Rough and Loose

Surface preparation for compacted, bare disturbance

How to use this sheet	Use this as a quick companion while reading the Rough and Loose Restoration Course. It summarizes field observations and checks from the course topics; it does not replace a site assessment, design, equipment plan, or approval process.

What the treatment is

Create irregular holes and adjacent mounds, disturb compacted layers, and leave a rough, loose surface that can catch moisture, seed and organic matter.

Field sequence

Start at the upper end	Work progressively through the treatment area and keep excavated material beside the hole it came from.
Keep rows offset	Offset successive rows so the features do not form straight drainage paths.
Break compaction	Use a toothed bucket to shatter hardpan and compacted patches between paired holes and mounds.
Inspect coverage	Look for smooth, graded islands inside the treated zone and return to them before demobilizing.

Useful observations

- Substrate is smooth, compacted, bare or coarse and lacks safe microsites.
- Depressions can retain rainfall or snowmelt and mounds can catch windblown seed and debris.
- Steep or unstable areas may need a complementary soil-bioengineering treatment rather than surface preparation alone.

Common mistakes

- Smoothing the surface with a clean-up or grading bucket.
- Throwing excavated material downslope and separating each mound from its paired hole.
- Leaving continuous linear rows or untreated smooth sections.
- Treating a geochemical problem or active slope failure as if it were only a surface-texture problem.

Field check before you leave the site

[ ] Toothed bucket and operator plan confirmed	[ ] Paired hole-and-mound pattern is visible
[ ] Rows are offset rather than linear	[ ] Compacted patches are disrupted
[ ] No smooth islands remain in the treatment zone	[ ] Site constraints and complementary methods recorded

Limits and next step	The course describes approximate relief and examples of slope and area limits. Treat those as course-specific guidance, not a universal prescription: confirm current design parameters, access, geotechnical conditions and regulatory requirements for the actual site.

Grounded in current course topics. Sources: Open the course | Read the source topics