USDA-ARS
Southeast Area
SOUTHERN INSECT MANAGEMENT RESEARCH UNIT

Mission

- *The mission of the Southern Insect Management Research Unit (SIMRU) is to generate new knowledge of arthropod pest biology, ecology and management and integrate this knowledge into contemporary farming systems that will promote economical and environmentally stable pest management practices for the southern U.S.*
- *The vision of SIMRU is to be a recognized center of innovation for negating agricultural pest problem through deployed scientific knowledge of pest biology, ecology and management options.*

CRIS PROJECT

Integrated Insect Pest and Resistance Management on Corn, Cotton, Sorghum, Soybean, and Sweet Potato

PROJECT INVESTIGATORS

- Clint Allen **(Project Leader)**
- Nathan Little
- Randall Luttrell
- Katherine Parys
- Maribel Portilla
- OP Perera
- Yu Cheng Zhu

CRIS PROJECT

Control of Tarnished Plant Bugs by Biocontrol and Other Methods

PROJECT INVESTIGATORS

- Randall Luttrell
- Maribel Portilla **(Project Leader)**

CRIS PROJECT

Innovative Strategies for Insect Resistance Management in Bt Cotton

PROJECT INVESTIGATORS

- Clint Allen
- Nathan Little
- Randall Luttrell
- **OP Perera (Project Leader)**

NEW PUBLICATION
CONGRATULATION
Dr. Yu Cheng Zhu

Spray Toxicity and Risk Potential of 42 Commonly Used Formulations of Row Crop Pesticides to Adult Honey Bees (Hymenoptera: Apidae)

YU CHENG ZHU, JOHN ADAMCZYK, THOMAS RINDERER, JIANXIU YAO, ROBERT DANKA, RANDALL LUTTRELL, AND JEFF GORE

J. Econ. Entomol. 1–8 (2015); DOI: 10.1093/jee/tov269

ABSTRACT: To combat an increasing abundance of sucking insect pests, >40 pesticides are currently recommended and frequently used as foliar sprays on row crops, especially cotton. Foraging honey bees may be killed when they are directly exposed to foliar sprays, or they may take contaminated pollen back to hives that maybe toxic to other adult bees and larvae. To assess acute toxicity against the honey bee, we used a modified spray tower to simulate field spray conditions to include direct whole-body exposure, inhalation, and continuing tarsal contact and oral licking after a field spray. A total of 42 formulated pesticides, including one herbicide and one fungicide, were assayed for acute spray toxicity to 4–6-d-old workers. Results showed significantly variable toxicities among pesticides, with LC50s ranging from 25 to thousands of mg/liter. Further risk assessment using the field application concentration to LC1 or LC99 ratios revealed the risk potential of the 42 pesticides. Three pesticides killed less than 1% of the worker bees, including the herbicide, a miticide, and a neonicotinoid. Twenty-six insecticides killed more than 99% of the bees, including commonly used organophosphates and neonicotinoids. The remainder of the 13 chemicals killed from 1–99% of the bees at field application rates. This study reveals a realistic acute toxicity of 42 commonly used foliar pesticides. The information is valuable for guiding insecticide selection to minimize direct killing of foraging honey bees, while maintaining effective control of field crop pests.

NEWS PRESS RELEASE
CONGRATULATION
Dr. Yu Cheng Zhu

Study Finds Glyphosate and Acetamiprid to Have Relatively Low Toxicity for Honey Bees

Honey bees are crucial for pollination and crop production worldwide. But since episodes of Colony Collapse Disorder began arising in the mid-2000s (and have subsided somewhat), the causes of costly deaths of adult bees have focused on mites, viruses, and a number of pesticides.

For more info. http://entomologytoday.org/2015/10/13/glyphosate-acetamiprid-low-toxicity-honey-bees-2/

Certificate of Appreciation O.P. Perera

UNITED STATES DEPARTMENT OF AGRICULTURE
CERTIFICATE OF APPRECIATION
O. P. PERERA

Congratulation to O.P. Perera for acting role as Southeast Assistant Area Director

Harvest Time

Harvest Time

Harvest Time

Harvest Time

Harvest Time

Harvest Time

Harvest Time

Sweet Potato

Thank You

From: Chad Roberts

— thank you —

Dear Simms family,

Thank you so much for the gift card! That was so very generous of all of you, and we are very grateful. Also, thank you for the card full of well wishes and encouragement. We are very appreciative of all.

Sincerely,

Jon and Chad

OCTOBER BIRTHDAYS CELEBRATION

- Phil (Oct. 31)