

عنوان مقاله:

A field study on the effect of organic soil conditioners with different placements on dry matter and yield of tomato
(*Lycopersicon esculentum* L).

محل انتشار:

مجله بین المللی بازیافت مواد آلی در کشاورزی، دوره 8، شماره 1 (سال: 1398)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

Purpose Four different types of composts were assessed in two methods of application for their potential to support organictomato yield.Methods A 2-year experiment was conducted using four different soil conditioners: cow manure (CM), household compost(HC), spent mushroom compost (SMC), and vermicompost (VC). Three different application rates (10, 20, and 30 t ha⁻¹ for all composts except VC and 3, 6, and 9 t ha⁻¹ for VC) were included as a second factor. Two methods of fertilizer placement(as a row behind the root area and broadcast on the field) were considered as a third factor.Results The yield was influenced by different soil conditioners and placement method in the first year; in the second year,just interactions were significantly different. Treatments with CM showed significantly higher tomato yield in the first year(103 t ha⁻¹) compared to other composts, but in the second year, SMC produced a higher yield (58 t ha⁻¹). The experimentindicated that the treatment with CM in high level with broadcast application had higher dry matter (DM) production(3.1 t ha⁻¹) in 2014, and treatment with CM in low rate and broadcast application had higher DM production (5.8 t ha⁻¹)in 2015.Conclusion Compost broadcast on the plots showed a higher yield production in case of similar rates and compost type. Theproper rate of compost application is dependent on the .method of compost placement

کلمات کلیدی:

Household compost · Organic farming · Soil conditioners · Spent mushroom compost · Vermicompost · Wastemanagement · Compost placement

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