

The latest in organic R&D news

Weed basher's bible



Ten years of study and painstaking data collection have created a new weapon for farmers in the fight against crop weeds.

The new *'Integrated Weed Management'* (IWM) manual—a 250 page 'weed bible' compiled by an Australia-wide team lead by Technical Specialist Andrew Storrie of the Weeds CRC—was launched by the Minister for Fisheries, Forestry and Conservation, Senator the Hon. Eric Abetz at parliament House in Canberra in February.

The IWM manual encourages land managers to use the full range of control methods available - and not rely on a single 'quick fix' solution, such as herbicides alone.

The manual grew out of a concern at the speed with which unwanted plants are becoming resistant to herbicides. In particular there is a need to take a different approach to weed control by combining the various techniques of weed control to achieve the most effective results.

"The manual isn't intended to be dogmatic," says Mr Storrie. "What it does do is demonstrate the best options for managing unwanted weed populations so that farmers and land managers can relate the management possibilities to their own situation. We don't want to be prescriptive."

Mr Storrie says that the best way of managing plant pests is often by good whole farm management.

He says that IWM has been received differently across Australia. Districts where herbicide resistance has become a serious problem are far more likely to adopt alternative or supplementary methods to herbicides.

"If herbicide control isn't working, farmers are more inclined to learn about their particular weed species, their life cycles, their weak points, and the life expectancy of the weed seed in the soil," he says.

"A good healthy crop should be able to out-compete the weeds," he says.

The IWM manual contains specific details of 20 of the worst weeds of cropping areas and individual weed management tactics, as well as detailed information on how to develop and assess effective weed management programs. The manual also contains a comprehensive section on herbicide resistance.

Unwanted plants don't just appear by accident, says Mr Storrie.

"Weeds are a symptom," he says. "They are telling you



Andrew Storrie, Minister Abetz, and Weeds CRC staff at the launch at Parliament House, Canberra.

something about the way the land is being managed - that you need to change what you are doing and the way you are doing it."

"If you don't change what you are doing, you're going to have the problem come back again and again," says Mr Storrie. "The key to success is to carefully monitor results of each technique that you use, and to continually adapt as the situation evolves."

Weeds fill a gap, says Mr Storrie. "You've got to ask yourself, why is the gap there?" he says.

"Farmers must be proactive, especially as farming becomes an increasingly complex operation. Quality assurance issues, chemical residues and changing market conditions all make decisions more difficult."

"The successful farmer understands that the quick fix is seldom sufficient in the long term," he says.

With support from the Grains Research and Development Corporation, the manual is already used in training agricultural advisers across the national cropping zone through a series of workshops being conducted by the CRC and Sydney company ICAN Pty Ltd.

"Agronomists and extension officers are given a thorough grounding in IWM and management strategies to thwart developing herbicide resistance," says Mr Storrie. "With 20 workshops for advisers and consultants already run across all mainland states, the IWM message is getting through to the paddock in every cropping region in Australia."

Contact: Information on obtaining a copy of the IWM manual is available from: www.weeds.crc.org.au

RESOURCES TO ASSIST WOOL GROWERS IN MANAGING CLIMATE RISK

Climate assessments are more than ever impacting on the success of production. A new series of resources is available to wool producers which will assist with climate assessments for determining when to make key decisions for sustainable farm management. These tools apply to decisions in relation to seasonal feed budgeting and management activities such as joining, lambing and fodder conservation.

Betting on Rain - provides more sophisticated forecasts based upon regional weather patterns for western NSW. Visit www.dpi.nsw.gov.au/aboutus/resources/majorpubs/guides/betting-on-rain.

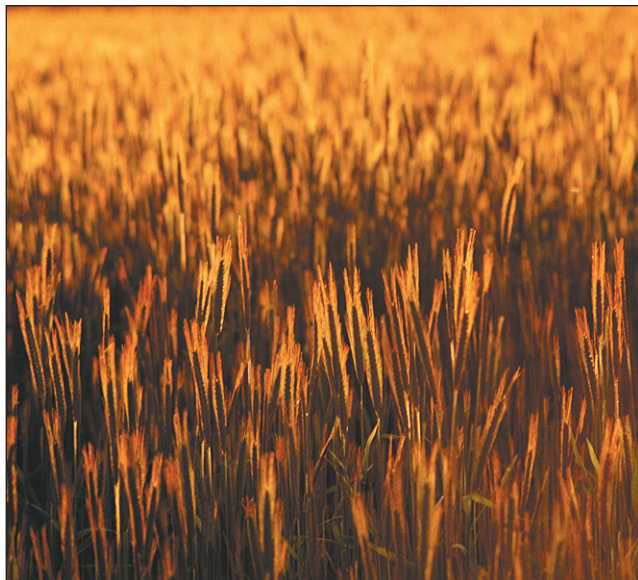
Climate Drafting Gate - is a "gateway" to the range of information about climate variability. Visit www.landwaterwool.gov.au

The South Australian Climate Risk Seasonal Outlook Pocket Guide - provides probability of rainfall three months in advance. Feedback on the guides usefulness has been extremely positive.

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A QUICK CHECK GUIDE TO THE HEALTH OF WOOL PRODUCTION BUSINESSES

Quickchecks is a step-by-step guide assisting wool producers to assess the condition of native vegetation, biodiversity and health of rivers on-farm. It provides options for maintaining or improving on health of the property. Visit [<www.landwaterwool.gov.au>](http://www.landwaterwool.gov.au).



LOCAL ACTION FOR ADAPTING TO CLIMATE CHANGE ON FARM

The effects of climate change are already being felt and are likely to increase in the future. It is suggested that our ability to adapt and build resilience into our farms will help Australian producers to withstand the pressures of climate change.

Already some producers are no longer dwelling on the problem, however have made production decisions with the view of adapting to changes for their regions.

Farmers to the north-east of New Zealand's South Island in the Marlborough region have found that their region has

become one of the driest in NZ experiencing droughts similar to south-eastern Australia.

The Starborough-Flaxbourne Soil Conservation Group has set out to reconfigure its farming systems to be in line with the new climatic type of their region. In an effort involving science providers, farmers and specialists, potential farm management options are being modeled and tested on two trial farms.

Examples of techniques so far employed have been the use of saltbush for providing windbreaks, stock fodder and soil stability. Lucerne is being grown on the flatter country for increased pasture yield and stock carrying capacity.

The success of the groups efforts thus far are a great example for both NZ and Australian farming regions demonstrating the effectiveness of local group action for managing climate change.

Back in Australia the CSIRO has projected both good and bad scenarios for different regions. Ian McClelland, Chairman of Birchip Cropping Group is based in Victoria's south-west and is looking at the prospects of what his region needs to do to adapt to the changes. He is looking at the suitability of producing wheat, pulses and lambs in warmer climate conditions.

"There are going to be major shifts in the way we farm," says Mr McClelland.

"Farmers are already leaning and more aware. For example, its very interesting that there have been virtually no dust storms in Victoria this year; we are managing the soil better; we can adapt.

"Not least, we need to maintain a farming community with the capacity to accept; with an open mind to embrace new ideas and test them. Losing control of the way we normally do things creates uncertainty and stress.

"But it's important that we become smarter, more practical and more communicative with each other. That's how we'll survive."

Climate information:

Managing Climate Variability: [<www.managingclimate.gov.au>](http://www.managingclimate.gov.au)

For CSIRO's summary of climate projections for Australia for 2030 and 2070: go to [<www.cmar.csiro.au/e-print/open/cechet_2002a.pdf>](http://www.cmar.csiro.au/e-print/open/cechet_2002a.pdf)

Glossary of climate definitions: [<www.dpi.qld.gov.au/climate/>](http://www.dpi.qld.gov.au/climate/)

Source: *Australian LANDCARE Magazine*.

WHAT COULD BE MORE IMPORTANT THAN RAIN?

While we are lost without rain, what is arguably more important is maintaining soil moisture in the ground. This is essential for achieving maximum productivity from rainfall we receive. John Ive, chair of the Australian Superfine Wool Growers Association for the Goulburn/ Yass region, is one of many farmers working with scientists on R&D projects to adapt to the effects of climate change.

Mr Ive has developed a computerized daily soil-water balance model for his farm for profiling pasture establishment, tree planting and salinity risk.

Soil moisture is also being used for a more meaningful drought analysis on his farm than that of rainfall measurements only.

Greg Paynter, BFA's advisor on soil health says "the best way to maintain moisture in the ground is through continually improving soil health and the building of humus."

"Properties that have achieved soil health are proving to have higher resilience and yields in times of drought."

An article by Greg Paynter on soil health can be found on page 45 of this Journal. ■