Smartcane BMP

How well do you know the Smartcane BMP core modules?

MODULE 3 – Managing Weeds, Pests and Diseases

What is this about?

As we all know, weeds, pests and diseases have the potential to greatly reduce sugarcane yields. In recent years, the industry has evolved a robust set of control options to minimise their impact.

However, there are still challenges and opportunities. For example, there are legal constraints on the use of some products, and each year there are new products on the market to consider.

There are also opportunities to achieve effective weed control with less use of residuals and more precise application technologies.

Avoiding diseases relies on accessing disease-free seed, using resistant varieties, and implementing hygiene practices to reduce spread by machinery. There are now testing methods for most diseases which can help prioritise and target interventions.

Canegrubs are the most common pest of sugarcane but other pests can be locally important, such as soldier fly and wireworms.

Why is it important?

Weeds, pests and diseases still cause significant reductions in cane yields. It's important to remain attentive to signs of weeds, pests and diseases to continue being productive.

It's essential to use herbicides and pesticides responsibly so you have ongoing access to them, and to secure your reputation as a steward of the land.

Selecting products, following their labels and any regulations, and timing and method of application all affect the risk of chemical run-off into waterways and other environments.

What's next?

REVIEW AND DISCUSS

If you'd like to document or review your weed, pest and disease practices, you can access Module 3 at **smartcane.com.au**. The module records your current practices, and the simple checklist format helps to identify options for further improvement.

Your district facilitator or productivity officer can help you follow-up on additional information, training or expert advice.

If you'd like more information, the following resources are available for free on the SRA website, **sugarresearch.com.au**:

- **Weed Management in Sugarcane Manual**
- **Fact sheets on each species of canegrub and on the other major pests of sugarcane**
- **Fact sheets on the major diseases including RSD, Pachymetra root rot, and sugarcane mosaic**

GET INVOLVED IN SMARTCANE BMP

Smartcane BMP has modules that cover all aspects of the cane farming business. It includes the option for becoming accredited in the farming practice modules (Modules 1, 2 and 3). Participation is entirely voluntary, and your facilitator can talk with you about what's involved and put you in touch with local growers who are also part of the program.

Contact your district facilitator to get involved.

What's in the module?

INDUSTRY STANDARD	ABOVE INDUSTRY STANDARD
CANEGRUB MANAGEMENT	
Controlling canegrubs by identifying different species and monitoring plant damage, soil texture, and proximity to known adult feeding sites	Using a district-wide monitoring program and developing a unique grub management plan by applying an individual block risk assessment framework including paddock history
RAT MANAGEMENT	
Avoiding the build-up of rats, implementing a baiting program when required and maintaining the correct records	Participating in a district-wide monitoring program
OTHER PESTS	
Knowing when pests are present and implementing management plans when needed	Completing risk assessments for specific pests and implementing a management program when needed
WEED MANAGEMENT	
Developing and implementing a weed management plan; developing separate strategies for fallow, plant cane and ratoons; reducing the residual herbicides through banding and knock-down in inter-rows; and selecting spray equipment to suit crop stage	Developing and implementing a weed management plan that focuses on controlling weeds during the fallow period, minimal use of residual herbicides, and using GPS technology to identify and manage weed problem areas
DISEASE MANAGEMENT	
Avoiding diseases by implementing strategies while planning the farm and operations, destroying all cane at the end of each crop cycle, and being aware of regional disease risks and testing when needed	Preparing a disease survey that is updated each season, and selecting rotational crops based on their susceptibility to host known pathogens like lesion and root knot nematodes
PRODUCT SELECTION	
Select approved products, use them as per label, and be aware of the risks	The pesticide selection tool is used to further reduce environmental risk.
CHEMICAL STORAGE, MIXING AND USER ACCREDITATION	
Ensuring everyone who uses chemicals on your farm has been suitably trained; is storing chemicals in line with regulations; mixing chemicals at locations that meet label requirements and legislations; and disposing of chemicals and drums through approved disposal systems	Those who use chemicals maintain their currency through relevant training
CHEMICAL APPLICATION AND RECORD-KEEPING	
Applying chemicals in line with label requirements and legislation, keeping records of chemical management for each field, selecting appropriate nozzles, calibrating equipment at the start of each season, and with each change in product, including a chemical management plan within the weed management plan, and timing chemical application to minimise run-off	Reducing residual herbicides by banding residuals along the drill, using knock-downs in the inter-row, using automatic flow rate controllers and precision application equipment, and continuous monitoring and calibration