ABSTRACT

TITLE:	Effects of Phytostabilization Soil Ammendment Application Techniques
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ABSTRACT: Eolian and hydrologic dispersal of mine tailings is highly destructive to the health of surrounding ecosystems, watersheds, and subsequent local populations. The objective of the study was to examine cost effective methods to reclaim these increasingly common mining wastes in a manner which moves through productive stages while building towards a state of climax or historic ecological communities. Using soils collected from mine tailings local to the Silverton area, organic matter and mycorrhizal fungi were added to soils by incorporation and topdressing methods to determine the overall utility of each. Subsequent germination/survivorship, height, and dry mass measurements were made. Height of barley plants exposed to organic matter and mycorrhizae was greater ($P<0.01$) than those not exposed. Likewise height of Birdsfoot trefoil plants exposed to organic matter and mycorrhizae was also greater ($P<0.05$). Resulting growth provides valuable forage for wildlife and adds much needed organic matter to developing soil communities.