



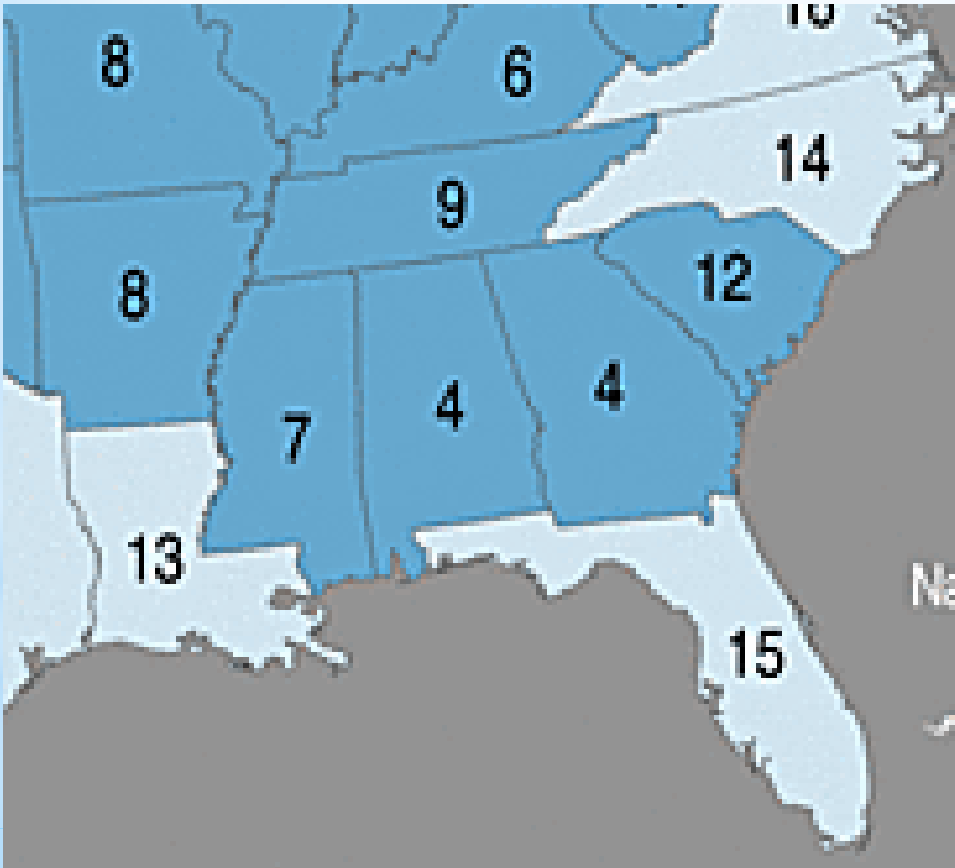
* How cold was it last winter?

Tom Starkey
Southern Forest Nursery Management Cooperative
School of Forestry & Wildlife Sciences
Auburn University
July 2015



* In the southeast US:

* November, 2014 - 7th coldest in 119 years*

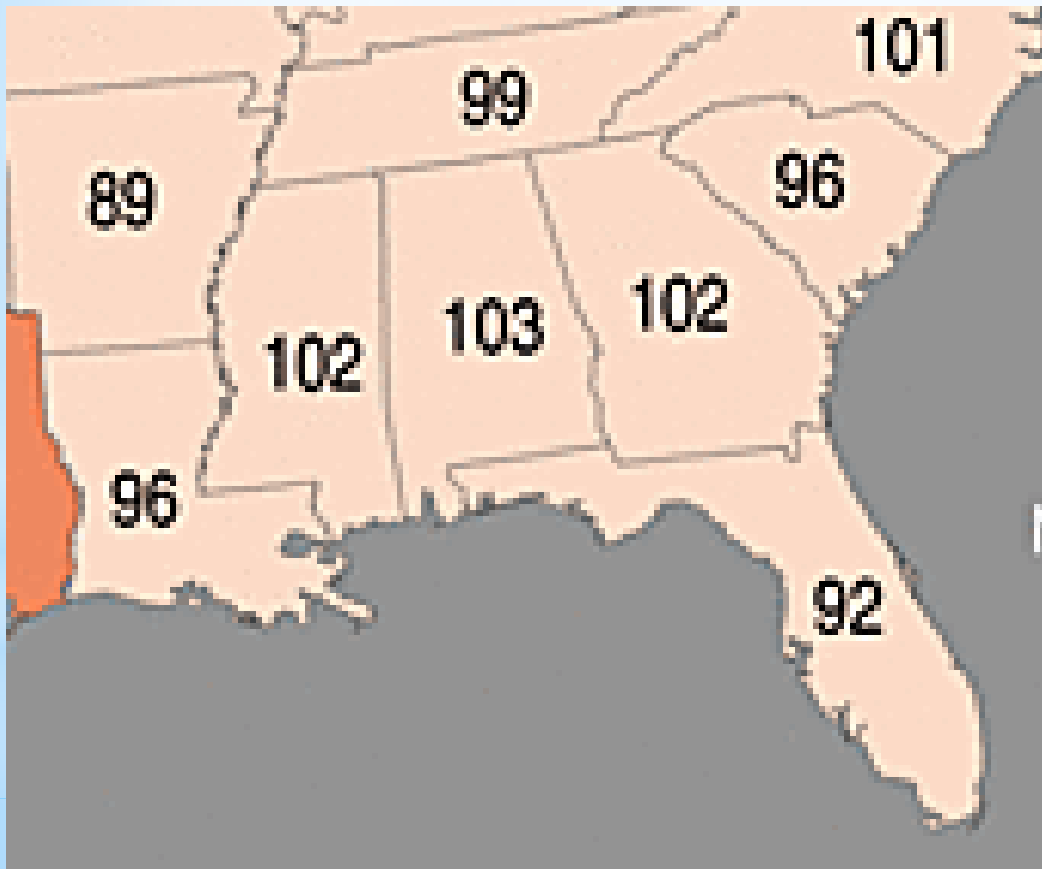


* **Cold Facts**

* Climate at a Glance

* In the southeast US:

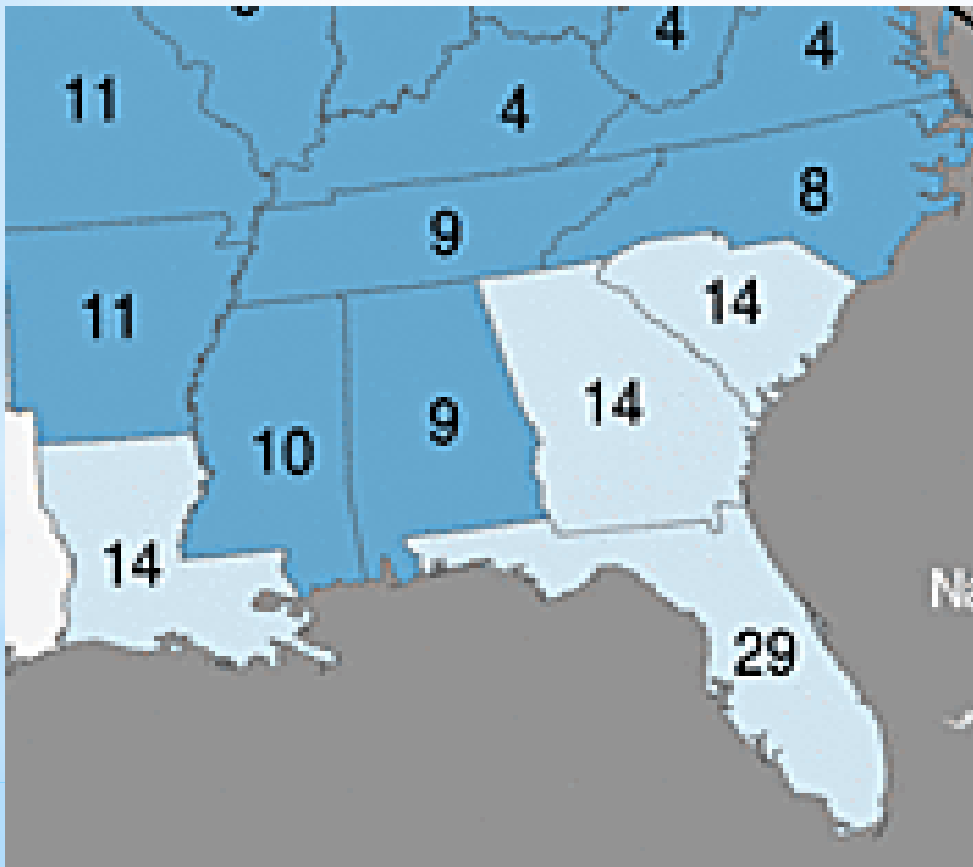
* December, 2014- 99th warmest in 119 years
(average temperature)



* **Hot Facts**

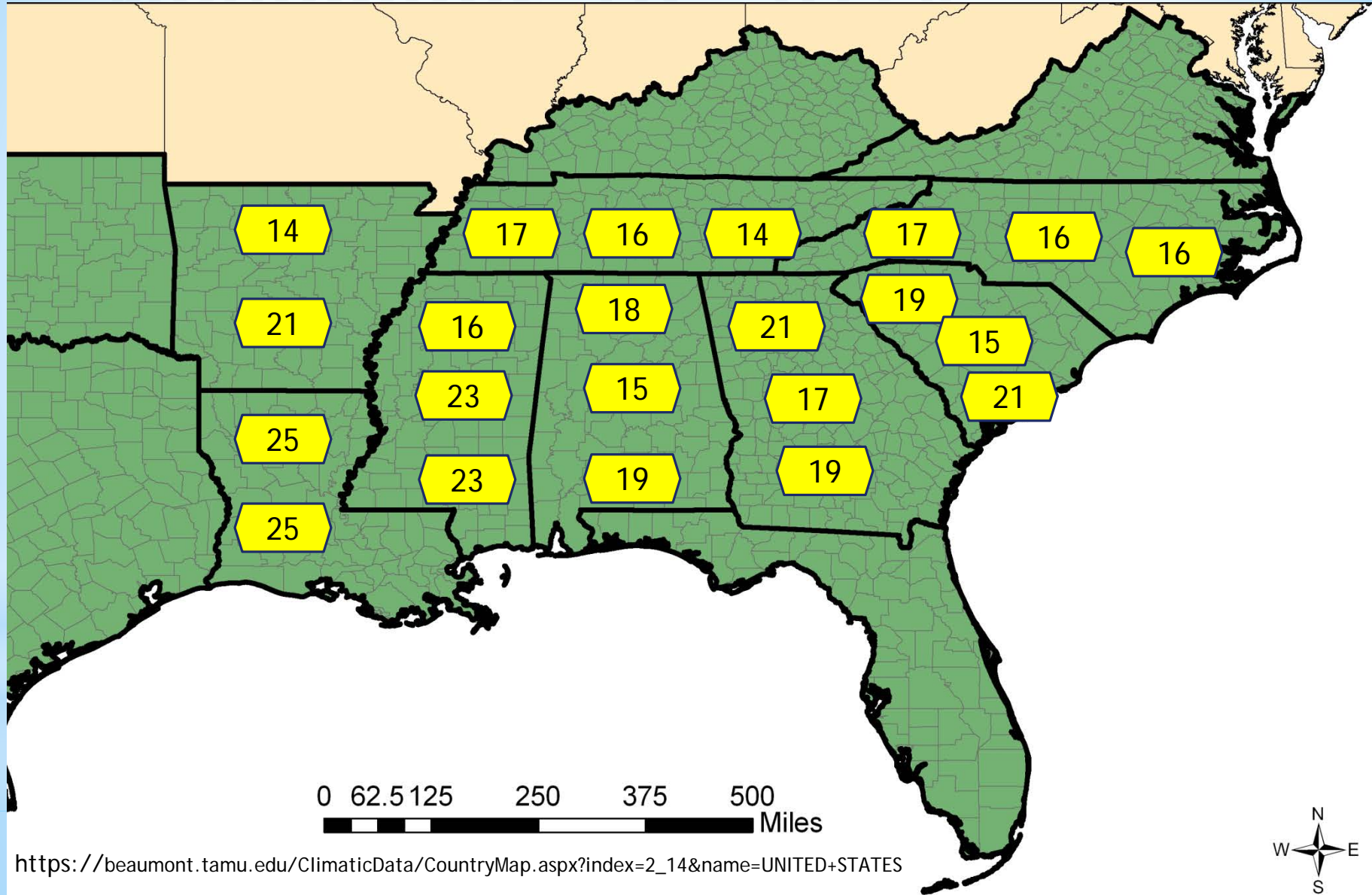
* In the southeast US:

* February, 2015 - 10th coldest in 120 years



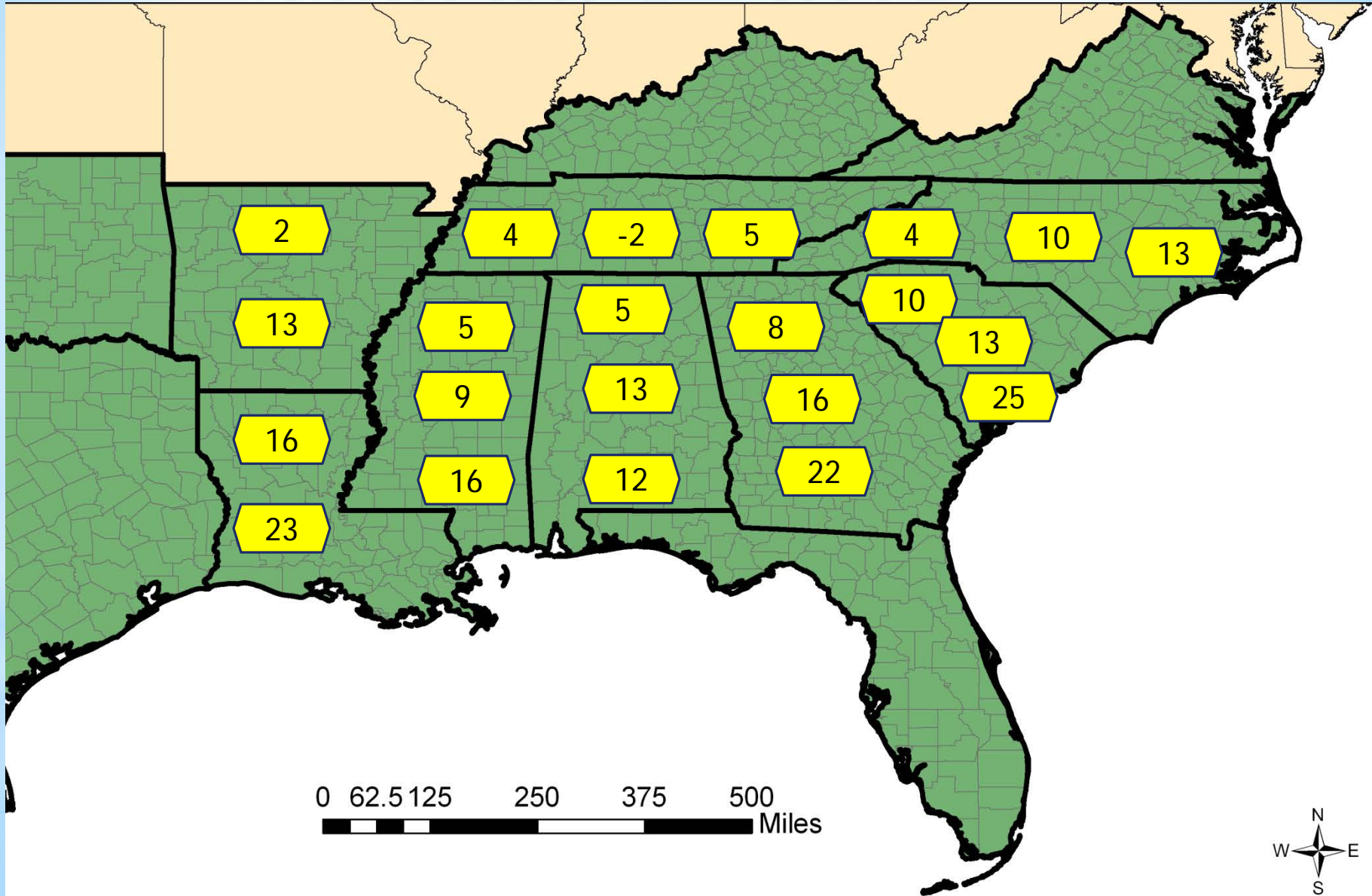
* **Cold Facts**

* ~November 19, 2014



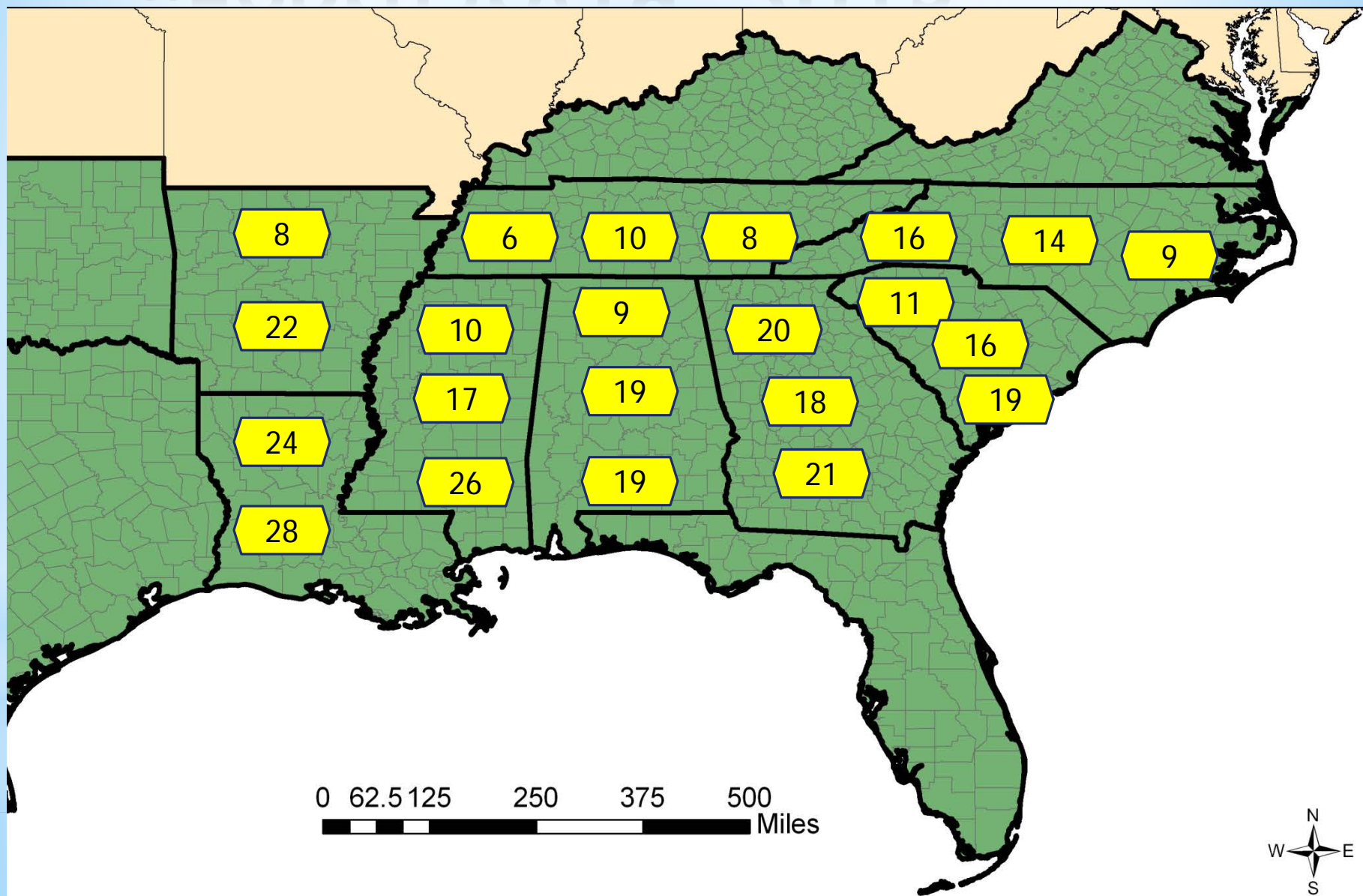
https://beaumont.tamu.edu/ClimaticData/CountryMap.aspx?index=2_14&name=UNITED+STATES

* ~January 8, 2015





~February 19, 2015



- * Are you alerting your planters of the danger to be planting just prior to these events?
- * Are you checking your seedlings 1-3 weeks after for freeze injury?
- * Have you checked with your customers for any survival problems? (especially seedlings planted just prior to these cold events)

* **What are you doing?**



- * "My seedlings just aren't growing like I think they should."
- * Lack of top and new root growth (chemical site prep also)
- * Sometimes freeze injury encompasses the whole seedling = death.
- * Frequently one side of seedling is injured. = struggle to survive
- * Analogy - One side freeze injury is like a 6 cylinder car trying the run on 3 cylinders, it runs, but rough.



* **What we hear from
the field about
freeze injury**

- * Cold Damage + Good Planting + Good Site + Good Rainfall = **Good Survival**
- * Cold Damage + Mediocre Planting + Good Site + Good Rainfall = **Survival Concerns**
- * Cold Damage + Mediocre Planting + Poor Site + Good Rainfall = **Survival Issues**
- * Cold Damage + Mediocre Planting + Poor Site + Drought = **Poor Survival**

"Operation Perspective of Seedling Freezing" - Al Lyons 2010 Advisory Meeting



* **What we hear from
the field about
freeze injury**

