ORGANIC SOLUTIONS TO WEEDS ON RIVERINE PLAIN

Viv Burnett, Project Leader of the Department of Primary Industry's Organic Weed Project, reports on progress to date and future initiatives planned for the benefit of the organic industry in Australia.

Grain producers from southern NSW and north east Victoria flocked to an innovative field day held at the Australian certified organic farm of Bob and Jenny Congdon of Berrigan last October. They came to hear the latest information on managing weeds in pasture, forage and grain crops. The field day was held as part of the Department of Primary Industries (Rutherglen Research Institute, Victoria), Grains Research and Development Corporation (GRDC) and NSW Agriculture joint project: Managing weeds in organic farming systems.

The project is investigating the management of a break forage crop between pasture and crop phases; whether it should be grazed, cut for silage, a combination of these, or green manured. The advantage of green manuring is that soil organic matter can be improved and weeds controlled. However, green manuring is an expensive option for producers as no immediate productivity is achieved from that year.

Results so far in the experiment have been seriously affected by dry conditions in 2001/2002 with growing season rainfall at least 50% below average. However, results have shown that cutting silage only, without any follow-up weed management, can result in large numbers of weeds being carried over into the cropping year. Green manuring has proved to be the most effective weed management tool but this may not be the most economic for producers in the long term. Equally effective weed control can be achieved using a combination of cutting silage and follow-up grazing. This strategy can provide producers with livestock feed from the forage year of production. Results from the first forage/wheat phase are presented below.

The 'Organic Weeds' team: from left, Steve Sutherland (NSW Agriculture), Bob, Hamish and Jenny Congdon (BFA producer co-operators), Paul I'Anson (Riverine Plains Farming Systems Group), Tim Enshaw (DPI project technical officer), and in front, Viv Burnett (DPI Project leader).

The project is enthusiastically supported by the Riverina Organic Farmers Organisation, who manage their weeds using a wide range of cultural methods approved within organic standards, and by the Riverine Plains Farming Systems Group Inc., who are keen to manage herbicide resistant weeds such as annual ryegrass.

Speakers for the day included Viv Burnett (Project Leader) and Tim Enshaw (Technical Officer), Paul I'Anson for Riverine Plains Farming Systems Group who spoke on his harvest weed seed collection equipment that has reduced his herbicide costs by over 30%, Steve Sutherland from NSW Agriculture on weed management planning, and Meredith Mitchell (DPI) as a guest lunchtime speaker on native grasses and their role in Riverine Plain farming systems.

For more information on this project or on organic research and development activities in Victoria, please contact Viv Burnett on (02) 60304500.

Table 1. Forage (pea/oat) production in 2001, annual ryegrass carryover, and wheat yield in 2002 at Berrigan.

Forage treatment	Forage production in 2001 (t/ha)	Annual ryegrass carryover (seedheads/m^2)	Grain yield in 2002 (t/ha)
Green manure	1.7	37	0.4
Graze (sheep)*	0.7	71	0.1
Silage	2.2	124	0.1
Silage and graze	2.2	55	0.1

* Forage measurement taken after one week of grazing by sheep at 30 dse/ha.