

## Station Facts

In 1951 the General Assembly approved monies to purchase land for a research farm in northeastern North Carolina for peanut research. The State Board of Agriculture gave additional monies and on January 28<sup>th</sup>, 1952 the Spruill farm in Lewiston was purchased as the new peanut test farm. Today, the station encompasses 372 acres of land, of which 265 is suitable for crop production.

There are approximately 146 acres that contain research plots with 114 acres used for crop rotational purposes. Irrigation pond is 7 acres at depth of 12ft. Infrastructure covers 75 acres and 24 acres are in woodland containing pines. Seventy percent of all peanuts grown in NC are within a 60-mile radius of PBRS.

## Infrastructure

In order to carry out an effective and efficient research program, we maintain 23 buildings and support structures with a contingent of accessories. Main structures include an office building, maintenance shop, fertilizer storage, peanut dryers, grain bin and equipment storage sheds.

A walk-in freezer, which was donated by the N.C. Peanut Growers Association, is used to store more than 12,000 lines of seed for possible future use.

Irrigation infrastructure that allows for water supply to irrigate all fields under cultivation. Test fields includes one of three in NC for testing phosphorus requirements and one of two in NC for testing potassium requirements.

## Events

Annual Peanut Field day is held on the first Thursday following Labor Day each year. 2008 will mark the 56<sup>th</sup> annual field day.

## Research Programs

Approximately 80 percent of Virginia-Type peanuts grown in the state were developed through the breeding programs at the Peanut Belt Research Station. PBRS currently has more than 40 acres of peanuts under research by plant breeders from N.C. State University. They work to breed peanut lines that have better yields, better USDA grades and better resistance to diseases such as tomato spotted wilt virus, leafspot, *Cylindrocladium* black rot, *Sclerotinia* blight, and web blotch.



These new lines are also evaluated for flavor and appearance before being released for growth by peanut growers.

High oleic lines are also being researched. These peanuts have a longer shelf life, which increases marketability. Several peanut lines are evaluated for resistance to insect damage. Since peanuts grow underground, they are very susceptible to insect damage.

Peanut Breeding also includes several seed nurseries that increase the number of seed needed to release a new variety to growers. There are between 300 and 500 new lines each year with near 150 advanced lines in ongoing research each year. The average time to get a new variety from start to release is from 10 to 14 years.

Corn breeders from NCSU also have more than 30 experiments on more than 30 acres of land to develop new corn varieties. These varieties are also evaluated for yield and quality.

PBRS is used by researchers to conduct numerous agronomic, pest control, and disease management experiments. These experiments are conducted on more than 35 acres of peanuts and 45 acres of corn, cotton, soybeans, sorghum, cukes, and small grains. Agronomic practices include: 1) long term rotation effects on peanuts, corn, cotton, soybeans, fescue, and small grain 2) effects of gypsum and types of gypsum on peanut production 3) soil ph effect on crop production, 4) timing and application of nutrients for crop production. Plant and harvest dates are studied in peanuts, cotton, and corn for effect on yield and grade.



Pest control is studied for both insecticides and herbicides and is tested for rates and timing of application, while herbicides also include combinations with other herbicides for best immediate and/or residual weed control.

Official variety tests are conducted at PBRS in both corn and cotton. These tests compare performances of varieties grown in the area and give growers the opportunity to choose the best variety.

Soybean sentinel plots are also located at PBRS to provide early detection of soybean rust.

## Community Partnership

The station was established in 1952 for the purpose of conducting research on peanuts, cotton, corn, soybeans, small grain, vegetables and other crops potentially important to the region. PBRS provides equipment, personnel, expertise, land, pesticides, fertilizers, and facilities for the research and demonstrations conducted at this location. PBRS is utilized by agricultural researchers and state officials to introduce both in-state and out-of-state visitors to new agricultural information, provide solutions for consumers' questions, and for crop production at the lowest possible cost. Scientists at NCSU utilize their research here to educate farmers, students, staff and industry personnel.

In terms of complexity and magnitude of research programs, PBRS is the principal station for peanut breeding and research throughout the state. PBRS utilizes specialized harvesting and drying equipment for the peanuts, and a sophisticated solar crop drying facility. The station relies heavily on irrigation, which includes a 7-acre pond, diesel pumps/linear irrigation machines, set sprinkler systems, a hose reel, and gated pipe.



*Station staff monitor the station's weather station.*

## Research Stations Division

*Working together for one cause*

### Mission

To manage crop and livestock facilities that serve as a platform for agriculture research to make farming more efficient, productive, and profitable, while maintaining a sound environment and providing consumers with safe and affordable products.

### Partnership

Agriculture research in North Carolina dates back to 1877, when state legislation established the N.C. Department of Agriculture along with "Experiment Stations" as a division of the department. Since that time, the N.C. Department of Agriculture and Consumer Services' Research Stations Division, in partnership with N.C. State University, has established 18 statewide locations. Each facility has unique climate and soil conditions, giving researchers a living laboratory in which to investigate a variety of regional crops, forestry concerns, livestock, poultry, and aquaculture. The Division supports these studies by providing land, water, equipment, buildings, and staff who work around the clock to help build a stronger foundation for the future of agriculture.

### Contact

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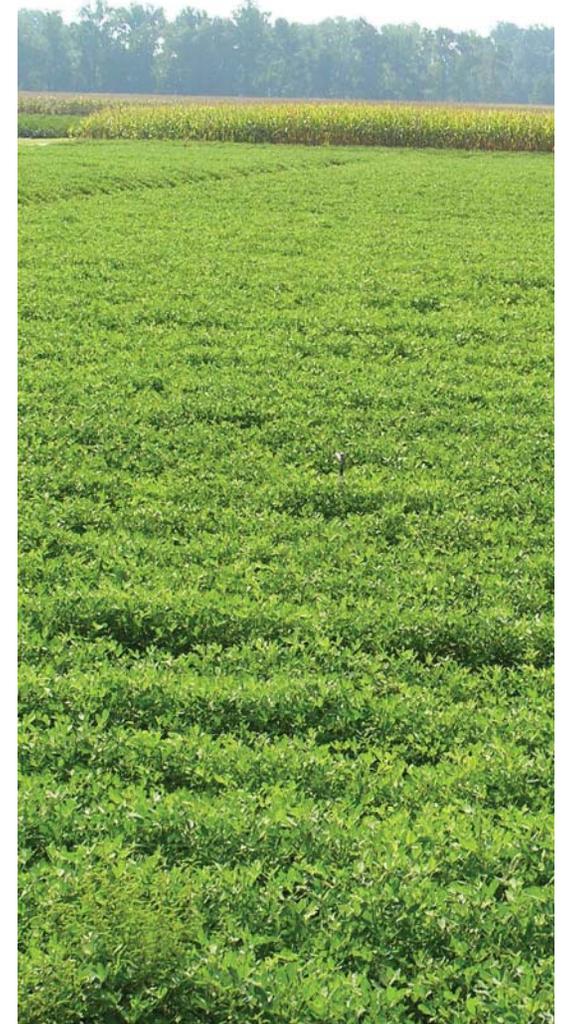
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## Peanut Belt

### RESEARCH STATION

*Bertie County*



**RESEARCH STATIONS DIVISION**

**Working Together for One Cause**

**NC DEPARTMENT OF AGRICULTURE**

**NC STATE UNIVERSITY**

**[www.ncagr.com/research](http://www.ncagr.com/research)**