Approximately 40% of the peanut crop is dug in the Virginia-Carolina region with 15% threshed. Many fields in North Carolina and Virginia were projected to reach optimum maturity during the week of September 25. As Hurricane Ian approaches, many growers are deciding whether peanuts will be more protected if they are not dug or if the threat of heavy rains will cause greater risk to peanuts if soils dry slowly or if additional rainfall in the next three weeks occurs. This is a challenging call to make due to the unknowns about what could happen after Hurricane Ian.

The decision is complicated in some ways because of cooler temperatures during the weekend of September 23 (Table 1) and very dry conditions for the past three weeks with unseasonably high temperatures across much of the region (Table 2). Based on historical information and recent observations, when the minimum temperature for the day drops below 50 Fahrenheit (10.0 Celsius) for two consecutive nights, it is unlikely that peanut maturation will continue progressing. This phenomena was observed at all locations in Virginia and North Carolina using weather station reports available from the North Carolina Climate Office. Peanuts can move in a positive direction after the low temperatures but only if temperatures increase to unseasonable levels for several weeks. Heat unit accumulation has slowed and depending on weather patterns, especially in the upper area of the region, late-panted or stressed peanuts may not reach full yield potential. In essence, however, the peanut crop in Virginia and North Carolina is unlikely to increase in maturity in most cases. In contrast, in South Carolina, low temperatures did not meet this threshold and the crop will likely continue to mature, although at a slower pace. Water-soaked soils and cloudy weather can also slow the pace of maturation, and this could be the case relative to Hurricane Ian. However, some rain is needed across the region to enable digging of pods and inversion of vines without substantial pod loss. This is especially the case in reduced or conservation tillage fields.

The current estimate of rainfall from Hurricane Ian is 3 to 6 inches (76 to 151 mm) but could vary based on the track and speed of the storm as it moves through the region. Wind will also be an issue, especially on the eastern side of the storm and could affect peanuts that have been dug with vines inverted. While ponding may occur and intrusion from water sources (e. g., canals, creeks, rivers, etc.) may be experienced in some locations, the dry soil conditions across much of the region at the present time may minimize impact.

Dry conditions and cooler temperatures have decreased the pace of leaf spot epidemics and stem rot (white mold) in fields where these diseases were becoming more prevalent. However, some fields are experiencing Sclerotinia blight and this could increase substantially in fields after Hurricane Ian hits, especially if cooler temperatures occur in wet fields with the pathogen present.

Estimates of plantings for North Carolina, South Carolina, and Virginia are 44,530 ha (110,000 acres), 10,526 ha (26,000 acres), and 31,174 ha (77,000 acres), respectively. Yield potential has been decreased across the region from the previous report (4,480 kg

per ha or 4,000 pounds per acre) to 4,370 kg per ha (3,900 pounds per acre). This reduction is primarily due to dry weather early in the region in addition to a relatively widespread drought in late-August and throughout much of September. Yields could decrease from this estimate based on the impact of Hurricane Ian.

Table 1. Daily minimum temperatures from September 22-25 at nine locations across North Carolina, South Carolina and Virginia (NC Climate Office.)

		Dailey minimum temperatures in Fahrenheit (Celsius in parentheses)			
City	**State**	**Sep 22**	**Sep 23**	**Sep 24**	**Sep 25**
Wakefield	Virginia	63 (17.2)	45 (7.2)	44 (6.7)	59 (15.0)
Suffolk	Virginia	62 (16.7)	44 (6.7)	42 (5.6)	56 (13.3)
Lewiston-Woodville	NC	65 (18.3)	47 (8.3)	45 (7.2)	59 (15.0)
Rocky Mount	NC	68 (20.0)	46 (7.8)	44 (6.7)	60 (15.6)
Kinston	NC	66 (18,9)	47 (8.3)	43 (16.1)	60 (15.6)
Wallace	NC	65 (18.3)	45 (7.2)	41 (5.0)	54 (12.2)
Whiteville	NC	67 (19.4)	49 (9.4)	44 (6.7)	56 (13.3)
Marion	SC	68 (20.0)	50 (10.0)	45 (7.2)	55 (12.8)
Orangeburg	SC	65 (18.3)	54 (12.2)	50 (10.0)	59 (15.0)

Table 2. Rainfall accumulation in May, June, July and August and September 1 through 26 during 2022

		Rainfall									
		May		**June**		**July**		**August**		**Sep 1-26**	
City	**State**	**Inches**	**mm**	**inches**	**mm**	**inches**	**Mm**	**inches**	**mm**	**inches**	**mm**
Wakefield	Virginia	3.36	85	2.59	66	7.14	181	0.87	22	0.42	11
Lewiston	NC	4.99	127	2.01	51	6.67	169	3.67	93	1.25	31
Rocky Mount	NC	2.85	72	1.85	47	5.69	144	3.65	92	1.98	50
Clinton	NC	4.12	105	3.01	77	4.28	109	3.45	88	0.60	15
Whiteville	NC	1.58	40	6.94	176	5.56	141	4.82	122	1.02	26
Florence	SC	2.14	54	2.56	65	5.11	130	3.80	97	2.14	54
Orangeburg	SC	3.30	84	5.68	144	5.79	147	6.53	166	0.79	20

Table 3. Heat unit accumulation DD_{56} in May, June, July, and August and September 1 through 26 during 2022

		Heat Unit Accumulation			
City	**State**	**May 1-Sep 26**	**May 16-Sep 26**	**June 1-Sep 26**	**June 16-Sep 26**
Wakefield	Virginia	2807	2679	2416	2127
Lewiston-Woodville	NC	2998	2833	2538	2215
Rocky Mount	NC	3077	2999	2588	2253
Clinton	NC	3183	2988	2657	2314
Whiteville	NC	3245	3032	2686	2341
Florence	SC	3560	3317	2945	2536
Orangeburg	SC	3384	3156	2808	2443

Peanut pods dug and vines inverted in near Oak City, North Carolina on September 21.

Peanuts in a field near Oak City, North Carolina on September 21 experiencing extreme drought.

Pod mesocarp color for the variety Bailey II planted May 2 near Lewiston-Woodville with samples taken on September 9 and September 21. Peanuts in this field were under drought stress from late August through September 21.

September 9

September 21

Peanut mesocarp color for the variety Bailey II planted May 15 near Lewiston-Woodville, NC with samples taken on September 9 and September 21. Peanuts were grown under irrigation.

September 9

September 21