


# **Agricultural Statistics and its Role in Next-Generation Research**

**NACTA Conference, Purdue University**

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**June 28-July 1, 2017**



To respond to the challenges of the modern day, agricultural research requires both knowledge of the hard sciences as well as a strong background in data analysis.

# **Motivation**

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- Design of Experiments
  - Cost-effectiveness
  - Maximum information
- Data Analysis
  - Can incorporate more complex techniques
  - Research questions vs. content questions
- Implementation and Application

# **The Role of the Statistician**

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# Agricultural Statistics at UIW

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- USDA/NIFA Grant
  - *Strengthening the Agricultural Statistics Pipeline at Hispanic-Serving Institutions*
- Concentration in Agricultural Statistics
- Speaker Series
- E-cube Laboratory

## **Agricultural Statistics at UIW**

- Fusion courses
  - Hurricane climatology
  - Community ecology
  - Sampling techniques in forestry
  - Water conservation/ecology
- Team-taught across disciplines
  - Biology
  - Meteorology
  - Nutrition

**Concentration in Agricultural Statistics**



- Research-based presentations from professionals
- Brings conference-level presentations to students
- Exposes students to current real-world research in the field
- Networking opportunity

# **Speaker Series**


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- $E^3$  (E-cube) Lab
  - Education
  - Engagement
  - Employability
- Incorporates professional statisticians to work with students
- Real-world experience working in a professional group
- Hands-on experience with real data

## **$E^3$ Statistical Consulting Lab**

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- Agricultural and natural resources for climate variability
  - Food and feed safety
  - Water for agriculture

## **USDA/NIFA Priority Needs**

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# Thank You

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