

peared in England from the able pen of Geo. W. Johnson, Esq., one of the highest authorities in Europe on Horticulture. The following is a portion of the author's observations on grafting. We shall again refer to this very useful manual:—

for in such case the Green Gage would be altered by its Plum stock, and the *Nonpareil* by its Crab stem. So far from this being the case, the old gardener's maxim—'The graft overruleth the stock quite,' in consonance with truth, though it is to be taken with some reservation. The graft prevails and retains its qualities, yet the stock has the power of influencing its productiveness as well as the quality of the fruit. Thus, a tree having an expansive foliage and robust growth, indicative of large sap vessels and vigorous circulation, should never be grafted upon a stock oppositely characterised, for the supply of sap will not be sufficient: illustrations are afforded by the *Codlin* never succeeding so well on a Crab, nor a *Bigarreau* on a wild Cherry, as they do on freer-growing stocks. Indeed, we have no doubt that every tree and shrub succeeds best, is most productive, and most free from disease, if it be supplied with sap from roots and through a stem of its own peculiar kind. This is evident to common sense; nor would any scion be grafted upon a stock of another species or variety, if it were not that such stocks are most easily obtainable, or for producing some alteration in the habit of the plant, or to fit it for some particular soil.—For example, our choicest Cherries are grafted or budded upon the wild Cherry only because of its being easily obtained; and every one must have noticed the frequently occurring consequence, an enlargement, appearing like a wen, encircling the tree just above where the graft and the stock joined—the growth of the former having far outstripped that of the latter. But the stock has some other influence over the sap, besides limiting the quantity of sap supplied to the scion, an influence not only arising from the size of its vessels, but from its susceptibility to heat. It has a further influence over the scion by the sap becoming more rich, indicated by its acquiring a greater specific gravity in some stocks than in others, during its upward progress. The specific gravity of the sap of a *Black Cluster* Vine stock on which a *Black Hamburgh* had been grafted was, when obtained six inches from the ground, 1.003, and at five feet from the ground 1.006; but the same *Black Hamburgh*, growing upon its own roots, had specific gravities at corresponding heights of 1.004 and 1.009. This increase is of great importance to a tree's growth when the quantity of sap passing annually through its vessels is considered. The

exact amount of this it is perhaps impossible to discover, but its extent may be appreciated by the quantity of moisture their roots are known to imbibe, and by the facts that a small Vine-branch has poured out 16 ounces of sap in twenty-four hours; a Birch tree a quantity equal to its own weight during the blossoming season; and a moderate-sized Maple about 200 pints during the same period."

Culture of Melons.

It is a great object to get melons early. This cool, richest and most luscious of all herbaceous fruits, to be fully appreciated should be eaten in the hot weather of July, August and early September. They may be started in the hot-bed, provided some means be contrived by which they may be lifted and transplanted to open ground without disturbing the roots. Some plant over a piece of turf in the hot-bed, which may be carried with the plants to the open ground; others in small open baskets, which may be set with the plants in the hill, the roots being able to push through the interstices in the baskets and others again in a shell made by excavating a large turnip, which soon rots in the ground or may be removed after the plants are carried to the hill. In this climate, however, it is easy, with a little care, to raise melons sufficiently early in the open ground.

A light, rich, sandy soil should be selected. In the lack of such a soil, it will be well to supply a bushel or two of sand to each hill. The soil should be deeply dug, thoroughly pulverized and enriched. A little finely pulverized chicken or pigeon manure, mixed with the soil of each hill, will be found an excellent stimulant. A frame, a few inches high, around each hill, may be covered with glass or mosquito netting, and will be a good protection to the plants from cold winds, frost, or the striped bugs. Eight or ten seeds should be planted in each hill, and after they are safe from insects, should be thinned to two or three.

The greatest difficulty in point of success in melon raising, is in obtaining and preserving the seed pure. The varieties of the melon readily mix with each other, and if you save your own seed, without great care, you will soon have no good melons.

The fruit, the first year will not show the mixture; the second year it will be quite apparent, and the third year may be worthless. To preserve the seed pure, it is not to plant nearer than ten rods of any variety with which they can mix. When you have planted a good variety where it is safe to admixture, save seed enough to last several years. Melon seed improves with age up to five or six years.—*Valley Farmer.*