

Fill 'er Up with Cornstalks, Please

(NAPS)—The next time you drive past a cornfield or wheat field, think 50 billion gallons per year of ethanol. That's the fuel potential locked within the nation's agriculture and municipal wastes such as stalks and husks (corn stover), wheat straw, leaves, grass, and paper according to Burrill & Co., a San Francisco-based life sciences merchant bank.

The U.S. Department of Energy estimates that 10 to 15 billion gallons of ethanol could be produced using only corn stover and wheat straw.

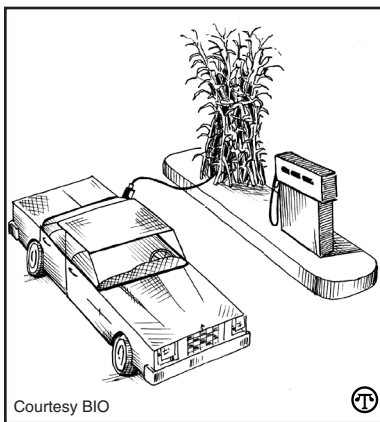
The general term for these vast agricultural resources is biomass.

There's an economic incentive for unlocking this fuel source. Using just 30 percent of the available corn stover as feedstock for "biorefineries" adds \$3 billion to the farmer's annual net income!

More work needs to be done before farmers can profit from harvesting two crops in every field—a food crop and a biomass crop for energy production.

The Energy Future Coalition, a Washington-based non-governmental organization, urges the Defense Department to fund a competition of biorefinery technologies that will put biomass from all sources into the nation's gas tank.

Brent Erickson, who chairs the Coalition's Bioenergy and Agriculture Working Group, says the goal of researchers in biotech compa-



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nies is to find and develop new biotech enzymes that break up the cellulose—the tough cell-wall substance that gives plants their rigidity—and convert it to sugars. Sugar is the raw materials for making ethanol and a host of other biobased products.

“This is research based on a new technology called industrial biotechnology,” he says.

“Cracking cellulose would be the Permian Basin oil strike of the 21st century,” Erickson says. “The environmental, political, and economic benefits of this technology are incredible: cleaner-burning fuel and biodegradable materials, replacement of a limited resource (petroleum) with renewable biomass

resources, less reliance on foreign suppliers of petroleum, and a new outlet for agricultural production.”

Since almost any plant material can serve as a raw material for biorefining, the technology has the potential to bring economic benefits to all 50 states.

Unfortunately, some corn farmers and commodity groups continue to focus advocacy efforts on older ethanol processing technologies that only use the grains, Erickson explains. “Improving our self-sufficiency in transportation energy calls for farmers, refiners, and policy makers to recognize the fuel potential locked in all forms of biomass,” he says. “Only then can they make a more substantial contribution to our farm economy and energy security in the near term.

“The renewable fuel mandate is a good first step but Congress and the Administration should take steps recommended by the Energy Future Coalition,” Erickson says. “This will ensure that our energy policy doesn't leave farmers, refiners, and consumers with a tank that is only half full.”

Further information on the fuel potential of biomass is found under the Bioenergy and Agriculture icon at www.energyfuturecoalition.org or the industrial and environmental icon of the Biotechnology Industry Organization (BIO) at www.bio.org.