

Adoption of Moisture Monitoring in Sweet Corn



National Vegetable
Extension Network

NEW SOUTH WALES

Background

Brendan Booth is a sweet corn farmer using centre pivot irrigation from Geurie in Central West NSW. He was introduced to moisture monitoring through the Hort Innovation project *Review of current irrigation technologies* (VG14048). He urges other growers to learn to 'push out water further' with a focus on increasing returns per megalitre (ML) of water used.



Wildeye Soil Moisture Monitoring probe

VegNET NSW in partnership with Simplot engaged with growers to hold a Farm Technology Field Day in Bathurst and Geurie in September 2018.

Information for this field day also came from Hort Innovation projects *Design and demonstration of precision agriculture applied to different vegetable crops* (VG08029)

and *Data analytics and app technology to guide on-farm irrigation* (VG15054).



Even watering improves crop yield

Outcomes

Through the adoption of soil moisture probes, farmers can set clear irrigation targets based on soil moisture and monitor remotely to see if they are being met. Alerts can be set for low line irrigation system pressure. Irrigation schedules can be adjusted easily as well as checking run times – all done remotely. This technology monitors irrigation performance and prevents needless irrigation on saturated soils. It also takes into consideration any variation soil type within the crop. It ensures sufficient deep watering at critical crop intervals. The benefits of soil moisture monitoring are great, beginning with seeing how much water actually makes it to the root zone, saves pumping and fertiliser costs, prevents unnecessary over-irrigation and ensures optimum crop production.

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Installing soil moisture probes in direct drilled sweet corn crops

After the recent drought in Eastern Australia, water shortages and water use efficiencies are even more important. Profit margins per ML of irrigation water are a big driver for large scale sweet corn cropping.

Brendan Booth said after using the Wildeye Soil Moisture Monitoring probes *“I use more water, but I grow more crop so the margin per hectare is greater.”*

Scott Stevenson from Ponto near Dubbo is a sweet corn, adzuki bean and wheat farmer. He is already using and trialling the Wildeye Soil Moisture Monitoring probes. Even though Scott was watering more because of the moisture probes he was watering more accurately and ended up with a better crop of sweet corn.

Mark Carter a sweet corn grower near Dubbo, used soil moisture probes on all crops. He said *“Testing them out, gives you confidence with water use and a good back up tool.”*

Key messages

Monitoring soil moisture improves crop productivity per ML and allows for critical crop periods to be monitored. Water stressing plants at critical times such as flowering reduces yields and crop quality.

More information

Matthew Plunkett – Senior Land Services Officer
matthew.plunkett@lls.nsw.gov.au
Ph 0428 978 390

Sylvia Jelinek - Senior Land Services Officer
sylvia.jelinek@lls.nsw.gov.au
Ph 0427 086 724

Greater Sydney Local Land Services
www.greatersydney.lls.nsw.gov.au
Ph (02) 4724 2100

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Farmers: Brendan Booth, Scott Stevenson and Mark Carter
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