FarmConnect®

# Irrigation Management Software

*FarmConnect's easy to use web-based software provides a single platform for you to remotely manage every aspect of your irrigation.*

FarmConnect software uses Google™ satellite mapping and GPS positioning to graphically display your farm, showing the status of your field devices at a glance – making it easy to schedule, control and automate irrigation from your computer.

- Create irrigation programs to sequence bay irrigation
- Real-time device monitoring and control
- Monitor soil moisture and weather information using a powerful graphing interface
- SMS text messages and email alerts configurable for all connected devices
- Easy device configuration and bay setup
- Irrigation commencement from an event or water order date
- Irrigation event cutoff determined dynamically from in field sensors

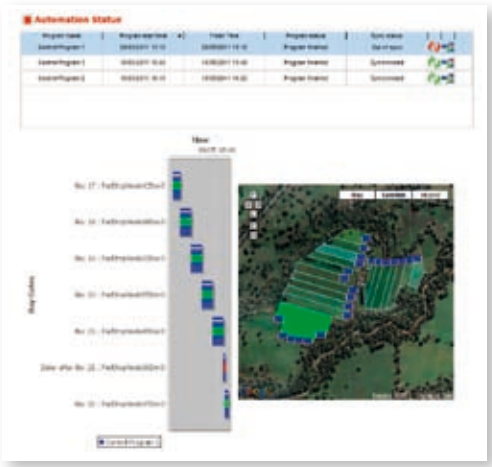
Linked to an ißee® wireless network, and Rubicon's industrial grade irrigation hardware, FarmConnect management software provides all the tools you need to implement precision irrigation on your farm.

Via the ißee wireless network, FarmConnect software monitors and controls Rubicon's:

- Bay gate actuator
- BladeValve™ pipe & riser actuator
- FloodTech™ wetting front cutoff sensor

As well as a range of third party devices including:

- Soil moisture sensors
- Pumps
- Weather stations

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# Bay Gate and Pipe & Riser Valve Actuation and Automation

*The FarmConnect irrigation automation solution includes a range of industrial quality irrigation hardware designed specifically for high-flow surface irrigation.*

Rubicon has developed its world-leading irrigation gate technology to provide farmers with bay gate and pipe and riser automation solutions that are built for reliable operation year after year.

Rubicon's BayGate actuation system provides reliable actuation and automation of high-flow bay gates under the harshest conditions.

The BladeValve™ automated pipe and riser valve is a robust solution that provides tight sealing under high operating pressure for high-flow irrigation.

Designed for remote and automated operation, they are powered and controlled using Rubicon's solar-powered ißee® unit which communicates with FarmConnect irrigation management software to provide you with the ability to precisely control the operation of your irrigation hardware.

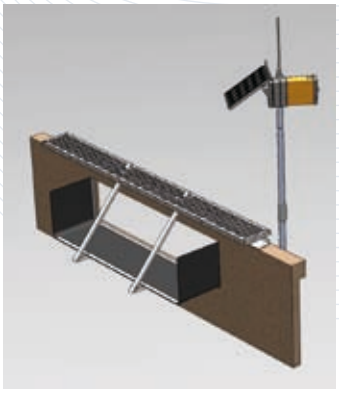
FarmConnect's easy to use irrigation management software provides a single platform for you to remotely manage every aspect of your irrigation, making precision irrigation a reality.

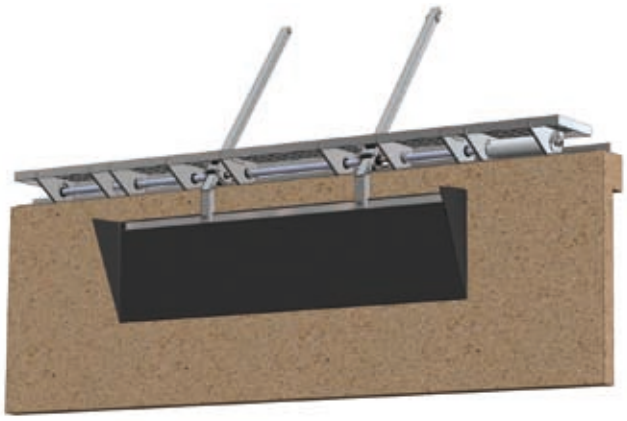
### BayGate Actuator

- Actuation for bay outlet sizes from 900mm to 3000mm
- Powerful 12VDC motor
- IP67 rating on motor
- Typical stroke time of less than 1 minute

### BladeValve

- Suits pipe & riser outlet sizes from 450mm to 600mm
- Larger diameter valve decreases water velocity
- Powerful 12VDC motor
- IP67 rating on motor
- Numerous mounting options
- Designed for higher operating pressures





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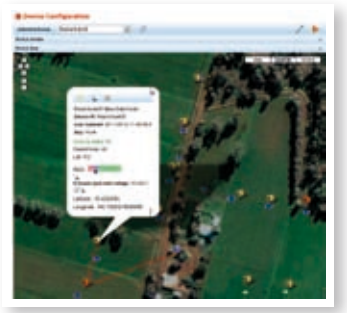
# ißee® Farm Communications Network

*FarmConnect's ißee network uses advanced technology to enable you to wirelessly monitor and control your irrigation system.*

Linked to web-based FarmConnect management software, an ißee network provides a single platform to integrate automation, control, irrigation system monitoring and crop management.

Solar-powered ißee nodes connect to a wide range of field devices including high-flow bay gates and pipe & riser valves, irrigation cut off sensors, pump monitoring and sensors including weather stations and soil moisture probes.

Each node on the system automatically communicates with nearby nodes to form a network enabling centralised management of every aspect of irrigation.

ißee nodes are designed and built to withstand harsh irrigation conditions, providing reliable operation year after year. And its advanced technology gives you the flexibility to expand and adapt as your irrigation needs change over time.

The ißee nodes provide a sensor and actuator interface to the FarmConnect system. The nodes self-mesh and self-manage to form a network with optimal data routing with 1 km range.

A GPS receiver provides real-time coordinate information for location-tagging of data and a large capacity solar power supply allows the ißee node to power actuators without connection to an external power supply.

The ißee nodes use ZigBee modules which are built to an international standard providing an open platform.

With remote access to real-time field information and precision control over your irrigation, an ißee network provides you with the future-proof technology you need for efficient, automated irrigation.

- Dedicated wireless network based on the ZigBee protocol for easy connectivity and reliability
- Excellent all-terrain coverage and GPS positioning
- Robust design and construction
- Connects a wide range of field devices
- Backed by Rubicon's world-leading irrigation technology

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# Soil Moisture Monitoring

*Farmers, more than any other part of the community, know the importance of water and the value of water use efficiency. Smart irrigation practices have been applied in agriculture for many years.*

FarmConnect uses AquaSpy® which is a capacitance probe designed to measure soil moisture content at multiple depths (at every 10cm) in deep rooted plants. Available in both subsurface and above ground variants, probes are available in lengths 50cm, 100cm and 150cm. This ensures best quality and optimum yield while significantly improving water use efficiency.

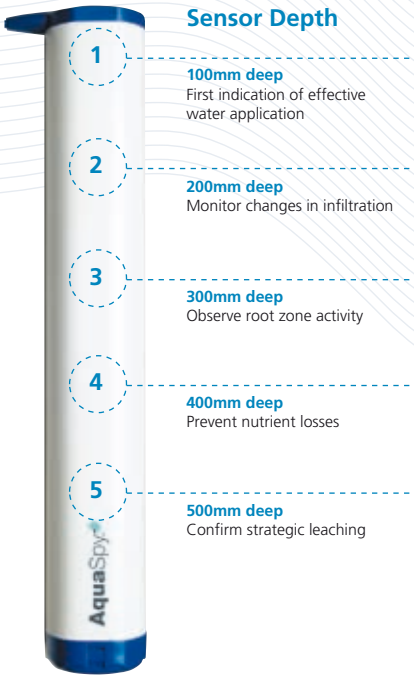
AquaSpy technology provides detailed analysis tools to allow experienced users to quickly and easily determine plant water use and the health and nature of the root structures on their crops and trees. The actual root depth can be viewed at a glance and can assist in putting together effective management practices.

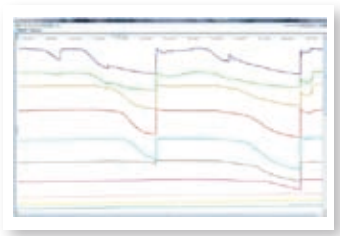
Sensor readings are provided at 10cm depths through the profile down to 100cm or 150cm to provide a soil moisture profile of the plant. It also assists in determining how the irrigation practice may need to be altered to improve the quality of the crops.

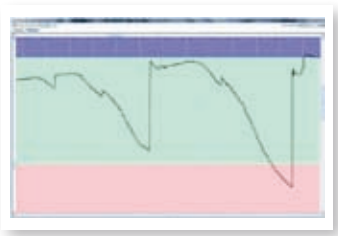
Irrigation templates use the sum graph with coloured bands to provide a visual indication of overall irrigation demand. The blue area illustrates that the soil is too wet and waterlogged and the red shows it is too dry and the crop may be in stress. The intent is to keep the soil at the right level of moisture so the sum graph is within the green zone.

Soil moisture probes provide demand management solutions for precision irrigation which accurately measure the soil water needed to:

- Maximise crop yield and productivity
- Maximise quality of product
- Reduce operating costs
- Increase profit
- Improve water use efficiency
- Minimise wasted water
- Reduce pollution by preventing nutrient movement into aquifer or river systems.





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