

TECHNOLOGY TRANSFER PROGRAMME

62001: TECHNOLOGY TRANSFER PROGRESS REPORT APRIL 2010 - MARCH 2011

Summary

Number:	62001
Title:	Technology Transfer Programme
Duration:	Ongoing
Status:	Continuation of existing project
Project leader:	Dr A F Malan

The ARC-Small Grain Institute, although it was a very challenging year in the small grain industry of South Africa, experienced an exciting research year. ARC-Small Grain Institute was able to successfully transfer technology to commercial and resource poor farmers in five of the nine provinces by presenting talks on farmers' days. Information was also transferred through the popular agricultural press and publications like *Landbouweekblad*, *Farmers' Weekly*, *SA Graan/SA Grain*, *Koringfokus/Wheat Focus*, *NuFarmer* and other regularly published articles by ARC-SGI researchers. Radio talks and television interviews were also used to inform and advice producers on specific issues e.g. the false army worm in the irrigation area and other issues that had to be dealt with immediately.

ARC-Small Grain Institute was also in a position to contribute scientifically at national and international congresses. At the 2011 Combined Congress in Pretoria, ms Hestia Nienaber received the BAYER Resistance Management Award for the best presentation titled: "The geographical occurrence of ryegrass (*Lolium* spp) resistance in the Western Cape".

Researchers furthered their studies in research fields that contribute to the wheat industry which resulted in 3 MSc qualifications. Two of these MSc studies (mr B Wentzel and ms C Miles) were awarded *cum laude*. Ms Chrissie Miles received the Chris Small Award for an outstanding MSc-thesis at the Faculty of Natural and Agricultural Sciences' prize giving ceremony at the University of the Free State.

Objectives April 2010 – March 2011

- To establish support teams to address problems encountered by small grain producers at all levels.
- To publish articles in scientific journals and to present data at national and international congresses.
- To transfer technology developed at the Institute on production practices to clientele groups making use of farmers' days, information sessions, on-farm visits to discuss problems and to deliver a one-on-one service in relation to the solution of production problems, as well as training and educational courses.
- To publish relevant information regarding small grain production in as many as possible of the popular agriculture media.
- To supply every small grain farmer with a copy of the "Guidelines for the production of small grains in the winter rainfall region" or "Guidelines for the production of small grains in the summer rainfall region". Currently this represents the only inclusive objective and scientifically based publication of its kind in South Africa.
- To make information regarding the technology that is developed at ARC-SGI available on the ARC-SGI website.
- To make use of *ad hoc* interventions like exhibitions where the Institute and its activities can be introduced.

Report on these objectives: April 2010 – March 2011

Objective 1. Advisory Teams:

Small Grain Institute has put in place an advisory team that is available in all the production areas of South Africa on a continuous basis, to attend to all enquiries in relation to small grain production in South Africa.

Objective 2. Scientific outputs:

During this reporting period, seven scientific publications were published. This research was done in collaboration with scientists of the University of the Free State, University of Stellenbosch and research collaborators in China.

Objective 3. Technology Transfer:

- One course and three workshops were conducted at the University of Stellenbosch, University of Pretoria and ARC-SGI. At these events the ARC-SGI researchers reached young scientists that may strengthen agricultural research in the near future.
- ARC-SGI contributed to 63 commercial farmers' days in five provinces. ARC-SGI used these opportunities to present research results to wheat producers for the specific cultivation area on specific topics, market their services as well as the wheat and barley cultivars developed.
- Hundred and twenty seven resource poor farmers were serviced and provided with knowledge on wheat production and cultivar choice to be successful in their farming career.
- ARC-SGI also actively made use of the broadcasting media. This medium is used to continuously inform the wheat producers on new research activities, findings and products (cultivars) available. Throughout the reporting period ARC-SGI had 19 opportunities in the media to report on relevant issues regarding small grain production in South Africa.

Objective 4. Popular publications:

Vital information regarding wheat cultivars and wheat research were published in the popular agricultural press. With these articles, producers were continuously informed on wheat research, new developments as well as current hot issues experienced during the production season.

Objective 5. Production guidelines and technical manuals:

The ARC-SGI released four production guidelines for the commercial producers during the 2010 production year (two in Afrikaans and two in English). A new intervention was added by the development of a production guideline in Sotho, as well as a Wheat production calendar. This guideline was well accepted in the Resource Poor wheat cultivation communities.

Objective 6. ARC-SGI website:

Electronic accessibility of the ARC-SGI's research and cultivar information regarding wheat and barley production practices is of the utmost importance. The ARC-Small Grain Institute's web gives access to information on new cultivars, cultivar choice, plant protection, plant production as well as small grain services. The ARC-SGI's web site is available at www.arc-sgi.agric.za.

Objective 7. Ad hoc interventions:

- ARC-SGI's NAMPO Harvest day exhibition focussed on the latest cultivars and services that the ARC-SGI can render to the resource-poor, commercial as well as new producers.
- Two courses to train surveyors on yield determination were conducted in this reporting period. The purpose of this training is to enable these surveyors to estimate the annual small grain production and in the process monitor South Africa's food security position.
- An information pamphlet to give quick and easy access to information on the influence of adjuvants on herbicides were developed by the ARC-SGI's weed researcher Ms H Nienaber.

Objectives for 2011/2012

- To keep advisory teams functional to address the day-to-day production problems encountered by small grain producers at all levels.
- To publish ARC-SGI's research results in scientific journals and to present research findings at national and international congresses.
- To make ARC-SGI more relevant by transferring technology of the institute to clientele groups by using farmers' days, information sessions, on-farm visits to discuss problems and deliver a one-on-one service in relation to the solution of production problems, as well as to conduct training and education courses.
- To make ARC-SGI more visible in their efforts to be a hub of scientific excellence by publishing relevant information regarding small grain production in as many as possible of the popular agricultural media like *Landbouweekblad*, *Farmers' Weekly*, *SA Graan/SA Grain*, *Koringfokus/Wheat Focus*, *NuFarmer*, and others.

- To supply every small grain farmer with a copy of the “Guidelines for the production of small grains in the winter rainfall region” or “Guidelines for the production of small grains in the summer rainfall region”. Currently, this represents the only inclusive objective and scientifically based publication of its kind in South Africa.
- To reach as many as possible wheat and barley producers and scientists by making developed technology available on the ARC-SGI website.
- To make use of ad hoc interventions to reach potential new customers, as well as to inform potential young scientists on career opportunities in agricultural sciences.

Future of the project

Since technology transfer is the most important outcome of research being done by ARC-SGI, the Institute will continue to transfer scientific technology on a high academic level (scientific congresses, symposiums). This is to benchmark the quality of research conducted by ARC-SGI researchers against world renowned scientists.

ARC-SGI is also committed to serve the small grain industry by transferring information on farmers’ days and information days. This will be done in a practical and feasible manner so that the small grain producers can implement the knowledge in their farming enterprises and in the process be more productive as well as more profitable in the cultivation of small grains in South Africa.