Cellulosic Biofuels fact sheet

At BP we're committed to biofuels done well. An important part of our strategy is to produce biofuels from lignocellulosic biomass. BP will use feedstocks that minimize pressure on food supplies, including "for-purpose" energy grasses such as energy cane, high biomass sorghum, miscanthus and others.

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Introducing energy grasses

- Energy cane is a high yielding perennial energy grass that grows in warm climates and has high fiber (cellulose) content.
- Advanced conversion technology can now extract the sugars from cellulose and convert them into liquid fuels.
- Miscanthus is also a high yield, high fiber perennial grass that grows in cooler climates. It is more productive than many other cool tolerant potential biofuel crops, meaning that less land is required.
- Energy grasses can be stored in bales until they are needed. This offers great flexibility for biofuel production.

Why energy grasses?

- Energy grasses contain large amounts of energy in the sugar held in their cell walls. These sugars can be difficult to extract, but using new advanced technologies we can now turn this energy into liquid fuel.
- This means higher volumes of fuel produced from each tonne of feedstock, and each acre of land, in comparison with current generation biofuel feedstocks like corn and other advanced biofuel feedstocks such as agricultural wastes.
- We estimate that high yield energy grasses can produce between 1,000 and 2,000 gallons of biofuel per acre, compared with around 400 to 500 gallons per acre for corn and 150 to 200 gallons per acre for agricultural wastes.
- Energy grasses can be grown on lower quality agricultural land - land that is not best suited to growing food crops economically.
- Because energy grasses are high yielding - concentrating large amounts of biomass into small areas of land - it is possible to grow all the feedstocks needed in close proximity to the facility where the biofuel will be produced. This means that the agricultural footprint of the biofuel is smaller than it would be for lower yielding biomass. This improves both the cost and the environmental impact of the required logistics and transport aspects of producing cellulosic biofuels.
- Perennials efficiently recycle nutrients. During the growing season, they pull the nutrients out of the roots up into the green plant to aid in plant growth. In the fall when the plant stops growing, the nutrients are returned to the roots for the winter, at which point the above grown fiber can be harvested. Some perennials are so nutrient efficient they do not even respond to additional fertilizers and therefore do not need them.

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