

B-127 Effect of foliar fertilizer on the yield of potato and vegetables

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In general, income generated from potato and vegetable production in the upcountry is high when compared to that from rice and most other field crops. Therefore, the use of both organic and chemical fertilizer is a common practice in the upcountry. However, addition of foliar fertilizers even after application of high rates of organic and inorganic fertilizer is also a common practice in this region. This experiment is therefore, designed to find out the beneficial effects of using foliar fertilizers with and without poultry manure and chemical fertilizers on potato and vegetable cultivation.

A long-term field experiment was conducted to study the beneficial effects of foliar fertilizer on vegetable cultivation, when poultry manure and chemical fertilizers were used. Poultry manure was applied at the rate of 10 t/ha. Foliar fertilizer used was "Maxicrop". Poultry manure 10 t/ha + NPK chemical fertilizer was compared with NPK chemical fertilizer, poultry manure 10 t/ha, foliar fertilizer alone, foliar fertilizer + poultry manure 10 t/ha + NPK chemical fertilizer (farmer practice).

In addition, a control plot without any fertilizer was also included in the trial design. These treatments were tested in a Randomized Complete Block Design with 3 replicates. Tomato, cabbage, pole bean and potato were grown in a sequence commencing Yala 1995.

The application of foliar fertilizer alone did not increase the yield of crops. The highest yield of tomato (52.8 t/ha), cabbage (63.7 t/ha), pole bean (21.9 t/ha) and potato (9.9 t/ha) were obtained with 10 t/ha poultry manure + NPK chemical fertilizers. The application of foliar fertilizer + 10 t/ha poultry manure + NPK chemical fertilizer produced 37.7 t/ha tomato, 62.9 t/ha cabbage, 16.6 t/ha pole bean and 9.2 t/ha potato.

These findings demonstrate that application of foliar fertilizer is not beneficial for potato and vegetables if 10 t/ha poultry manure and recommended chemical fertilizer are used.