

SESSION 13

*Implementation of Weed Biocontrol  
in Integrated Crop Production  
and Conservation Management*

---

## Complications in the Implementation of Weed Biocontrol

J. H. HOFFMANN

Departments of Zoology and Botany, University of Cape Town,  
Rondebosch 7701, South Africa

Every classical weed biological control programme is a complicated exercise in which agent species are selected, screened, mass produced and released into areas where the target weed is a problem (Julien and White, 1997). Each step in the process requires careful planning and, very often, the development of innovative techniques to suit each peculiar set of circumstances. Therefore, the implementation of biological control is a complicated process and there should be no special need for a session dedicated to this topic. Almost every presentation at the conference would justifiably find a place in this session.

However, in some programmes, additional complications arise because there is a conflict of interests between some parties who want a weed problem to be alleviated and others who perceive the weed species to be in some way beneficial. Such conflicts are common because many weed species were initially moved between continents for special purposes either as crop plants, as pasture species, for agroforestry or as horticultural subjects.

Other projects have been especially complicated because the weed species themselves have not been amenable to biological control. *Lantana camara* provides a classical example because to date some 38 species of agents have been released in 29 countries, usually with only limited success (Broughton, 2000). In spite of this, several countries continue to pursue the goal of successful biological control of lantana and as they do so they need to develop increasingly novel approaches.

Another special challenge facing proponents of some biological control programmes is how to integrate the use of biological control with other control methods. In particular the use of herbicides that either poison the agents directly or destroy their host plants prematurely is a common occurrence that needs careful management if it is to be prevented.

The types of problems that arise and the way they are addressed so that biological control can be implemented against especially problematic weed species is the subject of this session.

### References

- Broughton, S. 2000.** Review and evaluation of lantana biocontrol programmes. *Biological Control* 17: 272-286.
- Julien, M., and G. White. 1997.** *Biological control of weeds: theory and practical applications.* 190pp. ACIAR, Canberra.