

SUMMARY OF 4TH ICOSAMP WORKSHOP

Pretoria: 12-16 September 2005

By

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Acronyms

ARC	Agricultural Research Council
AFS	Armyworm Forecasting Service
CPP	Crop Protection Programme
DFID	Department for International Development
DoA	Department of Agriculture
EIA	Environmental Impact Assessment
ICOSAMP	Information Core for Southern African Migrant Pests
LGB	Larger Grain Borer
NRI	Natural Resources Institute
NRIL	Natural Resources International Limited
PPRI	Plant Protection Research Institute
SEARCH	South East African Regulatory Committee on Harmonisation

Introduction

The Plant Protection Research Institute (PPRI) of the Agricultural Research Council (ARC) in South Africa, hosted the 4th ICOSAMP (Information Core for Southern African Migrant Pests) Workshop at its' newly refurbished conference facilities (Fig.1) in Pretoria from 12-16 September 2005.



Fig.1. ICOSAMP delegates using the refurbished Conference Room at PPRI

The Workshop, funded by the Department for International Development (DFID) in the UK, brought together migrant pest technical officers from 12 SADC countries (Angola, Botswana, Congo, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe), the National Coordinator of the Armyworm Forecasting Service (AFS) in Tanzania, as well as a *Quelea* researcher (Greenwich University) and two representatives from the Natural Resources International Limited (NRIL) in the UK. Various PPRI staff members provided training on specific fields of interest during the week (Fig.2).



Fig.2. Participants at the 2005 ICOSAMP Training Workshop on Migrant Pests

Workshop and Training Course Arrangements

The meeting was held at the Rietondale campus of the ARC-PPRI. Venue choice, local arrangements and local travel were organised by ARC who also contacted SADC member states requesting them to nominate their delegates. Delegates came Angola, Botswana, DRC, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe, IRLCO-CSA, and DFID (UK). All international travel was organised by the ARC and paid for in advance and accommodation and allowances were also paid using the allocated budget.

Workshop Programme (Appendix 1)

Monday 12th

Dr M Molope (Group Executive:Public Support Services), officially opened the workshop and welcomed delegates and guests to South Africa. He explained that the objectives of the workshop are to strengthen capabilities and capacities of ICOSAMP collaborators on accurate pest identifications, safe pesticide use, and pest control management.

The Guest Speaker, Dr Frances Kimmins (Crop Protection Programme Manager at NRIL), explained the structures of NRIL and DFID, the focus of DFID's research activities for the last 10 years (1995 – 2006), and also highlighted examples of some research achievements during this period. She then elaborated on the challenges facing the agricultural sector from 2005 to 2050, and explained DFID's new agricultural framework initiatives for 2006-2016.

The Workshop was divided into six sessions:

- Pest Identification and Distribution
- Pesticide Safety
- Control Management
- Pesticide Behaviour
- Environmental Impact Assessments, and
- ICOSAMP System inputs.

During the Pest ID Session, Dr Roger Price (PPRI), Mr Colin Burke (SA Dept.Agric.), and Mr Wilfred Mushobozi (AFS, Tanzania) trained delegates on the ID characteristics, life-cycles, distribution patterns, and outbreaks dynamics of the African armyworm (*Spodoptera exempta*), 6 locust species, and the Red-Billed Quelea (*Quelea quelea*). Mr Frikkie Kirsten (PPRI) presented a training course on the Larger grain Borer (LGB), which, although not a migratory pest in SADC, is recognized as a serious problem in the region.

Tuesday 13th

Mr Emil von Maltitz (PPRI) facilitated the Pesticide Safety Session on Tuesday and gave clear instructions on the use of protective clothing, storage and disposal of pesticides, international label regulations, and general safety aspects. Mr Les Hillowitz from CropLife International: Africa Middle East (www.croplife.org) enlightened delegates about the activities of CropLife with respect to capacity building, upliftment, harmonisation of Regulatory Services – SEARCH (South East African Regulatory Committee on Harmonisation), safe use pilot projects, and the prevention and management of obsolete pesticide stocks in the region. A brief visit was paid to the DoA Poison Store housed at Rietondale.

Dr Price, together with Mr Mushobozi and Mr Burke, provided training on various aspects of migrant pest Control Management such as National Policies, control strategies, pest information needed for forecasting, and operational tactics and logistics. Mr Mushobozi explained the trap types used for armyworm monitoring, and elaborated on a successful community based armyworm monitoring system implemented in Tanzania, and the successes achieved. Mr Burke gave a presentation on how Quelea birds are surveyed and the different methods used to control them in South Africa.

A practical session was held to explain how various ground spray equipment should be calibrated and maintained (Figs.3 & 4), and two methods of droplet sampling were demonstrated.



Fig.3. Collection of spray droplets on a magnesium oxide slide from a vehicle mounted sprayer



Fig.4. Calibration of a Knapsack sprayer

Wednesday 14th

During the Pesticide Behaviour Session on Wednesday, Mr Etienne van der Walt (PPRI) presented information about the factors affecting pesticide behaviour, the types of spray

nozzles available, how to analyse droplets and pesticide drift, poisoning, and pesticide persistence. Ms Lianda Lötter (PPRI) gave a presentation on the comparison of chemical and explosive methods of *Quelea* control used in South Africa, and the implications, efficacy, and environmental risk of both of these methods.

Prof. Bob Cheke (NRI, UK) spent the afternoon training delegates on the various methods used for assessing the Environmental Impact (EIA) of migrant pest control operations. This included training on legislation, the use of indicator species, identification of risk factors and LD50s, monitoring spray applications, and sampling methods used. He then presented the results of a project recently undertaken in Botswana on the EIA of *Quelea* Bird Control.

The ICOSAMP coordinator had also requested Prof. Cheke to table the “Draft Standardised Protocols for monitoring effects of *Quelea* control on non-target organisms” - which were drawn up for the East African region (Kenya, July 2005) - for discussion with SADC regional delegates. All the delegates at the Workshop participated in a lively discussion and provided suggestions for improvement of the draft protocols.

Thursday 15th

Prof. Bob Cheke, Dr Frances Kimmins, and Dr Kerry Albright facilitated two workgroups to discuss the following questions, and results were presented to the plenary session:

- How can Migrant Pest control be improved in each country?
- Are there any outstanding Migrant Pest research needs in each country?

During the ICOSAMP Session, Mrs Margaret Kieser (PPRI) demonstrated the newly developed and installed country-specific computer systems, and gave a brief training session on the input and retrieval of data from these systems.

The afternoon was spent at the Wonderboom Airport where a practical session was held to demonstrate how the aircraft nozzles are calibrated for aerial control of *Quelea* in South Africa (Fig.5).



Fig.5. ICOSAMP delegates learning how to calibrate atomizer nozzles on the aircraft.

Friday 16th

The Workshop ended with Mrs Kieser presenting a summary of the week's activities, and thanking delegates for their participation and enthusiasm.

Trainees were provided with electronic copies of all the presentations and training notes.

The workshop also endorsed protocols for EIA procedures (see Appendix 6).

Recommendations

The workshop went well with the majority of the delegates participating actively and enthusiastically. Unfortunately the delegate from Zimbabwe (Dr G Chikwenhere) left the workshop activities on Tuesday afternoon to supposedly arrange for pesticide supplies to his country, but never returned to the workshop!

Eighteen post-course evaluation forms (Appendix 2) were completed. All responses were favourable, although there was a request for 'time-off' to visit the local shopping centres. In response to question 7, the answers were as follows: (a) not at all **0**; (b) a little **0**; (c) a lot **15**; (d) substantially **3**. Summarised results are presented in Appendix 2.