

---

## Preface

---

The managed pollinator protection and health working group (the Bee Protection Group) of the International Commission on Plant Pollinator Relations (ICPPR) (yes, the name was officially changed at the general assembly that took place in conjunction with the International Pollination Symposium in Cholula, Puebla, Mexico in July, 2011) is the most active working group. Through its years of activity, it has provided leadership for the European Plant Protection Organization's concerns for pollinators and pollination, and for the ICPPR as a world-wide body. In the past decade or so there have been major changes in emphasis as more kinds of managed pollinators have become used around the world, new kinds of pesticides have been developed and deployed in agriculture, and international concern for the plight of pollinators and pollination in all ecosystems has risen. This 11<sup>th</sup> Symposium of the Bee Protection Group continues the traditions of keeping abreast of the needs for pollinator protection. The organizers and speakers are to be congratulated for the forward thinking and synthetic agenda that is reflected in this proceedings.

Around the world, concern for regulatory issues for pollinator health and protection have been, or are being reviewed. The first 19 items in these proceedings cover the gamut from reviews of current situations to the effects of relatively new classes of insecticides, notably the neonicotinoids that have been so much in the news. Pesticide pathways to pollinator and bee toxicity and hazard are mostly quite well understood, but the route through plant guttation is newly recognized. Bees must imbibe water. Guttation water from plants exuding systemic insecticides is a clear hazard.

*Varroa destructor* is responsible for the deaths of thousands of colonies of honeybees in many parts of the world. Its capacity to spread virus diseases exacerbates the problem. Thus, the testing of various acaricides is crucial to beekeeping as is covered in a single, valuable, contribution.

With major changes in the kinds of pesticides that have come into common use has come the need for refining test methodologies in laboratory to field-scale assessments. These proceedings, with 11 contributions in this area, serve to emphasise the importance of this sort of research. Closely coupled to test methodologies is the need to monitor pollinator poisoning incidents. There are 6 contributions that address honey bee poisoning incidence and how it can be monitored.

Although most of the symposium emphasises the importance of honey bees, other managed pollinators were not ignored. No fewer than 12 contributions address other pollinators, mostly bees from around the world. South American, African and European situations are discussed. The relatively new technology of using pollinators to disseminate biological control agents against crop pests and pathogens is presented in two contributions, one related to the adverse effects of pesticides on bee-biovectoring technology and the other on safety for the pollinator-vector of the biocontrol agents in formulation.

The symposium conclude with a plenary session to summarise and synthesise the information presented in the six sessions described briefly above, and presented in the individual contributions.

These proceedings will lead the way to future and evolving considerations in the ever pressing need for information on how to mitigate the effects of chemicals on honeybees for their own sake as valued micro-livestock and as pollinators. On the broader front, the need to protect other managed and wild pollinators and the pollination services they provide is now more evident than ever before.

Peter G. Kevan, Ph. D., FRES, FRSC

Chair ICPPR & Scientific Director of the Canadian Pollination Initiative