

Hertford County Peanut Samples – Maturity after 2 weeks

Below are two samples from the same field, one taken on August 29 and on September 13 (15 days later). This field was planted on April 30th, non-irrigated, and variety is Bailey II. Canopy in poor condition due to lack of rainfall and late leaf spot.

The image is a composite of several elements related to peanut maturity and disease:

- Maturity Chart:** A large chart with a yellow background and a red curve. The x-axis represents days relative to when a reduction in pod yield is expected. The y-axis represents the percentage of pods in different maturity categories. A red arrow points to the 'Harvestable' region. Text on the chart includes:
 - 'Optimum maturity in 20 to 24 days' (pointing to the left side of the curve)
 - 'Optimum maturity in 10 to 14 days' (pointing to the right side of the curve)
- Handwritten Note:** A white card with red text in the center:
 - August 29, 2022
 - Bailey II
 - Planted April 30
 - Ahoskie, NC
 - Non-irrigated
- Disease Photographs:** Several small images at the bottom show plant damage:
 - 'Sclerotinia blight stem shredding and bleaching': Shows shredded and bleached stems.
 - 'Spider mites': Shows small mites on a leaf.
 - 'Late leaf spot': Shows dark spots on a leaf.
 - 'Peanut root-knot nematode': Shows a root with a knot.
 - 'Rhizoctonia': Shows a root with a lesion.
- Textual Information:**
 - 'Influence of Disease on Digging Decision': Discusses how disease affects pod shed and yield loss, mentioning 'Early digging is not justified if plants have tomato spotted wilt'.
 - 'Influence of Freeze Potential on Digging Decision': Discusses frost damage and the risk of early digging.
 - 'Points': Lists factors like '60% of leaves have visible lesions' and 'dig and invert vines as soon as possible'.

Optimum maturity in 20 to 24 days

Optimum maturity in 10 to 14 days

Influence of Disease on Digging Decision

Disease can dramatically affect the pod shed and subsequent... However, most research suggests that extremely high levels of disease are needed to justify digging. Pod strength and time required to reach optimum maturity... are also affected by disease. Digging is not justified if plants have terminal... (black root rot), at least 40% disease... (stem rot or Sclerotinia blight), or leaf spot (see Key Points listed below).

Influence of Freeze Potential on Digging Decision

Freeze damage, often referred to as frost damage, can significantly reduce the market value. Digging within 72 hours prior to a forecasted freeze... and drying conditions exist. Post-drying... of the peanut... to greater than 12 hours...

8/29/22
Emery
Planted May 6
Harrellsville, NC

Determining Peanut Pod Maturity and Estimating the Optimal Digging Date
 Using Pod Mesocarp Color for Digging Virginia Market Type Peanut

Maximum Weight	30%	50%	75%	95%	100%
At least 35 days to black pod color	21 to 24 days to black pod color	14 to 17 days to black pod color	7 days to black pod color	Black pods can shed within 4 to 7 days after becoming black	

Optimum maturity in 20 to 24 days

Optimum maturity in 10 to 14 days

Optimum maturity now

Percentage of a sample that contains 150 pods

Harvestable

Influence of Disease on Digging Decision

Disease can dramatically affect the pod shed and subsequent... However, most research suggests that extremely high levels of disease are needed to justify digging. Pod strength and time required to reach optimum maturity... are also affected by disease. Digging is not justified if plants have terminal... (black root rot), at least 40% disease... (stem rot or Sclerotinia blight), or leaf spot (see Key Points listed below).

Influence of Freeze Potential on Digging Decision

Freeze damage, often referred to as frost damage, can significantly reduce the market value. Digging within 72 hours prior to a forecasted freeze... and drying conditions exist. Post-drying... of the peanut... to greater than 12 hours...

9/12/22
Emery
Planted May 6
Harrellsville
Irrigated

Below are two samples from the same field, one taken on August 31 and on September 13 (13 days later). This field was planted on May 3rd, irrigated, and variety is Bailey II. Canopy in good condition.

SMK

Optimum maturity now

Optimum maturity in 10 to 14 days

Optimum maturity in 20 to 24 days

Influence of Disease on Digging Decision
 Disease can dramatically affect the pod shad and subsequent yield loss. However, most research suggests that extremely high levels of disease are needed to justify early digging. Pod strength and time required to reach optimum maturity will also influence this decision. Early digging is not justified if plants have tomato spotted wilt. Early digging is justified if:
 > CBR (black rot), at least 40% disease
 > Stem rot or Sclerotinia blight, at least 50% disease
 > Leaf spot (see Key Points listed below)

Influence of Freeze Potential on Digging Decision
 Freeze damage, often referred to as frost damage, can greatly affect peanut quality, peanut flavor and market value. Digging within 72 hours prior to an expected frost is extremely risky even when good drying conditions exist. Poor drying conditions will extend the unsafe window for digging peanut to greater than 72 hours.

Key Points
 > If 20% of leaves have visible lesions, do not spray additional fungicide, as 60% of leaves are likely infected.
 > If 40% of the canopy is defoliated, dig and invert vines as soon as possible regardless of pod mesocarp color.
 > To go from 10% defoliation to 20% defoliation takes about one week. To go from 25% defoliation to 40% defoliation takes about one week. Peanuts can go from 50% defoliation to complete defoliation in about one week.

8/31/22
Bailey II
Planted May 3
Ahoskie, NC
Irrigated

Leaf spot
 Peanut root-knot nematode
 Rhizoctonia
 Sclerotinia blight stem shredding and bleaching
 Spider mites

EXTENSION

Using the Peanut Profile Board

Use the following procedure to determine the optimum maturity of your peanuts. Collecting pods from four or five locations. Keep pods in a cool, dry place. Use a pressure washer equipped with a spray nozzle to remove the outer hull and expose the mesocarp color layer. Your county Extension agent can assist with this procedure.

Using the images of pods at the top of each column, place pods on the profile board under the appropriate mesocarp color category. Lay pods loosely as shown here.

Lay pods on the chart and place them loosely within the appropriate mesocarp color category from the bottom line of the category upward. The percentage value on the right hand side of the chart can be used to compare percentages of pods among color categories. In most cases, samples will resemble a bell-shaped curve. However, this occurs only when rainfall and temperatures promote predictable maturation. When weather conditions are unfavorable or when peanuts are damaged by pesticides, samples may not be uniformly distributed. This makes producing the optimum digging date more difficult.

percentage value on the right-hand side of the chart. peanuts are at optimum maturity. When the of both brown and black pods are at least 30 to 35% optimum maturity.

mesocarp color, the maturation that is heavier, will shrink less and will grow better than lighter mesocarp color.

How placed on a peanut profile board will in 10 to 14 days.

fall gives the best yield. This is particularly true for black. These pods will be done not give you pods in the black category. Irrigations also can help yield.

are in high 40° F level up further during period.

Using Pod Mesocarp Color to Determine Optimum Maturity

Maximum Weight	30%	50%	75%	95%	100%
At least 35 days to black pod color		21 to 24 days to black pod color	14 to 17 days to black pod color	7 days to black pod color	Black pods can shed within 4 to 7 days after becoming black

Change in severity of leaf spot in the peanut canopy (percent of leaves with visible lesions) and canopy defoliation (percent of leaves that have fallen).

SMK

Optimum maturity in 20 to 24 days

Optimum maturity relative to 100% black pods

Optimum maturity now

Optimum maturity in 14 days

Harvestable

Digging Decision

When and subsequent yield loss. However, most levels of disease are needed to justify early digging. Optimum maturity will also influence this decision. Early digging is justified if:

- There is a high risk of frost.
- There is a high risk of rain.
- There is a high risk of insect damage.
- There is a high risk of disease.
- There is a high risk of nematode damage.
- There is a high risk of root rot.
- There is a high risk of soil erosion.
- There is a high risk of soil compaction.
- There is a high risk of soil salinity.
- There is a high risk of soil acidity.
- There is a high risk of soil alkalinity.
- There is a high risk of soil nutrient deficiency.
- There is a high risk of soil nutrient excess.
- There is a high risk of soil waterlogging.
- There is a high risk of soil drought.
- There is a high risk of soil temperature extremes.
- There is a high risk of soil pH extremes.
- There is a high risk of soil texture extremes.
- There is a high risk of soil structure extremes.
- There is a high risk of soil color extremes.
- There is a high risk of soil odor extremes.
- There is a high risk of soil taste extremes.
- There is a high risk of soil touch extremes.
- There is a high risk of soil sight extremes.
- There is a high risk of soil smell extremes.
- There is a high risk of soil sound extremes.
- There is a high risk of soil feel extremes.
- There is a high risk of soil look extremes.
- There is a high risk of soil taste extremes.
- There is a high risk of soil touch extremes.
- There is a high risk of soil sight extremes.
- There is a high risk of soil smell extremes.
- There is a high risk of soil sound extremes.
- There is a high risk of soil feel extremes.
- There is a high risk of soil look extremes.

do not spray additional fungicide, as 60% of leaves are needed to produce a crop. Harvest vines as soon as possible regardless of weather conditions. It takes about one week. To go from 25% to 50% takes about one week. To go from 50% to 75% takes about one week.

Factors on Digging Decision

Weather conditions greatly affect peanut quality, peanut yield, and disease. Harvesting prior to an expected frost is extremely risky. Harvesting under unfavorable conditions will extend the unsafe harvest period.

Do not spray additional fungicide, as 60% of leaves are needed to produce a crop. Harvest vines as soon as possible regardless of weather conditions. It takes about one week. To go from 25% to 50% takes about one week. To go from 50% to 75% takes about one week.

Percentage of a sample that contains 150 pods

9/14/22
Planted May 3
Bailey II
Irrigated
Albemarle, NC

Schrovinia blight stem shredding and bleaching
Spider mites
Pod symptoms
Peanut root-knot nematode
Rhizoctonia
Black root rot (CBR)