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IRRIGATION FOR OPTIMIZING SUGAR BEET PRODUCTION IN PO' RIVER VALLEY

ABSTRACT

Irrigating sugar beet in Po' valley river is undoubtedly useful especially considering the climate changes occurred in recent years as the worst rain distribution and the high temperature during summer time. An anticipation of the drought stress at the end of May or at the beginning of June has been reported during the last ten years. Sugar beet roots are not enough developed in this period in order to reach the shallow water table.

Choosing which irrigation system is a very important question for the Italian farmer. The pivot is undoubtedly the better option for big farms for economical and organizational reasons. Generally speaking farm area in the Po' river valley is not enough to justify such an important economic investment and most of the sugar beet growers use the boom despite this instrument is more suitable for occasional irrigation.

Fixed installations like irrigation or mini sprinklers are more suitable for systematic applications but even in this case it is necessary evaluating the cost-effectiveness as part of a multi-year period. The analysis of costs and benefits in real scale obtained in different years in some farms reveals the advantages and weaknesses of irrigated sugar beet grown in the Po Valley.
