

SESSION 1B

Plant Biotechnology and Genomics

Introduction to Session 1B

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Topics presented in the “Plant Biotechnology and Genomics” session focused on technologies that highlight the important role of plant biotechnology and genomics in the development of future energy crops. Several excellent presentations demonstrated the latest advances in energy crop development through the use of plant cell wall regulation and by engineering new energy crops such as brown midrib sweet sorghum. Approaches included the control of cellulose production by increased expression of cellulase synthase genes and the selection of high-yield varieties of shrub willows. The potential of producing hydrolytic enzymes using transgenic plants as a cost-effective means for the large-scale production of these enzymes was also explored in the session, as was the role of posttranslational modifications on the activities of heterologous expressed cellulases in hosts such as *Pichia pastoris*.

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