



1 8 6 5 THE UNIVERSITY OF  
 MAINE  
 Forest Bioproducts Research Institute  
 Technology Research Center

The 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 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, high P & T
- Pelletization
- Spary Dryer
- Liquid-liquid extraction
- Distillation



**TRC Manager Amy Luce talking about forest bioproducts research**



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