

Presentation for the Food and Fuel Forum

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Google popcorn prices, and you'll find dozens of stories in the past year linking ethanol and popcorn prices in theatres. The stories all describe beleaguered movie operators, forced to raise prices on popcorn, and movie tickets, to pay for the ethanol induced boom in popcorn prices. Starving teenagers, stranded at the multiplex, nowhere to go to feed those raging hormones, because the family budget can no longer afford popcorn. Normally law-abiding adults, now turned into scofflaws, as they were forced to smuggle sustenance into the theatres to fill that aching, nagging, hunger that popcorn used to satisfy. It was, and is, a national tragedy. Oh, by the way, Tom Cruise and Will Smith get about 25 million per picture. The increase in popcorn prices at the farm level cost movie theatres about a dime for each \$5 bag of popcorn. Look at it this way. The drop in profits from 250 million bags of popcorn has the same effect on the bottom line as Tom Cruise.

Or if you haven't seen stories about the great popcorn boondoggle, surely you've heard that you can feed the average person for a year on the ethanol it takes to fill an SUV. Maybe so, but some simple math would help here as well. Each bushel of corn produces 2.6 gallon of ethanol-about 12 bushel will fill up a SUV. Those twelve bushels would add about 80 pounds of beef to the world food supply, or provide a diet of about 4 ounces of beef per day. There's a high protein diet that would take off the pounds!! Or, you could grind the corn and subsist on corn meal. Less than two pounds of corn meal a day would meet your calorie requirements, but hardly be a balanced diet. Again, a statistic that sounds good but has almost no meaning. After all, if we ate nothing but corn meal, we'd have to eat five pounds of corn meal a day to use up our corn crop. It would take a lot of honey to choke down that much corn bread.

The Wall Street Journal has had, in the past year or so, a series of several thousand editorials damning ethanol. Well, maybe not several thousand, but for a while ethanol was the favorite whipping boy of the nation's editorial pages. The paper's allegiance to free markets and opposition to bailouts, I've discovered, is quite a bit stronger when farmers benefit from subsidies than when Wall Street needs a few hundred billion. Anyway, they poked fun at a congressman who pointed out that ethanol subsidies weren't a net cost to government, because the ethanol tax credit lessened the expense of farm programs. And if you can envision a world without traditional farm programs, the Journal editorialists had the better of the argument. But if you live in the real world, where farm programs have been around for 80 years and show no signs of going away, the interplay between farm programs and ethanol subsidies is important. Imagine with me, if you will, a world without ethanol. I just read that production costs are projected to be over \$800 an acre next year for corn. The farm program guarantees farmers somewhere around \$250 to \$300 an acre, or a third of the cost of production. At present prices, corn is a about a break-even proposition next year. Without an ethanol market, farmers could be looking at losses of several hundred dollars an acre. The cost of farm programs to the taxpayer would skyrocket without the price bump in corn as a result of ethanol induced demand. It might well be that every dollar saved by cutting ethanol subsidies would result in a two or three dollar increase in traditional farm program costs.

John McCain is going to pay for the recently passed bailouts by cutting ethanol subsidies. Let's do the

math on this one. 9 billion gallons of ethanol at fifty cents a gallon is 4.5 billion dollars this year in tax credits. We can pay for the bailout in only 200 years. Now, that is reassuring.

So, I hope I've convinced you that the press coverage of ethanol has been a bit overwrought, and that the cost to the taxpayer of ethanol subsidies is manageable. But, you say, ethanol has increased food prices, hasn't it? Well, food prices are increasing, and corn grown for ethanol can't be used for food, so I'm sure ethanol production has contributed to food price increases. The magnitude of those changes has been covered here, and I won't belabor the point. It is noteworthy that wheat and rice, neither one of which is used in ethanol production, are actually in shorter supply than corn. On the margins, these crops compete with corn for acreage, but most wheat and rice are grown in places where corn cannot be grown. Something else besides ethanol has to explain the shortages in these crops.

But if ethanol is contributing to the increase in food prices, it has also mitigated the increase in gasoline prices, meaning that ethanol has positive as well as negative effects on family budgets. Studies have estimated a decrease in gas prices due to ethanol from .29 to .40 a gallon. We'll buy about 140 billion gallons of gas this year, so ethanol saved the consumer over 5 billion dollars. Of course, studies like these show a high correlation between results and the sponsor of the study. But it is interesting that, for as long as I can remember, diesel has been cheaper than gasoline. Now, diesel is as much as a dollar a gallon higher than gas. We've increased the gasoline supply by producing ethanol, and that has decreased the price of gasoline, as indicated by the changing relationship between gas and diesel prices.

High corn prices do indeed increase the cost of producing meat. But even here our critics ignore the facts. The first response to an increase in feed prices is an increase in the slaughter of cows and sows, as feeders decrease the size of the herd. That leads to a short-term decrease in the price of meat, as the supply is increased when the breeding herd goes to slaughter. High corn prices will eventually lead to higher meat prices, but that response is yet to come. There are a lot of reasons for increasing food prices, including the rise in fuel prices, the decline in the value of the dollar, and the overall inflation in the economy as the fed prints ever more money to paper over the difficulties in the financial markets. But for a while last summer, if you believed the press, ethanol was the cause of every problem this country faced, including global terrorism and erectile dysfunction. It took a global financial panic to get farmers off the front page. Thank God for Fannie Mae and Freddie Mac.

Along with increasing food prices, one of the main criticisms of ethanol is that there is a net energy loss. That producing ethanol consumes more energy than it contributes in power to our automobiles. There are, as there always are, competing studies. Some show that ethanol production wastes vast streams of energy. Others show that ethanol produces a net energy gain. I've never understood the controversy. I mean, if ethanol production used more energy than it produces, then why would vendors of that energy keep selling their products to those of us who produce ethanol? If we weren't paying for the energy, wouldn't there be lawsuits, and TV shows about energy thievery? I drove by the ethanol plant at Craig, Missouri this morning, a plant of which I'm a part owner. The local natural gas company was not picketing the gate. The lights were on. Steam was coming out of the smoke stack. One assumes that everybody is up to date on the energy they've sold the plant. The same goes for our farm, which produces corn which is turned into ethanol at that plant. My mother, who sells me my nitrogen fertilizer, still speaks to me. The guy who hauls our diesel is getting paid. My grain bin fans are still running, and Atchison Holt electric coop still sends me invitations to their annual meeting. So, where is this wasted energy? Every energy source that goes into producing ethanol is being paid for, along with

the farmer's profit, seed corn, labor at the plant, and the capital costs of the plant as well as the machinery on our farms. There are many other inputs to producing ethanol, but there are only two outputs-energy and feed. Clearly we produce more energy than we use, or we couldn't stay in business. Not only that, but we're turning energy of various forms into the one kind of energy that can power our cars. We often "waste" energy to get it into usable forms, and ethanol is no different.

I stopped by the local mechanic's the other day. He was cleaning a rat's nest out from underneath the dash of a 1984 grain truck. "You know," he says, "farming must be pretty good." Farmers are actually replacing the radios in their farm trucks!" It's been a long time since grain prices have been at profitable levels, and they are already dropping back to break even, or worse. And consumers shouldn't begrudge us those prices, not really. We'll use the profits to update our machinery, which is worn out. We'll buy more technology, which will make us more efficient. This year, using those ethanol dollars, we bought a GPS unit for my brother's planter, which cuts our seed use by 10%, and actually increases yields by eliminating double planting. The same technology will cut our herbicide and fertilizer use. Someone once said that high prices are the best fertilizer, and we'll use those high prices to increase both production and efficiency. That is all to the good.

I did spend much of the last year thinking about the musical Oklahoma. Especially the song about "the farmer and the cowman should be friends." As they often do, the markets overreacted this summer, by driving corn and soybean prices higher than the fundamentals and common sense would require. That has been disastrous for livestock producers. We would all have been better off with a more gradual adjustment to changed conditions, but instead we saw a once in a lifetime bull market in grains that caused hundreds of millions of dollars of equity to disappear in the livestock industry. Livestock markets will adjust, as they always do, but the interim has been painful. I watched tears come to the eyes of a friend in hog business when she talked about losses of \$40 apiece for each of the thousands of hogs her family raises-it has been a time of great stress between livestock and grain producers. Just as it was several years ago, when my corn was selling for \$1.40 a bushel. Farming is never easy, and never fair. But it is always changing, and this too shall pass.

Since July the 4th, corn prices have dropped \$4 a bushel, and my corn is now worth just half what it was several weeks ago. I'm waiting for headlines from the newspapers, apologies from the network anchors, and a thank you from the purveyors of popcorn. But I'm not holding my breath. But there is at least a chance that livestock producers can see profitable times somewhere in the very near future. It seems that the great food shortage is over, and that the latest "golden age" of agriculture lasted about 6 months. Wheat production is up over 11% this year, and if it would just quit raining, we corn farmers could finish harvesting the second largest corn crop ever, despite historic flooding this spring.

Monsanto has promised a doubling of national corn yields in the next 20 years. That would be an increase in corn production from 12 to 24 billion bushels per year. New drought resistant, fertilizer efficient, and insect and disease resistant varieties are on the horizon, and we are on the cusp of the fourth quantum leap in agricultural technology in the past century, following the productivity gains brought about by hybrid seed, nitrogen fertilizer, and herbicides and insecticides. The promises of biotechnology and gene mapping are finally starting to pay off in rapidly increasing yields.

But that promise of increased yields will be lost if we turn our back on technology. The real question about our food supply is not whether we can afford both ethanol and food, but whether we can afford

food fads and fuel. To turn our back on modern technology is something that our fathers and grandfathers would not have considered, but is presented as realistic alternative by critics of our present way of producing food. Ethanol is damned for increasing the price of food, but to farm as author Michael Pollan recommends in his recent article in the New York Times magazine will increase food prices much more than ethanol has. Pollan thinks we can replace fertilizers with mandatory composting, and that we should farm without much of modern technology. Pollan is a fool, but he arguably has more influence on how intellectuals think about food than any of the traditional farm groups, or any farmer. Since we're about ready to elect an intellectual in chief, we should expect that the industrial model of agriculture will soon face even more serious challenges from public pressure, regulatory agencies, and the media.

If we indeed must choose between food and fuel, then ethanol will lose the argument. No moral society will choose a marginal supply of energy over starvation. No government of the people will stand for rapidly increasing food prices in order to guarantee a portion of their gasoline supply. If you frame the question as a choice between a Sunday drive and starving children, then our experiment with raising our own fuel will end, and end rapidly. But what if Monsanto is correct, and we do double corn production in the next few years? What if the recent drop in corn prices is an accurate predictor of the future? People's stomachs are finite, at least in the short term, and increasing our corn crop by 12 billion bushels will mean that we have to do something with all that grain. We really can't eat 10 pounds of corn bread a day. Corn farmers will need the ethanol market, and the consumer will need the energy we produce from ethanol. Then, the answer is easy. Then ethanol is on the winning side of the argument. Then, we **can** have both food and fuel.