The tobacco research and Extension programs at the SPAREC have long operated in a collaborative manner between agronomy, plant pathology, and entomology. The adoption of greenhouse transplant production is one example of a concerted multi-disciplinary approach to provide tobacco growers with research-based management guidance to assist with successful production. A tobacco crop starts with transplants to help ensure that growers are able to reliably produce transplants for their crop. Research into fertilization programs has reduced the incidence of plant loss due to fertilizer salts. Seed performance trials and evaluation of soil media trials have improved plant stands. Seedling clipping research has formed the basis of our recommended clipping procedure to ensure high quality transplants. Ongoing research efforts are addressing diseases that can injure or kill seedlings. The overall goal of the greenhouse tobacco transplant production program conducted by David Reed, tobacco agronomist, and Chuck Johnson, tobacco plant pathologist, is to develop the management strategies necessary to maximize the number of usable transplants produced.

Tobacco transplants were traditionally grown in outdoor plant beds. Research and Extension efforts addressing greenhouse tobacco transplant production have assisted growers with little to no experience with greenhouse production to substantially reduce the labor required for growing tobacco seedlings. This work has also shortened the time required for transplanting the crop and provided for more uniform growth of the crop in the field.

“Working with graduate students is one of the best parts of being a faculty member. Students are the next generation of leaders in agricultural science.”

CHUCK JOHNSON
PROFESSOR OF PLANT PATHOLOGY
SOUTHERN PIEDMONT AREC AT A GLANCE

DISCIPLINES
- Tobacco agronomy
- Tobacco curing technology and efficiency
- Tobacco disease management
- Ruminant livestock
- Forage production and management
- Small fruit disease management

INNOVATIVE TECHNOLOGIES
- Tobacco curing, monitoring, and automation
- Sucker control application technologies
- Drones to assess crop development
- Silvopasture

FACILITIES
- 1,180-acre farm with 130 acres of crop research plots, 120 acres of research grazing, and a 40-acre silvopasture area
- Specialized tobacco curing facilities
- Extensive greenhouse facilities and high tunnels
- 150-person auditorium

INDUSTRY PARTNERS
- Tobacco industry and growers
- Agrichemical industry
- Forage and livestock industry
- Virginia Farm Bureau, SWCD, NRCS, VDACS

ABOUT THE SOUTHERN PIEDMONT AREC
The Southern Piedmont AREC near Blackstone, Virginia was established in 1974 and conducts strong commodity-oriented research and Extension programs to provide information and technology to the agricultural industry. Programs enhance the economic viability and environmental stewardship of tobacco, forage crops, beef cattle, small fruit, and other field and specialty crops.

A COLLABORATIVE NETWORK
The ARECs are a network of 11 centers strategically located throughout the state that emphasize close working relationships between Virginia Agricultural Experiment Station, Virginia Cooperative Extension, and the industries the work with. The mission of the system is to engage in innovative, leading-edge research to discover new scientific knowledge and create and disseminate science-based applications that ensure the wise use of agricultural, natural, and community resources while enhancing quality of life.

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