Technology for controlling weeds in vegetable production

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Integrated Crop Protection
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Soil Wealth
NURTURING CROPS

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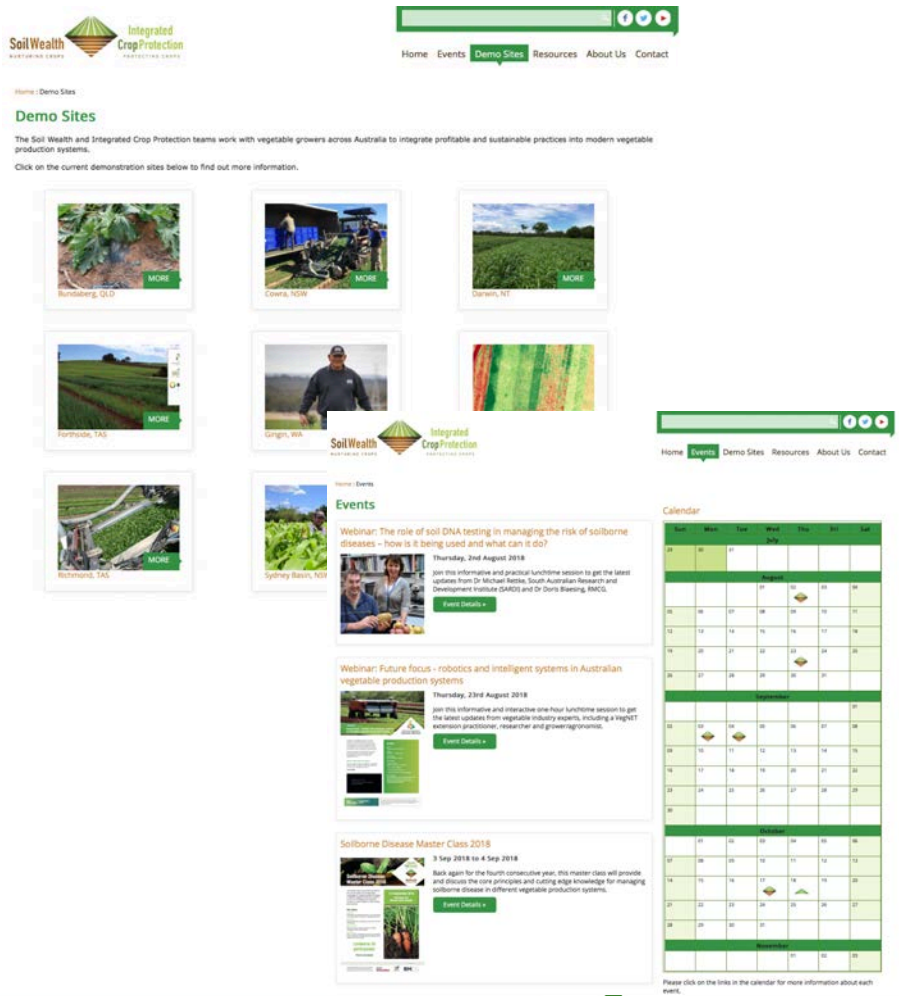
What we'll cover today

- Steam saturation – development of chemical free weed management
- WEEDit and Recapture technology – what are they and how do they work?
- Precision implement guidance in row crops using radio frequency – evolution and lessons from overseas
- Q&A session
  - A chance to engage with our panel presenters

The Soil Wealth and ICP project

- Improve soil management and plant health
- Research to practice focus on-farm
- Work directly with vegetable growers and advisors
  - Phase 1: 2014-2017
  - Phase 2: 2017-2022
- Responding to industry needs
  - Demo sites, events & resources



Jeremy Winer, Weedtechnics

- Satusteam© - weed killer safe enough to drink

Steam saturation technology

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Table 13. Cost of products when applied at label rates used in the trial.

Input	Input cost	Cost/ha (input only)
224 g/L sodium chloride (Nontox®)	$240/20 L	$238
525 g/L nonanoic acid (Slasher®)	$286/20 L	$298
680 g/L pine oil (Bioweed™)	$330/15 L	$436
790 g/L acetic acid (Contact Organics™)	$220/20 L	$163
Flame	$15.95	$579
Mulch	$33/$m^3$ delivered	$5,049 (~$1,683/ha/yr)
Steam SW2800	$39,600/unit	~$87.00 water and diesel
Straw	$70/4 x 4 round bale delivered	$3,500 (~$1,166/ha/yr)

Dave Farmer, Croplands

- WEEDit and Recapture technology – what are they and how do they work?

WEEDit and Recapture technology

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What is it and why bother?

- At it's most basic form WeedIT is a system that uses near infrared (NIR) technology to identify a living weed in a fallow paddock and sprays only that weed.
- The concept of using a sensor or camera to identify and spray only weeds has been around for a long time and is still a hot topic but many systems have failed to get off the ground mainly due to accuracy (missing weeds) and efficiency (too slow) problems.
- Croplands has been actively selling WeedIT sprayers for over 5 years now with major growth over the past three years. The product is seen as a commercially viable option.
- Substantial return on investment by reducing input costs and controlling hard to kill weeds.
- Combats resistance while remaining economically viable. Different (usually more expensive) chemistries can be used and weeds can be repeatedly and cheaply targeted when they are young, easy to kill and unable to set seed.
- Allows the operator to approach the job aggressively with a "no escapes" attitude.
- Clear environmental advantages by using less chemical
- Direct from manufacture supply with a national dealer network
- Croplands relationship with Nufarm in regards to chemistry, registrations and label directions gives us a complete approach

CROPLANDS

WEEDit and Recapture technology

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Robert Tucker, AEGIS

- Precision implement guidance in row crops using radio frequency – evolution and lessons from overseas

Radio frequency technology

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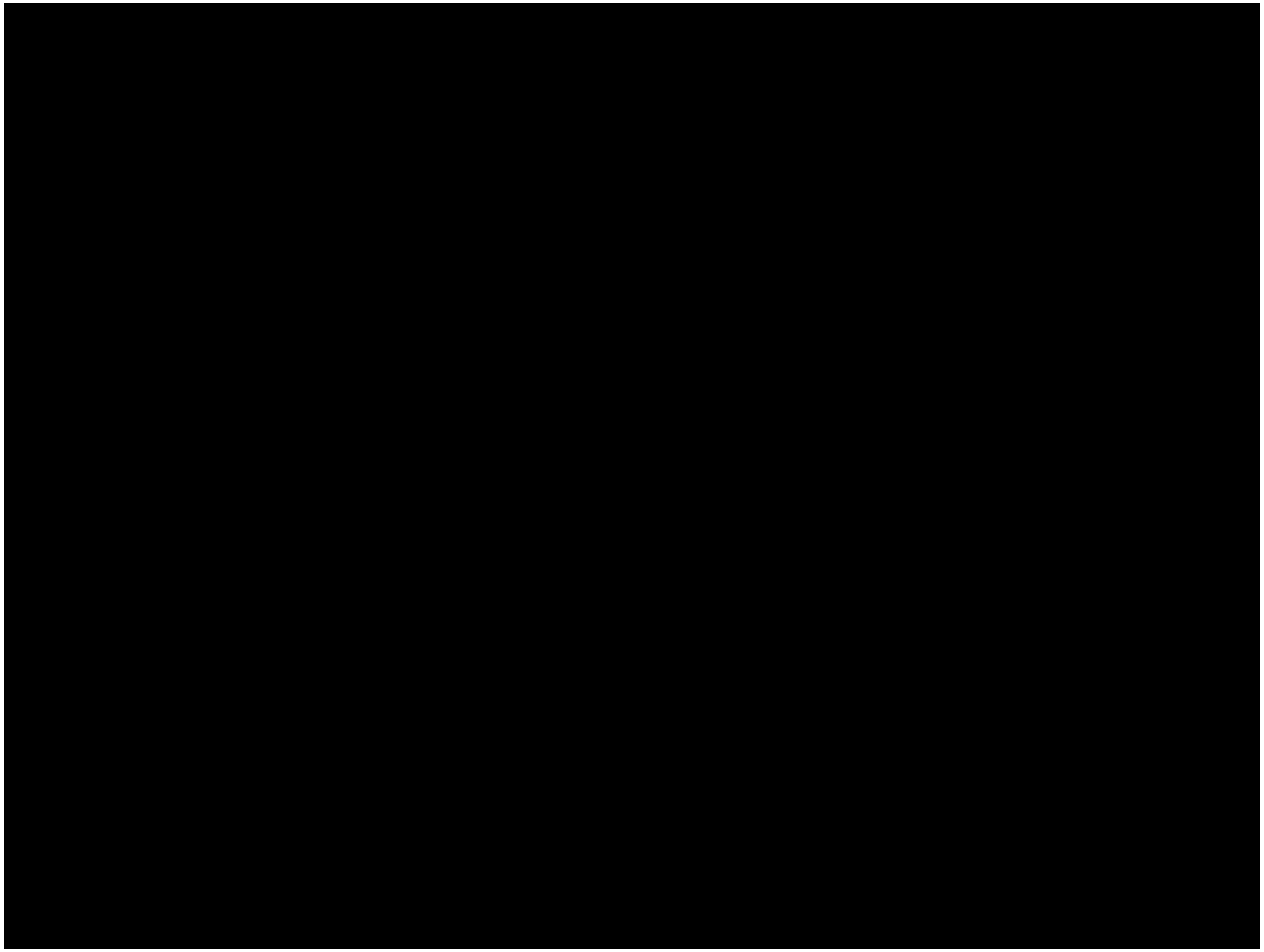
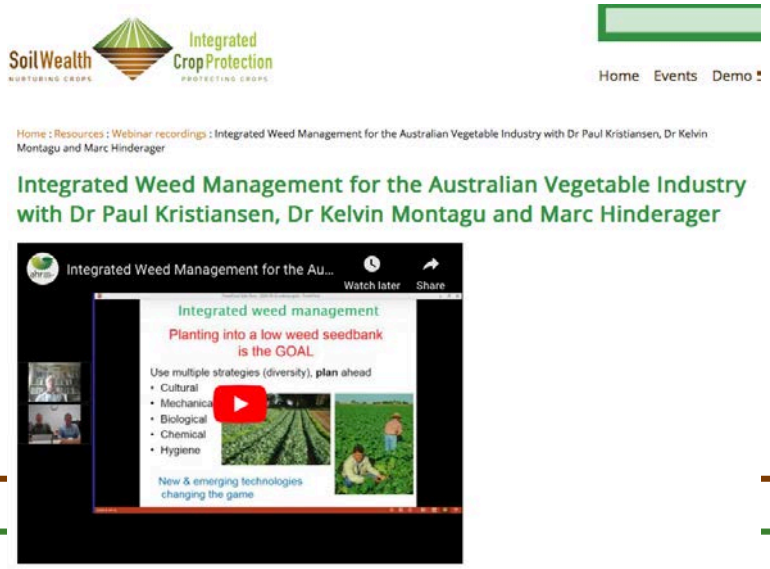


Let’s get the conversation started …

- Q&A session

Resources and events

- Fact sheets
- Global scan and reviews
- Past webinar recordings
- Videos
- Visit www.soilwealth.com.au



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