

check. The effect of lack of water on a plant is exemplified in the extreme case of miniature plants, such as those shown by the Japanese, which are produced mainly by being kept at nearly starvation-point as regards water. The better the vine-borders have been made the safer they are from extreme conditions of moisture and dryness. Good drainage allows the get-away of excessive moisture, but also provides for that capillary attraction of moisture during periods of drought.

Pruning should not be commenced until the leaves have all fallen. It may be instructive at this period to quote Sir J. D. Hooker. He writes, "The death and separation of the leaf previous to its fall from the parent plant are not accidental, but due to the following causes: First, and chiefly, because there is developed at the base of the leaf or its stalk (if it has one) a transverse layer of cells which die after the leaf has performed its functions, and thereby produce their separation. The leaf consequently falls off, leaving a clean scar. Secondly, because the leaf rapidly acquires in spring its full size, whilst the branch on which it grows goes on thickening; consequently the tissues at the point of union tend to become disunited. Thirdly, because the fluids contain earthy matter, much of which is deposited in the leaf-tissues, thereby preventing them performing their functions and hastening their death. This is proved by burning spring leaves, which yield but little ash, while autumn leaves yield relatively more even than wood. It is further remarkable that the substances contained in falling leaves are those which have ceased to be of value to the plant. The starch and protoplasmic substances, together with the most important mineral matters, such as phosphoric acid and potash, are transferred to the permanent parts of the plant before the leaves fall." This quotation is made especially for the information of those who prune before the natural fall of the leaf with the mistaken view of "plumping up the buds." We can assist nature, but not by unnatural methods.

THE GARDEN.

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VEGETABLE-CULTURE.

In the *Journal* for March of this year some results of trials with cauliflowers at the Arataki Horticultural Station were detailed. These trials should be of interest to cultivators in the warmer parts of the Dominion, to those who grow for the market, as well as private gardeners. In some of the warmer districts, particularly where the summers are usually very dry, the cultivation of this class of vegetable is attended by great difficulties; in fact, at times it is impossible to grow them. Even the hardy broccoli often fails to survive the combined effects of dry, hot weather and the ravages of the cabbage-moth (*Plutella cruciferum*). The Arataki trials show that cauliflowers can, in the warmer climates, be produced a month earlier than is possible in the most favourable places in other districts, and two months earlier than they can be obtained in many places. The cabbage-moth does not affect winter and spring crops, and there are no difficulties to contend with. Snowball cauliflower at Arataki, sown on 1st April and planted on 6th June, gave the first heads on 24th September. It may be remarked that