



# Intsormil

TRIP REPORT

BY

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Mexico and Honduras  
July 17 - 28, 1983

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☆ International  
Sorghum/Millet

☆ Collaborative Research  
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Institute of Agriculture and Natural Resources  
University of Nebraska-Lincoln



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Traveler: Henry N. Pitre, Mississippi State University

Purpose: To evaluate sorghums in fall armyworm host plant resistance research plots in Mexico (2 locations: Zapopan and Celaya) and to collect armyworms for identification of biological control agents (parasites) at these locations; to review the progress of and provide guidance to a graduate student research program in progress in Honduras; and to collect biological control data for armyworms on sorghum at Choluteca, Honduras.

Places Visited: Mexico, Honduras.

Summary: Travel to Mexico and Honduras to evaluate sorghums for resistance to the fall armyworm, Spodoptera frugiperda, and to collect data on armyworm density relationships and biological control effects in sorghum, as well as to evaluate and give guidance to a graduate student fall armyworm research program in Honduras was a complete success. Cooperative working relationships were strengthened with INIA scientists and efforts will continue to locate a suitable graduate student for this project in Mexico. The graduate student program in Honduras (LaLujosa Research Station) has progressed successfully in the areas of host plant resistance, armyworm population density relationships, intercropping and biological control. This program will be strengthened in the future with the acquired cooperation of Dr. Keith Andrews, entomologist, located at El Zamorano.

Activities:

Mexico.

July 17-19. I traveled to Guadalajara to meet with Dr. Alberto Betancourt presently employed by Cargill Inc. When Dr. Betancourt was with INIA he was instrumental in the development of cooperative work agreements between INIA personnel at several locations and my INTSORMIL research program (MSU-5). While in the Guadalajara area I visited the Zapopan nursery to evaluate selected sorghum lines for damage by the fall armyworm, Spodoptera frugiperda, and to collect larvae for observation of parasitization. Armyworm larvae of different ages (growth stages) were collected and shipped to the USDA quarantine facility at Stoneville, MS. Parasites obtained from the armyworms will be identified and the desired species will be maintained in rearing colonies for studies on their biology and efficiency.

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July 19-20. I traveled with Dr. Betancourt to Celaya to visit with scientists at the INIA-CIAB station, and to make similar observations on fall armyworms on sorghum, as were made at Zapopan. While at the station I visited with the INIA Subdirector (Dr. Gabriel Diaz Castro) at the Celaya station, to discuss the entomological problems on sorghum in the Celaya area, as well as in other areas of Mexico. We once again discussed the possibility of locating a student for entomological training (academics) at Mississippi State University and for conduct of sorghum insect pest management research in Mexico. It is important that such a student be located for maximum productivity of the fall armyworm program in Mexico.

I visited with Mr. Gabriel Vega and other personnel at the INIA-CIAB station to further discuss aspects of sorghum production, particularly related to fall armyworm management. Arrangements were made in Celaya for my travel to Mexico City for connection with my flight to Tegucigalpa, Honduras.

July 21-24. Travel to Tegucigalpa to meet graduate student, Mr. Marco Castro, to discuss progress of his research on the armyworms on sorghum during the previous two months in the Choluteca area (LaLujosa Research Station).

July 25-28. Visit the LaLujosa Station to witness entomological research in progress in the field and in the laboratory. Mr. Castro and I observed and/or collected research data from host plant resistance, population density and intercropping field tests and observed in the laboratory biological control (parasite) data from seasonal collections of armyworms on sorghum.

Dr. Meckenstock was on vacation in the United States, therefore I did not have the opportunity to visit with him to discuss the armyworm research program. I learned from Mr. Castro that Dr. Meckenstock and the other agronomists at LaLujosa had been essential to the establishment and progress of all planned studies and that he (Mr. Castro) had learned much from association with these scientists.

Mr. Castro and I visited the Escuela Agricola Panamericana at El Zamorano on July 27. Mr. Castro is a graduate of this institution. We visited school administrators and professional staff. Dr. Keith Andrews spent available time discussing aspects of fall armyworm research in the area and possible cooperative working relationships next year. The opportunity for Mr. Castro to work with Dr. Andrews will certainly benefit our fall armyworm research program in Honduras.

I returned to the United States on July 28.