

Irrigation-Management Solutions for
Agriculture, Turf and the Environment



MAIT
industries

Flood Irrigation

Why automate flood irrigation?

- to capitalise on improved water-delivery systems
- to improve water-use efficiency, and
- to reduce labour



Although it's traditionally been the way, nobody really wants to get up through the night, opening and shutting gates or bay outlets to water paddocks. If you have fast-flow flood irrigation, then your 'sleep' will be very broken indeed.

Farmers want to automate watering. And do it cost-effectively.

Using MAIT systems, what used to take 2-3 hours to do manually, can now be programmed at the PC in just a few minutes...

...that's a huge saving of both time and money.

"Our customers are our best advertisement"

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Case study:

A northern Victorian dairy farmer put in a new pipe-and-riser system to water his paddocks. He then installed MAIT's iNTELLiTROL to automate controlling the irrigation, rather than do it manually. This way, he really gets the most out of the new, improved water delivery.

In the farm office, MAIT iNTELLiPUMP software was installed onto a PC.

In the paddocks, each pipe-and-riser outlet was fitted with a MAIT radio-control board* and an actuator that opens and closes the risers.

Every actuator is remotely controlled from the office via iNTELLiPUMP. Each site can be manually controlled for an irrigation, or, multiple schedules can be programmed to automate the irrigation schedule.

What previously took the farmer about three hours to do manually out in the paddocks, he now programs at the PC in just a few minutes.

down the track. Again, because the MAIT system is scalable, this can be easily done.

* The MAIT boards can each control up to 4 actuators. However, sometimes, linking multiple actuators via cable is not practical or cost effective, so — as in this case — individual radios and boards are fitted to each actuator instead.



"Using MAIT's iNTELLiTROL means we can get irrigation just right; we completely avoid any wilting. After rainfall, it can be hard to work out when to start irrigating again because you're not actually sure how far the moisture has penetrated. I can just sit down at the computer, see what the crop has been using, look at the weather, and manipulate irrigation around rain events. It can even help us judge when to speed up irrigations. The way the information is presented is really fantastic; it's very simple to use: quick and easy. We can quantify water use even into what's drainage. This technology has allowed us to plan our irrigation much better, saving time and money."

— Craig & Helen Reynolds, Congupna, Vic
(broadacre cropping)

Other options

Farmers also have the option of installing a **wetting front sensor**. This is placed say two-thirds down the bay. When water hits the sensor, a command is transmitted back to the controller to automatically shut off irrigating that bay and to begin watering the next one.

Alternatively, farmers can use a flow meter, to allow a set volume of water onto each bay.

Benefits

Automating your flood irrigation means:

- you greatly reduce the time spent physically opening and shutting gates or bay outlets
- your time is freed up for other tasks
- you gain even more efficiency from your water use
- irrigating is more effective for your crops or grazing paddocks

...in a nutshell: you save time and money

The system can grow

Automating his flood-irrigation system was this farmer's first priority.

His second step will be to connect soil-moisture probes. Because the MAIT solutions are scalable, there's no cost or efficiency impediment to taking this step-by-step approach.

The farmer intends to use data from the probes to help schedule all irrigating. So paddocks will be watered when they actually need it, rather than according to an historic timeline.

Each control board can read one multi-depth capacitance profiling probe, so the farmer only needs to install probes in the desired locations, then run cable back to the control boards.

He will likely install other sensors — including soil EC, flow meters and weather sensors — further



To improve the quality of your paddocks or crops using flood irrigation, call us on 1300 739 920, or visit www.mait.com.au for more information on products, case studies and white papers. Increasing your water-use efficiency increases your bottom line.

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