Great News in US Climate Change!
Dr. Mark W. Jenner : Ag Business Specialist

Climate change is part of our vocabulary these days. You can be for it or against it, but weather has been changing all my life, and I have been out of high school 40 years. That being said, I think we are still really bad at quantifying the whole phenomenon. It drives me crazy that folks treat the estimated numbers out there like they are real and measurable values.

The US EPA estimates US Greenhouse Gases (GHG) every year, and they estimate them back to 1990 emission levels. And every year, because the math changes they calculate a new level of emissions for 1990. So in 2016, we are still determining the greenhouse gas emissions of 1990. The EPA does a pretty fair job given the enormity of the task, but at the end of the process their estimates are based on many, many uncertain assumptions.

Eighty percent or more of US GHG emissions each year can be tied to energy emissions. Those are emissions from coal, natural gas, and transportation fuels. The April 2016 US Greenhouse Gas Inventory Report, contains a graph showing that greenhouse gas emissions greater than 1990, are declining. The 1990 GHG emissions levels are indexed to zero below [the downward, trending dotted line was added]. When prices of gasoline and diesel fuel were up above $3/gallon, we quit driving as much. So 80 percent of the decline in annual GHG emissions are due to a decrease in energy use.
Is agriculture a climate problem?

The crop side of agriculture converts excess carbon dioxide (CO\textsubscript{2}) into life giving oxygen. Farmers are responsible stewards of rural air sheds just as they are of rural watersheds. EPA credits agriculture as contributing about 10 percent to US GHG emissions.

About half of that comes from methane gas (CH\textsubscript{4}) and the other half comes from nitrous oxide (N\textsubscript{2}O) emissions. The only reason that the crop side of agriculture shows up is that N\textsubscript{2}O is assessed in the GHG emission scorecard as being 300 times more dangerous than CO\textsubscript{2}.

This number originates in a laboratory, reflecting light through a cubic meter of N\textsubscript{2}O gas. That resulting global warming potential ‘score’ from this tiny, focused laboratory measurement of pure gas is then multiplied by the estimated gas quantities in the entire atmosphere.

Methane gas, which is also known as natural gas, is assessed at 25 times more potent than carbon dioxide. I believe that methane and nitrous oxide are nasty gases. But it amuses me that when we use methane for fuel we call it natural gas and we promote its development — even though leakage from natural gas fuel systems is more detrimental than methane from cattle. But when we need the same gas to sound ominous, we call it methane, and tie it to cattle. So methane emissions from cattle and manure account for about 5-6 percent of all US GHG emissions. There are a barn-full of reasons why that number may not be correct, but it is the number EPA is using these days.

N\textsubscript{2}O gas emissions accounts for another 5 percent. The more we till the ground, the more N\textsubscript{2}O is released. The amount of this gas that is released is small, but it becomes important because it is assigned a very high global warming score.

Decreasing Emissions as Population Grows

The one bit that doesn’t enter in to the GHG discussion because the Earth’s atmosphere is fixed, is the increase in population. Since 1990, the US population has grown by nearly 30 percent, or 70 million people. While the increasing population of humans on the Earth gets the credit for causing climate change, the fact that we are emitting less per person every year in the US should count for something, right?

If you are interested in learning more the US GHG Inventory that was released in April 2016 can be found at: https://www3.epa.gov/climatechange/ghgemissions/usinventoryreport.html. This is the source of the chart except for the dotted trend line.

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Forward vs. Cash Contracts in Grain Marketing

Nate Cahill
Ag Business, Johnson County

Grain prices have had a rally over the last few weeks. At the beginning of the year soybean prices ranged from $8.60-$8.70 per bushel and corn ranged from $3.55-$3.65 per bushel. Today soybeans are fetching prices of $10.65-$10.80 per bushel and corn is seeing prices of $3.90-$4.00 per bushel.

Wouldn’t it be nice to capture those prices now for your crop before the rush of grain to the market which will lead to lower prices? What if I tell you that you can? Would you take the opportunity? Would you try to maximize your revenue per acre? Do you like money?

There are many ways to market grains. At the end of the day the most common two ways is through forward contracting or cash market. Forward contracting is used to lock in a price for your grain to be delivered at a future date. The cash market is getting the price the day of the sale at the local elevator. Below you can see some advantages and disadvantages for each selling method.

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<tr>
<th>Advantages</th>
<th>Forward Contract</th>
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<tr>
<td>Good market prices can be established when grain is not available for immediate delivery.</td>
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<tr>
<td>Quality, price and delivery can be planned and executed according to your needs.</td>
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<tr>
<td>Income can be deferred</td>
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<tr>
<td>Simple and easy to use</td>
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<tr>
<td></td>
<td>Cash Market</td>
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<td>Quantity and price is fixed with no further price risk.</td>
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<tr>
<td>Quality risk is passed to buyer.</td>
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<tr>
<td>Money is immediately available.</td>
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Continued on page 3
Grain must be delivered as contracted regardless of yield or quality concerns.

Not able to participate in any further improvements in either basis or futures.

Payment is not received until grain is delivered.

Pricing and delivery flexibility are eliminated.

No chance for further price increases.

The idea behind forward contracting is to give the producer a more hands on effect of determining the prices they get from the market, while cash marketing is just selling for what the price is at that particular point in time. Both grain marketing concepts have their advantages and disadvantages but both come with their unique forms of farm management. Remember, grain marketing is simple, it just isn’t easy.

What previous attendees say:
“This reminded me how important negotiations are in my daily life. Now I know what to look out for when I’m trying to drive a business bargain.”
“The most helpful part was the real-world exercise and trying to figure out the next move of the opposing side.”
“Participating in the negotiations -- in front of other people -- made me perform at a higher level.”

Do You Have What It Takes to Negotiate a Government Contract?
June 28, 2016
10 a.m. – 4 p.m.

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University of Missouri Extension Center
684 West Jackson Trail
Jackson, MO 63755

$75 registration fee: To register:
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