# Study of pathogen on the manure and kitchen refuse

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## Abstract

Application of organic fertilizers such as compost in crop production has been increased drastically. However, the pathogenic bacteria in composts may transfer into plant tissue and cause severe public health problems if the composts are nor treated properly. The primary purpose of this study is to survey the coliform, fecal coliform and Salmonella contents in kitchen refuse and manure. An isolated coliform, *Klebsiella* sp. Was used in pot experiment to test its survival in soil and Chinese cabbage.The result show that composts with chicken manure, can be graded into class A compost ratio of 53%, significantly higher than only with pig manure (12%) or only cow dung compost (21%) .The fecal coliform content in the middle of kitchen refuse compost in Taichung area was reduced from $2.5 \times 10^7$ cfu $g^{-1}$ (at first week) to $7.9 \times 10^3$ cfu $g^{-1}$ (at seventh week) which was close to the criteria of class A compost. *Klebsiella* sp. Survived longer in compost amended soil than in chemical fertilized soil.The amount of *Klebsiella* sp. in the plant was increased with increasing of inoculation frequency.

**Key words：** Pathogen、manure、kitchen refuse、*Klebsiella* sp.