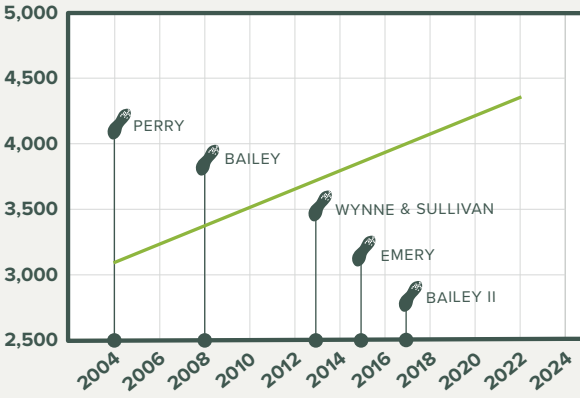
Research Dollars at Work

NORTH CAROLINA PEANUT GROWERS ASSOCIATION

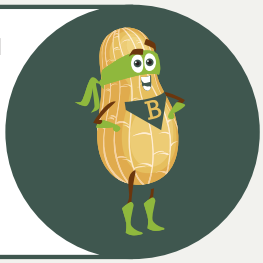
GROWER SUPPORTED RESEARCH FINDINGS

Average Yield Gains (Lbs./A) Resulting from Breeding Efforts 2004–2022



On average, NCSU breeding efforts have increased yields by **1,194 lbs. per acre** over an 18-year span, which equates to an average of **66 lbs. per acre increase in yield per year**. Using the current reference price of $535 per ton. This would equate to $17.74 per acre in economic gain per year. **Breeding efforts have increased Virginia-type peanut value by $319 per acre over the last 18 years.**

1. From 2010 – 2020, the Bailey variety is estimated to have facilitated a **$120 million relative to the yield increase** for growers.
2. Additionally, Bailey helped farmers **save an estimated $7 million** in Fungicide costs.
3. For every dollar invested into breeding/wild species/PVQE program, there is a **$6 return** in economic value.



10 years of research have consistently proven that the variety **Bailey** can be grown using **4 fungicide sprays** for leaf spot and stem rot control, instead of 5, **saving farmers $16/acre**.

Tebuconazole plus chlorothalonil can be a very cost efficient and effective fungicide treatment at **$55 per acre** for 5 sprays. However, for it to be successful, you have to be extremely timely, with applications precisely every two weeks.

At a cost of **$50 per acre**, two Apogee applications were found to substantially increase yield in large-plot, on-farm tests. **A second application is often not needed** when the weather is dry following the first application.

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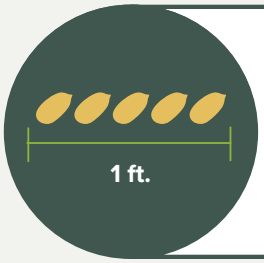
Cotton and sweetpotato are more effective rotational crops with peanuts than soybeans or corn. Corn cannot suppress nematodes like cotton can, and soybeans will lower peanut yield if used consecutively.

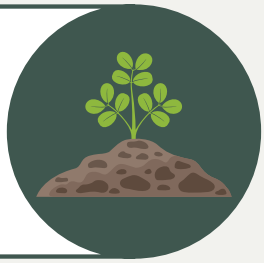
Using autosteer when planting and digging was found to increase yields by 11%.

Group 11 and Group 3 fungicides are not recommended for use on their own, due to resistance. Group M fungicides that attack multiple parts of the pathogen, instead of just one, tend to have less resistance.



For optimum yield with Virginia type peanuts, studies show that the ideal seeding rate should be between **4 to 5 seed per foot**.

Response to tillage varies depending on soil series and physical properties of the soil. **Peanut yield was often lower in strip tillage than conventional tillage** on finer-textured soils. Peanut yield was similar for both tillage systems on coarse-textured soils.



Peanuts respond **more favorably** to **gypsum** (land plaster) when soil pH is around **6.0** compared to fields with soil pH around 5.6.

Research Libary

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All research projects were funded by grower assessment/check-off dollars collected at both the state and nation level. Scan here to access full reports and summaries.