

## **Digging Peanuts and Keeping Records**

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This past spring we modified our peanut maturity chart, printed, and laminated 3,000 copies (Figure 1). I don't know that these will last for the remainder of my career (I have a long way to go) but we hope these will help a lot of growers and their advisors make good decisions for years to come. I realize you hear a lot from us about the importance of 1) protecting peanuts from disease so that they are healthy all the way through the fall, 2) digging as close to optimum maturity as possible, and 3) lining up your digging and harvesting equipment so that you can get the crop out quickly. These are very important to consider moving into the fall. The turnaround at the buying point may be out of your hands, but doing all we can to build in flexibility at harvest can help us be successful and realize full yield potential and optimum market grades. With that said, here are some of the key features on the profile board:

- 1) Along with the mesocarp colors, we provide an estimate of the weight of pods in those categories (presented as percent of black pods) (Figure 2). This can help the user get a feel for the importance of not losing too many black pods but also why yields are lower if the bulk of peanuts are in the orange category.
- 2) The relationship of defoliation and yield loss is presented in a graph (Figure 3), and we have provided key points on when you should start digging based on defoliation and other stresses (Figure 4).
- 3) We also have a figure that shows the relationship of digging date relative to optimum maturity and how that affects both pod yield and key market grade factors (Figure 5).
- 4) Major stresses that can affect peanuts are included on the profile board including diseases, insect damage, and other types of damage. These can help inform the user about issues they may have had in a particular field and what they need to do the next time peanuts are in that field. Some issues are related to a specific field or set of practices used, while other issues may be occur more generally and solutions applied more broadly the next year. Either way, one of the first steps is to know what issues you are dealing with, and the images on the profile board can help do so.

The new peanut profile boards were developed with input from NC State, Clemson, and Virginia Tech. Extension Administration paid for printing and laminating and much of what we based the profile board on was supported by funds from grower organizations in North Carolina, South Carolina and Virginia. We really appreciate the joint effort in getting this tool out to the end user.

Figure 1. Image of the new peanut maturity profile board for Virginia market type peanuts.

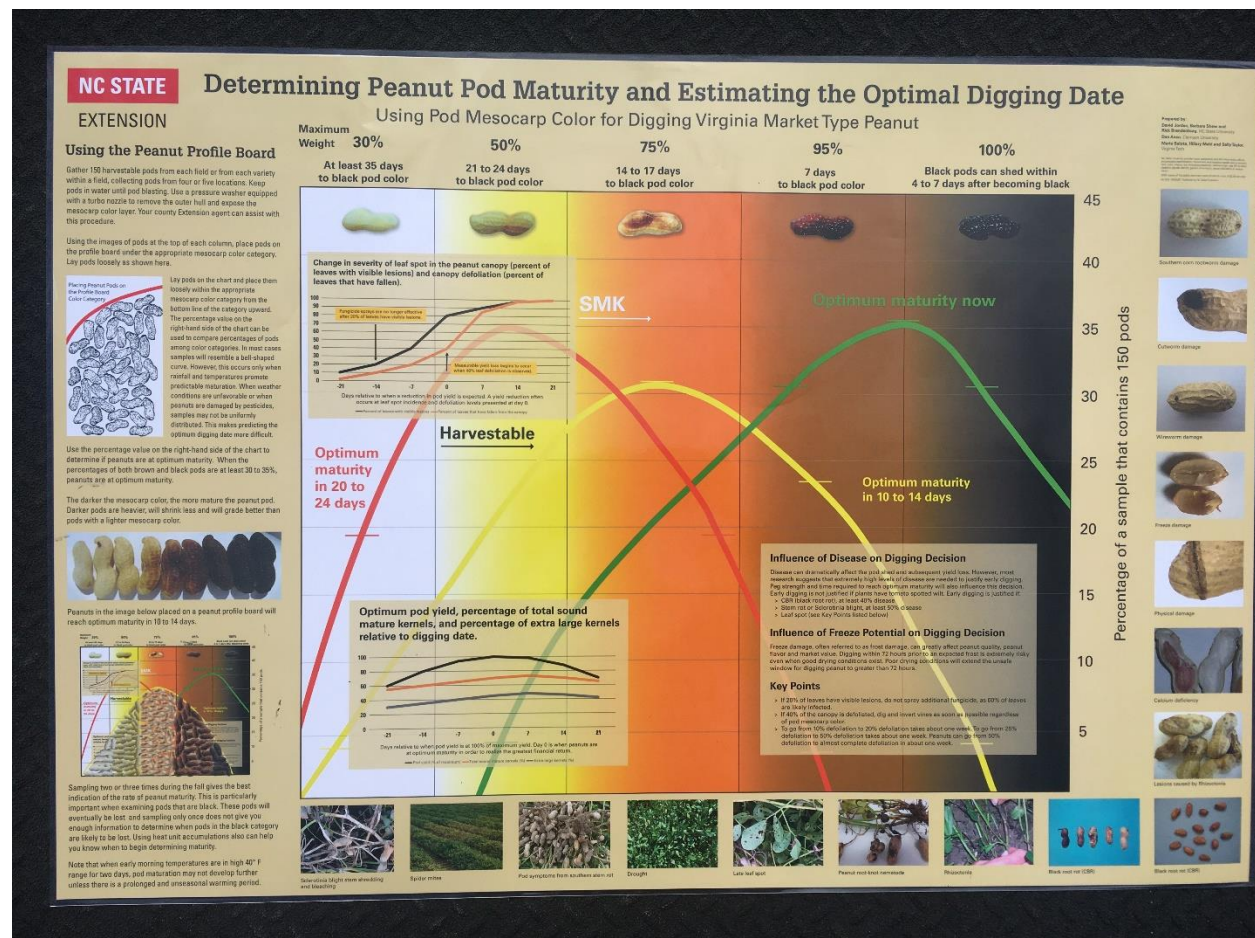


Figure 2. Comparison of the weight of pods expressing orange (rust color), brown and black mesocarp colors.

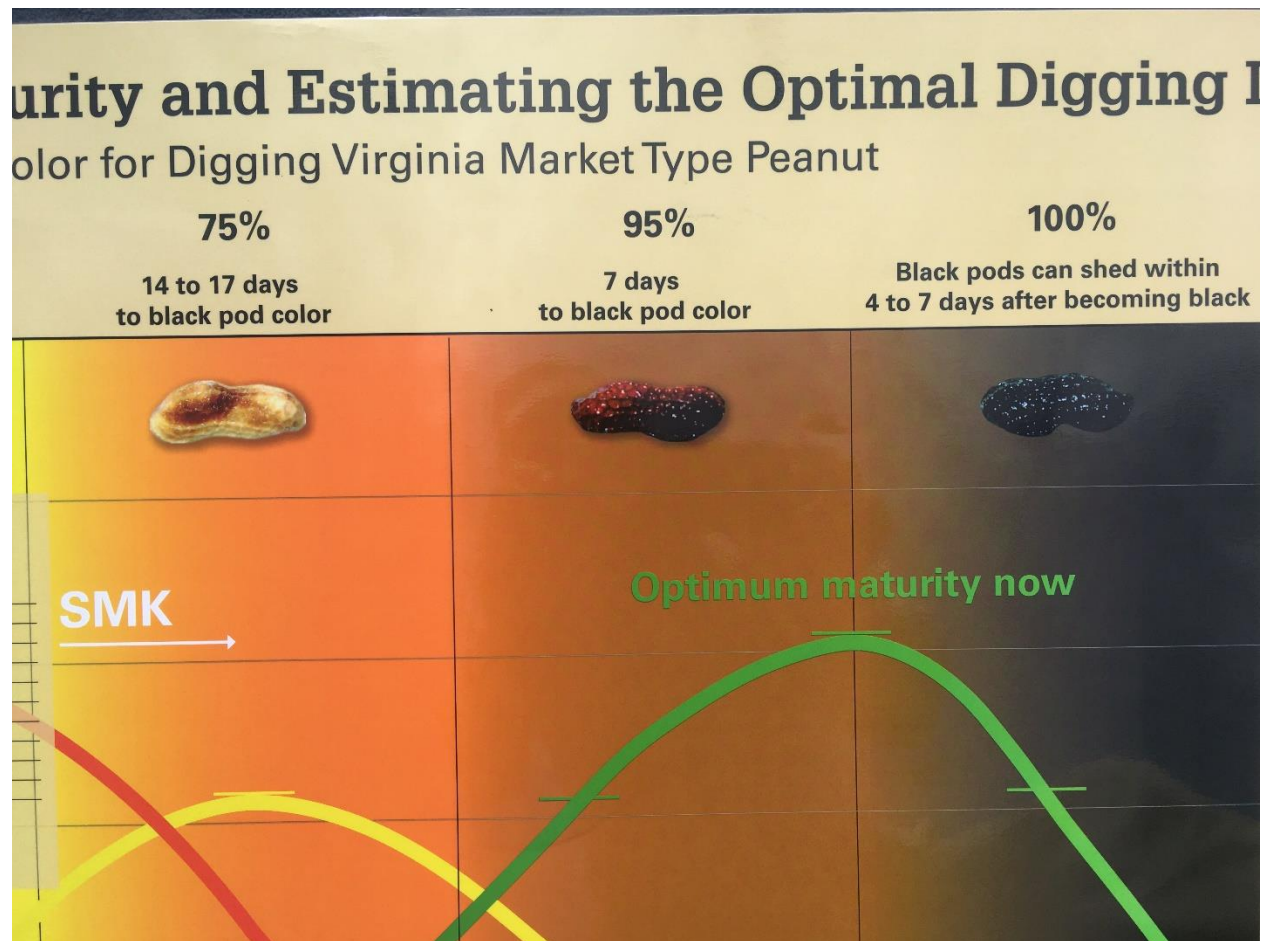


Figure 3. Relationship of percent incidence of leaf spot (leaflets with lesions), canopy defoliation, and peanut yield.

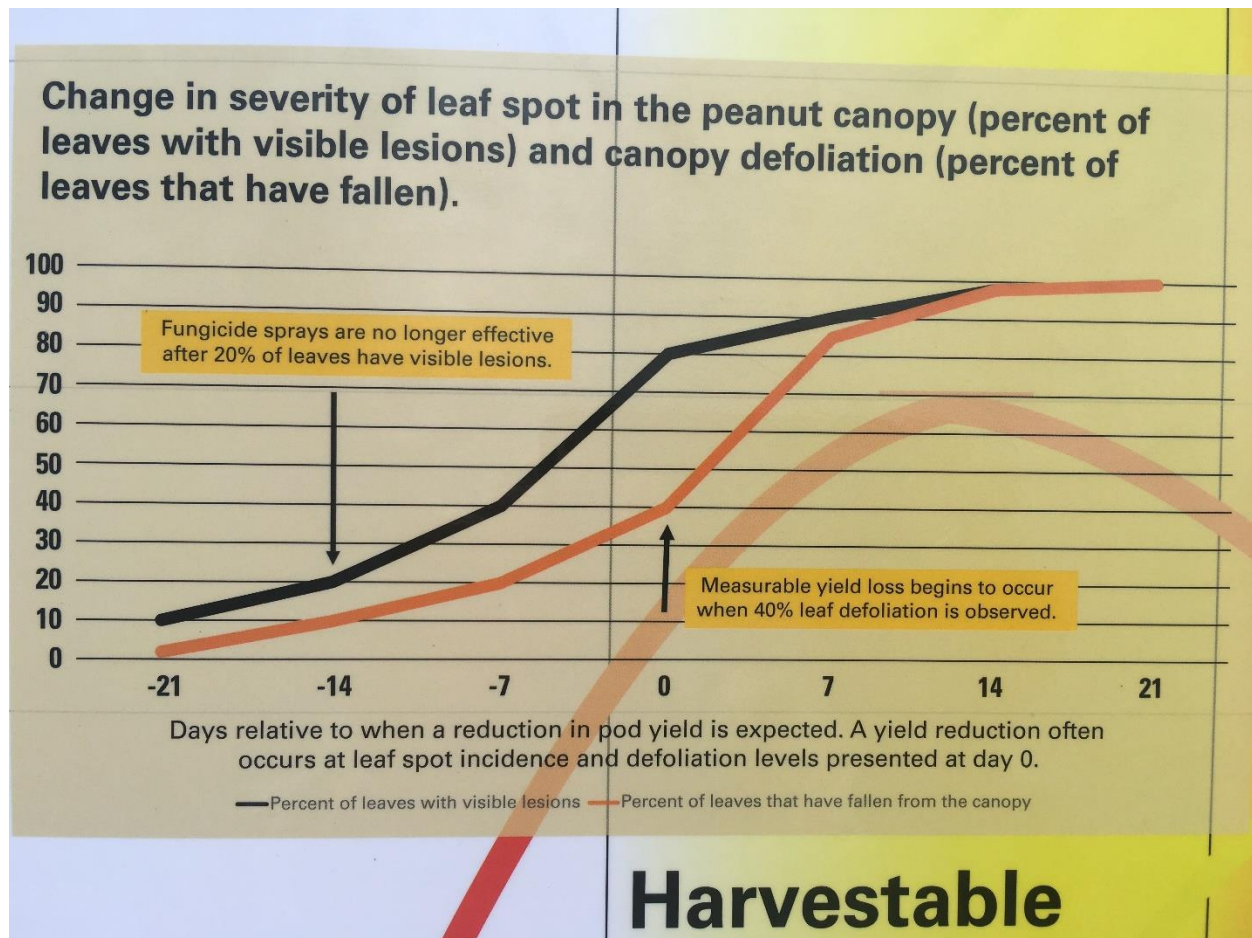




Figure 4. Key points to consider when deciding when to dig peanuts.

## **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. Peg 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 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 50% defoliation takes about one week. Peanuts can go from 50% defoliation to almost complete defoliation in about one week.

Figure 5. Relationship of digging date and pod yield and market grade characteristics.

