

### A Kernel of Truth about Corn Ethanol

Ethanol has suddenly become the *bête noir* of renewable energy. First came the arguments that Congress was too heavily subsidizing a crop that, even if entirely converted to ethanol, could only replace 12% of our demand for gasoline. Then Science magazine published a study concluding that over its lifecycle ethanol creates more carbon emissions than gasoline. And now critics claim that ethanol production is causing food prices to rise. So much for the carbon-conscious, farmer-friendly fuel that was going to help make us energy independent. What went wrong?

The problem with corn ethanol is in the kernel. We already force-feed corn to naturally grass-eating cows, and contribute to the country's obesity epidemic by dousing processed food with high-fructose corn syrup. Dietary alternatives to grass and sugar need not be replicated in the energy sector. *Au contraire!* The energy balance of corn ethanol is 1.3, compared to 8 for ethanol made from sugar cane, and up to 36 for cellulosic (such as switchgrass) ethanol. On the environmental side of the equation, corn ethanol creates 22% less emissions than gasoline, compared to 56% less for sugar cane, and 91% less for cellulosic. If we must, let's keep making corn ethanol – with the stalks and leaves.

Advanced batteries and biofuels are the key to propelling our transportation sector out of a virtually complete (97%) dependence on oil. Congress is right to support biofuels, but should do so by setting energy balance and carbon emission goals, offering rewards accordingly, and then letting the market pick the winners.