

## **Influence of Heat Unit Accumulation and Low Temperatures on Pod Maturation: An Example from North Carolina during the 2020 Growing Season**

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The number of heat units accumulated during the growing cycle can directly impact growth, development, and maturation of peanut. Additionally, low temperatures that are not lethal can slow maturation down to a point where further crop development is unlikely to progress unless a prolonged period of warming occurs. Historically, practitioners have indicated that when daily temperatures are below 50 F for two consecutive days, pod maturation slows to a point at which further development even when temperatures moderate. Data supporting this assessment are limited. Temperatures during the harvest cycle of 2020 in North Carolina allowed researchers to observe whether or not cooler night temperatures prevented further development and increased pod maturation. Observations at Lewiston-Woodville with the cultivar Bailey II showed that when temperatures on September 22 and 23 were slightly below 50 F, pod maturation did not increase appreciably throughout the remainder of September and October based on pod mesocarp color. Additional time periods with nighttime temperatures between 45 and 50 F were observed over that period of time and most likely contributed to lack of further pod development. These observations support the recommendation that when temperatures drop below 50 F for at least two consecutive days, increases in pod maturation are unlikely.