

# Southern FS Crop Specialists See Positive Early Gains with GYPSOIL.

Southern FS agronomists have reported impressive early results from GYPSOIL™ brand gypsum, including significant yield increases in corn and wheat.

There was a “great response” to GYPSOIL applications on winter wheat earlier this year, says **Tony Boyle**, a Southern FS Crop Specialist who works out of the Murphysboro location. He coordinated 15-20 field comparisons, including full-field and side-by-side tests to determine wheat response to gypsum vs. no gypsum. The GYPSOIL application rate was typically one ton/acre in the comparisons.



**Tony Boyle**

Beyond the 8-10 bushel yield increase, the gypsum-treated fields appeared visually different than control fields, according to Boyle. “They were a darker green tone,” he says. “I knew immediately (upon a glance) whether the field had gypsum or not.”

### Sulfur source

“Crops—especially corn, wheat and alfalfa—really take to the sulfur in the gypsum,” Boyle says.

Southern FS chief agronomist **Monty Webb** says that sulfur is a key reason to consider adding GYPSOIL in a crop input plan. Growers often see an immediate “short term boost” from the 18-20 percent sulfate sulfur found in GYPSOIL, Webb says. Each ton of GYPSOIL contains about 360 to 400 lbs. of highly-available sulfate sulfur.

**Steve Foss** says corn, wheat and alfalfa growers in his area also saw a “big kick” from the sulfur in GYPSOIL after just one year of application.



**Steve Foss**

Foss, Southern FS’ manager and Crop Specialist at its Big Bay location, has conducted side-by-side field tests showing corn yield gains of 14 to 21 bushels for gypsum-treated fields. In similar plots, wheat yield differences were 12 bushels. He observed that gypsum-treated alfalfa plants were taller and darker than untreated check strips in the same field.

“I’m a firm believer in the

product,” says Foss. “Even at a 14 bushel corn yield increase, that more than pays for the gypsum.”

Adds Boyle, “You will get more sulfur per dollar from gypsum than anything else.”

Sulfur is becoming a concern for crop growers, including in Illinois. There is less sulfur deposition from the atmosphere as a result of newer air quality standards, and high producing crops have greater removal rates. The map at right shows a dramatic decline in atmospheric sulfur deposits from 1985 to 2008.

Gypsum, or calcium sulfate dihydrate, has been used for centuries, including by colonial farmers such as Benjamin Franklin and George Washington. However, the cost of mining and shipping gypsum caused agricultural use to dwindle over time except for on high value crops like potatoes, tomatoes and peanuts.

Interestingly, the newer emissions standards resulted in the wider availability of high quality, lower cost agricultural gypsum. One of the key sources for GYPSOIL brand gypsum available in Southern FS’s territory is Southern Illinois Power Cooperative’s (SIPC) byproduct called flue gas desulfurization (FGD) gypsum. It is produced by SIPC’s wet scrubbing system used to clean emissions. It has the same basic chemical composition as mined gypsum but at significantly lower cost.

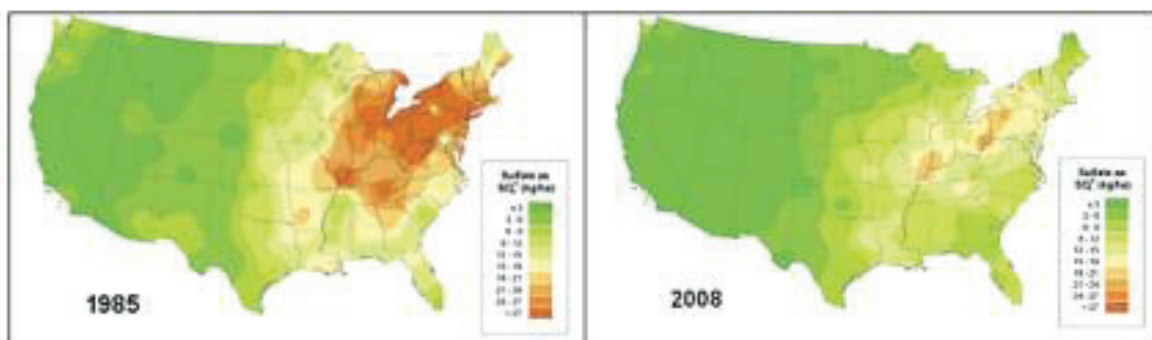
### Improving soil and water quality

In addition to sulfur, GYPSOIL also contains 22 percent soluble calcium, or about 440 lbs/ton.

The soluble calcium mitigates magnesium and helps increase soil particle aggregation to benefit soil and water quality. USDA research has demonstrated that applying gypsum increases water infiltration and storage capacity, reduces erosion and runoff and keeps phosphorus in soils.

Gypsum is also used to re-

The maps show reduced levels of sulfate sulfur deposited in rainwater for 2008 vs 1985.



National Atmospheric Deposition Program (NRSP-3). 2007. NADP Program Office, Illinois State Water Survey, 2204 Griffith Drive, Champaign, IL 61820.

mediate high sodium (sodic) soils. Keep in mind that gypsum does not affect pH and cannot be used in place of lime to alter pH.

Southern FS’ Webb sees many potential benefits with GYPSOIL. “We have a lot of tight, wet soils in our area, and occasionally there are salt areas that growers battle.



**Monty Webb**

“If we can help alleviate the sodium and increase the porosity of the soil so there is not as much standing water, that would be a real plus,” Webb concludes.

### Applying GYPSOIL

Applying GYPSOIL is easy so long as you keep a few things in mind.

“Typically, FGD gypsum is about 10-12 percent moisture, and can be applied using truck or pull-type litter or lime spreaders,” says Ron Chamberlain, GYPSOIL’s chief agronomist and founder.

“Spreaders should have a wide chain or belt with steep, slick sides to prevent bridging as the material moves down the sides toward the belt,” recommends Chamberlain.

Some growers use plastic liners or a graphite coating to

make sides of spreader even slicker. Chamberlain also recommends twin spinners to provide the most uniform spread pattern across the width. Dividers in beds should be raised or removed.

“Spreading gypsum is easy once you understand the basic set-up,” Chamberlain says.

GYPSOIL can be stored under roof or in the field but it is ideal to spread as soon as possible after unloading. “We like to dump it and spread it on the same day,” says Foss.

For more information and local trial results, contact your Southern FS Crop Specialist.

## GYPSOIL™ improves soil quality and adds needed sulfur.



To learn more about GYPSOIL brand gypsum, ask your Southern FS Crop Specialist.



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