

**The International Working Group
on Ostrinia (IWGO):
Its Past, Present, and Future**

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Abstract

During the IX International Congress of Entomology in Moscow, USSR in 1968, the International Working Group on Ostrinia was organized by six members from Hungary, Poland, Romania, USSR, USA and Yugoslavia. Later this group expanded to include Austria, Canada, France, and Spain. The ten charter members conducted research with the emphasis on host plant resistance in 1969 field season. They exchanged inbreds, and identified, and selected produced corn lines resistant/tolerant to the European corn borer. The membership continuously grew, and now includes Bulgaria, Czechoslovakia, Greece, Israel, and Portugal. China, Germany, India, Italy and Philipines were active to varying extent at times. This international working group has produced information on the biology of ECB and ECB/corn interactions. It also developed synthetics and hybrids with borer resistance/tolerance and with good agronomic characteristics. The working of IWGO exemplifies international cooperation at its best among scientists on a worthy program, in spite of the political disharmony during most of the quarter century when the program was in operation.

During the IX International Congress of Entomology in Moscow, USSR, 1968, at the initiative of Dr. D. Hadzestevic of Yugoslavia, several colleagues who worked on the European corn borer (ECB), *Ostrinia nubilalis* (Hubn.), got together and discussed the idea of an international working group on *Ostrinia*. Besides Dr. Hadzestevic and myself, there were Drs. B. Dolinka of Hungary, C. Kania of Poland, T. Perju of Romania, and I.D. Shapiro of USSR. Since Dr. Hadzestevic was from Yugoslavia and the Congress was in Moscow, it was not surprising that five of the six were from Eastern Europe.

We all felt that such a working group would be useful in view of the wide distribution of the insect. We also decided that 1) we needed to recruit more members, especially from the western countries; 2) host plant resistance would be the most needed and promising area of work, in view of the possible presence of genetic diversity of corn in Europe and America; and 3) this working group would not merely hold periodic meetings to report on independent work by members — rather, we would have mutually agreed-upon objectives and procedures and would share data.

I was elected coordinator; my first jobs were to contact ECB workers in the western world to join the group and to set the objectives and procedures according to a timetable agreed upon by the six members. In late 1968, Drs. W. Faber of Austria, M. Hudon of Canada, P. Anglade of France, and A. Monteagudo of Spain joined the group, bringing membership to five each from the East and the West. A procedure for exchanging corn inbred seeds was formulated; namely, each country would send four inbred lines of

local origin to the other nine countries. These lines possessed varied levels of borer resistance/tolerance in their native countries. Thus, there would be 4 native and 36 exotic inbreds to be tested. All 40 lines would be grown at an experiment station following a specific plot design. Some plots would be artificially infested with ECB egg masses, and some left as a control. The interactions between the corn lines and ECB will be recorded, including survival and growth of the ECB, damage to the plants and the crop yield.

Seeds were exchanged in time for field planting and field observation in 1969. Procedures for evaluation and tabulation of results were standardized to facilitate analyses and comparison.

At the end of the 1969 growing season, a review/planning conference was hosted by the Austrian Federal Institute of Plant Protection in Vienna. I was elected president. Results from cooperating countries were interesting and encouraging, and it was decided that the same set of inbreds would be tested for one more season and another conference would be held in 1970, with Yugoslavia agreeing to host it. Without any prior design, a pattern was set for the annual conferences to be held alternately in western and eastern countries.

Later, India, Philippines and W. Germany attended one or two conferences, and India contributed seeds for one cycle. China and Italy also joined for a period and even hosted a conference. Bulgaria, Czechoslovakia, Greece, Israel and Portugal joined and are still active. From 1969 to 1976 review/planning conferences were held annually, and after that every two years (except 1990 was skipped). I remained as the president until 1982 anticipating my retirement at

my university in 1984. Dr. Anglade of France was elected president. I was then elected honorary president in 1991.

The locations and organizers of the conferences are given in Table 1. At these conferences, significant results on corn/ECB interactions were presented and discussed. Several synthetics were prepared using the lines exchanged and the first IGWO hybrid, TaMv 310 was

Table 1. IWGO Review/Planning Conferences, 1968-1993.

	Year	Meeting site	Host institute	Organizer
I	1968	Moscow, USSR	Int. Congress of Entomology	D. Hadzistevic
II	1969	Vienna, Austria	Fed. Inst. of Plant Protection	W. Faber
III	1970	Zemun, Yugoslavia	Maize Research Institute	D. Hadzistevic
IV	1971	Bordeaux, France	Station de Zoologie, INRA	P. Anglade
V	1972	Martonvasar, Hungary	Agricultural Research Institute, Academy of Sciences	B. Dolinka
VI	1973	Zagreb, Yugoslavia	Maize Research Institute	D. Hadzistevic
VII	1974	St. Paul, Minn. USA	Institute of Agriculture, University of Minnesota	H.C. Chiang
VIII	1975	Leningrad, USSR	All Union Pl. Protection Inst	I.D. Chapiro
IX	1976	Madrid, Spain	Dept. de Cereales, INRA	A. Monteagudo
X	1977	Wroclaw, Poland	Plant Protection Institute W.S.A. College of Agriculture	Cz. Kania
XI	1978	Bergamo, Italy	Instituto Sperimentale per le Cerealicolture	A. Bianchi
XII	1980	Vienna, Austria	Fed. Inst. of Plant Protection	H. Berger
XIII	1982	Piesfany, Czechoslov	Maize Research Institute	A. Piovarci
XIV	1984	Colmar, France	Station de Zoologie, INRA	P. Anglade
XV	1986	Beijing, China	Institute of Plant Protection	D. Zhou
XVI	1988	Varna, Bulgaria	Technical Univ. "A.Kanchev"	T. Georgiev
XVII	1991	Martonvasar, Hungary	Agricultural Research Inst. Acadamy of Sciences	B. Dolinka
XVIII	1993	Volos, Greece	Faculty of Crop and Animal Production, University of Thessalia	J. Tsitsipis

produced commercially, and others followed. All these possess borer resistance/tolerance and good agronomic characteristics. In addition, biological information was also presented, such as moth migration, pheromone responses and developmental phenology. These results have been published (1) by the Hungarian Academy of Sciences as three special bulletins (1973, 1975, and 1976), (2) in various international journals of entomology and plant breeding, (3) in conference proceedings published by the conference hosting countries, and (4) in IWGO Newsletters, published by the Austrian Federal Institute of Plant Protection.

The working group was started and continued through the period of the political cold war of the 1970's and 1980's. It then witnessed the beginning of east-west cooperation. Yet it also saw the disintegration of Czechoslovakia, USSR, and Yugoslavia. The members now represent Slovakia, Russia, and Serbia respectively. But throughout the quarter of a century, there was only mutual respect and good will among our colleagues. We simply strive to achieve our scientific goals. Yet, friendship also emerged.

Since the start of the working group, of the ten charter members, one has been replaced, four have died, four retired and one has been inactive for some time. So, now there is a brand new membership roster. The current president is Dr. H. Berger of Austria who has been the faithful editor of the IWGO Newsletter for over a decade. He promised to keep the editorship. He exemplifies the dedication and vigor of the newer and younger members which undoubtedly will keep IWGO flourishing.

Now a new challenge is in store for the working group, and a new chapter may be in the making. In 1992, a severe infestation of the western corn rootworm (WCRW) *Diabrotica virgifera virgifera* LeConte, a native of America, was observed near Belgrade and is fast spreading. Dr F. Baca of the Maize Research Institute is, for the sake of the maize production in the entire Europe, seeking financial support from the Food and Agricultural Organization (FAO) of the U.N. to deal with this new invader.

Some jokingly said that this was a belated reciprocation from America for the gift it received from Europe some 80 years ago, namely ECB. Joking aside, insects pay no attention to boundaries set up by humans. In fact, humans have been the main vehicle for most of the trans-ocean dispersal of insect pests. So, the key work now is international cooperation, as I have enjoyed during my experience with IWGO, and as amply demonstrated here by this symposium.

Again it is my honor to share with you one facet of my work on maize insects. What I hope to convey is that the work done by each one of us may be limited, yet every bit helps. You have a responsibility more crucial than you anticipated, and you can make contributions greater than you thought possible.

My dear friends, best luck and best wishes.

Dedicated to

Professor Huai C. Chiang,
The Happy Entomologist

In recognition of your pioneering efforts and success in international collaboration to enhance host plant resistance and integrated pest management, for your many contributions to agriculture and to knowledge of maize pest biology, and for your work as a dedicated and inspiring teacher.

John A. Mihm
Frank M. Davis
Billy R. Wiseman
Symposium Organizing Committee



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