

# 2024 Ray and Dorothy Young Endowed Graduate Student Award

**Recipient: David Galo**



# Personal Background

- **Born in Danli, Honduras**
- **Raised as a farmer**
- **National University of Agriculture**
  - B.S. in Agronomy (2015-2019)
  - Undergraduate research assistant in maize, coffee, and cocoa production
- **Began at LSU in June 2019**



# Master's: Louisiana State University

Focus: - Isolation of foliar fungi from Roseau cane in coastal Louisiana  
- Taproot decline (*Xylaria necrophora*) on soybean (collaboration)

Advisor: Dr. Rodrigo Valverde



Sample collection at the Mississippi River Delta

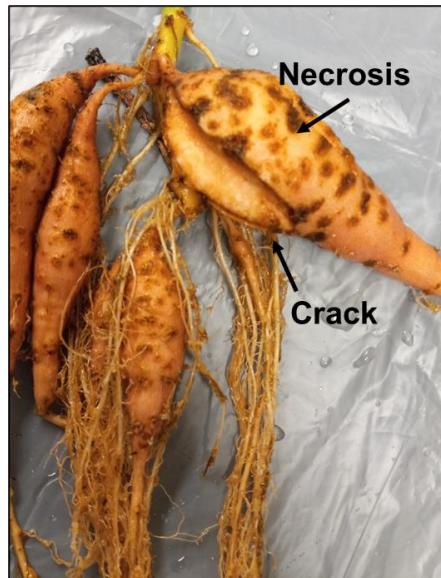
# PhD: Louisiana State University

Focus: Identification and characterization of *Meloidogyne enterolobii* and *M. incognita*-resistant sweetpotato genotypes

Advisor: Dr. Tristan Watson



Dr. Tristan Watson

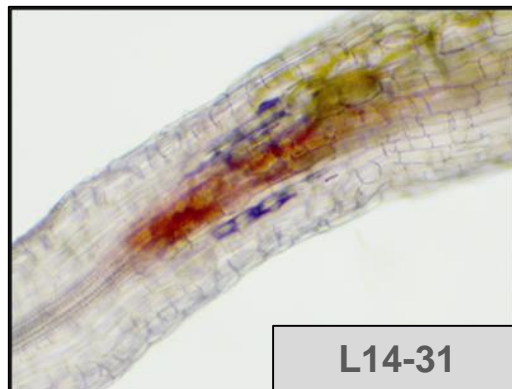


RKN on sweetpotato

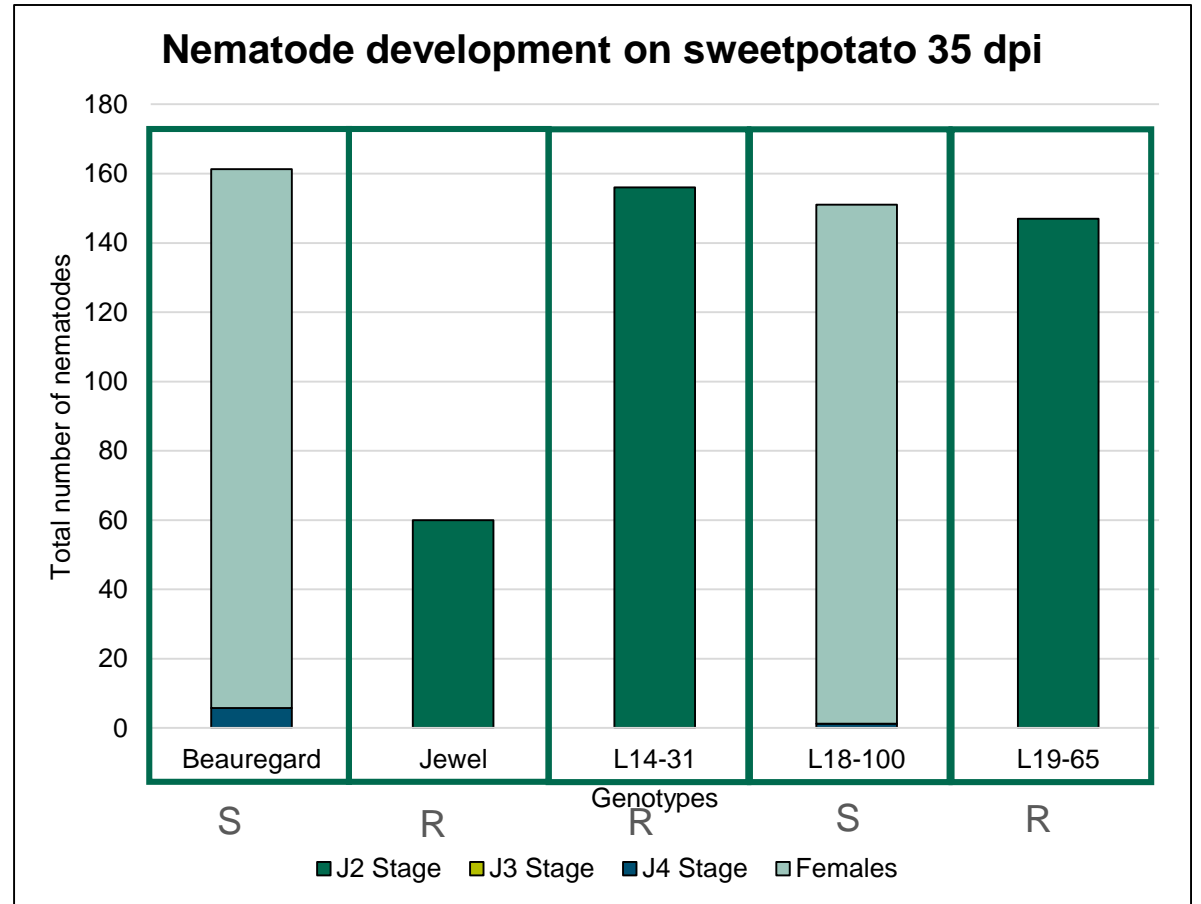
# Halted *M. enterolobii* juveniles on resistant genotypes



*M. enterolobii* on susceptible genotypes



*M. enterolobii* on resistant genotypes



S= Susceptible; R=Resistant

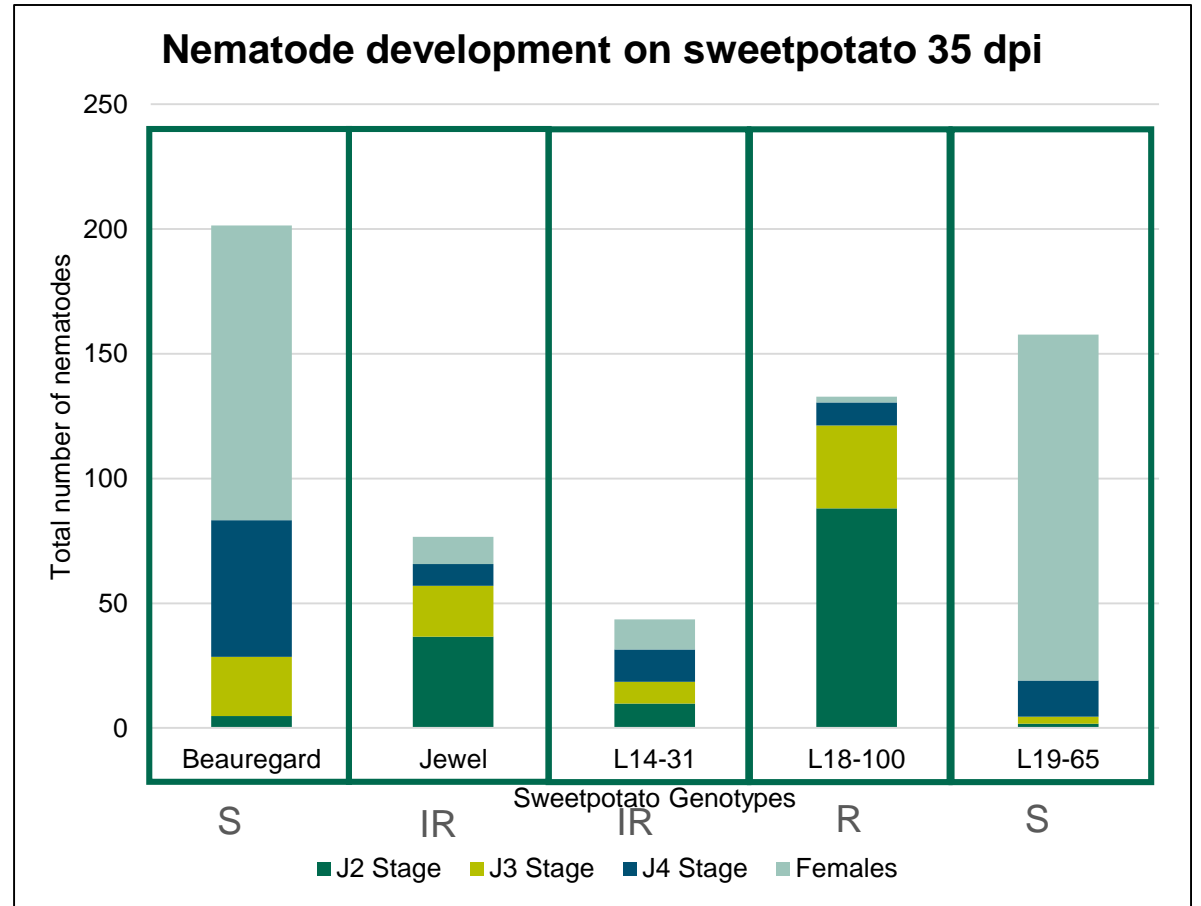
# Delayed development of *M. incognita*



Mature nematodes of *M. incognita* on susceptible genotypes



*M. incognita* on resistant genotypes



S= Susceptible; R=Resistant; I=Intermediate

# Overall Conclusions

Twenty-six genotypes were resistant to *M. enterolobii* and eleven genotypes were resistant to *M. incognita*

***Meloidogyne enterolobii***: mechanism of resistance appears to be associated with a hypersensitive response

***Meloidogyne incognita*** : defense response occurred later, resulting in a delay in nematode development.

Selected breeding lines are being used to incorporate the observed resistance into new commercially acceptable sweetpotato cultivars.

# Acknowledgements

## Nematology Team

Dr. Tristan Watson

Dr. Josie Rezende

Iris Aguilar

Lucy Kiarie

Visiting scholars

## Plant Pathology Department, LSU

Dr. Lawrence E. Datnoff

## Sweetpotato Collaborators Group LSU

Dr. Don Labonte

Dr. Cristopher A. Clark

Dr. Arthur Villordon

Dr. Tara Smith

Dr. Imana Power

Cathy DeRobertis

## UNAs at LSU Association

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