# The efficient use of household solid wastes compost. (A00-shindo180555-Poster)

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## Abstract:

A greenhouse experiment was conducted using mixture of soil and various composts. If compost produced from household solid wastes (HHSW) could significantly promote high agricultural yields, it would be an ideal situation for disporsal of HHSW, because high value products could be obtained from the biotechnological conversion process, at the same time garbage disposal problem could be minimized. Compost produced from HHSW did not promote biomass yield in our greenhouse experiment. To find out the causes for these results, and to seek the efficient use of HHSW, nitrogen and phosphorus content in plants and growth media, water holding capacity of growth media, and pH of ground tomato biomass and its growth media were examined. The characteristics of HHSW compost were: high water holding and retaining capacity; strong hydrophobicity when dry; slightly high nutrient content but slow release of nutrients; and relatively high pH and buffer capacity. But it may contain available heavy metals. Addition of fish waste and wood fiber to recompost the HHSW compost with inoculation of mixed microorganisms during composting was found to produce ideal growth media for plants, for it could reduce risks from heavy metals, lower pH, provide readily available nutrients, and increase soil aggregate stability and water utilization efficiency.

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