



Switch Grass

Panicum virgatum

About me:

I am a tall perennial grass, with long green leaves of up to 90 cm. I can grow in most soil condition and climates due to my extensive root system and tolerance to drought. My seeds become a light pink to purple colour when ripe.

Where do I come from?

I originated from the rich prairies of North America, however I now grow from the Canadian province of Saskatchewan to Nova Scotia and most of the United States

How is the bio-fuel produced? Once harvested in the autumn the switch grass can either been taken to be bailed and then pressed into fuel pellets. It can also be produced into bio-ethanol; hydrolysis is the first step where the biomass is broken down removing the lignin and any other impurities. The remaining sugars are then fermented with yeast and this is further distilled to remove any excess water, resulting in bio-ethanol as the end product. The biomass can also undergo gasification, which is a more complex method using high temperatures to converts the biomass into carbon dioxide hydrogen and hydrocarbon.

How is my energy used?

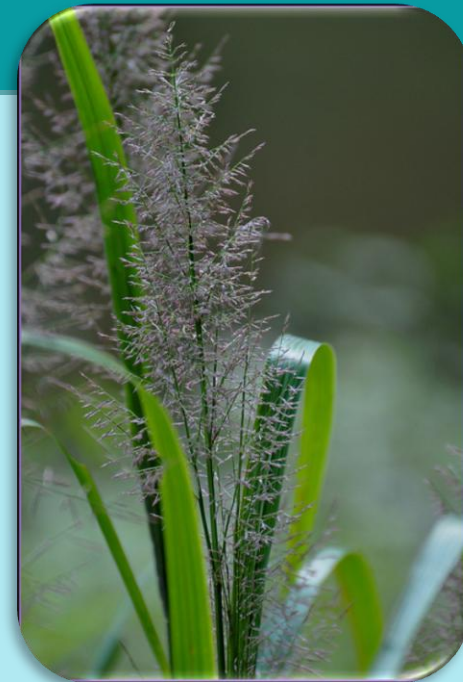
Direct combustion, gasification, fuel pellet electricity generation. Transport fuel – bio cars.



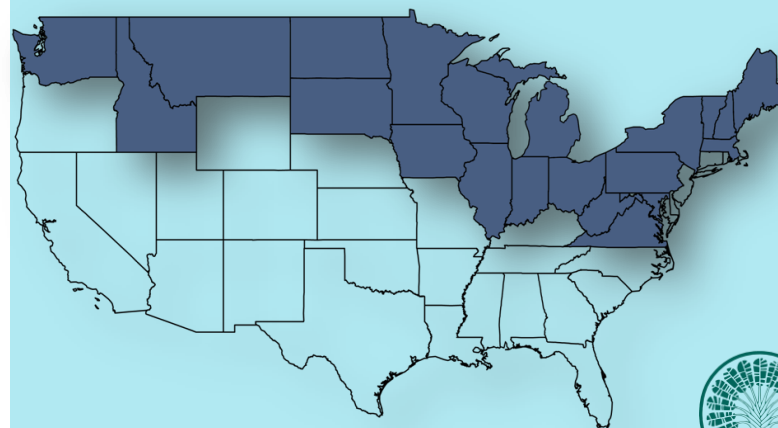
Photo by Tony (2014) Minnesota USA



Photo by Aprill Sorrow (2007) UGA College USA.



Photos by J.Michael Raby (2010)



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