

The 2023 peanut crop in Virginia-Carolina region was unique. The season began with unusually low temperatures in May and into early June. This weather pattern minimized heat unit accumulation across the region limiting early season growth. Slow growth early in the season placed pressure on systemic insecticides applied in the seed furrow at planting designed to control thrips. Most growers made postemergence insecticide applications to extend control into mid to late June. In most instances, growers were able to establish adequate and uniform plant stands in spite of lower temperatures. However, in some fields, the pathogen *rhizopus* was more pronounced under cooler temperatures causing poor stands. Eventually, growers were able to establish adequate stands in most of these fields. Rainfall across much of the region was adequate for activation of herbicides applied after planting but prior to weed emergence. Weeds tended to grow more slowly due to cooler soil temperatures. In some fields, there appeared to be a shift from Palmer amaranth to common ragweed. Common ragweed often emerges under cooler soil temperatures than Palmer amaranth.

Considerable variation in weather patterns and peanut growth were observed throughout much of the growing season. The degree and timing of drought for many farmers is what determined yield at the end of the season. Peanuts tended to be behind for much of the season in terms of development and pod maturity. While variation was observed, optimum pod maturity occurred approximately one week later in 2023 compared with 2022. Heat unit accumulation occurred at a slower pace and this translated into the need to dig peanuts later in the fall.

The peanut crop in the Virginia-Carolina region needed more warm days and moderate temperature at night in September and October to reach full potential. Unfortunately, cool nights in late September slowed the pace of pod and kernel maturation dramatically. Cool temperatures occurred once again during the weekend of October 7 and persisted for much of the remainder of the month. Freezing temperatures were observed across the central and northern area of the region on November 2 and 3. These temperatures caused a great deal of injury to vines and in some cases caused freeze damage of kernels dug too closely to the freezing event.

Only a fraction of peanuts remain in the field as of November 30. The vast majority of harvest occurred prior to November 15.

Yield was lower in 2023 than in 2022. This was due in part to a record-yielding crop in 2022, less than ideal growing conditions in 2022 relative to temperatures and drought, and an immature crop at harvest in significant areas of the region. However, early in the cropping cycle, there was great concern that yields would be much lower than observed. This once again underscores the resiliency of peanuts and the flexibility and commitment by peanut growers in the region to manage the crop under less than ideal conditions. Peanuts with modest but adequate rainfall throughout the season yielded and graded well. Peanuts experiencing stress from dry conditions had low yields and poor market grades. In many instances, peanuts under stress early in the season received rainfall later in the season resulting in higher yields than expected due to stress. When considering the entire growing season and the three states in the V-C Region, yields were average with market grades mixed.

Yield estimates for the region are projected to be 4,100 lbs/acre (4,492 kg/ha).

**Heat unit accumulation and rainfall from May 1 through June 14 at Lewiston-Woodville in northeastern North Carolina and Whiteville in southeastern North Carolina in 2022 and 2023.**

<b>Year</b>	<b>Location</b>	<b>Heat units (DD<sub>56</sub>)</b>	<b>Rainfall (inches)</b>	<b>Rainfall (mm)</b>
2022	Lewiston-Woodville	725	5.75	146
2023	Lewiston-Woodville	477	1.96	50
2022	Whiteville	828	7.20	183
2023	Whiteville	571	2.23	57

**Heat unit accumulation and rainfall from May 1 through July 17 at Lewiston-Woodville in northeastern North Carolina and Whiteville in southeastern North Carolina in 2022 and 2023.**

<b>Year</b>	<b>Location</b>	<b>Heat units (DD<sub>56</sub>)</b>	<b>Rainfall (inches)</b>	<b>Rainfall (mm)</b>
2022	Lewiston-Woodville	1,397	11.25	285.8
2023	Lewiston-Woodville	1,203	6.53	165.9
2022	Whiteville	1,545	13.21	335.5
2023	Whiteville	1,312	8.07	205.0

**Heat unit accumulation in 2022 and 2023 from May 1 through August 10 at five locations in North Carolina and one location in Virginia.**

<b>Year</b>	<b>Location</b>	<b>Heat units (DD<sub>56</sub>) May 1 – August 10, 2022</b>	<b>Heat units (DD<sub>56</sub>) May 1 – August 10, 2023</b>
2023	Suffolk	2053	1742
2023	Lewiston-Woodville	2106	1839
2023	Rocky Mount	2194	1862
2023	Kinston	2268	1909
2023	Clinton	2258	1883
2023	Whiteville	2306	1973

**Rainfall in 2023 from May 1 through August 28 and from August 1 through August 28 at six locations in North Carolina. These data do not include rainfall from the remnants of Hurricane Idalia.**

<b>Year</b>	<b>Location</b>	<b>Rainfall in inches (mm) May 1 – August 28</b>	<b>Rainfall in inches (mm) August 1 - August 28</b>
2023	Lewiston-Woodville	12.41 (315)	5.76 (146)
2023	Rocky Mount	12.55 (319)	3.07 (78)
2023	Kinston	12.90 (328)	2.87 (73)
2023	Clinton	18.10 (460)	2.98 (76)
2023	Kenansville	16.80 (427)	5.75 (146)
2023	Whiteville	14.10 (358)	1.67 (42)

**Rainfall in 2023 from May 1 through September 10 and from September 1 through September 10 at six locations in North Carolina.**

<b>Year</b>	<b>Location</b>	<b>Rainfall in inches (mm) May 1 – September 10</b>	<b>Rainfall in inches (mm) September 1-10</b>
2023	Lewiston-Woodville	15.10 (383)	1.17 (30)
2023	Rocky Mount	16.74 (425)	1.16 (30)
2023	Kinston	19.08 (485)	0.15 (4)
2023	Clinton	25.12 (638)	1.36 (35)
2023	Kenansville	27.30 (693)	1.08 (27)
2023	Whiteville	15.74 (400)	1.65 (42)

<b>Heat unit accumulation in 2022 and 2023 from May 1 through September 10 at five locations in North Carolina and one location in Virginia.</b>		
<b>Location</b>	<b>Heat units (DD<sub>56</sub>) May 1 – September 10, 2022</b>	<b>Heat units (DD<sub>56</sub>) May 1 – September 10, 2023</b>
Suffolk	2604	2448
Lewiston-Woodville	2744	2573
Rocky Mount	2826	2606
Kinston	2895	2682
Clinton	2902	2628
Whiteville	2971	2708

<b>Average heat unit accumulation from September 4 through October 24 at Clinton, North Carolina. This location is central to the V-C Region.</b>	
<b>Interval</b>	<b>Growing degree days (DD<sub>56</sub>)</b>
September 4-12	22.5
September 13-21	13.1
September 22-30	10.2
October 1-9	9.4
October 10-19	6.1
October 20-24	4.3

Field planted to peanuts in northeastern North Carolina.



Peanut seedling emerging in a field in central North Carolina



Thrips injury early in the season in northeastern North Carolina.



Palmer amaranth and common ragweed in a peanut field near Tarboro, North Carolina.







Peanut at mid-season near Rocky Mount, North Carolina



Peanut pods in late August near Lewiston-Woodville, North Carolina



Peanut field near Rocky Mount, North Carolina in September



Peanut field near Rocky Mount, North Carolina in October.

