Irrigation Strategies for Improving Productivity and Water Use Efficiency of Vegetable Crops in Central California. (S06-bryla163446-Poster)

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Abstract:

Vegetable crops are often over irrigated because they are relatively sensitive to water stress (which reduces yield) and good information on the water requirements of many of these crops is lacking. In an effort to increase irrigation efficiency, limit crop water use, and maximize yield of vegetable crops grown on the west side of California's San Joaquin Valley, a project was planned to 1) determine water requirements and develop seasonal crop coefficients for a variety of vegetable crops, including broccoli, garlic, lettuce, onion and pepper, and 2) evaluate various irrigation systems, including furrow, drip and subsurface drip systems, for production of the crops. The first crop chosen for study was broccoli, which was planted in August 2002. Irrigation management strategies that optimize timing and placement of water and nutrients, increase crop productivity, and limit irrigation drainage will be identified. Results of the project will provide important information to California farmers for selecting irrigation systems and management strategies that increase profitability of growing vegetable crops in the region.

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