

SURFACE ROUGHENING

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service—Practice Code 609



SURFACE ROUGHENING

Surface roughening is performing tillage operations that create random roughness of the soil surface.

PRACTICE INFORMATION

Surface roughening applies on soils that have a surface layer suitable for clod formation and a high potential for wind erosion due to lack of surface cover. However, this practice is not intended for use as a primary erosion control practice.

The random roughness as referenced by this practice is non-oriented surface roughness often referred to as “cloudiness.” Such roughness is usually created by the action of tillage implements. The primary effects of random roughness are to raise the threshold wind speed at which erosion begins and to provide sheltered areas among soil clods where moving soil particles can be trapped.

The conservation practice standard and the local specifications cover the following items:

- Criteria applicable to reducing wind erosion, reducing dust emissions, and reducing soil deposition into surface water
- Criteria to protect plants from abrasion by wind blown soil particles

COMMON ASSOCIATED PRACTICES

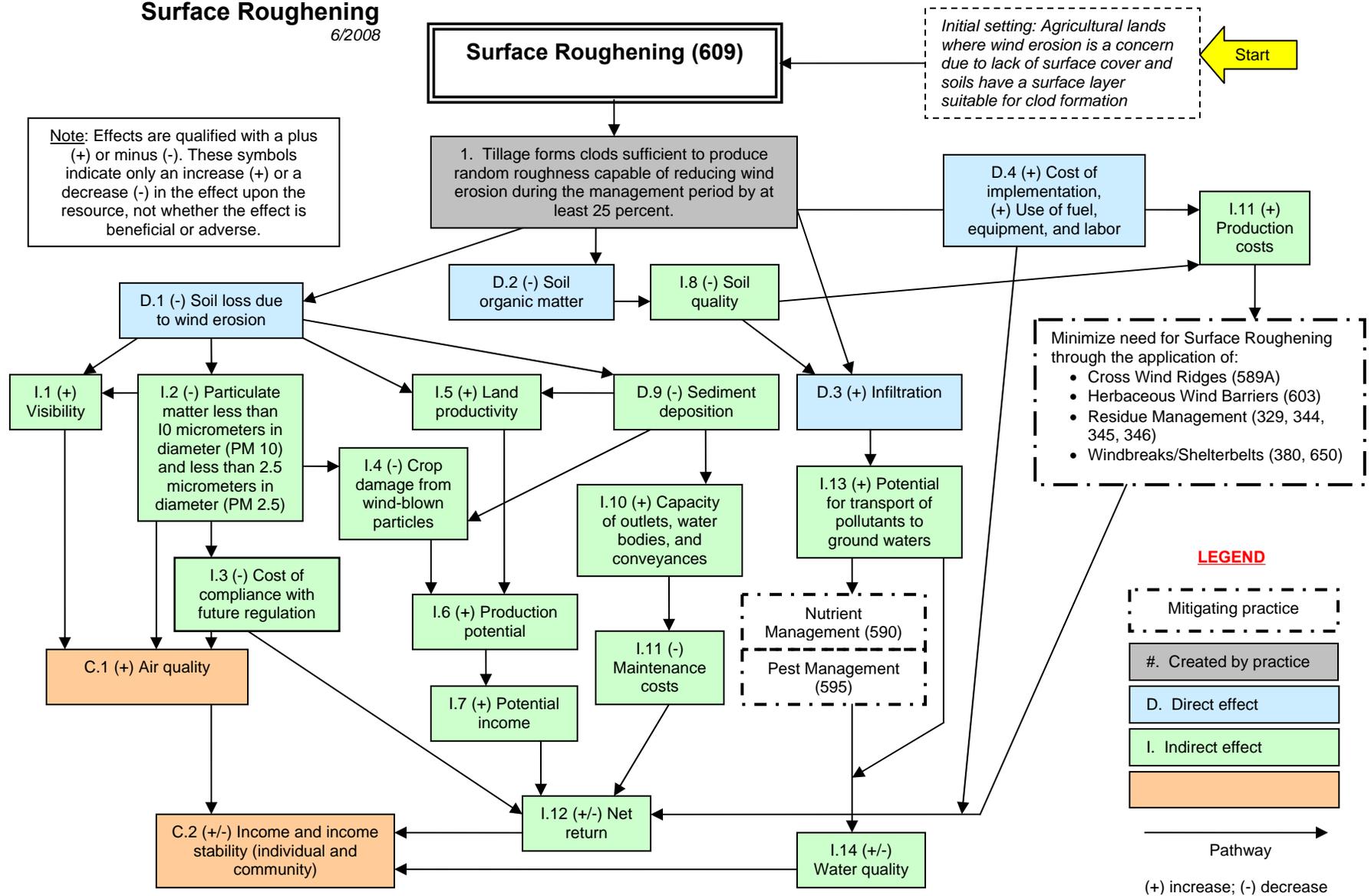
Surface Roughening is commonly planned as part of a Conservation Management System with Conservation Crop Rotation (328) and Residue Management (329, 344, 345, 346). Cross Wind Ridges (589A), Cross Wind Trap Strips (589C), Herbaceous Wind Barriers (603), Windbreak/Shelterbelt Establishment or Renovation (380, 650), and other practices may be included.

For further information, refer to the practice standard in the local Field Office Technical Guide and associated practice specifications and job sheets.

The following page identifies the effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowner and are presumed to have been obtained. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

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The diagram above identifies the effects expected to occur when this practice is applied according to NRCS practice standards and specifications. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. All appropriate local, State, Tribal, and Federal permits and approvals are the responsibility of the landowner and are presumed to have been obtained. All income changes are partially dependent upon market fluctuations which are independent of the conservation practices. Users are cautioned that these effects are estimates that may or may not apply to a specific site.