

President's State of the Union Address has Grassroots in Texas

"We'll also fund additional research in cutting-edge methods of producing ethanol, not just from corn, but from wood chips and stalks, or switch grass." President George W. Bush, State of the Union Address, January 31, 2006

With energy prices on the rise and increased concern about global warming, renewable energy sources or biofuels are gaining more support at the federal and state level. The president addressed this in his recent State of the Union Address on January 31, 2006. Biofuels such as ethanol, biodiesel, and biomass for power generation are not new ideals. When Rudolph Diesel first demonstrated his compression ignition engine in 1898 at the World's Exhibition in Paris, he used peanut oil. Then there was a man by the name of Henry Ford who changed the way America lives with his invention called a Model T. Few know it but Henry Ford's 1908 Model T was designed to run on ethanol. Ford envisioned that ethanol and other renewable resources was the key to keeping the transportation industry moving. Ford was so convinced that ethanol was the answer that he built a plant to make ethanol and formed a partnership with Standard Oil to sell the product in their gas stations.

But in the 1970's we as a nation realized we were not in control of our petroleum use. Our nation was dependent on foreign oil. With decreased supplies and high petroleum prices people began to again consider biofuels.

Government and private companies again started to recognize the potentials for using biofuels. Many research projects were funded and established to investigate the production and use of renewable crops for biofuels.

So, when the President mentioned switchgrass in his State of the Union Address one variety developed in Texas comes to mind and that is 'Alamo' switchgrass. 'Alamo' is an improved variety of switchgrass that was developed and released through the USDA-Natural Resources Conservation Service's plant materials program in Knox City, Texas. 'Alamo' was first collected in 1964 from a native stand near George West, Texas. A USDA-Soil Conservation Service employee named Laramie McEntire saw the stand of switchgrass and recognized its potential for forage production. Seed from the native stand of switchgrass was collected and given the Plant Materials Center in Knox City, Texas to be used to evaluate and possibly establish a new variety. 'Alamo' switchgrass was released in 1978 and is a lowland ecotype that has the characteristic of producing large quantities of forage.

Recognizing 'Alamo's potential to produce high quantities of forage, researchers in the 1990's started incorporating the variety in their biofuel studies.

Since then, 'Alamo' has been used in variety comparison trials all over the US looking at potential production.

It has been evaluated as a sustainable energy crop not only in the US but in parts of Europe (Greece) and South America (Brazil).

The parental line of 'Alamo' has been used to breed and select newer and improved types of switchgrass.

'Alamo' has been evaluated as a source of biomass for co-firing with coal and producing electricity.

As an agro-fiber source for pulping, 'Alamo' switchgrass appears to be a promising substitute for hardwoods in the production of paper.

'Alamo' has been evaluated for the phytoremediation and phytoextraction of harmful elements that can contaminate soils.

It's been used as a suspension culture, as a standard to help determine genetic markers in switchgrass, in landscapes, as a nutrient removal plant in filterstrips, and as a wind barrier. All this on top of what it was originally identified for, as an improved native variety of switchgrass for livestock grazing and wildlife use.

Back in 1964 Laramie McEntire recognized 'Alamo' and its potential for forage production, but he could not have known that 'Alamo' switchgrass would have such a big impact on alternative energy and biofuel research.

Many have used it, there have even been some claim it, but the truth is 'Alamo' switchgrass has its roots in Texas.

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