Start

Browse by Section/Division of Interest

View At a Glance

Author Index

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102751 Short-Term Effects of Municipal Sewage Sludge Extracts on Physiological Indicators of Italian Ryegrass Seedlings.

Poster Number 350-125

See more from this Division: SSSA Division: Soils and Environmental Quality
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Phoenix Convention Center North, Exhibit Hall CDE

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Abstract:

Municipal sewage sludge has long been utilized in agriculture as an environmentally sustainable alternative to the disposal of this urban reject. However, further increase in the employment of such a strategy has been hampered by recurrent contamination with toxic elements and prohibitive transportation costs when distant localities are to be reached. In order to mitigate such barriers, a study was carried out to verify the effects of municipal sewage sludge extracts on the physiological behavior of Italian ryegrass seedlings grown under controlled conditions. Plants showed a satisfactory development in the presence of pure sewage sludge and sludge extracts, but the water soluble fraction caused the best results when applied as a solution. It was concluded that the sewage sludge extracts are better suited as grass fertilizers and have advantages over the use of pure sludge directly into the soil, such as lower concentrations of pollutants, suitable pH to crops, and easier transportation at lower costs.

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<< Previous Abstract | Next Abstract >>