California Coastal Sage and Scrub Restoration Using Biosolids Compost. (S07-grey004340-Oral)

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Abstract:

The effectiveness of biosolids compost as a means of enhancing the restoration of coastal sage scrub in disturbed areas in southern California was investigated in a field and greenhouse study. Field study treatments included incorporating 0, 50 and 100 tons of biosolids compost per acre equivalents to disturbed soils, which were subsequently imprinted with a coastal sage seed mix. The 50 and 100 tons of biosolids compost per acre treatments increased native coastal sage scrub plant cover after one growing season by 74% and 85% respectively. A pot study was conducted to investigate the effect of biosolids compost on germination, percent cover, height and biomass of Erigonium fasciculatum and Artemesia californica using ratios of 1:0, 0.67:0.33, 0.5:0.5, 0.33:0.67 and 0:1 mineral soil to biosolids compost. Increasing rates of biosolids compost were correlated with E. fasciculatum percent cover, biomass and seed germination. Increasing rates of biosolids compost were positively correlated with A. californica percent cover.

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