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# B.C. Trickle Irrigation Manual

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# Foreword

## Why Microirrigation?

As fresh water supplies around the world continue to diminish and the cost of water rises, reliance on microirrigation systems will continue to increase, mainly out of necessity. But this is not the only reason why many farmers and landscapers are considering micro systems as alternatives to the more conventional sprinkler or flood irrigation systems. Microirrigation systems are more efficient and do save water but irrigators often look at other advantages when selecting these systems.

- Easier scheduling and changes to water application based on plant maturity and crop type.
- Micro systems are more easily automated.
- Irrigation can be applied while other mechanical or cultural operations such as weeding, spraying, thinning or harvesting are being done.
- Fertilizers can be applied efficiently and at the correct time. The amount applied can also be metered according to plant size. Better crop performance can be achieved.
- Reduced wetting of the plant foliage may prevent some plant diseases.
- A reduced wetted ground area limits weed growth.
- The effect of wind on system uniformity is negligible.

Trickle irrigation systems also have disadvantages and are certainly not suited to all cropping systems, soil conditions or water quality. This manual provides a methodology for the correct design, operation and maintenance of drip and trickle systems. Selecting the right product and applying it correctly to the conditions that exist is the first step to a successful system.

The Province of British Columbia recently released a Water Conservation Strategy that provides an action plan for the efficient use of our water resources. Improving irrigation system efficiency is identified as being a part of the strategy. This manual will hopefully take some small steps towards achieving that goal.



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