

2024 Florida Citrus Growers' Institute: IFAS Citrus Research Programs Update

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Top Priority Research: HLB-Resistant Citrus Varieties

- **Gene editing (CRISPR)**
- **Transgenic citrus**
- **Conventional breeding**

Top Priority Research:

Maintaining Current Grove Health & Productivity

- **Fertilization**
- **Irrigation**
- **Soil health**

Greening Study: Extra Fertilization Doesn't Increase Yield

MARCH 6, 2024 / BRAZIL, HLB MANAGEMENT, NUTRITION



CONCLUSION

The research made it clear that if there is already good nutrition in the orchard, there is no advantage in doing more than what was already recommended in order to increase production in diseased plants.

“Nutrition does not have the ability to cure the plant with greening,” Bassanezi concluded.

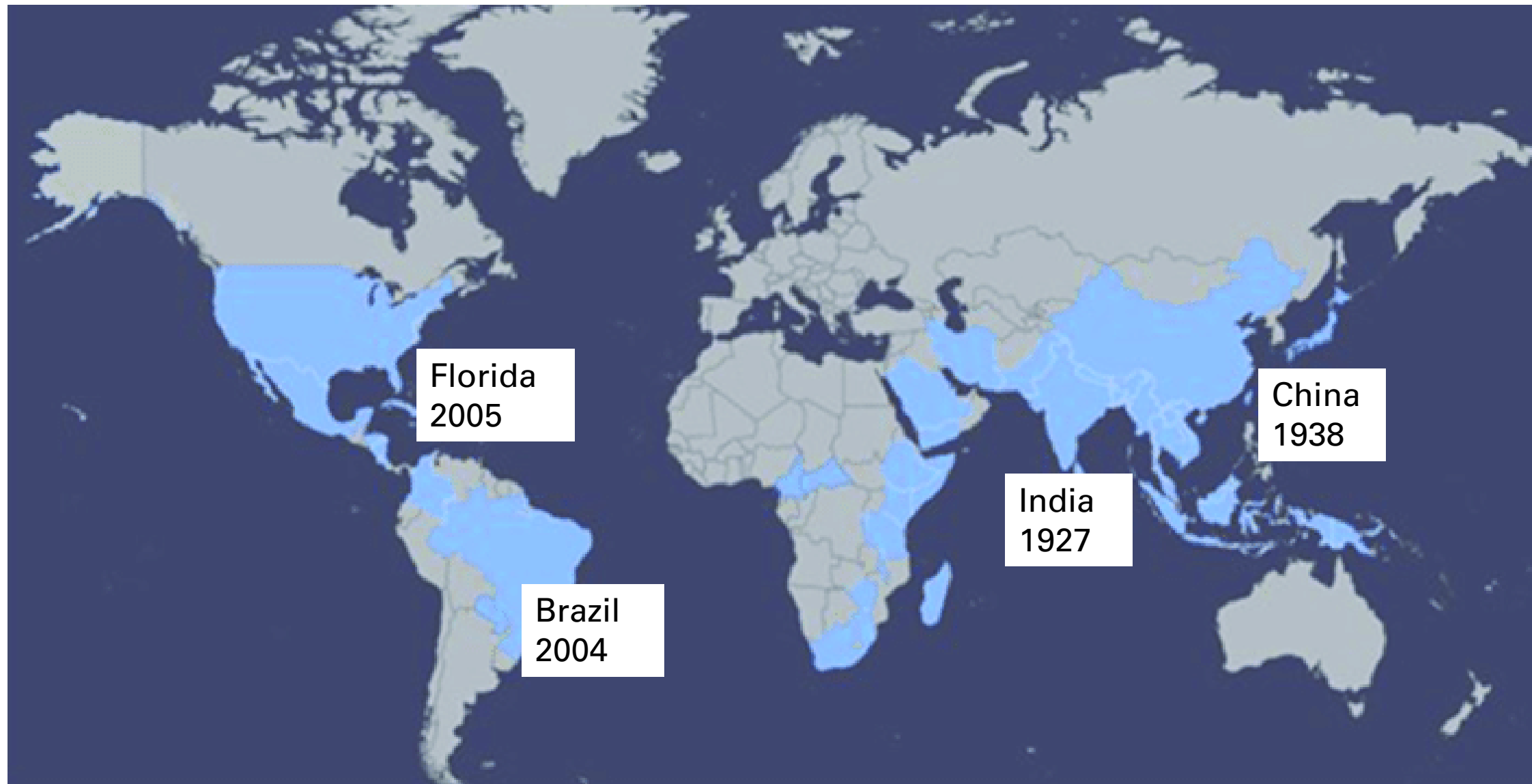
Source: Fundecitrus

“We carried out an experiment that lasted six years, with eight treatments and four replications,” Fundecitrus researcher Renato Bassanezi said. “Each plot consisted of 1,200 plants.”

The idea for the giant study came when the research group noticed that producers in Florida were adjusting orchard nutrition. “They had adult plants already affected by greening, and with the additional application of nutrients they did not show a major reduction in production,” Bassanezi said. “Our objective was to replicate what they were doing and combine it with other treatments defined by the IAC team.”

- Study conducted (2010-2016) in grove with low HLB incidence/severity already receiving adequate nutrition

compromised root system



Florida
2005

Brazil
2004

India
1927

China
1938

Abohar, India

- November 2023



Management Priorities (India)

- Fertilization
 - Micronutrients
- Irrigation
 - Don't let roots dry out
- Soil Health
 - Drainage
 - Soil organic matter
 - Avoid sandy soils



High Yields 2023-2024

- 1,300 boxes / A
- Over-supply
dropped
grower prices



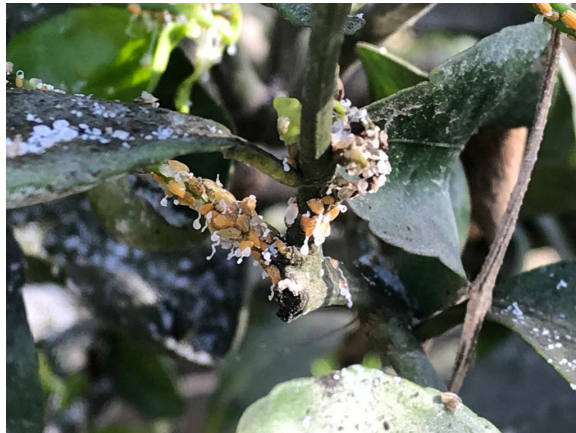
Heavy fruit-load / HLB

- Root system unable to support heavy fruit load



Psyllid Control

- ACP controlled when nearing high levels ...cause tree dieback



New Research Projects (Maintaining Tree Health)

- Can we reduce the cost of slowrelease fertilizer applications to provide constant source of nutrients in our sandy Florida soils?
- How to schedule irrigation practices to improve fruit yield and root and canopy health? (Vashisth's talk today)
- Benefits of compost and other soil amendments to improve soil health (e.g., water and nutrient retention)?

Questions?

