Irrigation System, Microirrigation (441)

A microirrigation system, also known as drip or trickle irrigation, is used for distribution of water directly to the plant root zone by means of surface or subsurface applicators.

Practice Information

Microirrigation systems are installed to efficiently and uniformly apply irrigation water and/or chemicals directly to the plant root zone to maintain soil moisture for optimum plant growth, without excessive water loss, erosion, reduction in water quality, or salt accumulation.

Microirrigation is suited to orchards, vineyards, row crops, windbreaks, greenhouse crops, and residential and commercial landscape systems. These systems can be used on steep slopes where other methods would cause excessive erosion or on areas where other application devices interfere with cultural operations.

The movement of dissolved substances below the root zone may affect groundwater quality. As with all irrigation, there may be effects to downstream flows or aquifers, and the amount of water available for other water uses.

Operation and maintenance of a microirrigation system involves periodic inspections and the prompt repair or replacement of clogged or damaged components. Additionally, the operator will need to determine and control the volume, frequency and application rate of irrigation water in a planned, efficient manner.

Common Associated Practices

Irrigation System, Microirrigation (441) is commonly applied with conservation practices such as Water Well (642), Irrigation Reservoir (436), Pumping Plant (533) Irrigation Water Conveyance, Pipeline (430), and Irrigation Water Management (449)

For further information, contact your local NRCS field office.

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