

Cellulosic Biofuels B-Roll

Scene-by-Scene Description

Get the facts behind the footage available on the U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) B-Roll Web site at eere.energy.gov/news/b_roll.cfm.

Video Title: Cellulosic Biofuel B-Roll

Video/Nat. Sound

Location: Emmetsburg, Iowa

Shoot Date: November 2009

Total Running Time: 3:24

Scene 1: 00:07: Various shots of corn cobs (known as “corn stover”) being harvested and piled high for use as a cellulosic biofuel feed stock. The conversion of sugars trapped in these corn cobs for ethanol is more complicated than the process needed for the starchy corn kernels, currently the major feed stock for ethanol.

Scene 2: 00:37: Point-of-view shots from harvest equipment and close-ups of harvester operator gathering corn stover. Agricultural waste such as this, along with grasses and forest products, represents a vast potential resource for fuel production.

Scene 3: 01:42: Exterior of biofuel production facility.

Scene 4: 02:25: Various shots of harvesting equipment not in use; shots of harvesting equipment in use, collecting corn cobs.

Scene 5: 03:10: Establishing exterior shots of rural town (Emmetsburg, Iowa).

Learn More about Biofuels

A 2005 U.S. Department of Energy study suggests that the nation's agricultural and forest resources can produce enough ethanol to displace about 30% of U.S. gasoline consumption by 2030. The challenge is cost-effectively utilizing the vast resource of cellulosic biomass – non-edible plant structures, such as grasses, wood chips, and agricultural waste. Cellulosic biomass holds sugars that can be used to produce ethanol, but they are difficult to release due to complex plant matter structures. While researchers have made many advances over the past few years, the National Renewable Energy Laboratory has stepped up its efforts by forming a team that is creating new techno-economic computer applications to help discover more efficient ways to break down barriers to cellulosic biomass commercialization. More information about cellulosic biofuels and other forms of biomass can be found on the EERE Biomass Program Web site at eere.energy.gov/biomass.