



Eyes on the Soil

SMART WATERING CASE STUDY: MT HUTT COLLEGE

Hearing about the SMART Watering campaign made Fiona Jessep's ears prick up. The Agriculture teacher at Mt Hutt College in Methven, Mid Canterbury was keen to learn more about smart watering technologies that could be passed onto her students, particularly soil moisture monitoring tools that would help them determine how wet or dry soils are before planting and during the growing season. She got in touch with the campaign organisers and shortly afterwards received an Irrrometer in the mail, a simple device for measuring soil moisture content provided by SMART Watering campaign partner Water Supply Products.

Mrs Jessep is delighted with the device and intends to use it with her Year 12 Agriculture students during their extended investigation learning next year.

"I want to show them how to water to ensure watering gets down to the root zone. Using the Irrrometer will allow that to happen. It will make it a lot easier for the students to assess soil moisture levels and know when they should be putting on water."

One of Mrs Jessep's students, Jack Taggart, suggested using the Irrrometer on a trial of different pasture species to see how much watering each requires. The Ashburton Grain and Seed Association has provided seeds so the students are now set-up to run the experiment.

Some of Mrs Jessep's students come from farms with irrigation so are already au-fait with soil moisture monitoring, but the beauty of having an Irrrometer at school is that they can view the relationship between water and plant growth over the school year.

Year 13 Agriculture students complete a unit on water quality and quantity so again the Irrrometer will be a welcome addition.

"They have to learn about soil moisture monitoring and water budgets so being able to access an Irrrometer for school was an ideal opportunity. If we don't have the equipment, it can be difficult to show them these techniques."

What she expects they will discover is that soils often need more water than expected to grow crops. Using the Irrrometer will help them understand the different watering requirements of the vegetables and crops commonly grown in the area.

"It will provide a more real world situation than a laboratory type approach to learning about soil moisture and plant watering needs."

Taking into account the district's notorious Norwest winds when applying water and seeing how different soils respond to hot, dry conditions will also be part of her student's area of study.

Martin Payne, General Manager of Water Supply Products, says they were happy to help the school improve their teaching around soil moisture theory because it fits so well with the objectives of the SMART Watering campaign.

"While the Irrrometer is an older-style technology, it's an excellent teaching tool as being non-electronic it's simple to use."

"We were excited to hear the school was keen to further their understanding of soil moisture monitoring. It's not just something that irrigators can employ; there are also technologies available for home gardeners and smaller lifestyle blocks that allow you to better understand what's happening with your soil moisture so you can optimise plant growth and refine your application of water."

Irrrometer has a Watermark branded electronic range of soil moisture monitoring tools suitable for landscape and home gardener's use. The Waterswitch branded electronic range uses the same type of sensor technology as the Irrrometer to turn off residential irrigation controllers when the soil moisture is adequate and can be retrofitted to any brand of controller.



An Irrrometer before it's calibrated for use



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