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## HEAT STRESS IN LETTUCE

- High temperature (HT) is an environmental factor that considerably affects plant physiology, development, crop yield, and crop marketability
- HT can cause early bolting and diseases, and reduces the yield and quality of lettuce
- Enhancing heat stress tolerance in lettuce through breeding is essential for:



**UNIVERSITY** of FLORIDA

 Maintaining nutritional value of lettuce





• Keeping the food system efficient and sustainable



 Reducing pest and disease severity

• Increasing food security



Sensation

Envoy



## **IS THERE A SUSTAINABLE REMEDY TO HEAT STRESS?**

## YES!!

- BREEDING for heat tolerance in warmer **FLORIDA climate is a way forward**
- UF's Lettuce Breeding Program works assiduously to improve cultivars that can withstand high temperatures for sustainable production



## The objectives of the project include:

✓ Test cultivars in field and greenhouse

 $\checkmark$  Study the genetic mechanisms of heat stress tolerance

✓ Introduce heat tolerance-associated traits into our elite lettuce breeding germplasm

Provide growers with heat tolerance cultivars Acknowledgement

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