

Management Alert 24-01

Southern Forest Nursery Management Cooperative

WARNING: FREEZE CONDITIONS EXPECTED ACROSS THE SOUTHEASTERN U.S.

An Arctic blast is expected to bring freezing temperatures to most of the United States, with some of the coldest temperatures across the southern plains since the Great Freeze of February 2021 (Figures 1 & 2). Dangerous wind chills are predicted throughout the southeast the week of January 14, 2024, as the cold front arrives from the northern US plains. These wind chills will cause temperatures to drop below freezing and may affect newly planted seedlings. This is especially concerning for landowners who are currently or have recently planted seedlings, as the risk of freeze injury is greater. The impact on seedlings may not be evident until spring.

MANAGEMENT IMPLICATIONS

- 1. Nurseries should monitor the soil moisture and irrigate a couple of days before the temperatures drop below 25°F. Moisture in the soil will help insulate the seedling roots.
- 2. We recommend waiting to plant seedlings until the daily highs are above freezing and the low temperatures have moderated.
- 3. Seedlings that were recently planted have likely not been established in the soil and could die. Freeze injury may be evaluated 1-2 weeks after the temperatures have warmed up by scraping the bark away from the stem about 2" above the root collar down to the roots. Light brown colored tissue, often on one side of the stem, is typically an indication that freeze damage has occurred (Figure 3). Seedlings usually die if the entire circumference of the stem is brown but may survive if conditions are favorable.

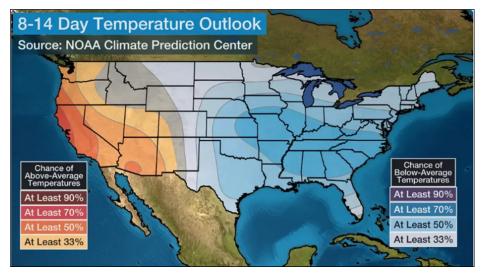


Figure 1. Temperature outlook for the US showing high chances of belowaverage temperature across the southeast the week of January 14-19, 2024 (www.weather.com).

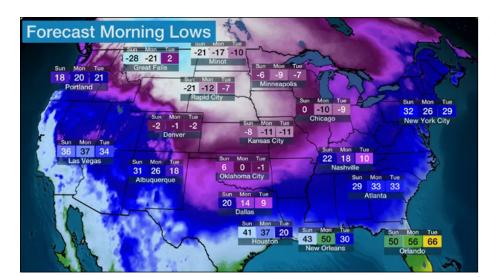


Figure 2. Morning lows on January 14-16, 2024 (<u>www.weather.com</u>).



Figure 3. Brown discoloration of stem tissue indicative of freeze damage.