

**BUREAU OF SUGAR EXPERIMENT STATIONS
QUEENSLAND, AUSTRALIA**

**FINAL REPORT - SRDC PROJECT BSS233
Improving technical communication within the sugar industry:
Development of a best practice resource package
for greyback canegrub
by
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This project was funded by the Sugar Research and Development Corporation during the 1999/2000, 2000/2001 financial years.

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SUMMARY

Following a workshop in 1999 involving industry representatives, commercial bodies, and information technologists the objectives of a CD-ROM on canegrub best practice management were determined. The CD-ROM was to be the first of its kind to be produced on best practice management and was to be developed as a training package to help equip advisory staff with the basic information on management of the pest. It would also act as a basic resource from which BSES and CPPB staff could refer to and use to put together presentations and other material on greyback canegrub. The workshop group outlined a potential structure for the CD and the type of information that would be required for an effective training and resource package.

In the following year, a great deal of research was carried out to draw together a wide bank of written and visual material for inclusion in the CD-ROM. A couple of short surveys were also conducted to ensure the content was user friendly and targeted to meet the audience's needs.

The new CD-ROM, 'Greyback Canegrub Management – *An interactive training and resource package*', is ready for distribution to advisory and research staff throughout the State and promoted in 2001. The CD-ROM was also put to good use in a series of training courses run in districts from Mackay north.

1.0 BACKGROUND

Greyback canegrub is one of the Australian sugar industry's most serious pests. Management of the pest is an ongoing issue for BSES and CPPB staff. Circulation of information on best practice management of greyback canegrub has, in previous years, been fairly unreliable and inconsistent. It is believed that by improving the quality and consistency of technical information available to industry, the standard of advice given to industry will improve.

Features in *Greyback Canegrub Management* include:

Greyback Canegrub Best Practice Management Mini-Manual — A basic manual covering the key elements of greyback best practice management. The PowerPoint presentation and short stories are an extension of the Mini-Manual.

A series of short stories — A number of topics are often discussed in newspapers, at meetings and in other forums. These are encapsulated in a series of short stories, which can be readily printed for use by the owner of the CD-ROM.

Presentation material — Advisory staff are often requested at short notice to make presentations on management of the pest. A basic PowerPoint presentation is included as a starting point for individual presentations. The presentation is set up so that the CD-ROM user can easily adapt it.

Photograph library — An extensive photo library has been established for the CD-ROM so that staff can have easy access to pictures for use in presentations and handouts.

Reference section — This has been developed so that CD-ROM users who are interested in further information can gain easy access to some of the latest reports and articles on greyback canegrub. Links have also been included to many of the ASSCT reports.

Built-in tests – A series of questions are incorporated in a section on the CD-ROM to help users measure their existing knowledge and any improvements in knowledge.

Other – other information featured on the CD-ROM includes a Lucid Key (fairly detailed species identification key) and background on funding and support provided to develop the CD-ROM.

2.0 OBJECTIVES

- ◆ Develop an interactive training and resource package on best management of greyback canegrub.
- ◆ Improve advisory and research staff's basic knowledge on greyback canegrub and how it can be best managed so as to help industry reduce overall damage by the pest.
- ◆ Make available basic written, audio visual, photographic and resource material for use in presentations, workshops and meetings on greyback canegrub.
- ◆ Help ensure BSES and CPPB staff provide consistent and accurate information on greyback canegrub best practice management.
- ◆ Distribute and promote CD-ROMs to BSES extension and research staff, CPPB officers and all BSES Stations.
- ◆ Include a series of mini-tests on the CD-ROM so that CD-ROM users can test their level of knowledge and also gauge whether or not knowledge improves with use of the CD-ROM.
- ◆ Survey opinions on CD-ROM useability and measure success of the product as a training and resource package.

3.0 METHODOLOGY

The methodology used to develop *Greyback Canegrub Management* was based on:

Definition and Analysis Phase

The purpose of this phase was to define the project and define the project requirements in a "Requirements Document". This was achieved at an Industry Workshop during which the objectives of the CD-ROM and the likely content were outlined.

Design and Useability Testing

A pre-production survey carried out in 2000 was conducted to determine whether or not the specifications decided at the Workshop for the CD-ROM were appropriate. Feedback from BSES extension and research staff along with CPPB representatives was used in the development of content and design specifications.

Prior to finalisation of the CD-ROM, copies were sent to 10 staff for feedback on useability of the product. A short report was compiled outlining improvements to be made and a final design and content completed by March 2001 before release.

4.0 PROJECT TECHNOLOGY

The technology used for this project is called interactive technology. Interactivity refers to what the user does to complete the learning experience. Research shows that consistent involvement requiring ACTION, decision making, reflection, and application of knowledge leads to improved outcomes.

5.0 EVALUATION

The purpose of the evaluation is to assess the extent to which the package (interface, layout, organisation of content) assists users to achieve the desired learning outcomes.

The most widely used evaluation methods include:

- surveys;
- questionnaires; and
- interviews.

We used telephone interviews and surveys to evaluate *Greyback Canegrub Management*. These were carried out at the beginning of the project and just prior to release of the final product.

Survey Summary

Overall, survey respondents had a basic knowledge of the greyback canegrub and the major methods used to control the pest. However, when it came to providing more detailed information, such as how to apply BioCane or cultural controls for greyback control, around 50% were unable to give sufficient answers, and 10% gave incorrect answers.

A smaller proportion of CPPB officers compared to BSES officers were surveyed, however it was clear that overall, more of the CPPB officers were better able to answer the more detailed questions. This is probably due to the fact that the CPPB officers spend more time in the field with growers. A small proportion of BSES staff surveyed were from areas south of Mackay where the greyback canegrub does not exist. This impacted on their level of knowledge, because they had had little or no experience with the pest.

The majority of survey participants were interested in receiving a CD-ROM and said it would have to be practical and easy to follow, otherwise it would 'sit in the drawer'.

A lot of respondents said that growers tend to talk to each other or to extension or advisory staff to stay informed. When a grower has a serious problem, he/she will generally turn to a BSES extension officer or CPPB officer for advice. This backs up the need for staff to be equipped with easy-to-use information that helps them to stay informed.

6.0 DISTRIBUTION

Greyback Canegrub Management will be distributed to staff at the following:

- BSES
- Cane Protection and Productivity Boards
- Sugar Research and Development Corporation
- Elected growers
- And will be available to others by request.

7.0 RECOMMENDATIONS

One of the most successful aspects of interactive technology is the creative organisation of text and visual data in ways that make the presentation of information more interesting. This format allows the user to learn at their own pace. This technology should be considered as a new way of learning and for producing educational material for the sugar industry.

The use of laptops, home computers and the Internet is dramatically increasing therefore it is important that these forms of learning tools are available. The sugar industry needs to stay at the forefront of technology by encouraging the use of packages such as *Greyback Canegrub Management* and educating its personnel in the best management of pests and diseases.

8.0 ACKNOWLEDGMENTS

The funding support from the Sugar Research and Development Corporation is gratefully acknowledged together with the contributions from many BSES media, entomology, extension and research staff. Specialist design and programming skills from staff at CPITT is also acknowledged and a special thanks to the staff from BSES and CPPB who participated in the pre-production survey.