Information Sheet

IS14019

Irrigation scheduling – what does it mean?

The aim of irrigation scheduling is to apply the right amount of water, in the right place at the right time to achieve optimum yields.

A range of tools and scheduling methods are available. These range from simple tools such as mini pans, to more sophisticated tools like tensiometers and capacitance probes and finally to crop models.

The type of irrigation system and degree of accuracy required will influence the choice of scheduling tool.

Furrow irrigation

For furrow irrigation where the volume of water applied is difficult to manipulate, the main focus is usually on when to irrigate rather than the amount of water to apply. In this situation mini pans, tensiometers and capacitance probes are suitable tools. The problem with these tools is that it can be difficult to schedule more than a couple of days out.

If the water holding capacity of the soil is known, evapotranspiration and crop factors can be used to calculate the crop water use. As long as weather conditions are reasonably stable it is possible to estimate when the crop will next require irrigating.

Overhead irrigation

With overhead irrigation where the application amount can be more accurately managed, irrigation scheduling can be improved by using evapotranspiration and crop factors to more closely match applications to water use.

Drip irrigation

Drip irrigation requires a high degree of precision to match the amount of water applied to the crop use on a daily basis. Crop models that use real time weather data to 'grow' the crop and calculate daily water use are the best option.

More information

For more information on scheduling tools and methods see the following Information Sheets:

- Calibrating irrigation scheduling tools IS13024
- Crop water use IS13023
- Irrigation scheduling tools – capacitance probes IS13027
- Irrigation scheduling tools IS13025
- Irrigation scheduling with mini pans IS13022
- Simple calculations for furrow irrigation IS13026
- Soil water holding capacity IS13107
- Tensiometers IS13109.

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