

## **B-22 Effect of animal manures on vegetable cultivation in the upcountry**

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A long-term field experiment was conducted to study the individual and combined effects of animal manure and chemical fertilizers on the performance of vegetable crops at Bandarawela. The animal manures (cattle and poultry manure) were evaluated for the cropping sequence, pole bean, tomato, cabbage, potato, pole bean, tomato, cabbage and potato over 8 seasons commencing from Yala 1992 to Maha 95/96. No manure, 10 t/ha poultry manure, 10 t/ha cattle manure and 5 t/ha poultry manure + 5 t/ha cattle manure were factorially combined with and without chemical fertilizers and tested in a Randomized Complete Block Design with 3 replicates.

All crops, gave the highest yield response to addition of 10 t/ha poultry manure followed by 5 t/ha poultry manure + 5 t/ha cattle manure and 10 t/ha cattle manure. In general, all organic manures showed increased efficiency in combination with chemical fertilizers. However, the highest yield of crops was obtained by the addition of 10 t/ha poultry manure in combination with chemical fertilizers. Though the application of poultry manure increased the soil pH, P and K content, the soil improvement was very low with the application of cattle manure. These findings demonstrate that poultry manure is a better organic fertilizer than cattle manure for vegetable cultivation in the upcountry.

## **B-23 Water quality of selected wells in the upcountry of Sri Lanka**

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Farmers in the upcountry use high rates of chemical and organic fertilizers. Therefore, drinking water could be polluted with different plant nutrients.