

Stuck in the Muck? Lime Dries Up Mud!

**A publication from the
National Lime Association**

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YOUR PROBLEM: Your construction job is BOGGED DOWN with MUD caused by SPRING THAWS or TOO MUCH RAIN. You're losing time AND MONEY!

You can't wait for the sun to dry up the wet soil. You may just get MORE RAIN. You may be working inside a building where the sun CAN'T dry up the mud. You don't want to dig up the mud and cart it away--too expensive and disruptive. LIME IS THE ANSWER!

THE SOLUTION: LIME! Lime, in the form of either quicklime or hydrated lime, dries up wet soil quickly, so that it can be compacted readily, forming a working table that will resist further wetting as well--you can get back to work!

LIME IS EFFECTIVE: Quicklime and hydrated lime are both highly effective in drying wet clay and silt soils. Highway contractors have found that lime expedites construction in rainy weather, due to its drying action and the formation of a firm working table. Building contractors have been discovering the same thing.

LIME IS A LOW COST SOLUTION: For most soil drying applications, approximately 3 to 5% lime (based on dry weight of soil) is required, depending on degree of wetness. This is about 5 to 10 lbs./sq. yd. for 6 in. of compacted depth. The result is a low cost solution when compared with other methods, especially when time is not on your side.

LIME IS CONVENIENT: Both quicklime and hydrated lime may be used for soil drying. Quicklime has somewhat greater drying capacity and dries more rapidly than hydrated lime. Quicklime is generally used in pebble form, but also in ground and granular forms. Hydrated lime is available in several types (e.g., Type N, or chemical lime, and Type S, or mason's lime), any of which may be used for drying. Lime is available in bulk or in bags. (Pulverized limestone, or "aglime," is not a substitute for lime for this use).

LIME IS EASY TO APPLY: Use of lime for drying has three simple steps: (1) lime spreading; (2) mixing lime and soil; and (3) compaction.

Lime Spreading. The most rapid lime spreading is achieved with a pneumatic bulk truck equipped with a spreader at the rear, or by other mechanical delivery of bulk lime. However, bagged



lime may also be used. Bags may be moved to the desired location and then emptied. In very wet conditions, the spread lime should be

left in place for 1 to 2 hours before mixing to permit the drying of excess water.

Mixing. After spreading, the lime and mud are mixed by a pulvimixer or similar equipment to a depth of 6 inches (or deeper in exceptionally spongy spots). Other equipment that can be used

for mixing includes: a front-end loader equipped with bucket teeth, scarifiers, and disc harrows.

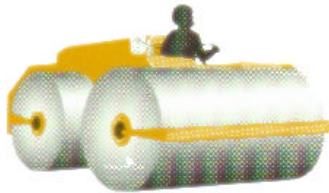
Several passes are made until the soil is dry



enough for compaction. By mixing a small area first, it is possible to

determine if the desired degree of drying is achieved. If not, the rate of application can be increased.

Compaction. Initial compaction is generally performed with a sheepsfoot roller, followed by a pneumatic or flat wheel roller. However, the lime-soil mixture may be dry enough for the latter rollers to do all compaction. For temporary haul roads, compaction with the sheepsfoot alone may suffice, since haulage trucks will provide additional compaction. If compaction is thorough, subsequent rains should not soften the treated subgrade, and it should not revert to mud.



FOR SMALL TROUBLE SPOTS: Small trouble spots may be dried up with hand labor. Bags of lime are emptied by hand, and mixed with rakes and hoes. Compaction is achieved by hand tampers. Often only 5 to 20 bags of lime are needed for such projects--a small price to pay to keep the job moving and eliminate costly rehandling of materials.

LIME CAN PREVENT MUD: The best solution to a mud problem is to prevent it from occurring in the first place. After initial grading of a building site, lime can be mixed into the soil and compacted. Then, if it rains, equipment will not bog down in mud. There is no slipping and

wheel spinning, and worker productivity and comfort are improved. (Lime is also an excellent choice for soil stabilization. Please write to the address below for information on that application.)

CARE RECOMMENDED: Because quicklime can cause burns, and hydrated lime can irritate skin and eyes, precautions should be taken when handling these products. Workers who handle, spread, and mix the lime should wear tight fitting goggles, gauntlet gloves, long sleeves, and pants tucked into boots. Wash off all lime dust from skin as soon as practical, but in case of contact with eyes flush out with clean water immediately and see a doctor. Protective cream is suggested for those with sensitive skin. Proper dust inhalation precautions should also be taken. Please consult the relevant Material Safety Data Sheet for more details.

IF MUD IS THE PROBLEM, LIME IS THE ECONOMICAL SOLUTION

So if mud is a problem, whether at a construction site, a floor foundation, or a haulage road, try LIME. It really works.

For further information and a list of lime producers, write the **NATIONAL LIME ASSOCIATION** at the address listed below, or go to <http://www.lime.org>.



Information Provided by



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