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*Review paper*

## **Mounding site preparation: A review of European and North American experience**

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**Key words:** mounding, mound, site preparation, plantation establishment, regeneration silviculture, planting spot, microsite

**Application.** Definition of the terminology related to mounding site preparation is important to interpreting the literature. A review of silvicultural experience with mounding helps forest managers to assess the applicability of such treatments to their forest regeneration programs.

**Abstract.** Mounding site preparation in the northern boreal and temperate regions is reviewed under the following headings: Terminology, History, Kinds of mounds, Effects of mounding, and Mound making.

### **Introduction**

Successful establishment of forest tree plantations is seldom possible without some kind of site preparation to ameliorate constraints that would otherwise unacceptably depress the survival or growth of outplants. Such constraints must be sufficiently diminished to secure the objectives of management by accommodating the biological requirements of the young trees. "Mounding" site preparation has been promoted as having potential for ameliorating several major constraints commonly experienced by young outplants in boreal and cool-temperate regions: competition from other vegetation; cold soil in the rooting zone; deficient soil aeration on wet sites; insufficient soil moisture on dry sites; and nutrient deficiency in the rooting zone of the outplants. However, the term "mounding" has been applied to a variety of silvicultural treatments in a variety of circumstances, with widely different biological consequences. The purpose of this paper is to review the European and North American experience with these practices.