intended border and to a depth of three feet, should then be thrown out, the bottom being made to slope evenly to the front with a fall of one inch to the foot. Along the front of the border, and just below the edge of the bottom, a tile drain should be laid, with a fall of one inch to the foot, so that all the water that runs to the edge of the border shall be carried off promptly. The bottom should then be covered with broken stone, or with brick rubbish, or very coarse gravel, and upon this a layer of gravel a little finer, then other layers, gradually increasing in fineness of material until the last layer approaches the texture of ordinary soil. This drainage material should be about nine inches deep, and covered over with inverted sod. This border should be five or six feet wide inside and as much outside. This will afford ample room for the roots of the vine the first year. The second year three feet more can be added both to the inside and outside portions. As the vines increase in size the border should be widened until the whole width is made up. It is better to increase the width of the border as the vines require than to make it the entire width at first. In sloping the bottom of the portion outside of the vinery, it should be borne in mind to have the slope descend towards the tile. Also it is essential that there be a good outlet at the lower end of the tile drain, permitting the water to be discharged without check.

The best soil with which to fill up the border is that taken from an old pasture, where the grass is fine and thick, paring off the sod to a depth of three inches. This should be stacked under cover for say six months, or until the grass is dead and the whole mass dry; then broken up and mixed with lime rubbish or old plaster; adding to every ten loads of the soil two of lime rubbish, one of charcoal, and two of fresh fermenting horse manure, together with four hundredweight of coarsely broken bones. This should be thoroughly turned over several times that the several constituents may be well intermingled. If the soil contains more than thirty per cent. of clay it will improve it to reduce it with sand, if it contains less, then increase the quantity of horse manure and broken bones. Horn shavings may be substituted in whole or in part for broken bone, if more easily obtained. While this compost is being prepared it should be kept dry. When prepared fill up the border with it, fill it say six inches above the level, so that when it has settled it shall not be lower than the surrounding soil.

Planting the Vines.

Plant the vines inside of the vinery; and settle the earth about the roots by watering moderately through a fine rose. Repeat the watering until the soil is well moistened throughout. Afterwards in watering the inside border give it always a thorough drenching, not a mere surface watering. Use rain water, tepid; at the first watering in the spring