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NFU reiterates call for Ontario Risk Management Program

For Ontario farm families and their net incomes, the four worst years in history have been the most recent four. While output has gone up, net returns have plummeted. As the graph on page 4 shows, Ontario farmers' Gross Revenues in 2003, '04, '05, ands '06 set record after record, moving higher and higher. Even though prices fell, expansion, efficiency, and increased production pushed Gross Farm Revenues up.

But over that same period, farm families Realized Net Incomes from the markets (with the masking effects of subsidies removed) fell deep into negative territory, hitting new record *lows*—far lower than in the 1930s. The picture in most other provinces is the same.

The graphs on the following pages are adjusted for inflation and calculated on a per-farm basis (Gross Revenues and Net Incomes are divided by the number of farmers to approximate rough averages). Were it not for this per-farm adjustment, the downward slope of the Net Income curve would look even worse.

The National Farmers Union continues to urge the Ontario provincial government to implement a Risk Management Program (RMP) targeted at family farms. A resolution adopted at the NFU's National Convention, held in late-November in Saskatoon, affirmed the organization's support for the RMP advocated by Ontario grains and oilseeds farmers and first advanced in 2005.

(continued on page 4…)

Agriculture and Agri-Food Canada denying the farm income crisis; APF II on track to repeat every mistake of APF I; NFU members must attend Jan. and Feb. APF II consultations

According to Canada's Department of Agriculture, over the past 20+ years, Canadian farm families have grown and sold $686 billion worth of farm goods and the markets have rewarded them with not one penny of net income. Since 1985, 100% of farm family household income has come from off-farm sources.

—We'll come back to this point later in this article.
But these are facts so astounding, that they must form the opening to this article.

There is no farm income crisis: that's the view of Minister of Agriculture Chuck Strahl and his Agriculture and Agri-Food Canada (AAFC) staff. The Minister and his staff takes this line, presumably because to acknowledge the crisis would lead to questions of "why?" And questions of "why" would inevitably lead to a critical investigation of the record profits that have been documented up and down the agri-food chain (see the NFU's "The Farm Crisis and Corporate Profits" at www.nfu.ca).

Further, because AAFC staff have adopted an analysis of the farm income situation this is both bizarre and shameful in its disconnect from reality, those public servants seem intent on creating a successor to our current Agriculture Policy Framework (APF) that will replicate the massive flaws of the original.

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(Agric. & Agri-Food Canada denying farm income crisis, from page 1)

Finally, because of AAFC's crisis-denial, and because AAFC seems intent on creating a new APF that will be functionally indistinguishable from the old (read: impotent in the face of massive market failure and an unprecedented farm income crisis), it is absolutely imperative that NFU members attend AAFC consultations in January and February. Further, it is critical that NFU members go to the microphones and insist on talking about the farm income crisis, its causes, and its solutions. Ignore the topic-of-the-day, be it "renewal" or "science and innovation." ***Talk about the crisis.*** Talk about your farm and the loss of your neighbours and the inability of your children to carry on your operation. AAFC has categorically refused repeated and strenuous requests by the NFU and other farm organizations to hold consultations specifically on the farm income crisis and its solutions. Thus, farmers must insert themselves into AAFC's so-called consultations and bring our most important concerns to the fore.

To find out about possible public meetings in your area, watch the farm newspapers carefully and email the NFU National office (nfu@nfu.ca) or call (306-652-9465) for a listing of meetings.

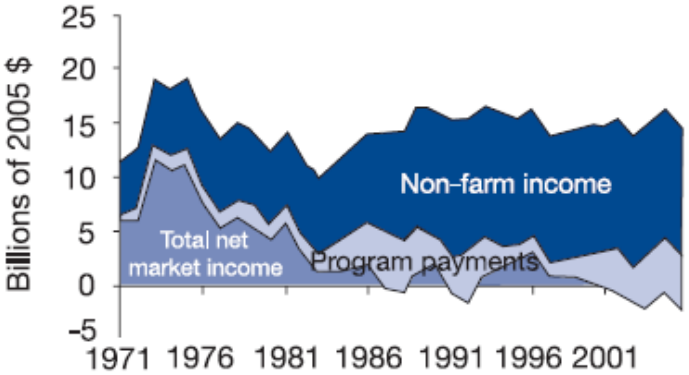
AAFC in denial despite possessing the facts

Minister Strahl and AAFC are denying the crisis. They are pretending that "business-focused" farms are making comfortable incomes, and the farms that aren't generating positive returns are "retirement" or "lifestyle" or "low-income" farms. AAFC tells us that "Compared to all families in Canada, families operating larger farms earn on average significantly more in total family income (farm and non-farm)." AAFC also tells us that "In 2004, average farm household net worth in Canada was $900,000." These are just two quotes from AAFC's recent "Economic Wellbeing of Farm Households", one of nearly a dozen documents released as part of its consultations. (http://www.agr.gc.ca/pol/consult/index_e.php?s1=Econom&page=wellbeing)

Nowhere in AAFC documents or consultations will you encounter the phrase "farm income crisis" or anything remotely similar. This despite a Canada-wide meltdown highlighted by the graphs for Ontario and New Brunswick reprinted elsewhere in this *Union Farmer*.

And it's not that AAFC doesn't have the numbers. A careful and thorough reading of Ag. Canada's documents show that they possess the data to know better, to see that there is an unprecedented crisis and we are in at least the 21st year of that crisis.

The following graph is from AAFC's "Economic Wellbeing of Farm Households." The bottom wedge represents farmers "Total Net Market Income"—market revenues less expenses, with subsidy payments left out. If you add up that "Total Net Market Income" since 1985–if you add the area of the small positive sections around 1990 and in the mid-'90s and if you take away the large negative returns in the late-'80s, early-'90s and recently–you arrive at a figure of almost exactly zero. But if you add up the value of farmers' production and sales over the same period, you get $686 billion. According to AAFC, over the past 20+ years, Canadian farm families have grown and sold ***$686 billion*** worth of farm goods and the markets have rewarded them with not one penny of net income. Over the past 20+ years ***100%*** of farm families' household incomes have come from government programs and off-farm work. That bears repeating (it bears shouting from the rooftops, actually): According to the government of this country, farm families have not made a penny farming over the past 20 years; all their income has come from their outside jobs and from taxpayer subsidies, and this despite producing and selling 2/3 of a trillion dollars in food supplies.



Note: Total net market income plus program payments constitutes total net income

Source: Census of Agriculture, CANSIM tables (002-0001, 002-0009, 380-0056), AAFC calculations.

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(Agric. & Agri-Food Canada denying farm income crisis, from page 2)

If farmers did not get one penny of that $686 billion, where did it go? Input supply corporations. Over the past 20+ years, Monsanto, Agrium, Cargill, Deere, Royal Bank, and their like have hoovered up 100% of the $686 billion originally paid to farmers. In 2004, the agribusiness corporations that dominate each link in Canadian agriculture recorded their most-profitable year in history…and farm families recorded their second worst year in history (again, see "The Farm Crisis and Corporate Profits"). Farmers are making too little because others are taking too much.

But despite this prima facia evidence of massive market failure and agribusiness profiteering, our public servants continue to maintain the government's pretence that there is no farm income crisis. AAFC talks about "large business-focused" farms as profitable. It says that "management skills are critical to performance" and that "income stability is highly influenced by on-farm practices." In doing this, in seeking to divide farmers into winners and losers, AAFC is trying to turn attention away from the systemic and concerted actions of agribusiness transnationals and misdirect attention toward the management choices of individual farmers. According to AAFC, what the NFU calls the farm crisis is just a lot of bad decisions by some individual farmers. The problem isn't the system, it's individuals.

After decades of disastrous mis-management of agriculture by the government of Canada (US takeover and consolidation of beef packing, the termination of the Crow, widespread privatization of plant breeding, policies driving farmers toward over-reliance on purchased inputs, so-called free trade agreements, corporate takeover of hog production and cattle feeding, destruction of dairy and grain co-ops, branchline abandonment and elevator closure, unwise export maximization, etc.) and in the face of massive corporate consolidation and control, senior bureaucrats in AAFC are producing documents such as the "Economic Wellbeing of Farm Households" that largely deny the farm income crisis, and when such documents do admit the existence of low incomes, they blame that phenomenon largely on personal choices of individual farm families. The NFU and its members must speak out forcefully at every opportunity to decry such shameful nonsense.

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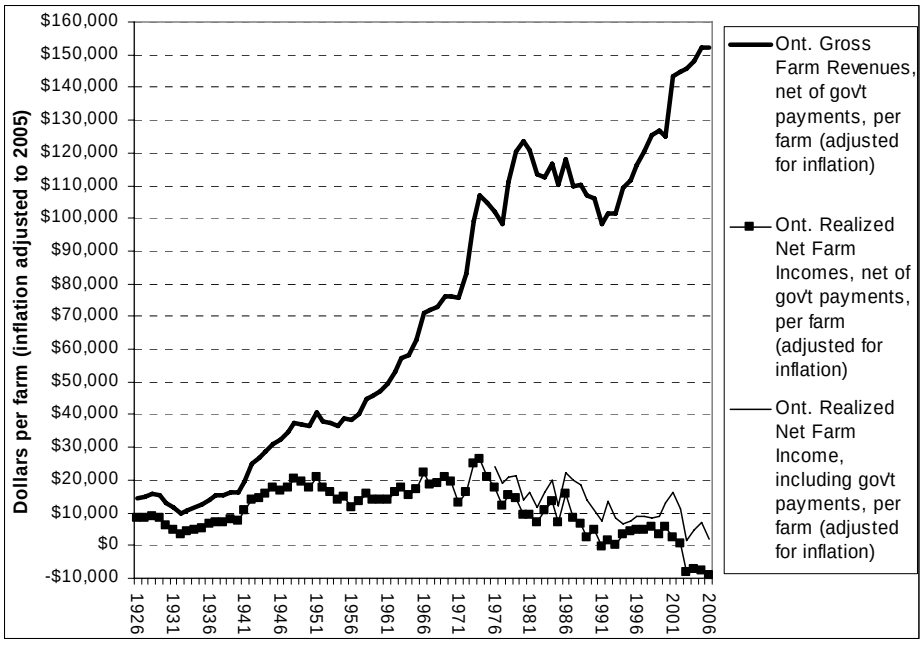
(NFU reiterates call for Ontario Risk Management Program, from page 1)

In a December 8 news release, NFU Board Member Grant Robertson of Paisley, Ontario, said that while the NFU recognizes the RMP contains some flaws, it offers a practical base for building a program to deliver economic justice to family farmers. He said existing government-designed programs such as the Canadian Agricultural Income Stabilization (CAIS) Program have failed dismally.

"The ball has been in the government's court for a year now, and they seem content to pass it back and forth between the provincial and federal levels, ignoring the injured farmers all around them," stated Robertson. "The NFU recommends payments be capped and that the program be targeted to family-run operations."

Robertson said the NFU is calling on the federal and provincial governments to either implement the RMP proposal immediately, or present a viable and realistic alternative plan that addresses the issues raised by Ontario farmers.



The unprecedented collapse in farmers' net market returns, coming as they do alongside record-high output and Gross Revenues, indicates a massive market failure that is imperiling family farms in Ontario and across Canada. Unless federal and provincial governments move quickly with plans to shield farmers from this market failure, more of our farms will be destroyed. In addition to supporting broadbased efforts to advance the RMP, the NFU has also detailed its own 16-point plan for ending the farm and rural crises; that plan can be found in the NFU's July 5, 2005 report "The Farm Crisis: Its Causes and Solutions" at www.nfu.ca .

New Brunswick farm income disaster parallels Ontario

Like Ontario, New Brunswick farmers' Gross Revenues are hitting record highs, while their Realized Net Incomes are hitting record lows. The worst three years in history for New Brunswick farmers were 2004, '05, and '06.

Like the graph for Ontario, this graph of New Brunswick Gross Farm Revenue and Realized Net Farm Income is adjusted for inflation and calculated on a per-farm basis.

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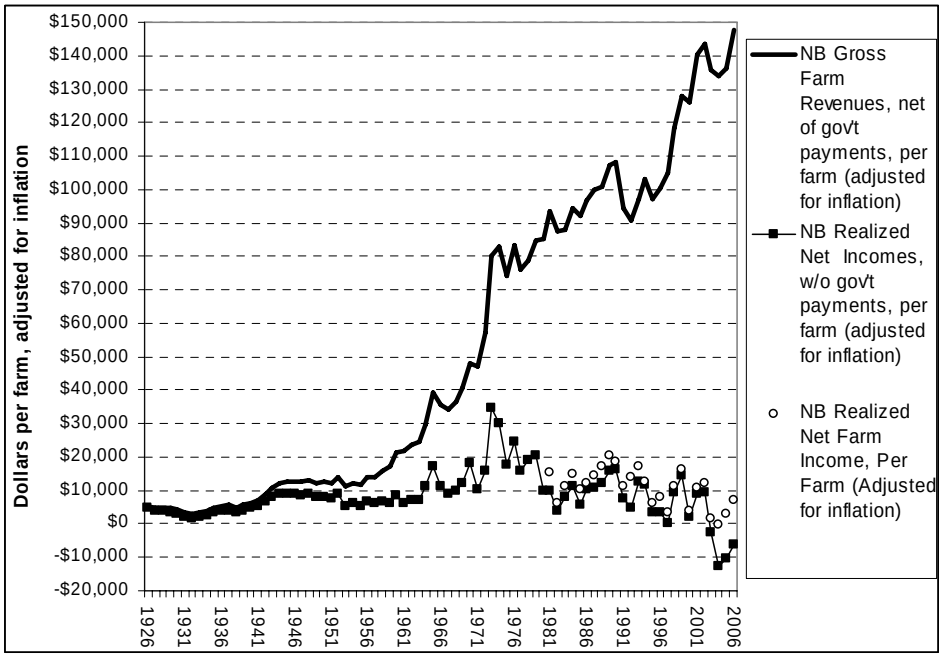

Biodiesel and ethanol can't fuel this civilization

The following represents the opinions of NFU Director of Research Darrin Qualman and is presented for information only. It does not necessarily represent the policy of the National Farmers Union. Your comments are welcome.

It is hard to convey just how powerful, convenient, unique, and irreplaceable petroleum is. Oil is hyper-concentrated energy available, in many places, for the pumping. It is relatively stable and transportable—you can carry it in a bucket. With a bit of refining, it can be poured into weed wackers and luxury jets; it can run factories and cargo ships. It is the energy windfall equivalent of a thousand lottery wins. It has created the largest and most luxurious civilization the world has ever known. There is nothing else like it on Earth, and there never will be again.

Biofuels—ethanol and biodiesel—offer only a fraction of the energy that petroleum does. More precisely, they offer only a fraction of the energy *surplus*—energy not required to be put back into the system to get more energy, energy you can use to support other aspects of our civilization. Any move from an oil-fueled economy/civilization to one run on bio-fuels would require a radical downsizing and restructuring, because bio-fuels are dramatically less "powerful" than oil.

The preceding is true if you accept the well-founded but necessarily pessimistic energy balance calculations of David Pimental or Tad Patzek, but *equally true* if you accept the optimistic energy balance calculations put forward by biofuel proponents. This point bears repeating: The problem with biofuels is not just that their energy balance is less than one (that it takes more energy to create them than they eventually yield), the problem is that even if you accept industry claims of energy balances greater than one, biofuels yield only a fraction of the surplus energy that petroleum does. Planting the entire planet to biofuels would yield only a tiny fraction of the energy we use today. Biofuels cannot replace petroleum; they are not a sufficiently powerful energy source to fuel our current version of civilization*—not even remotely close.

There are many claims that the energy balances for biodiesel and ethanol are "positive"—more accurately, claims that the energy balances are greater than one. Just for the sake of this article, let's accept for a moment that the energy balance for ethanol is 1.5 units of energy out for every unit in (www.greenfuels.org) and the energy balance for biodiesel is 2 units of energy out for every unit in (www.biodiesel.org) (Both these figures ignore "externalities" such as resource and water and topsoil depletion, but externalities also exist for petroleum production.)

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Send in your Seed Saver petitions

The first phase of the NFU's Seed Saver Campaign has been a tremendous success. Working with thousands of rural and urban Canadians, we managed to put a stop to proposed changes to the *Plant Breeders' Rights Act* that would have dramatically reduced the ability of all Canadians to save and reuse seeds.

We've collected over 30,000 names on a national petition calling on Parliament to "enshrine, in legislation, the inalienable rights of farmers and other Canadians to save, reuse, select, exchange, and sell seeds."

The NFU wants to move forward with Seed Savers' Rights legislation and it needs to wrap up the signature-gathering phase of the petition drive. We need to gather up all the petitions for presentation in Ottawa in support of our work.

If you have a petition with signatures on it,
please mail it to the NFU office as soon as possible to:
2717 Wentz Ave., Saskatoon, SK S7K 4B6

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If biofuels' energy balance is 1.5 or 2 units of energy out for every unit in, then if you put the equivalent of ten barrels worth of biofuels energy into the biofuels production system, you end up with 15 to 20—a net gain of 1.5 to 2 times the original investment. That's what the energy balance number means: a balance of 1.5:1 or 2:1 means you get out 1½ or 2 times more energy out than you put in.

But if you have ten barrels of oil and you put them into oil production, you can produce anywhere from 50 to 100 barrels of oil, depending on where production takes place and under what conditions (tarsands production exempted from the preceding statement).

With oil, it's approximately one or two barrels in: ten barrels out. With biofuels, it's approximately five to eight barrels in: ten barrels out.

These ratios mean that if you have ten barrels of oil, you only need to set one or two aside to get ten more barrels; the other eight or nine surplus barrels can be used to fly aircraft, build cities, fuel automobiles, wage wars, etc. But if you have ten barrels of biofuel, you need to set aside five to eight to get ten more barrels. You only have two to five "surplus" barrels to fuel the other projects of civilization. In a biofuel system, the majority of your energy supply is required for energy production.

Any proposed transition of our economy/civilization from oil to biofuels would mean a transition from an energy source that yields a 500% to 1000% gain on energy invested to one that yields a 50% to 100% gain (at best, and probably less than 0% if the many scientists who calculate biofuels' energy balances at less than one are correct). The impoverishing effects on our energy-dependant, growth-based economy and civilization are easily predictable.

Running a civilization on oil is like running a farm with a very efficient pony: for every ten bushels of oats you and the pony grow, the pony eats one or two; you have lots of oats left over to sell and lots of surplus money to re-invest in expanding other aspects of the farm. But running a civilization on biodiesel or ethanol is like farming with a lazy, hungry pony—it eats most of the oats it helps to grow. You have little surplus to re-invest in other areas. Your farm is not nearly as prosperous or fast-growing. In fact, if the surplus oats is not enough to feed you and your family and to sell to cover the other bills, the farm may have to shrink.

Biodiesel and ethanol are not sufficiently rich energy sources to support the kind of civilization we are now running—the western car culture of leisure, luxury, and privilege.

Over and above the problem of whether biofuels could theoretically yield enough surplus energy to underpin our economy, there is a second problem: in absolute terms, there will never be enough biofuel to support current energy consumption levels. Global oilseed production (canola, soybeans, etc.) is about 400 million tonnes annually. At 60 gallons of biodiesel per tonne of oilseeds, turning the *entire* global supply of oilseeds into biodiesel would yield 24 billion gallons per year. That's about 1/6 of the 150 billion+ gallons of diesel fuel consumed each year in the world. Turning the world's *entire* corn and wheat crops into ethanol would similarly supply less than a third of the world's gasoline needs.

Thus, converting the world's entire food supply to biofuels might supply us with 20% or 30% of our fuel needs (again, accepting the very optimistic energy balance numbers put forward by promoters). More realistically, we could, at most, turn 10% of our land over to fuel production—yielding, at most, 2% or 3% of our liquid fuel needs. And the reality may be even worse: If the biofuels production system were actually fuelled totally by biofuels, we wouldn't even have this small fraction available to run trucks and cars: we'd have to put well over half the biofuels back into the energy production system to produce more. Thus, that 2% or 3% would really be just 1% or 1.5%. These small percentages make biofuels largely irrelevant.

Further, we may not even be able to access that 1% or 1.5%. We are in a food-supply drawdown; in six of the last seven years, humans worldwide consumed more grains and oilseeds than we produced. We are in the fastest food-supply drawdown recorded in the 45-year data. The world's cropland area has been static or

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declining for a decade. And we are adding the equivalent of a North American population every six years. Given declining food supplies and a static landbase, it is hard to believe that we can solve our current hunger problems *and* feed an additional 2.5 billion people *and* fuel a global proliferation of the SUV culture. We should consider the possibility that we may be heading toward food supply challenges, and that there may be no "surplus" land available to produce biodiesel and ethanol.

Finally, there is the question of greenhouse gas emissions. This issue is complex and potentially confusing, but consider the pony-oats analogy again. Imagine a pony that ate all the oats it helped produce. It could produce and consume for 20 years and never yield any surplus oats. In energy balance terms, this is equivalent to an energy balance of 1—the energy (oats) in equals the energy (oats) out, and there is no surplus.

Similarly, if you had an ethanol system with an energy balance of 1.0, you could run it round and round, year after year, making and burning ethanol (or burning the ethanol-energy-equivalent in diesel fuel and natural gas), and creating no surplus energy. The greenhouse gas emissions (from fertilizer plants, farm tractors, etc.) would mount, but you'd never succeed in fueling an automobile even a single mile because you'd never generate any surplus ethanol to put into that car. In this scenario, the greenhouse gas emissions for ethanol would be *infinitely* greater than for gasoline.

Now, consider a situation wherein the ethanol energy balance is 1.5:1. If you burnt the energy equivalent of one unit of ethanol in the ethanol production system, you'd get 1.5 units of energy out. Of those 1.5 units, you'd have 0.5 units surplus, and you'd put the other 1.0 unit back into the system and burn it, yielding the next 1.5 units—another surplus of 0.5. Now you'd have accumulated a total surplus of one unit (0.5 units plus 0.5 units); but you have already burned two units getting that one. And, when you burn the 1 surplus unit in the car, your total will be three units burned: 1 in the car and two in the field and refinery. For comparison—on basis comparable to the 3 units of ethanol burned and emissions produced—simply burning gasoline would yield about 1.25 units of emissions—one unit burned in the car and 0.25 burned in getting the oil and refining the gasoline. For an energy balance of 1.5:1, for a given mile driven by a given car, *burning ethanol creates over twice the emissions that burning gasoline creates*.

Let's forget the preceding for a moment. Let's accept what the proponents of biofuels claim: that the use of biofuels *reduces* greenhouse gas emissions. We could ask: By how much? Moving, over the next five years, to a 5% ethanol blend in Canada will result in little or no reduction in actual gasoline burning because total motor fuel use will probably continue to increase at about 1% per year as it has. Thus, five years from now, even as we add ethanol to the mix, we'll be burning the same amount of gasoline we are now; plus we'll be burning about 5% as much again in the form of ethanol—a fuel that, according to proponents, generates only slightly fewer greenhouse gases (and according to many credible sources produces more). Even as we move to adopt biofuels, we are *increasing* our greenhouse gas emissions from oil-based motorfuels. The widespread adoption of biofuels, seemingly Canada's only significant current initiative to reduce greenhouse gas emissions, will not even begin to tackle the problem. And by some analyses, such a move makes the problem far worse.

Conclusion

Investing massively in ethanol and biodiesel production may turn out to be the greatest public policy mistake in a generation. As energy sources, even accepting the rosy calculations of proponents, they will never be sufficiently powerful or abundant to replace more than a tiny fraction of petroleum. And for that fraction they do replace, they may well increase greenhouse gas emissions and speed global warming.

The fervour with which policymakers, the media, and the public have fastened onto ethanol and biodiesel may simply be a reflection of our fear. We fear what an oil-limited and a climate-change-constrained future may hold for our experiment in economic and energy-use hyper-growth. Our focus on ethanol and biodiesel, like similar attention being paid to hydrogen, may simply be a way of ignoring biophysical limits and pretending that we

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can double and re-double the size of our global economy and the rate at which we use resources. The dominant belief still seems to be that each generation will be better off than the previous one, and that 9 billion people can eventually come to live like Toronto suburbanites. As we plow into problems created by trying to fuel our castle-in-the-sky civilization on oil, we are now casting around for other solutions, telling ourselves we can fuel it by burning food.

One last thing needs to be said, however: This isn't all bad news for farmers. Clearly, incinerating the world's food supply in ever-more-numerous SUVs has the potential to create shortages and to drive up grain prices. The current grain supply drawdown began eight years ago, before the advent of significant ethanol or biodiesel production. But biofuel production (coming as it does at a time when grain supplies are touching a thirty-year low and coupled with the reality that we're adding the equivalent of two-and-a-half Canada's each year to global population) has the capacity to trigger short term grain shortages that could lead to grain prices doubling, as they did in the mid-'70s and mid-'90s. Ethanol is bad physics, bad biology, and bad policy, but the publicly subsidized vaporization of food stocks can be good for farmers. Despite valid concerns about energy balances or greenhouse gas emissions, the biofuels project will proceed and accelerate. And with or without ethanol or biodiesel, there are almost certainly higher grain prices ahead for farmers.

* *Our current industrial civilization and its growth-based economy has its detractors. This article won't examine whether continued production and use of "Hummers", either as assault or commuter vehicles, is in the best interests of the biosphere or the global population. What this article will do is to analyze the question of whether an automobile-based, industrial economy could be significantly fuelled by biofuels. Can ethanol and biodiesel even partially sustain the status quo?*

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Food is energy (and vice versa)

Modern, industrial agriculture turns fossil fuels into food. Nitrogen fertilizer is synthesized directly from natural gas. Humans are now producing so much nitrogen from fossil fuels that we have doubled the amount of nitrogen cycling in our biosphere.

The very high energy content of our food prompted one NFU member to quip that biofuels are a way of "turning energy into food into energy." This observation has some merit. Biofuels are a project wherein we channel part of our energy-augmented food supply into creating a food-augmented energy supply.