

## Fertilizing Economically with High Fertilizer Costs

As we head into spring there are a lot of questions regarding crop inputs this year. In particular, as we look at rising fertilizer prices there comes some timely new information from our University system. Seven Universities in the corn belt (Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, & Wisconsin) have released new nitrogen recommendations. These new guidelines have been developed from research on more than 700 locations over a 16 year period within these states.

What makes these new recommendations so different from the past is that they no longer take yield goals into account. Instead, they take into consideration the productive potential of each individual field and reference it to the cost of Nitrogen and value of the crop. They give both an N rate that has shown to give "Maximum Return To Nitrogen" (MRTN) and an acceptable range of rates to use based upon individual grower attitude and environmental risks associated with each field. These recommendations may not win bragging rights at the coffee shop, but instead are aimed at getting you the highest return per acre.

Iowa State University has a web site developed to help farmers understand these new recommendations and calculate proper Nitrogen rates. This site is available for everyone, but uses only data from Minnesota, Iowa, Illinois, & Wisconsin. There was only enough data from these states to give accurate N-rate recommendations. The web page is available at: [www.extension.agron.iastate.edu/soilfertility/nrate.aspx](http://www.extension.agron.iastate.edu/soilfertility/nrate.aspx) The University of Minnesota has also made available their new recommendation's on-line at: [www.extension.umn.edu/distribution/cropsystems/DC3791.html](http://www.extension.umn.edu/distribution/cropsystems/DC3791.html), entitled "Fertilizing Corn in Minnesota."

Along with these new Nitrogen recommendations, producers may want to re-evaluate their P & K fertility program's along with their higher prices. In past years, if you've been applying what the soil test calls for, you may have been applying more than was needed by the crop. If your soil tests are a medium or lower test, the standard soil test recommendation is to build your soil towards a medium or higher soil test. In a year like this year, you may want to look at more of a crop removal approach in order to curb input expenses and maintain yield

potential. A crop removal program is one in which you apply only the amount of P & K that the crop needs to attain your particular yield goal. This may not be an approach to use in the long term, but it does allow you to take advantage of what you've been doing in years past.

Another option to look at may be fertilizer placement and timing. Banding your fertilizer is by the far most efficient way to put down fertilizer. This can be done for either row-crops or solid seeded crops. With this efficiency, rates can be cut, and not affect yields. Other things to consider is fertility timing and land ownership. Side-dressing or top-dress your Nitrogen may allow you to use significantly less, because you're applying Nitrogen closer to when the crop needs it most. In a case where you own your land vs. renting, you may decide to continue with your current program (as the fertilizer is being invested in your own property). With rented ground a crop removal program may again be a better program, unless you've got a good relationship with the landlord and/or have a long-term lease agreement.





## American Coalition for Ethanol Releases Results of Fuel Economy Study

The American Coalition for Ethanol (ACE) today released the results of its recent Fuel Economy Study, a pilot study that researched the fuel economy, cost per mile, and driveability of various blends of fuel, including unleaded gasoline, E10, E20, and E30.

“As ethanol production and use continues to expand from coast to coast, increased public discussion and media attention have often turned to a debate over ethanol’s fuel efficiency,” said Ron Lamberty, ACE Vice President / Market Development. “Because there was very little scientific information out there, ACE commissioned a pilot study to determine whether there are variances in gas mileage between ethanol blends and gasoline.”

The research tested unleaded gasoline, a 10% ethanol blend (E10), a 20% ethanol blend (E20), and a 30% ethanol blend (E30) in three late-model vehicles. The Chevrolet Impala, Ford Taurus, and Toyota Camry were not flexible fuel vehicles, and no modifications were made to them for this research. Care was taken to eliminate any human inputs that might render the tests unscientific, including the use of a computerized data logger and strict controls on the vehicles, fuel, and terrain.

The test was conducted by Allen Kasperson, a Fuel Research Specialist and instructor with more than 30 years of experience training automobile and truck technicians at Lake Area Vocational Technical Institute in Watertown, South Dakota. The study also examined an E10 blend that had been denatured with iso-pentane and soy biodiesel, a denaturant combination that Kasperson had studied and found to have lowered the fuel’s Reid vapor pressure (RVP). While the RVP tests in this study were inconclusive, the blend did perform better than unleaded in most tests.

Read full results of the study

**Miles per gallon** — The three ve-

hicles averaged only 1.5% lower mileage with E10, 2.2% lower mileage with E20, 5.1% lower mileage with E30, and increased mileage of 1.7% when using the specially denatured E10 blend.

**Cost per mile** — Although the MPG of ethanol blends was slightly lower than the unleaded, the cost per mile of operation was generally lower. Also, the higher the concentrations of ethanol, the lower the cost per mile. Using the study’s average MPG, E10 is less expensive per mile than unleaded until ethanol’s cost is nearly 30 cents above unleaded. On a \$20 bill, drivers can travel up to 15 miles farther on ethanol-blended fuel than on straight unleaded.

**Driveability** — Contrary to statements commonly made by vehicle manufacturers and technicians, no warning lights were displayed at any time while operating on any of the fuel blends. The data logger used for the research monitored all systems and detected no malfunction indicator lights (MIL), diagnostic trouble code lights (DTC), or emissions DTCs.

Also, it has been assumed that in older model vehicles the oxygen sensor could not recognize fuel with ethanol content higher than 10% and therefore caused a malfunction indicator light to be displayed. In all vehicles used, the car’s computer seemed to have the ability to adjust the air/fuel ratio normally with ethanol blends even beyond the standard 10%.

The study cautioned that motorists should not use fuel with concentrations of ethanol higher than those recommended by the vehicles’ manufacturers, but called for more research to determine if those fuels should be approved for use in standard, non flexible fuel vehicles.

“If drivers want to save money at the pump as gas prices reach new record highs, this pilot study confirms that ethanol is the fuel of choice,” said

Brian Jennings, ACE Executive Vice President. “Using ethanol is like money in your pocket, and you feel good about filling up on this homegrown fuel because it comes from America’s farm fields, not the oil fields of the Middle East.”

“The bottom line is that, in addition to offering higher performance and lower emissions, ethanol-blended fuel is easier on the pocketbooks of American motorists,” Lamberty said.



Photo courtesy ARS

## Welcome to Ethanol

The American Coalition for Ethanol is the grassroots voice of the ethanol industry, a membership-based association dedicated to the use and production of ethanol. Welcome to [www.ethanol.org](http://www.ethanol.org), the official website of ACE.

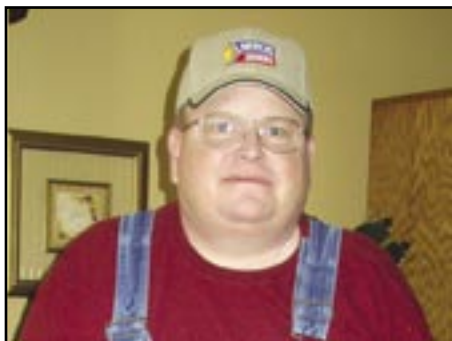
Ethanol’s production drives economic development, adds value to agriculture, and moves our nation toward energy independence. Its use cleans America’s air and offers consumers a cost-effective choice at the pump.

This year the U.S. ethanol industry will grow to provide more than 4 billion gallons of clean burning, renewable fuel to our country’s supply. Please use this site to learn more about ethanol and its many benefits.

# Farm Scene

## Drydown Important for Kindred Corn Producer

Darryl Torgerson—Kindred, North Dakota



Darryl Torgerson has been farming since 1974, starting with his father, and is now bringing his son into the operation. He bought the farm they're on from his previous landlord. He farms 2,400 acres planting corn, soybean, and some wheat. Darryl once raised sugar beets, but made the decision to get out of beets due to health reasons. That's when he picked up raising corn. He is still involved in the trucking end of sugar beet harvest for the neighbor renting his beet acres. He uses conventional till and puts corn on bean ground, with wheat to round out the rotation.

Darryl and his wife, Marlys, have

three grown children. Stacey and her husband David Johnson live in Fargo. Their son, Shawn, who is in the Army, spent two years in Germany, was home, and has now been in Iraq for the past six months. They're not allowed to know exactly where he is, but have been told he'll be home for Christmas. Their son, Tyler, is farming with Darryl, and through his cousin, introduced Darryl to SEEDS 2000 products.

The SEEDS 2000 corn hybrid Darryl raised last year was 2821RR, treated with Cruiser<sup>®</sup>, which is an 82 day corn that he was well pleased with and has reordered for this year. He also ordered 2060RR soybean for this spring. Darryl has grown corn for the past three years, using a SEEDS 2000 product for one year. When asked what results he had using SEEDS 2000 product, Darryl responded, "The SEEDS 2000 corn took the wet conditions well, had no disease at all, and the cobs didn't fall off due to corn borer."—his yield was 160/bu. per acre, with 19% moisture. Darryl has small bins and uses air tubes,

not a drier, so he appreciated how well it dried down. He had no problem with it heating in the bin.

Advantages of SEEDS 2000 over competitor's product for Darryl included: no smut, drier—which was a big advantage because of his bin system, and there were no corn borer. He also mentioned how he appreciated Jed Wall, SEEDS 2000 Sales Associate, checking his fields and giving ideas on what varieties would work best for Darryl's area.

The management practices that Darryl used to maximize the yield of his SEEDS 2000 variety included: cultivating once, spraying twice—the first time was early—crosswise with a Rogator, before all the rain. The second time was with the row. His fertilizer breakdown was 150 lbs N, 60 lbs phosphate, 10 lbs potash, and some sulfur.

Darryl's advice to fellow farmers about planting corn is to, "watch your population." Darryl seeded a little heavier than some, which gave him a nice stand in adverse conditions.

Cruiser<sup>®</sup> is a trademark of Syngenta.

## Sunflowers and Fertilizer Usage

Do you want a crop that can help cut your fertilizer bill? Sunflowers may be just the ticket. Historically, sunflowers show little response to fertilizer, unless your soil fertility is low to very low testing. With soil tests above that, sunflowers become less responsive to additional fertilizer applications. The exception to this may be if you are going into a high yield situation (well drained, good soil fertility, abundant moisture, and a good weed control program).

The sunflower plant produces a deep rooting structure (up to nearly 10

feet) and accesses fertility found deep in the soil profile (especially Nitrates). Sunflowers develop a large root mass, enabling them to access and search out the needed nutrients to produce a good crop. This rooting structure makes the sunflower plant an excellent complement to a corn/soybean, or wheat/soybean rotation. None of the previous crops listed are able to root as deep in the soil profile, allowing nitrogen to leach down and out of reach of corn, wheat, or soybeans. This ability of sunflower gives it distinct advantages,

especially in a year with high fertilizer costs, in being able to reduce input costs.

Sunflowers look attractive with their low fertility needs, and ability to reach nitrates found deep in the soil profile. With sunflowers you can use the nitrogen that has already been paid for and prevent it from leaching out of the soil profile and becoming a problem.

**SEEDS 2000 Express Hotline**  
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## CLEARFIELD\* Sunflowers: Yield Drag Fact or Fiction

With new technologies come new issues. There was talk of yield drag when CLEARFIELD sunflowers were introduced a few short years ago. In some cases this talk was a valid concern, with substantial differences found between some companies' CLEARFIELD and conventional sunflower hybrids. A lot of that had to do with where the Imidazol (Beyond™) resistance came from.

CLEARFIELD sunflowers are produced through natural breeding methods, not genetically manipulated, resulting in a Non-GMO sunflower plant. Imidazol resistance in CLEARFIELD sunflowers is found naturally in wild sunflower populations. Those resistant wild relatives are then bred back into commercial hybrids to develop the CLEARFIELD sunflowers we have today.

The yield drag of those first hybrids

was because of the genetics found in these wild strains. Over time sunflower breeders have been able to breed in better yield, along with resistance, into their parent lines. It is these improved parent lines that are now being used to produce our high yielding CLEARFIELD hybrids of today.

Our new hybrids, Barracuda (NuSun®) and Jaguar (Confection), are essentially void of any yield drag at all. Both these hybrids can yield with, and often out yield, many oil and confection type sunflowers hybrids on the market today. With these new CLEARFIELD hybrids, talk of yield drag with the CLEARFIELD system has become a thing of the past.

CLEARFIELD\* is a registered trademark of BASF. Beyond™ is a trademark of BASF.



*The welfare of the farmer  
is vital to that of  
the whole country.  
The prosperity of the country  
rests usually upon  
the prosperity of agriculture.  
Just now,  
one of the strongest hopes  
of return in good time  
is based on the business  
which farmers' crops  
are to afford.*

William Howard Taft  
27th President, 1909-1913

