A preliminary study of 130 inbred lines grown in Aurora, New York in 2007 suggested that many cellulosic and sweet sorghums can currently produce high tonnage in northern latitudes.

Overall goal is to develop parental lines and hybrids of sorghum that lead to the production of at least 10-15 tons per acre of dry matter per crop with minimal inputs of fertilizer, pesticides, and water. Historical records from research in the 1980s indicate this goal can readily be achieved and much unexploited potential exists in the more than 40,000 sorghum accessions held in the U.S. National Plant Germplasm System.

Specific objectives and deliverables of the planned research include:

Objective 1. Screen and characterize germplasm for yield, photoperiod sensitivity, cold tolerance, and perenniality (ratooning ability).

Objective 2. Screen and characterize germplasm pools for composition and quality traits.

Objective 3. Based on goals 1 and 2, identify and begin developing useful genepools of cellulosic and sweet sorghums for production in northern latitudes.

The effort builds on a current collaboration between Cornell University and Texas A&M University.