

THE BENEFITS OF GYPSUM SOIL CONDITIONER

Living in the Desert Southwest, from Southern Nevada to Utah and Northern Arizona, means gardening in soils heavy in tight clay, high alkalinity, and naturally occurring salts. When desert clay gets wet, it turns into a dense, sticky mass; when dry, it bakes as hard as concrete!

Adding **Gypsum** (Calcium Sulfate Dihydrate) is one of the most effective, natural ways to break up compacted clay, flush out harmful sodium, and improve soil aeration and water drainage for your trees, lawns, and gardens.

Mined Locally & OMRI Listed Organic

- **Local Source:** The Ultra Fine AG® Gypsum used in our region comes right from high-grade natural deposits here in Southern Nevada.
- **100% Organic:** It is **OMRI Listed** (Organic Materials Review Institute) for organic gardening and agricultural use.

How Gypsum Works: Gypsum vs. Soil Sulfur

Gypsum (Calcium Sulfate): "The Balling Effect"

- **How it works (The "Balling Effect"):** Desert clay consists of tiny, flat, negatively charged plates—like sheets of paper stuck tightly together—that lock out air and water. The soluble calcium in gypsum acts as an ionic binder that pulls these flat clay plates into bubbly little "balls" (flocs). Water and plant roots can then easily pass through the porous gaps between these aggregated balls!
- **Long-Term Structure:** Gypsum works moderately and steadily over time, delivering superior, long-lasting soil structure without burning delicate root systems.

Elemental Soil Sulfur: "Chemical Breakdown"

- **How it works:** Soil sulfur relies on soil bacteria to convert sulfur into mild sulfuric acid over time—acting like tiny acid dots attacking the soil chemistry to break down chemical bonds, lower pH, and release locked nutrients rather than binding clay into balls.
- **Timeframe:** Sulfur can take 3 to 6 months to act effectively because it relies heavily on warm soil temperatures and active micro-organisms.

The Cost & Value Difference:

A **5 lb. bag of Soil Sulfur** around (\$10.00) treats a small, concentrated area for temporary acidification.

A **40 lb. bag of Ultra Fine AG® Gypsum** (\$10.00) offers massive coverage and long-term structural soil conditioning at a fraction of the cost per square foot!

Benefits for Desert Trees, Shrubs & Lawns

1. **Creates Superior Drainage:** By loosening tight clay, water penetrates deeper into the root zone instead of pooling on top or running off into gutters.
2. **Combats Salt Damage:** Southwestern irrigation water and soils are high in sodium. The calcium in gypsum replaces sodium attached to clay particles, allowing the salt to be safely washed down below the root zone.

3. **Deep Root Growth for Trees:** Clay soils starve tree roots of oxygen. Gypsum opens air channels in the soil, allowing fruit trees, shade trees, and desert ornamentals to build deep, wind-resistant root structures.
4. **Boosts Fertilizer Efficiency:** Better soil structure means nitrogen and key micronutrients reach the feeder roots instead of washing away.

Directions for Use

Pre-Planting (Gardens, Flowers, Trees & Shrubs)

1. **Spread:** Broadcast the required amount of Ultra Fine AG® Gypsum evenly over the garden bed or planting area.
2. **Mix:** Work the gypsum into the top 6 to 8 inches of soil along with your organic soil amendments (*Dr. Q's® Paydirt™*).
3. **Water:** Water the area deeply for 2 to 3 days prior to planting to initiate the soil conditioning process.

Seasonal Lawn Application Schedule

Applying Ultra Fine AG® Gypsum to lawns prevents soil compaction caused by foot traffic and heavy irrigation, helping water reach grass roots during summer heat spikes.

- **Late Spring / Early Summer (June – July):** Apply 10 to 20 lbs. per 100 sq. ft. over established lawns. Summer heat causes clay soils to bake and shrink; a mid-year gypsum application maintains water penetration when lawns need moisture the most.
- **Spring & Fall Aeration (Feb – April & Sept – Oct):** For best results, broadcast gypsum immediately after **core aerating** your lawn. Core aeration creates open channels in the turf, allowing the ultra-fine gypsum powder to penetrate deep into the root zone and loosen sub-surface clay.
- **Pre-Seeding / Over-Seeding (Fall):** When over-seeding Bermuda grass with perennial ryegrass or seeding new fescue lawns, broadcast gypsum and water thoroughly for several days before spreading seed to establish an ideal seedbed.

Directions for Use

Existing Lawns & Established Landscapes

1. **Spread:** Broadcast 10 to 20 lbs. per 100 sq. ft. over existing turf or around the drip-line of established trees and shrubs using a standard fertilizer broadcast spreader.
2. **Water:** Water thoroughly for several days after application to wash the powder down into the root zone.

Application Guidelines & Rates

Ultra Fine AG® Gypsum works best when applied directly to soil or blended with organic composts (like *Dr. Q's® Paydirt™ Planting Mix*).

Application Rates (Per 100 Sq. Ft.)

- **Light Clay or Alkaline Soils:** 10 lbs. per 100 sq. ft.
- **Heavy Clay Soil:** 20 lbs. per 100 sq. ft.
- **Salt-Damaged Areas / High Alkali:** 30 lbs. per 100 sq. ft.