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Promotion of Integrated Pest Management in Sugarcane: Final Report of SRDC Visitor, Associate Professor Lisa Halvorsen to BSES (Project BS184)

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Associate Professor Lisa Halvorsen to BSES 
(Project BS184) 
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1.0 INTRODUCTION

Pests cost the Australian sugar industry about $20 m per year. The sugar industry has relied heavily on chemical pesticides for control of insect and rodent pests for up to 50 years. The withdrawal of persistent organochlorines and heavy-metal based rodenticide, limited availability of acceptable and effective products, and recent failures of currently registered pesticides, have stimulated development of integrated pest management (IPM). This uses a combination of cultural, biological and chemical controls to minimise the economic impact of pests.

Broad-based IPM programs aim to reduce the propensity of pests to increase to damaging levels, whereas pesticides reduce pest numbers before or after they reach damaging levels, without affecting the underlying cause of pest increase. Management of pests using IPM is more complex than routine application of pesticides, or application of pesticides in response to perceived pest increase. Practitioners of IPM require a higher degree of management skills and knowledge than for pesticide application, and IPM may involve changes to farming practices to make the agricultural system inherently less suitable for pest increases. Transfer of technology, rather than lack of appropriate technology, has been identified as a common bottleneck to implementation of IPM in several reviews of IPM development and adoption around the world (eg Wearing 1988).

Much of the recent research on pests of sugarcane funded by Sugar Research and Development Corporation (SRDC) and BSES has been directed towards developing IPM systems for Queensland sugarcane. The sugar industry has been slow to adopt IPM practices, partly because growers are unfamiliar with the concept of IPM, and in particular the use of cultural controls for pests. The project reported here was initiated to try to overcome the perception that pest control was restricted to use of chemicals, by providing information on the range of pest control options and strategies for several key pests of sugarcane.

Associate Professor and agricultural science writer Lisa Halvorsen was invited to work with the Bureau of Sugar Experiment Stations (BSES) for five months. Her aim was to help develop effective communications strategies for disseminating information on integrated pest management (IPM) and related areas through the media and other outlets, as well as to produce extension-type written materials. Professor Halvorsen was on sabbatical from the University of Vermont Extension System, and had previous experience of promoting IPM including in Queensland cropping systems. She worked with extension officers and researchers at all five BSES research stations from Meringa to Bundaberg, lending communications support in four areas: writing/editing, instruction/consultation, media relations, and marketing. Specific projects undertaken were dependent on the needs and interest of personnel at each station.

2.0 OUTCOMES

2.1 Rodents (with Andrew Brodie and Dave Green)
• developed 12 short pieces for the next edition of “RatFacts” to be sent to extension officers and media for use in newsletters and publications; edited six written by the rodent biologist
• advised on changes in format and writing style for “RatFacts” to increase usage and readership
• produced three feature-length articles with photos and other graphics, quoting canegrowers, for national magazines including the Australian Farm Journal (“Sustainable Agriculture” supplement); focus was on revegetation efforts to control rat numbers
• edited press release summarising tree planting workshops held earlier in 1997
• planned a media blitz with the rodent biologist to be held in March to focus media attention on the Trees For Rat Control Program, including some of the farmer participants
• helped develop concept and ideas for subject matter for rat pest management calendar and explored other less traditional outlets to disseminate information

2.2 Canegrubs (with Les Robertson, Robert Cocco, Keith Chandler, Frann Crawford, David Logan and Catherine Kettle)

• wrote four “grower profile” type feature-length articles, some with photos, using canefarmers to tell the IPM message plus two other popular press articles on canegrub research
• produced press releases on the 1997 Metarhizium trials involving 43 Burdekin growers and the use of carbaryl under experimental permit
• edited brochure on use of SusCon Blue in the Burdekin
• edited summary of presentation on canegrub control for inclusion in the publication to be handed out at the information meetings in February
• edited several articles on canegrub research for sugar industry publications

2.3 Soldier fly (with Peter Samson)

• developed and produced a brochure on cultural controls for managing soldier fly
• wrote two feature articles with photos on soldier fly damage and control, quoting a Gin Gin grower who has been involved in BSES trials; one article was tailored to Mackay, the other for general release to media throughout Queensland
• edited summary of presentation on soldier fly management for inclusion in the publication to be handed out at the information meetings in February

2.4 Earth pearl (with Peter Allsopp)

• wrote science-based, popular press article on pink earth pearl for Nature Australia
• produced fact sheet for distribution to canegrowers
• wrote popular press article quoting two Bundaberg area growers on earth pearl damage and possible solutions for control
3.0 MEDIA RELATIONS

- did two television and one radio interview to discuss role in promoting IPM to growers through extension materials and media outlets
- contacted television, radio, and newspaper reporters to gauge interest in receiving information from BSES on news topics and shared that “marketing” information, as appropriate, with BSES staff
- gave three-hour seminar on working with the media, improving writing skills, marketing press releases, and related topics to 10 extension officers, researchers, and cane protection and productivity board (CPPB) people at Mackay
- conducted individual and ongoing consultations with several BSES personnel regarding media, including how to work with the media, handle interviews, write press releases and photo captions, and related topics

4.0 OTHER

- participated as one of the facilitators of the pest management workshop in Townsville; recorded minutes of meeting and edited proceedings
- produced two articles on the three reviews by independent evaluators of BSES’ efforts in cane grub management
- edited an article by Les Robertson on the benefits of earthworms in agriculture, for Australian Sugar Cane
- produced two articles on irrigation management for Christopher Sarich and Robert Sluggett
- had an informal session with graphics designer at BSES head office and overseas visitor from the Philippines on communications, publications, and media relations
- conducted individual and group consultations on effective use of media with extension irrigation officers at one station, including critique of newsletters and suggestions for improvement along with individual help with writing/layout of newsletters and writing press releases
- undertook photography to support news articles and to be used by BSES researchers for future presentations and publications
- edited a fact sheet and multi-page publication on high density planting
- developed a general publications policy for one research station (eg, how to determine what publications are needed, target audiences, schedule for reprint, etc.)
- gave an informal seminar for three extension officers on publications and information transfer, including use of the Internet and electronic mail to deliver information
- had discussions with Queensland Sugar Corporation and Canegrowers in Brisbane on the sugar industry and how it’s “marketed” through the media, including preferences of growers as to what media they use most and types of information they want
- assisted with sodic soils and Metarhizium trials; attended field meetings; visited growers
- articles on IPM for cane weevil borer could not be prepared because the appropriate BSES staff were not available for discussions
5.0 CONCLUSIONS AND RECOMMENDATIONS

Through her work, Assoc Professor Halvorsen has helped make BSES researchers and extension officers more aware of the value of working with their local media as a means of reaching growers, industry people, and the general public to promote such messages as IPM for pest control. She also was successful in convincing some researchers of the importance of sharing research results, even while the work is in progress, and in “popularising their work,” both to make the subject matter easier to understand by growers and to target local newspapers and general interest publications to gain a more widespread audience.

Assoc Professor Halvorsen did observe that some stations have already developed a strong working relationship with the media, responding quickly to requests for interviews and articles and taking a proactive approach to providing information. However, at other stations, personnel are not comfortable with dealing with the media, despite the media’s strong interest in receiving information on BSES research and extension efforts and the sugar industry in general.

Assoc Professor Halvorsen recommends that:

- each station have a contact person for the media who would handle requests, maintain media lists and personal contact with local reporters, and encourage individuals to approach the media with story leads
- all BSES staff receive training, whether through head office or another source, on how to deal with the media (training in writing press releases also would be helpful)
- the journalist in head office make periodic visits to the stations to gather information for articles and assist staff in developing story ideas and writing articles for the BSES Bulletin and other publications; ideally, there should be more than one BSES writer/editor with some the “writing staff” based at research stations instead of head office

Assoc Professor Halvorsen also feels that BSES needs to have a better inventory of all publications available at stations and head office, including those developed by individuals as hand-outs at extension meetings or consultations with growers, as well as an overall policy for distribution, development, and printing/reprinting publications that reflects needs and size of the target audience.

Finally, Assoc Professor Halvorsen felt strongly that BSES needs to have access to electronic mail and the Internet in order to keep pace with changing technology and new research and developments in the sugar industry. Development of websites and interactive grower discussion lists will benefit the grower by providing easy access to the most current information in a more timely fashion.

6.0 ACKNOWLEDGEMENTS
Assoc Professor Halvorsen thanks SRDC for funding which allowed travel throughout the canegrowing areas. Numerous growers, BSES staff and other sugar industry people gave their time to help produce extension materials, and BSES provided office support and facilities during this period.

7.0 REFERENCE