Dry pockets continue to exist across the Virginia-Carolina region but rainfall during the first two weeks of July has decreased drought significantly. While growth and development for much of the dryland crop in June slowed due to drought, peanuts are now growing both reproductively and vegetatively. Peanut vines have met in some fields across the region although other fields will require several more weeks before rows lap. Optimum photosynthesis occurs when the peanut canopy closes.

Growers in southern area of the Virginia-Carolina region will make a third application of fungicide this coming week while growers in the northern and central areas of the region are moving to the second application. The first application is geared toward leaf spot protection while the second and third applications are designed to keep epidemics from leaf spot and stem rot from developing. Some fields have escaped weeds that can be difficult to control because of size and herbicide efficacy on these weeds. Images of the most important weeds in the Virginia-Carolina region are provided.

Corn earworm moths have been observed in the southern area of the region but not in the central and northern areas. However, growers are on the lookout for this insect pest and other caterpillars and worms that feed on peanut foliage and fruiting structures that are above ground. Currently, there are no insecticides available that protect peanut from damage to pods caused by southern corn rootworm and burrower bug.

Rainfall over the past two weeks have reduced risk from lesser cornstalk borer but potential continues to exist. Leaf burn from potato leaf hopper has been observed in some fields but does not appear to be excessive. Threats from spider mites have decreased, but high temperatures and the possibility of dry conditions will increase risk of this pest.

The combination of rain, high dew points, and high temperatures have increased risk for leaf spot disease. Weather-based advisories in North Carolina are showing considerable risk for epidemics to develop in the lower part of the peanut canopy. Tomato spotted wilt has become evident across the region. However, the greatest potential for incidence of this disease is in the southern area of the region. This virus was vectored by the insect thrips earlier in the season.

Approximately half of the growers in the region will apply prohexadione calcium to prevent excessive vine growth. This plant growth regulator is an anti-gibberellin that affects internode elongation. Prohexadione calcium reduces pod loss during digging and vine inversion and allows growers to track rows more effectively compared with non-treated peanut. Many growers use precision digging with RTK systems that allow accurate tracking of rows. Prohexadione calcium reduces vine load going through the digger/inverter and this contributes to efficiency of this step of harvest.

Manganese deficiencies are becoming apparent in some fields, especially fields with high pH. This deficiency can be corrected easily with timely foliar applications of manganese. Growers are also applying boron in many fields. Sandy fields are prone to

have deficiencies for this micronutrient. Boron is critical for carbohydrate allocation and for proper kernel development.

Yield potential for peanut in the region is 4,340 kg/ha (4,050 lbs/acre). Conditions have become more favorable for peanut growth and development over the past two weeks.

Rainfall from June 1-July 1, June 30-July 1, and July 1-15 at selected locations in North Carolina in 2024.

Location	Rainfall in mm (inches) from June 1-July 1	Rainfall in mm (inches) from June 30-July 1	Rainfall in mm (inches) from July 1-15
Lewiston-Woodville	55 (2.18)	22 (0.85)	67 (2.65)
Rocky Mount	113 (4.44)	85 (3.33)	134 (5.29)
Kinston	70 (2.75)	11 (0.43)	86 (3.39)
Clinton	74 (2.90)	53 (2.10)	127 (5.00)
Wallace	50 (1.96)	33 (1.32)	131 (5.15)
Whiteville	53 (2.08)	0 (0)	33 (1.32)

Peanut field near Rocky Mount on July 16. Peanuts in this field are a few days away from application of prohexadione calcium. This plant growth regulator is applied when 50% of vines from adjacent rows are touching.

Economically important weeds in the Virginia-Carolina region are shown below. These weeds can be difficult to control at this growth stage and growers will hire crews to remove Palmer amaranth and common ragweed by hand in some fields.

Palmer amaranth

Common ragweed

Entireleaf, ivyleaf, and pitted morningglory species

Horsenettle

Yellow nutsedge

Sicklepod

Texas panicum

Cocklebur

In some fields peanuts are yellow due to nitrogen deficiency as a result of failure to apply commercial inoculant for biological nitrogen fixation (BNF) or conditions existed earlier in the season that adversely affected inoculant placement or performance. The first root mass has above-ground symptoms of nitrogen deficiency. Note the lack of nodulation. The second image includes peanut roots with numerous nodules contributing to BNF. The peanut canopy in this case had a deep green color indicating that the plant had adequate nitrogen through BNF.

Peanut field near Rocky Mount, North Carolina with symptoms of injury from a toxin vectored by the insect pest potato leafhopper.

Peanut field near Nashville, North Carolina on July 16.

Peanuts expressing a manganese deficiency on a high pH soil.

Peanuts expressing symptoms of tomato spotted wilt. This Tospovirus is vectored by thrips earlier in the season.