

TECHNOLOGY TRANSFER

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SUMMARY

- Technology transfer has involved the coordinated efforts of all industry sectors.
- The Canola Check program played a key role in the development of the industry at the grower level.
- There are diverse media for accessing information on canola production and marketing.
- The proliferation of information has created a specialist role for the interpretation and application of that information by consultants.

INTRODUCTION

Technology transfer in the canola industry has been diverse, including involvement of most sectors of the industry. A feature of technology transfer in the canola industry in the past ten years has been the cross-state border interaction, and the close relationships built between the public and private sector.

There have been some key motivators to the rapid expansion of canola in the early to mid 1990's, apart from market forces and availability of new and improved varieties. In particular, the innovative Canola Check program was adopted in all four canola growing states with significant success.

INDUSTRY SECTORS PROVIDING TECHNOLOGY TRANSFER SERVICES

Government Agencies

Most state agencies are well resourced with extension agronomists and industry specialists. These persons have regular contact with growers, industry representatives and the media. They are able to respond quickly to issues arising in the canola industry at the crop management level. Field days, crop discussion groups and information meetings are regularly conducted to keep information flow to the growers and to assist in applying this information for on-farm use. They are also involved in specific industry focused projects addressing key issues.

Researchers from state agencies are responsible for organising the *Australian Research Assembly on Brassicas*. This assembly is held every two years in rotation around the canola growing states of Australia. It brings together scientists involved in canola research and development to share results and discuss emerging issues.

All of the state agencies where canola is grown have been involved in the Canola Check program. Each state also develops its own range of extension publications and

newsletters on canola production as well as organising and supporting seminars, conferences, field days and workshops on a regional and state basis.

TOPCROP Australia and Canola Check

The Canola Check extension program, funded by the Grains Research and Development Corporation (GRDC) and state government agencies, has proven to be one of main success factors in the introduction and growth of the canola industry across Australia in the past ten years. The program continues to provide new and existing growers with the confidence to manage the crop for maximum returns.

Canola Check follows the format of grower groups meeting in canola crops during the season, with input from private and public agronomists, discussing and measuring crop performance. It has resulted in significant yield improvements in commercial crops (Table 7).

Table 7. Combined crop performance results of Canola Check participants in South Australia

Season Average	1991	1992	1993
Yield (t/ha)	1.48	1.82	2.05
% of Potential Yield	29	37	65
Oil %	40.9	40.8	41.7
Variable Costs (\$/ha)	178	177	190
Gross Margin (\$/ha)	225	359	477

Since 1994, the Canola Check program has come under the TOPCROP banner. TOPCROP Australia provides the resources and training for grower groups to monitor crops, identify issues affecting crop performance and put into practice solutions on a local basis. TOPCROP is managed nationally, with funding and support coming from the GRDC, state governments and industry.

Industry Organisations

Industry organisations have provided strong leadership in the development of the canola industry across Australia. In particular, the Canola Association of Australia, the Australian Oilseeds Federation and GRDC provide support to the emerging industry.

Agro Industry

Agro industry has supported the development of the canola industry both through research and development of products and the provision of the necessary technical support for the products. Herbicide management, insect control and nutrition management advice in canola crops has been provided through technical representatives working with resellers, government agency representatives and growers.

Companies involved in plant breeding, seed distribution, chemicals and fertilisers provide information based on product trials and demonstrations.

Private Consultants

Private consultants are playing an increasingly important role in technology transfer as more and more growers turn to their services. Consultants generally provide a one on one service to their clients, however they also facilitate grower groups. Rotation planning, input planning, crop monitoring and marketing are the major areas of service provision.

Other Information Providers

The Kondinin Group is a private agricultural information provider. It publishes manuals on a range of issues, as well as a monthly magazine, and provides an information service to its members. The Canola Cache manual was published in 1992, and contains a wealth of information and grower experiences on all aspects of canola production.

CANOLA CROP COMPETITIONS

Canola crop competitions originated with the “Crisco” Canola Awards in 1989. They were introduced by Meadow Lea with the aim of increasing the area of canola grown in Australia to provide a more reliable supply base, and to recognise those growers, both new and existing, who excelled in total canola crop management.

In 1993 the Meadow Lea Golden Canola Awards were introduced in New South Wales and Victoria, while a similar competition was launched in Western Australia. The Golden Canola competition went national in 1996. Since 1998 the Gold’n Canola Awards have been conducted by TOPCROP Australia.

These competitions have proven popular over the years, highlighting best management practice and providing an opportunity for growers to share knowledge beyond state borders.

ELECTRONIC INFORMATION TRANSFER

Internet web sites are providing an ever-increasing source of information on canola production for all those involved in the industry. State government agencies, industry organisations and agro industry now have web sites providing up to date information. Overseas sites also provide instant access to a range of canola information.

Facsimile poll services are another source of information on canola being provided to the industry by state government agencies and marketing authorities.

FUTURE DIRECTIONS

Information management is becoming a significant problem as growers are confronted with more and more information on which to base crop management decisions. Deciding what information could have a positive impact on canola production and profitability is becoming increasingly difficult. Consultants, agronomists and resellers will have an increasingly important role in technology transfer. Grower groups will

become even more important as a means of information exchange and decision making.

The advent of the Internet is adding to the proliferation of information available. The speed at which information can now be transferred via the Internet will allow growers to make "in time" decisions based on current information.

The advent of GMO and specialty oil type varieties will see a greater role for provision of agronomic advice to growers direct from the owners of the variety. This has already occurred in the cotton industry with the introduction of GMO cotton.

FURTHER READING

Agriculture Western Australia. *Your Guide to Growing Golden Canola*.

Agriculture Victoria. *Growing Canola*. 48 pp.

Kondinin Group (1992). *Canola Cache*.

Colton, R.T. and Sykes, J.D. (1992) *Canola*. NSW Agriculture AgfactP5.21., 51pp.

Primary Industries South Australia. *Canola Check Tool Kit*.