

How, where and when to apply GYPSOIL.



GYPSOIL brand gypsum is a highly consistent, fine powdered product, nearly white in color. It can be broadcast with a lime spreader or other spreader suitable for bulk dry material. Some livestock and poultry producers apply GYPSOIL very successfully with litter spreaders.

Apply GYPSOIL any time you can get into the field without damaging the crop or the soil. Typically farmers apply gypsum in the fall and winter, after harvest. Rainfall will dissolve the gypsum and carry it into the soil. You can also incorporate it into the soil as you do fall or spring tillage.

In alfalfa, GYPSOIL can also be applied in-season, after any cutting.

Perfect for heavier soils.

Nearly any soil containing clay can benefit from gypsum. It is especially useful for the Delta's heavy, gumbo soils rich in silt and clay and low in organic matter. Improved soil tilth and permeability alone would make an application of GYPSOIL worthwhile.

Apply 1 ton per acre.

Most farmers apply about one ton of gypsum per acre. Based on the research results in University of Arkansas trials, you may wish to apply two tons per acre, especially in the first year. Remember that it can take applications for two to three years to see the full benefit. Many farmers apply gypsum annually, year in and year out.

Some states regulate the application of gypsum, so be sure to comply with all state laws.

Try GYPSOIL on your farm this year. Leave an untreated control strip so you can clearly see the difference Gypsoil makes. We're confident that you'll start seeing significant results within a year or two.

Reduce crusting, break down the aluminum barrier, improve fertility and make your soil easier to work. Apply GYPSOIL brand gypsum.

A BRIEF HISTORY OF GYPSUM.

The benefits of gypsum were established more than 200 years ago. Except in certain specialty crops, the practice was lost because gypsum was too expensive to mine and transport. But now, there's a better and much more economical source of gypsum.

GYPSOIL brand gypsum is a co-product of the process that cleans the air from coal-fired plants, sometimes called FGD gypsum, and also a co-product of certain processing plants for food-grade products. Co-product gypsum is generally more pure than mined gypsum. Now, thanks to GYPSOIL, there's a ready supply of this remarkable soil treatment across the Delta.

With GYPSOIL, you contribute to a healthy environment in many ways!



1-866-GYPSOIL (497-7645)

www.Gypsoil.com

GYPSOIL™ is a division and trademark of Beneficial Reuse Management LLC.

For more information or the name of your nearest dealer, email info@Gypsoil.com or scan:



Follow us at:  

GYPSOIL™ helps reduce crusting and expand the root zone in Delta soils.

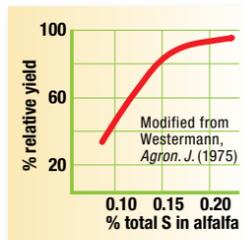
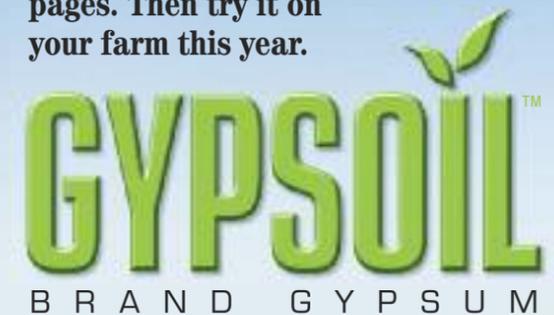
Now there's an easy, economical way to improve your most important farming asset—your soil. It's by applying GYPSOIL brand gypsum.

GYPSOIL helps reduce the crusting that inhibits seedling emergence and increases wasteful water runoff. It also helps expand the effective root zone by neutralizing the damaging aluminum barrier found in many Delta soils.

Gypsum improves water infiltration and moisture-holding capacity in tight soils, and is a source of valuable sulfur and calcium.

With the help of GYPSOIL, you can create a better, more crop-friendly environment and improve the natural biological activity at deeper levels. This helps your crop take better advantage of moisture and fertility.

Learn more about GYPSOIL on the following pages. Then try it on your farm this year.



Ohio State University research shows that soil with adequate sulfur produces higher yields.

How GYPSOIL improves your land. Economically.



Delta soils are some of the most productive in the world, but they are not without problems. Most fields are high in silt and clay and low in organic matter, making them prone to crusting and erosion. In addition, years of intensive farming and acid subsoils have left a layer of aluminum salts in many soils. This barrier inhibits root growth, limiting water and nutrient uptake to a narrow, sub-optimum zone.

GYPSOIL helps you manage your soil and address these issues. And new, low-cost sources of gypsum make it more economical than ever before.

Impact of gypsum on aluminum. The calcium in GYPSOIL can displace aluminum, a major limiting factor in crop productivity. Aluminum tends to build up in acid subsoils at a depth of 12 to 18 inches, creating a barrier to crop roots. GYPSOIL helps break down that barrier, allowing plants to send roots deeper, using much more of the soil profile.

University of Arkansas studies show that at a depth of 6-12 inches, the mean concentration of aluminum on ground treated with one or two tons of gypsum per acre was only 20 percent of the aluminum levels in untreated soil.¹ At depths of 12-18 inches, aluminum concentration was only about half that in untreated ground.

Research conducted at the **USDA National Sedimentation Laboratory** in Oxford, MS, confirmed these results. “The data showed that within one year of initial application [of gypsum], significant increases were recorded for calcium and sulfur contents at depth which lead to substantial increases in soil stability and decreases in aluminum toxicity.”²

GYPSOIL is not a liming material, and it will not affect soil pH. GYPSOIL is highly soluble. Unlike lime, it dissolves easily with rainfall and moves deeply into the soil.

GYPSOIL improves nutrient utilization.

Because roots tend to grow deeper in soil treated with GYPSOIL, the crop has access to nutrients throughout a bigger root zone.

By loosening soils and improving water infiltration, GYPSOIL also creates a much friendlier, deeper environment for soil organisms—microbes as well as earthworms. These soil organisms break down organic matter and release nutrients faster, making all nutrients more available to plants.

Many soils are low or deficient in sulfur, in part because there's less acid rain. Less acid rain falls because many coal-fired utilities have installed modern scrubbers that remove the sulfur and other impurities from their emissions. A byproduct of scrubbers is gypsum, sometimes called FGD gypsum, formed by the capture of sulfur. Crops, such as cotton, soybeans, corn and alfalfa, perform best when grown in soils with optimum sulfur.

Added sulfur can boost yields, too. A report on studies conducted on no-till cotton at the **USDA Research Facility** in Oxford, MS, said:

The results indicate that FGD gypsum can potentially increase yields of no-till cotton by improving soil water conditions and providing a readily available source of sulfur, a limiting nutrient in many cotton soils.

Soil improvement you can see and feel.

One of the first things gypsum users experience is how much easier equipment pulls through the field. The soil is looser, and soft yet firm. It's often possible to drive at a higher gear when working the ground. Push a soil probe or shovel into the soil, and it goes in more easily and deeper.

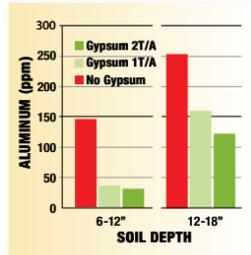
Because of improved water permeability, the soil surface also dries faster. This lets you get into the field sooner after a rain, and provides a wider window for fieldwork during critical times.

Better water-holding capacity, too.

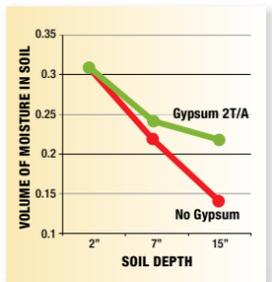
Ironically, fields treated with GYPSOIL are also less vulnerable to drought.

The **University of Arkansas** research shows that water infiltration is improved significantly when gypsum is applied. Plots that received gypsum at a rate of two tons per acre were capable of storing more water at a depth of 7 inches in the soil profile, and nearly twice the water at a depth of 15 inches.

The result of better infiltration is improved soil tilth, less ponding, less erosion and less crusting.



Gypsum significantly reduces the aluminum root barrier in Delta soils. University of Arkansas, 2009



Soil treated with gypsum holds substantially more moisture at 15" root depth four days after rainfall compared to untreated soil. University of Arkansas 2009



An application of gypsum helps loosen soil and improve water infiltration. Because of better soil tilth, it's sometimes possible to operate at a higher gear when working the ground.

GYPSOILTM
B R A N D G Y P S O I L

¹ "The Potential Use of Gypsum for Improved Cotton Productivity," University of Arkansas Cotton Research, 2009.
² "Influence of FGD gypsum on the properties of a highly erodible soil under conservation tillage," National Sedimentation Lab, ARS, USDA, 2011.