

# *More than Just a Few Gold Coins*



**By: Blake Jackson**  
**Hartshorne FFA**

## **More than Just a Few Gold Coins**

In ancient times, a king had a boulder placed on a roadway. Then he hid himself and watched to see if anyone would remove the huge rock. Some of the king's wealthiest merchants and courtiers came by and simply walked around it. Many loudly blamed the king for not keeping the roads clear, but none did anything about moving the barricade out of the way.

Then a peasant came along carrying a load of vegetables. On approaching the boulder, he laid down his burden and attempted to move the massive rock to the side of the road. After much pushing and straining, he finally succeeded. As he picked up his vegetables, he noticed a purse lying in the road where the stone had been. The purse contained many gold coins and a note from the king indicating that the gold was for the person who removed the boulder from the roadway. The peasant learned what many others never understand. Every obstacle presents an opportunity to improve one's condition.

Today, as the United States imports sixty-five percent of our energy supplies, we face the obstacle of energy dependency. Even worse, some experts predict that our dependency could reach seventy percent by 2030. Many consumers are simply fed up with unpredictable gasoline prices and could discover the opportunities of domestically produced ethanol fuel.

Ethanol is an alcohol based alternative fuel produced by fermenting and distilling simple sugars from biological feedstocks. Although over ninety percent of ethanol produced in the U.S. is made from corn, it is also derived from other starch crops such as wheat, barley, grain sorghum, and sugarcane. Currently, there are 134 ethanol plants in

production in twenty-six states with the capability to produce more than seven billion gallons of fuel per year. Based on research from the American Coalition for Ethanol, production of this fuel has more than doubled in the last four years.

The market for alternative fuel is growing, yet has already made significant impacts on the American economy. Consider the facts, if you will. Ethanol is a fuel responsible for more than 238 thousand jobs, creating more than 12.3 billion dollars in increased household income, and eliminating the need to import 228 million barrels of oil each year. While pure ethanol is rarely used as a transportation fuel, there are several ethanol-gasoline blends in use today. A blend that contains ten percent ethanol and ninety percent gasoline, known as E10, is available in many areas across the United States and can be used in any gasoline vehicle manufactured after 1980. More than six million flexible fuel vehicles in today's market are capable of operation on blends of E85, which contain eighty-five percent ethanol and fifteen percent gasoline. There are now over 1,200 fueling stations nationwide for E85 and it is often offered at lower pump prices than conventional gasoline. Given that the industry is still in its infancy, it is predicted that ethanol is blended with nearly fifty percent of the national gasoline supplies.

How can such a fuel benefit the agricultural economy? The answer is simple. By providing a vital value-added market for corn and other commodities, ethanol provides a "helping hand" to rural America. Demand created by ethanol production increases the price a farmer receives for grain. According to the U.S. Department of Agriculture, ethanol production adds thirty cents to the value of a bushel of corn, or as much as \$4.5

billion over the entire corn crop. It also represents the third largest use of the nation's corn crop, utilizing eighteen percent of the national supply annually.

As the industry continues to expand, new "cellulosic" methods are likely to be tapped for ethanol production. Cellulosic ethanol is made from non-food sources such as biomass or biological waste. Ethanol produced from grain and cellulose are chemically identical, but they differ in their production processes. Just like producing ethanol from typical methods, cellulosic processes take the fermentable sugars from the plant for distillation. Unlike this process, the sugars in cellulose are locked in long chains of simple sugars called polysaccharides. Separating these complex structures into fermentable sugars is essential to the efficient and economic production of cellulosic ethanol. The main advantage of the cellulosic ethanol process is that the process does not affect crop production or supply, as opposed to grain-derived ethanol.

As oil clings near highs of over \$100 per barrel, cellulosic ethanol has been put in the "fast track" of development. Switchgrass is one source likely to be utilized for cellulosic ethanol production because of its potential for high fuel yields, hardiness, and ability to be grown in diverse areas. The crop is drought-tolerant, grows well even on marginal land, and doesn't require heavy fertilizing. Its long root system helps keep carbon in the ground, improving soil quality. Research indicates that within years to come, perennial crops such as switchgrass could potentially displace thirty percent of the current U.S. petroleum consumption.

Using Oklahoma switchgrass as a feedstock for fuel makes sense because the output could be huge. Oklahoma has thirty-four million of acres of crop and pasture land. If just half of that land was used to grow high-yielding switchgrass for ethanol

production, our state could produce the equivalent of 1.3 million barrels of oil a day.

Unfortunately, state officials are facing a “chicken-and-egg problem” when it comes to

jumpstarting this new industry. Oklahoma farmers won't plant the switchgrass until a

market develops, and the refiners won't invest in biorefineries until they have an

available feedstock. On a national scale, the U.S. Department of Energy is co-funding six

cellulosic biorefineries across the United States. These plants are expected to provide

more than 130 million gallons of fuel per year.

Ladies and gentlemen, it is obvious that our obstacle of energy dependency presents an even greater opportunity for the agricultural economy. Like the king's wealthy merchants and courtiers, we can see the obstacle in our path. However, unlike them, we can choose to take action and seize the opportunity at hand. If we as FFA members, agriculturists, and American citizens are willing to utilize the renewable resources at our fingertips, then our reward could be more than just a few gold coins.

## Works Cited

- American Coalition for Ethanol. "Frequently Asked Questions about Ethanol." American Coalition for Ethanol. 2007. 14 Mar. 2008 <<http://www.ethanol.org/pdf/contentmgmt/EthanolFAQs.pdf>>.
- Detrick, Terry. Personal interview. 20 Feb. 2008.
- "E85 and Flex Fuel Vehicles." SmartWay Grow & Go. 2007. U.S. EPA. 20 Mar. 2007 <<http://www.epa.gov/smartway/growandgo/documents/factsheet-e85.htm>>.
- Environment News Service. "Switchgrass Ethanol Yields Net Energy Gain." Environmental News Service. 2008. 26 Feb. 2008 <<http://www.ens-newswire.com/ens/jan2008/2008-01-08-091.asp>>.
- "Ethanol." Alternative Fuels Data Center. 2006. U.S. Department of Energy. 15 Mar. 2007 <<http://www.eere.energy.gov/afdc/altfuel/ethanol.html>>.
- "Ethanol Facts: Agriculture." RFA - Resource Center. 2008. Renewable Fuels Association. 26 Jan. 2008 <<http://www.ethanolrfa.org/resource/facts/agriculture>>.
- "Ethanol Facts: Energy Security." RFA - Resource Center. 2008. Renewable Fuels Association. 26 Jan. 2008 <<http://www.ethanolrfa.org/resource/facts/energy>>.
- "Issue Brief: Economic Impacts of Ethanol Production." Ethanol Across America. 2006. Clean Fuels Foundation. 21 Mar. 2007 <[http://www.ethanolacrossamerica.net/CFDC\\_EconImpact.pdf](http://www.ethanolacrossamerica.net/CFDC_EconImpact.pdf)>.
- Morris, Mike. "Ethanol Opportunities and Questions." ATTRA. 2006. National Sustainable Agriculture Information Service. 15 Mar. 2007 <<http://attra.ncat.org/attra-pub/ethanol.html>>.
- Ray, Russell. "Switch to Switchgrass." The Tulsa World 24 Sept. 2006: 5B+.
- VeraSun Energy Corp. "Frequently Asked Questions about E85." VeraSun Energy Corp. 2008. 10 Mar. 2008 <<http://www.ve85.com/faq>>.

# Speaker Certification

## State Public Speaking Career Development Event Oklahoma FFA Association

I hereby certify that I meet all the eligibility requirements for participation in the state FFA public speaking event for the current year as set forth by the State Executive Committee and State Staff.

My speech entitled "More than Just a Few Gold Coins" in the Natural Resources division is the result of my own effort and ability. It is understood that I am encouraged to utilize all available training facilities of my local school in developing my speaking abilities and that I may obtain facts and working data from any source. However, when information from other sources is used, such as direct quotes or phrases, specific dates, figures, or other materials, it must be marked in "quotes" in the manuscript and identified in the bibliography at the end of the manuscript. Failure to do so represents plagiarism and will automatically lead to my disqualification.

3-26-08

Date

Blake Jackson

Participant's Full Signature

David B. - e

Local Advisor's Signature

**IMPORTANT:** Attach a copy of the Speaker Certification sheet to the back of each manuscript.