

Pod Maturity in 2022 and 2021

Is it, indeed, earlier in 2022 or more diverse depending on moisture and soil type?

Maturity clinic set for Sep 12 at the Indika Farms Inc. in Windsor, VA

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2022, Bailey II planted on 5/11 in Holland, VA, podblast performed on 8/24



NC STATE EXTENSION

Determining Peanut Pod Maturity and Estimating the Optimal Digging Date

Using Pod Mesocarp Color for Digging Virginia Market Type Peanut

Gather 150 harvestable pods from each field or from each variety within a field, collecting pods from four or five locations. Keep pods in water until pod blasting. Use a pressure washer equipped with a turbo 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 predicting the optimum digging date more difficult.

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

The darker the mesocarp color, the more mature the peanut pod. Darker pods are heavier, will shrink less and will grade better than pods with a lighter mesocarp color.

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

SMK

Optimum maturity in 20 to 24 days

Optimum maturity in 10 to 14 days

Influence of Disease on Digging Decision

Potential on Digging Decision

Percentage of a sample that contains 150 pods

Silene blight stem shredding and bleaching

Spider mites

Pod symptoms from southern stem rot

Drought

Late leaf spot

Peanut root-knot nematode

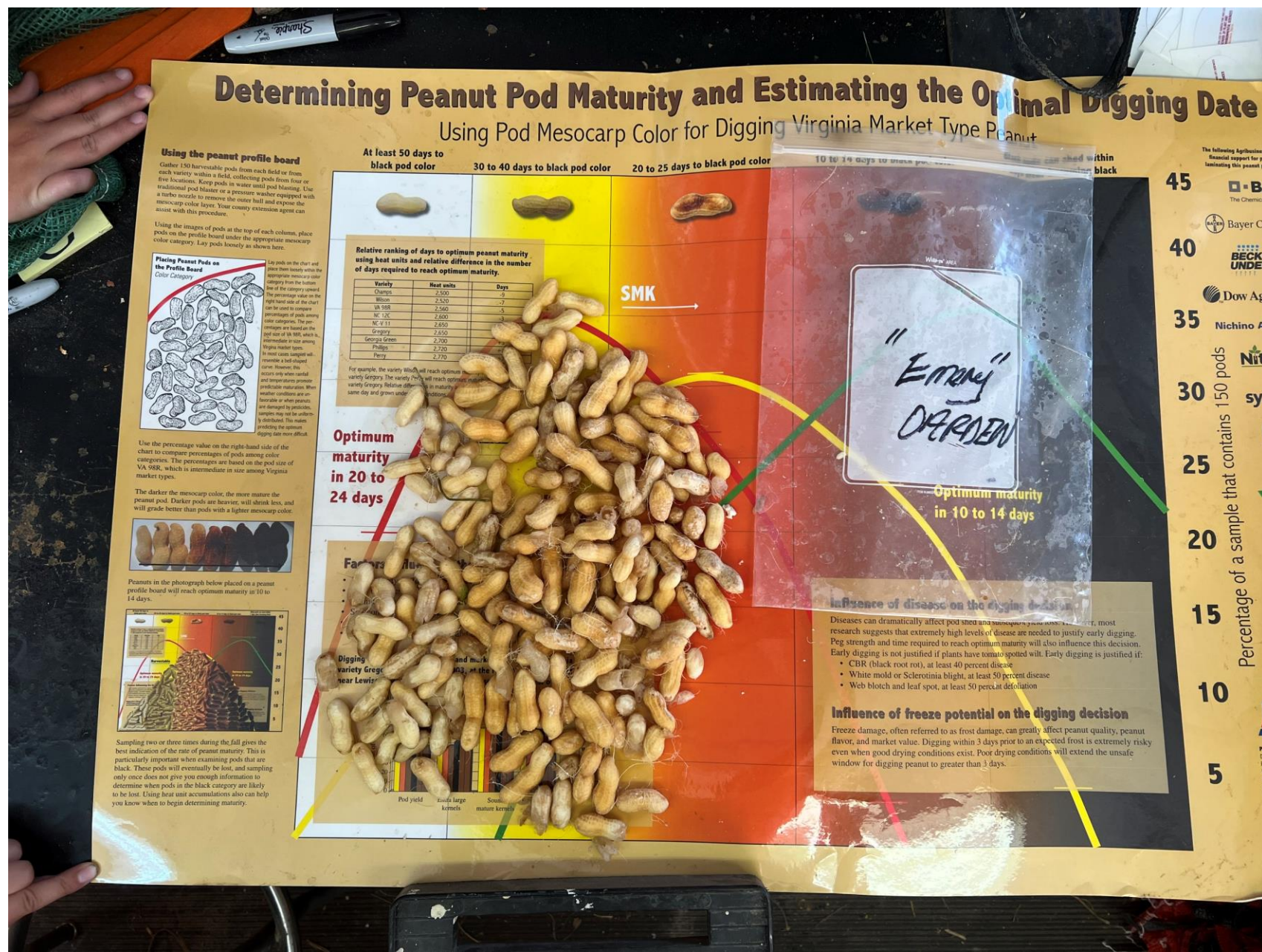
Rhizoctonia

Black root rot (CBR)

2022, Bailey II planted on 5/19 in Williamston, NC, podblast performed on 8/24



2022, Emery planted on 5/20 in Carrsville, VA, podblast performed on 8/24



Determining Peanut Pod Maturity and Estimating the Optimal Digging Date

Using Pod Mesocarp Color for Digging Virginia Market Type Peanut

EXTENSION

Using the Peanut Profile Board

Gather 150 harvestable pods from each field or from each variety within a field, collecting pods from four or five locations. Keep pods in water until pod blasting. Use a pressure washer equipped with a turbo 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.

Place Peanut Pods on the Profile Board Color Category

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 predicting the optimum digging date more difficult.

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

A darker mesocarp color, the more mature the peanut pod. Older pods are heavier, will shrink less and will grade better than a lighter mesocarp color.

Pods in the image below placed on a peanut profile board will indicate optimum maturity in 10 to 14 days.

For three times during the fall gives the best estimate of peanut maturity. This is particularly true in examining pods that are black. These pods will not give you an accurate picture of maturity unless you wait until they have lost their green color. Using heat unit accumulations also can help to begin determining maturity.

Early morning temperatures are in high 40° F range, pod maturation may not develop further until prolonged and unseasonal warming period.

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).

Optimum maturity now

Optimum maturity in 20 to 24 days

Influence of Soil Conditions on Pod Development

Key Points

- If 20% of leaves have visible lesions, do not expect soilborne diseases to be likely infected.
- If 60% of the canopy is defoliated, dig and harvest - even if the yield of pod mesocarp is low.
- To go from 20% defoliation to 60% defoliation takes about one week. To go from 60% defoliation to 80% defoliation takes about one week. Poor drying conditions will extend the time needed for digging peanuts to greater than 72 hours.

Southern corn rootworm damage

Cutworm damage

Wireworm damage

Freeze damage

Physical damage

Calcium deficiency

Lesions caused by Rhizoctonia

Black root rot (CBR)

Black root rot (CBR)

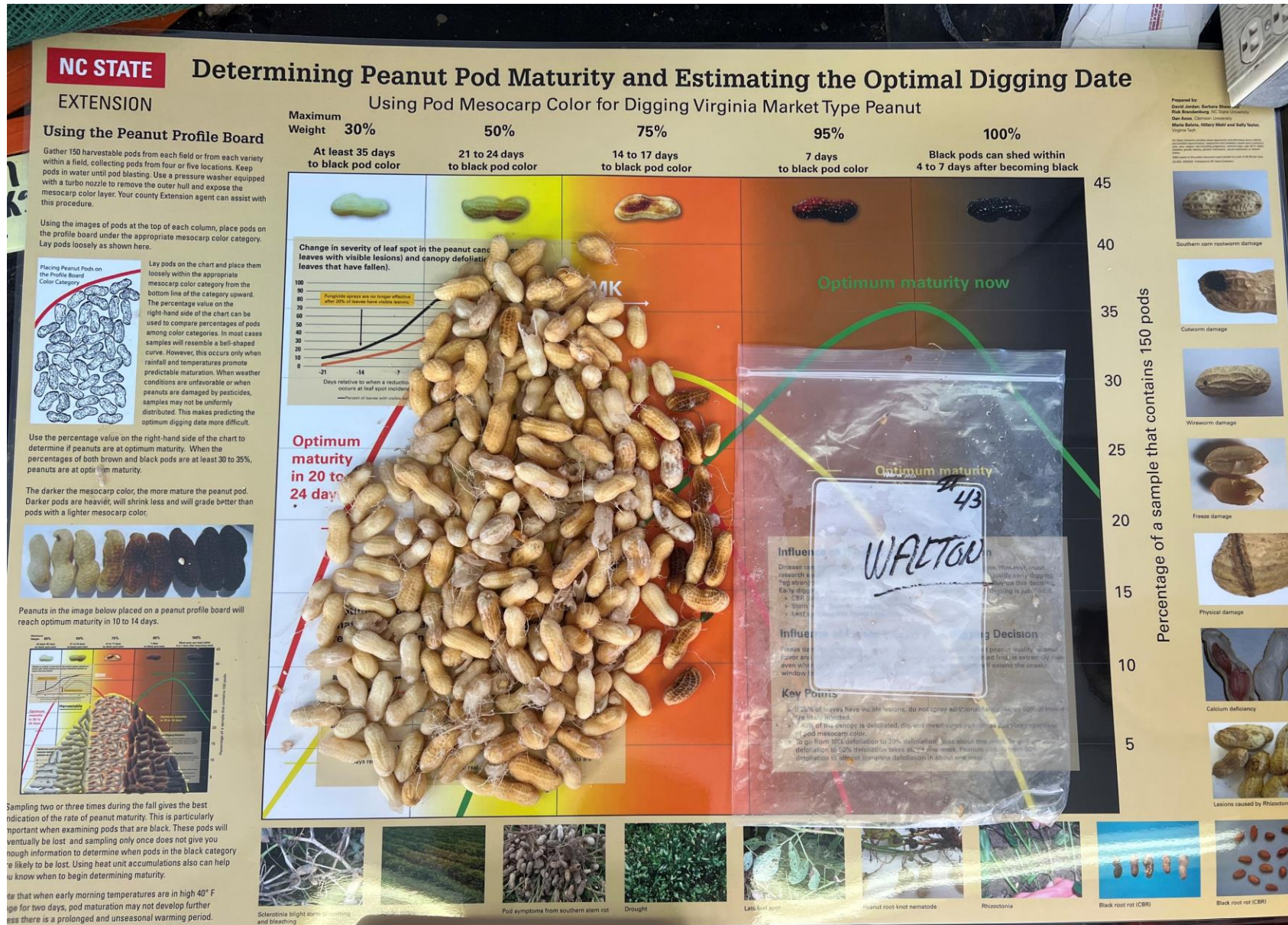
Scotinome bright stem sheathing and blanching

Spider mites

Pod symptoms from southern stem rot

Drought

2022, Walton planted on 5/04 in Holland, VA, podblast performed on 8/24



Digging Peanut Pod Maturity and Estimating the Optimal Digging Date

Using Pod Mesocarp Color for Digging Virginia Market Type Peanut

30%
at least 35 days
to black pod color

50%
21 to 24 days
to black pod color

75%
14 to 17 days
to black pod color

95%
7 days
to black pod color

100%
Black pods can shed within
4 to 7 days after becoming

WALTON

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 pod mature kernel relative to

Influence of Disease on Digging Decision

Disease can dramatically affect the pod shed 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 root 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 yield, and net value. Digging within 72 hours prior to an expected frost is extremely risky. If drying conditions exist, poor drying conditions will extend the unsafe period for a peanut to greater than 72 hours.

If visible lesions, do not spray additional fungicide, as 60% of leaves defoliated, dig and invert vines as soon as possible regardless of mesocarp color.

From 10% defoliation to 20% defoliation takes about one week. To go from 25% to 50% defoliation takes about one week. Peanuts can go from 50% to almost complete defoliation in about one week.

Percentage of a sample that contains 150 pods

40

35

30

25

20

15

10

5

Calcium damage

Wireworm damage

Frost damage

Physical damage

Calcium damage

Lesions

Sclerotinia blight stem shredding and bleaching

Spider mites

Pod symptoms from southern stem rot

Drought

Late leaf spot

Peanut root-knot nematode

Rhizotonia

Black root rot (CBR)