



Sentek sensor technologies

Grower Experiences 100% Increase in Production Levels using the EnviroSCAN

Abstract

Bruce Nastasi embraces soil-moisture monitoring for crop quality and substantial increases in yield. Sentek's continuous soil-moisture monitoring solution, EnviroSCAN[®], has allowed Bruce to significantly increase mango yields by 100% and improve the fruit shape and quality.

The Grower

Bruce Nastasi farms a 60 ha property area approximately 20 km west of Mareeba, near Mutchilba. The Mareeba/ Dimbulah area relies on irrigation as the average rainfall is 400-600 mm/year. Water is supplied via a channel system by the Mareeba-Dimbulah Irrigation Scheme managed by Sunwater. Mangoes 8000 trees and limes 1000 trees are grown on the property. Bruce is one of the pioneers that instigated the Mango industry in the Mareeba/Dimbulah area and has been growing mangoes for over 30 years.



Market

A commercial packing shed was set up on the property and Bruce employs a number of pickers and packers supplying mangoes both overseas and to the southern market of Sydney, Australia. Bruce packs his own mangoes under the company logo "Goldpak", as well as for other local growers. Bruce is the biggest producer of mangoes supplying the Japanese market. His overseas market also includes the Middle East and Europe. Bruce has spent many years developing a

premium quality product and even with an oversupply on the market within Australia, has managed to sell his fruit due to these standards.

EnviroSCAN®

EnviroSCAN® is Sentek's flagship product and has become the most widely used continuously logging, irrigation management tool in Australia and has expanded around the world. The EnviroSCAN® is a complete and stand-alone soil moisture monitoring solution, taking remote data from the field and displaying it as an easy to use graph on the grower's computer. The EnviroSCAN® can be downloaded by the grower via a range of methods, while the IrriMAX® software gives growers a graphical, continuous and up to the minute understanding of moisture levels in the soil profile.

Irrigation Practices and Results

By using an EnviroSCAN and BSES Limited commercial scheduling service, Bruce has not only seen a doubling in yield, but also improvements in fruit shape and overall quality of his product. These have been Bruce's main priorities and with efficient water management and nutrition guidance has successfully achieved great results.

BSES Limited Irrigation Advisor, Fabian Gallo has worked closely with Bruce to manage his irrigation requirements both in his mangoes and lime orchards. Placement of an EnviroSCAN moisture monitoring tool in the mango orchard has provided relevant data indicating crop water use, infiltration rates, and root zone depth extraction. The EnviroSCAN has been a valuable tool for Bruce, as it allows him to see seeing how his irrigation management is influencing the crop. Fabian advised Bruce to change his irrigation scheduling and water amount applied per irrigation to match the soil up take and daily crop water demand over the season. Bruce not only achieved above average yields on the previous year but also doubled his production on this year.

Conclusion

Having achieved great results has prompted Bruce to further use the EnviroSCANS. He is now looking at timing the amount of nutrition needed with the irrigation management to further improve yields, fruit quality and overall

market size demand. BSES Limited will assist Bruce in these endeavours by continuing to provide specialised techniques in irrigation management.

Acknowledgements

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For further information on Sentek Sensor Technologies, please email marketing@sentek.com.au, free call 1-800-SENTEK (1-800-736-835) or visit www.sentek.com.au to arrange a product catalogue to be posted to you.