









University of Maine 880 Main St. Old Town ME 04468 207-944-5674 aluce@umche.maine.edu

One of Maine's public universities



Technology Research Center

he University of Maine's Forest Bioproducts Research Institute's new Technology Research Center (TRC) validates, demonstrates and helps commercialize developing fuel, chemical and advanced material technologies from forest bioproducts at an industrially relevant scale. It provides wood suppliers and wood users the opportunity to collaborate with each other and with University of Maine faculty researchers. TRC is a one-stop shop for processing and analysis of technologies. The 40,000-square-foot facility, located on the grounds of Expera Specialty Solutions in Old Town, Maine, features state-of-the-art process control and process information systems. TRC was funded by a \$4.8 million Maine Technology Institute grant and private contributions. The grand opening was in June 2012.

"The Technology Research Center allows us to take the research out of our labs and demonstrate and validate it at industrially relevant scales to help rapid commercialization."

--Hemant Pendse, Director, Forest Bioproducts Research Institute

ABOUT TRC

- Is a fee-for-service operation
- Provides objective, independent testing
- Protects intellectual property and shares precompetitive best practices
- Meets all necessary approved environmental permitting standards
- Accepts any cellulosic feedstock
- Offers clients access to University of Maine faculty and visiting researchers
- Provides research opportunities for graduate students and hands-on experience for undergraduates

TRC ANALYTICAL CAPABILITY

- Chemical and physical testing for pilot-scale campaigns
- Gas and liquid chromatography
- Atomic and molecular spectroscopy
- Wet chemical characterization
- Analytical method development
- In-process and final product material characterization

TRC PROCESSING CAPABILITY

- Multiple-unit operation
- Biomass size reduction, screening, pretreatment, extraction & cooking
- Fermentation
- Chemical reactions, both batch and continuous
- Pelletization
- Liquid-liquid extraction
- Distillation



TRC Manager Amy Luce talking about forest bioproducts research