

## Predicting Harvest Date for New Peanut Varieties and Disease Control Strategies

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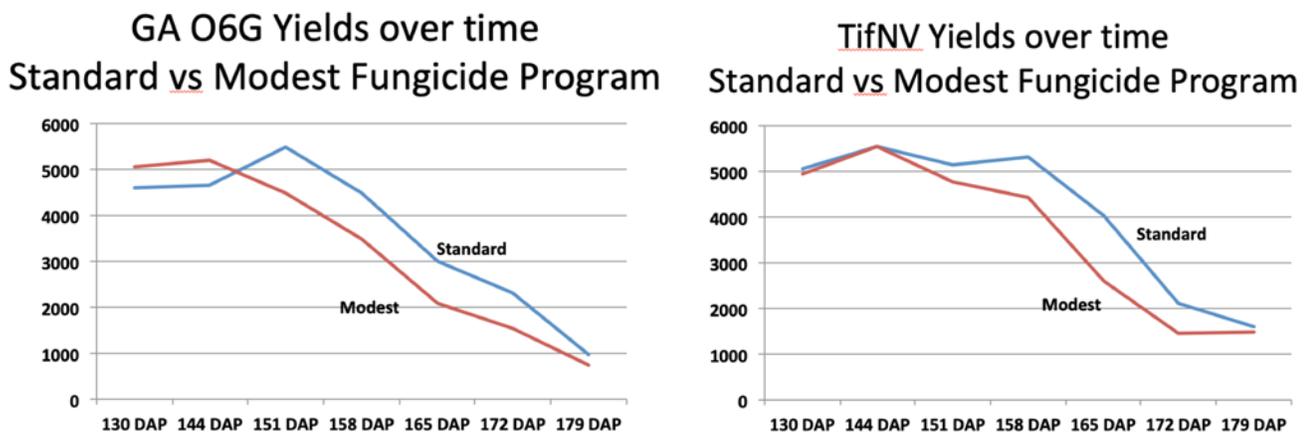
### Objective

To help growers and Extension agents better use the hull-scrape peanut maturity profile chart to predict optimum harvest date windows for new SE peanut varieties and how disease affects that prediction.

### Results:

The cost of missing the best harvest date at a 6,000 lb/a yield level, penalty is 500lbs/a/wk. At a 4,000 lb/a yield level, penalty is 300lbs/a/wk. The 2018 trials found the hull-scrape to be accurate for GA O6G and GA 16HO. Yet the hull-scrape chart predicted the best harvest date 10 to 14 days too early for TifNV, AU-NPL-17, GA 12Y and Florun 331.

Some cultivars are more forgiving than others (TifNV, 12Y). Disease resistance and good fungicides also help reduce impact of missing best harvest date. When disease is heavy, missing optimal date might cost 600 – 700 lbs/a/week, unless a disease resistant cultivar like TifNV or GA 12Y is grown. With improved disease resistance, missing optimal date yield cost is likely around 300 lbs/a/week. In 2017 our research plots were under heavy disease pressure late in the season due to hurricane Irma. We had used two fungicide programs (Chlorothalonil every 2 (standard tmt) or 4 (modest tmt) weeks – each with 2 sprays of Convoy) on several cultivars. The penalty for harvesting one or two weeks early or one or two weeks late varied by variety, with the more disease resistant varieties performing significantly better. Vine condition is as important as hull color when using the hull-scrape to determine when to dig.



The above graphs show the impact of these two fungicide treatments on O6G and TifNV over 7 harvest dates. In both cases the standard fungicide program resulted in higher yields and a longer harvest window than a more modest program. A good disease resistant variety combined with a good fungicide program will not only increase yields, it will; also give a wider harvest window.

The **Best harvest date assessment should balance** the expected weight gain from immature pods, the expected weight loss from mature pods lost to soil, leaf and limb disease, past and expected weather, labor, equipment, soil conditions, and ...

**County Extension is very good at integrating the hull-scrape procedure into an overall assessment of when to dig. Make good use of them.**