

Title Growth, yield and postharvest quality of Aster (*Aster ericoides* L.) applied with municipal biowaste compost

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Abstract

The potential of using compost from the biodegradable waste (biowaste) of the municipality of Los Baños, Laguna was investigated for the production of aster (*Aster ericoides* L.). Aster plants were grown in different levels of compost (25%, 50% and 75%, volume basis) alone or in combination with inorganic fertilizer (60 g urea (46-0-0)/sq m and 20 g complete (14-14-14)/sq m) and their vegetative and reproductive growth. Yield and postharvest quality were determined. The addition of 25% compost alone or in combination with inorganic fertilizer gave the optimum results in terms of increase in height, length of flower stalk, flower stalk weight and number of secondary and tertiary panicle branches. Plants also exhibited 100% survival rate, bolting and flowering under those conditions which could be attributed to improved physical and chemical condition of the compost-treated soil. On the other hand, plants grown in 50% compost and in 75% compost in the presence or absence of inorganic fertilizer experienced low survival rate, stunted growth, yellowing and narrowing of leaves. The compost used was not mature as indicated by the high moisture content (58.5%) measured and foul odor detected in the product. This could be the reason for the poor growth performance of aster at higher levels of municipal biowaste compost. The end of the decorative or functional life of aster was on the 8th day under inorganic fertilizer and in 25% compost alone or in combination with inorganic fertilizer while all other treatments was on the 7th day. Changes in leaf color were significantly different among treatments. Weight loss of the flower stalks was highest in plants under inorganic fertilizer and lowest in plants in 25% compost alone. Overall, the best growth, yield and postharvest life of aster was recorded in plants grown in soils with 25% compost.