

Partnerships

The Center is eager to explore new partnerships that would expand the use of the SRRC Pilot-Plant facilities. Current areas of research interest include food processing, oilseed extraction, fiber processing and finishing, pyrolysis processes, bio-fuels development, and environmental testing, but most areas of value-added agricultural product and process development can be accommodated.

A number of industry-government interactions have been undertaken within the pilot -plants from short-term specific research projects, with SRRC personnel performing most of the work, to extended interactive collaborations, with external personnel located on-site over sustained periods.



Equipment/operations supported within the facilities:

- Milling equipment (knife, hammer, attrition, pin mills, etc.)
- Reactors (glass and stainless steel jacketed reactors)
- Fiber carding, drawing, spinning, knitting and weaving operations
- Non-woven fiber processing
- Fabric wet processing, dyeing and chemical treatments
- Solvent extraction and processing
- Extrusion (single and twin barrel screw extruders)
- Ultrafiltration
- Ultrasonic treatment
- Evaporation
- Pelleting
- Pyrolysis
- Heat treatment (ovens, furnaces)
- Freeze-drying (barrel, shelf, manifold)
- Fermentation
- Particle separations (screening, air classification, gravity table separations)
- Dehulling
- Blending and mixing



the
**PILOT
PLANTS**
of the



Southern Regional Research Center



Overview of the Facilities

The Southern Regional Research Center has three pilot-plant facilities as part of its operations. Included are the Industrial Pilot-Plant, historically used for milling and oilseed extraction, the Food Pilot-Plant, used for many food processing operations, and the Textile Mill, used to support cotton fiber and textile production and finishing work. These facilities form core components of four Research Management Units and have been essential components of the Center's research programs over the past 65 years. Both the industrial and food facilities have one- and two-story sections; the Textile Mill is housed on two single-story floors in a separate dedicated building. The Industrial Pilot-Plant has non-hazardous and explosion-proof bays. Combined, the facilities occupy 21,500 ft² of space and all are supported by common industrial utilities.



The pilot-plant operations have largely recovered from the effects of Hurricane Katrina, and new capacity has been added. Two new one-meter-width non-woven fabrication lines (one needlepunch and one hydroentanglement) have recently been purchased for the textile area. Fiber processing, mini-spinning, warping, weaving, dyeing, and finishing units have also been added to the Textile Mill. A new cabinet oven, barrel freeze-dryer and gravity table separator have been installed in the Industrial Pilot Plant. Additional units will be made operational as projects evolve.



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