

The role of root , ABA and CK interactions on growth control of fruit trees grown under dry conditions

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A well established and healthy root system of fruit trees not only , supply water and nutrients via absorption (water and nutrients uptake); and give a good tree establishment in the soil (anchorage);also , is a source of plant hormones such as cytokinins (CK). CK production in the root usually decreased and ABA increased within the plant system while fruit trees have faced with shortage of water and grow under dry conditions. This phenomenon has caused reduction or ceased of growth, so have effects on tree's vegetative and reproductive growth. Although, those trees with a well add good spread root system are able to show better performance under these conditions.

Most of orchards and fruit production areas in Iran located under climates with low rainfall and high evaporation conditions, also in these areas irrigation is a part of orchard management practices. The assurance about existence of a suitable root system related to the environmental conditions is essential for a good orchard management system. In addition to these conditions, this question may be raised that "what sort of root system may need fruit trees under the Iranian climates?"

In the present discussion, essential points to fruit production and orchard management under the Iranian climates based on the already obtained results from a series of the experiments on apricot trees which had conducted under controlled environmental conditions at Massey University , New Zealand are expressed. The application of the results for orchards management of the country discussed.