

Adapting Lettuce for a Hotter Future.

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Temperatures are in the rising

- Temperature rising is a naturalprocess, but humans made it worse.
- Every year is "the hottest year reported".
- In the future, it will be more difficult to grow plants.

How will warmer temperatures impact Florida growers?

- It is already affecting the growing season for the coolest crop! LETTUCE IS IN DANGER.
- Higher temperatures cause *stress* on plants.
- Shorter winters mean less production of leafy vegetables.
- Lower production/lower quality/total failure of cool-season crops like lettuce.

What can the lettuce breeding team do?



Cross between two different lettuces showing tolerance to warmer temperatures.



Heat tolerant lettuce.

- Mitigation.
- Use plant breeding to save lettuce.
- Develop new tolerant cultivars capable of thriving in warm temperatues.
- Keep innovating and being one step ahead of increasing temperatures.

How are we keeping lettuce cool?

- Identifying heat tolerance in lettuces
- Understanding the critical time that lettuce is affected by heat.

• Developing methods to efficiently identify heat tolerance lettuces in the field.

And searching again and again and again. Doing Research !! Because otherwise this would be...?





Fruits and vegetables for Florida and beyond



Green-Reimagining of Agriculture in Controlled Environments