# FINALREPORT



ICF00006

## **Oilseeds Industry Development Officer**

## **PROJECT DETAILS**

PROJECT CODE:	ICF00006
PROJECT TITLE:	OILSEEDS INDUSTRY DEVELOPMENT OFFICER
START DATE:	01.07.2005
END DATE:	30.09.2008
SUPERVISOR:	ROB FISHER
ORGANISATION:	IRRIGATED CROPPING FORUM
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#### Summary

The Oilseeds Industry Development Officer (IDO) worked with and across industry in promoting oilseeds (canola, soybeans), and assisting in industry growth in the irrigated and dryland areas of southern New South Wales (NSW) and Victoria (VIC). The role has specifically aimed at lifting the confidence of growers and agronomists with these crops through:

- Developing networks across industry and engaging with stakeholders.
- Providing agronomic and varietal information to lift productivity.
- Highlighting their benefits within the farming systems and providing information on risk management from both a financial and production perspective.

During the project, the canola area increased by 6% and average soybean yields increased by 53% in the region. See Attachment for further information.

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## Conclusions

The Oilseeds IDO project was instrumental in providing the oilseeds industry, particularly for growers and agronomists, with a resource for improving information and networks across the industry, funding extension activities and publications and providing the industry with information from research and benchmarking that otherwise would not have been made available.

The project also resulted in a review of all readily available extension materials for canola and soybeans in the region.

The Oilseeds IDO also provided intelligence for the VIC component of the Australian Oilseeds Federation's (AOF's) monthly crop report.

The IDO produced a wide array of extension publications and engaged with stakeholders with important messages about the importance and benefits of oilseeds in farming systems in the region, as well as information on new varieties and agronomic management to maximise yields and reduce financial risk often associated with such crops.

The project also provided funding for a number of extension activities and important publications that probably otherwise would not have been produced or not in a timely fashion.

A measure of the project's success is the increased area sown to canola in the target region, despite continued adverse seasons. A major increase in interest in soybeans for double cropping in the Riverina is currently occurring, and the work of the Oilseeds IDO and her networks is likely to be a major factor in this.

## Outcomes

An increase in the productivity and profitability of oilseed production in southern NSW and VIC, which in turn will lead to increased production and the viability of the oilseed industry in this region.

## Achievement/Benefit

Overview of project achievements

The aim of the project was an increase in the productivity and profitability of oilseed production in southern NSW and VIC, which in turn will lead to increased production and the viability of the oilseed industry in this region.

1. Canola

#### **Production changes**

Despite extremely low water allocations in irrigation areas, ongoing drought in NSW and northern VIC between 2006 and 2008 and late frosts in many of the regions in 2006 and 2008, the area sown to these crops increased during the term of the



project.

For canola, the area sown increased by an average 6% in VIC and NSW from 2006-2008, compared with 2002-2005 (see Table 1 in Attachment). The increased area sown during the term of the project is extremely positive for the industry, considering the dry seasons experienced over the timeframe.

Canola yields in NSW and VIC averaged 40% less between 2006 and 2008 (0.97t/ha) than the previous three year period (1.6t/ha) due to the extreme dry seasons (raw data source: January and February AOF Crop reports). However, the continued confidence in sowing the crop despite the adverse seasons in NSW and VIC can be seen as a successful outcome of the project.

#### Key messages

The Oilseeds IDO took efforts to:

1) Reaffirm canola's importance in rotations as a cereal disease break and for weed management (both in terms of weed control and herbicide resistance management).

2) Reduce the financial risk of canola growing and increase confidence in sowing the crop by providing information to agronomists and the media:

a) On research results from split or delayed nitrogen (N) fertiliser applications in preference to pre-drilling all N (as N fertiliser is the single biggest variable cost for growing canola).

b) About other possible areas where growers may be able to reduce variable costs without compromising yields, depending on the individual circumstances of the paddock, such as phosphorus (P) rates, weed control strategies and sowing rates. c) The option of cutting the crop for hay or silage in a failed spring, particularly for regions close to potential end-users.

3) Reduce production risk by providing agronomists, growers with a range of media information from research trials and modelling about various topics including:

a) Importance of subsoil moisture and its effect on yield in medium and low rainfall environments.

b) Effect of delayed sowing on yield and oil content.

c) A range of other agronomic information including:

i. Updating canola variety and general agronomic information for VIC.

ii. Providing a means for Kerang irrigated variety trial data and NSW Department of Primary Industries (DPI) irrigated canola Cropcheck data to be analysed and published more widely.

iii. Preparing papers for GRDC Updates and co-presenting at these Updates.

iv. Effect of herbicide residues following drought and implications for crop rotations.

v. Many other issues.

4) Encourage growers to consider canola as best first crop after pasture, particularly in the high rainfall zone where canola production is expanding (canola makes good use of stored N from pasture legumes, provides more weed control options with herbicide tolerant types, and provides a disease break for cereal following grass in pastures).

#### 2. Irrigated soybeans

Production changes:

In the first year of the project (2005), the production of soybeans in the target region almost doubled compared with the previous two seasons (see Table 2 of Attachment). This was almost purely due to the efforts of the IDO in encouraging a large corporate farm to sow a big area of soybeans.

The following years saw continually severely reduced water allocations, largely restricting the area which soybeans could be grown more profitably (rather than selling the water) to those with sufficient bore licenses and the equipment to pump such water. As an example, the gross margin of a single high yielding soybean crop in 2007 was approx. \$267ML (assuming cost of \$29/ML), for high-yielding rice, approx. \$245/ML, and for high yielding maize, approx. \$381/ML. In contrast, water could be sold through temporary trade for between \$500 and even as much as \$1,000/ML at times, and water has become a commodity in preference to summer cropping for a high proportion of irrigators.

Despite the critical situation for irrigated summer crops, the positive message during this time is the increased yields during the time of the project. Average yields for 2003/2004 to 2004/2005 were 2.30t/ha, while average yields for 2005/2006 to 2007/2008 were 3.52t/ha - a 53% increase. A major factor in this was the adoption of newer higher yielding varieties (like Djakal and to a lesser extent Snowy), which were promoted through the IDO project, as well as NSW DPI, VIC DPI and CSIRO.

From 2006/2007, the excellent yields were due to the complete removal of older varieties and the fact that growers were restricted to excellent operators using best practice management. The removal of the outclassed varieties from the region is a positive step that the industry can build on if allocations improve in the future, as prior to the drought some outclassed varieties were being marketed to growers.

#### Soybean outputs:

The Oilseeds IDO aimed at promoting irrigated soybeans in the Riverina and VIC despite the low water allocations. The intent was in providing incentives to those who had the opportunity of profitably growing soybeans and also produce information that would be readily available to growers should water allocations return to close to normal in the future.

Information was provided by the IDO, working with close networks established during the project, to growers and agronomists. This occurred through:

- An Integrated Pest Management (IPM) workshop coordinated and funded by the IDO with excellent assistance from NSW DPI and additional funding for printing through the Better Oilseed project (presented by Hugh Brier and NSW DPI staff, Griffith and Coleambally, NSW, March 2008).

- Double cropping with soybeans field day (initiated and funded by IDO project, coordinated through NSW DPI, Coleambally, NSW, March 2008. Included Better Oilseeds demonstration site).

- Marketing guide (prepared by IDO and funded by IDO project, February 2008).

- Speaking at soybean Grower Update and soybean variety field days (Darlington Point, NSW, 2007 and Numurkah, VIC, 2007). These two activities were not organised through the IDO.

- Co-authored or wrote papers for GRDC Updates (presented by L. Gaynor), media releases, farming magazine articles and case studies of three successful double cropping growers. See publications list for further details (Attachment).

#### Key messages:

- Newer soybean varieties bred for the Riverina and northern VIC are higher yielding and of better quality than older varieties and command premium prices (approx. \$100/t more).

- The new short season varieties of soybeans are well suited to double cropping with short season winter cereals under irrigation, especially for the Riverina. This is a cost effective, water efficient, N fertiliser efficient practice that also increases the quality of culinary soybeans and an increasing number of growers are successfully employing this practice.

- The quality of culinary soybeans can be managed in irrigated crops.

- In years of low water allocations, irrigators should compare gross margins on a per megalitre basis rather than a per hectare basis, as water is now the more limiting factor than land in most irrigation areas in the region. The gross margin per ML of high yielding soybeans as a single crop or the combined soybean-barley gross margin per ML exceeds considerably that of a high yielding rice crop (maize is the biggest competitor to soybeans in this regard).

## **Additional Information**

#### Attachment

Supplementary information including tables.