

Rainfall across the Virginia-Carolina region has been variable leading up to Hurricane Isaias. For example, rainfall in the southeastern region of North Carolina has been adequate for normal growth and development (see images for Whiteville.) In contrast, some areas in the northeastern part of North Carolina peanut have experienced prolonged dry weather (see images for spider mites and peanuts with limited growth near Oak City.) However, rainfall from Isaias has saturated many peanut fields and will improve growth and development improving forward. Ponding and flooding of peanut fields has not occurred in the vast majority of cases. Concerns about spider mite outbreaks will decrease substantially as cooler and moist conditions increase incidence of a fungus that is a natural enemy of spider mites. Many fields across the region were developing corn earworm or tobacco budworm populations that are approaching economic threshold levels. Heavy rainfall can move these worms to the ground, and growers will need to reassess status of these populations after the storm. Conditions from this tropical event will increase the likelihood of pathogens that cause leaf spot to become active, and growers need to make sure they initiate fungicide spray programs as soon as possible in most fields. In some instances growers will experience additional vine growth and may need to initiate or repeat applications of prohexadione calcium. In North Carolina and Virginia, *Sclerotinia* blight could become active and growers need to scout fields to determine if fungicide for *Sclerotinia minor* is active. Burrower bug populations may be lower after this rainfall event (this pest is often more prevalent in conservation tillage systems under dry conditions) but this may not be the case in the lower V-C region.

Heat unit accumulation across the Virginia-Carolina region are presented in the table. Rainfall data for May, June and July and the amount of rain deposited by Isaias through August 4 are provided. Virginia market types often need approximately 2600 heat units (DD₅₆) to approach optimum maturity. Examples of pod mesocarp color, a reflection of pod maturation, will be provided in future reports as we move toward late August and into September. Images of pod development for 5 planting dates are provided from peanuts grown near Lewiston-Woodville.

The main focus by growers from this point forward to maintaining an effective fungicide spray program for leaf spot and stem rot diseases and possibly *Sclerotinia* blight in the mid and upper areas of the V-C region. Arthropod pests may be an issue, but these pests are often sporadic in nature. Growers are correcting some micronutrient issues such as manganese deficiency.

The estimate of planted acres in North Carolina continues to be 96,000 acres (38,900 ha) while acreage in South Carolina is 75,000 (30,400 ha) and 24,000 (9,700 ha) in Virginia. Given dry conditions across of much of the region at the critical period of flowering and pollination, yield potential in the region remains at 3,900 pounds/acre farmer stock (4,370 kg/ha.)

Peanut field near Whiteville, North Carolina on August 1. Images of peanut vines, pod set, and the root system with nodules for nitrogen fixation are provided. Peanut was planted in mid-May with the plant growth regulator prohexadione calcium applied when 50% of vines from adjacent rows were touching.







Peanut fields near Oak City, North Carolina growing under dry conditions. The second image has active populations of spider mites. These images were recorded July 26.





Foliar-feeding insects, either corn earworm or tobacco budworm, near Whiteville, North Carolina on July 27. The second image shows a manganese deficiency that can be common across peanut fields when soil pH is greater than 6.2.





Peanut plants and pod development for five planting dates near Lewiston-Woodville in northeastern North Carolina. Images were recorded July 31.

May 5





May 14





May 29





June 9





June 25





Heat unit accumulation for various intervals reflecting emergence dates and rainfall for May, June, July and a portion of August in the Virginia-Carolina Region. Source: NC Climate Office (<https://climate.ncsu.edu/cronos>.)

Dates	Wakefield, VA	Lewiston, NC	Rocky Mt, NC	Clinton, NC	Whiteville, NC	Florence, SC	Orangeburg, SC
<i>Heat Units (DD₅₆)</i>							
May 1-August 2	1764	1705	1737	1832	1856	2046	1972
May 15-August 2	1675	1645	1695	1755	1773	1925	1850
June 1-August 2	1455	1415	1435	1787	1485	1598	1524
June 15-August 2	1183	1148	1161	1200	1196	1273	1218
<i>Rainfall (inches)</i>							
May 1-31	2.5	2.7	4.7	12.2	10.0	10.7	3.7
June 1-30	5.4	4.3	8.7	4.7	9.1	5.8	3.7
July 1-31	4.8	3.0	3.4	5.0	3.8	5.7	3.2
August 1-4	3.7	4.6	2.0	3.4	3.9	1.9	0.5
Total (May-July)	12.7	10.0	16.8	21.9	22.9	22.2	10.6
Total (May-August 4)	16.4	14.6	18.8	25.3	26.8	24.1	11.1

