

## Research Article

# Effect of phosphorus and molybdenum on yield and nutrient uptake by cowpea

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### Summary

A field experiment was carried out to assess the growth, yield and chemical traits of cowpea cv. Russian Jiant. The experiment was laid out in Randomized Block Design with three replications for cowpea crop consisted of 16 treatments namely, Control, POMO<sub>1</sub> (0.00kg, 2.50mg), POMO<sub>2</sub> (0.00kg, 5.00mg), POMO<sub>3</sub> (0.00kg, 10.00mg), PO<sub>1</sub> MO<sub>0</sub> (20.00kg, 0.00mg), PO<sub>1</sub> MO<sub>1</sub> (20.00kg, 2.50mg), PO<sub>1</sub> MO<sub>2</sub> (20.00kg, 5.00mg), PO<sub>1</sub> MO<sub>3</sub> (20.00kg, 10.00mg), PO<sub>2</sub> MO<sub>0</sub> (40.00kg, 0.00mg), PO<sub>2</sub> MO<sub>1</sub> (40.00kg, 2.50mg), PO<sub>2</sub> MO<sub>2</sub> (40.00kg, 5.00mg), PO<sub>2</sub> MO<sub>3</sub> (40.00kg, 10.00mg), (60.00kg, 0.00mg), PO<sub>3</sub> MO<sub>1</sub> (60.00kg, 2.50mg), PO<sub>3</sub> MO<sub>2</sub> (60.00kg, 5.00mg), PO<sub>3</sub> MO<sub>3</sub> (60.00kg, 10.00mg) to find out the effect of the growth, yield and chemical nutrient combinations on plant height (cm), number of leaves/plant, green foliage, dry matter, N, P (Nutrient content %), K, MO (Nutrient content %), N, P (Nutrient uptake), and K, MO (Nutrient uptake). However, the application of phosphorus and molybdenum had a significant influence on plant growth, yield and chemical nutrient attributes of cowpea and the soil application of 60kg/ha phosphorus and single super phosphate for obtaining higher production of cowpea fodder crop. Application of phosphorus improved the content of N, P, K and MO by cowpea. Similarly the content and uptake of these nutrients increased with higher level of molybdenum.

**Key words :** Cowpea, Phosphorus, Molybdenum, Growth, Yield

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