

**Response of Growth and Production of Cowpeas (*Vigna unguiculata* (L.) Walp)
to the Application of Goat Manure and Straw Mulch**

Supervised by Andarula Galushasti S.ST., M.Tr.P.

Yani Hasanah Priyanti

Study Program of Food Crop Production Technology
Department of Agricultural Production

ABSTRACT

Cowpea plants have the ability to grow on various types of soil and are quite resistant to dry conditions. In addition, cowpea cultivation requires lower production costs compared to soybean cultivation. Efforts to increase cowpea production can be done through fertilization using goat manure and the addition of appropriate straw mulch, so that it is expected to support increased crop yields. This study aims to determine the effect of goat manure and straw mulch on the growth and production of cowpeas. The study was conducted for four months, from August to November 2024, on the agricultural land of the Jember State Polytechnic, Sumbersari District, Jember. The experiment used a factorial randomized block design (RAK) with two factors, namely goat manure and straw mulch, each of which was repeated three times. The dose of goat manure fertilizer consisted of five levels: 0 g/plant, 90 g/plant, 110 g/plant, 130 g/plant, and 160 g/plant. Meanwhile, the mulch treatment consisted of silver plastic mulch and straw mulch. The results showed that the administration of goat manure fertilizer with a dose of 160 g/plant gave the highest results in observations of plant height at 35 HST, number of pods per sample plant, wet pod weight per sample plant, wet pod weight per plot, dry pod weight per sample plant, dry pod weight per plot, dry seed weight per sample plant, dry seed weight per plot, and 100 seed weight per plot. The straw mulch treatment factor did not show a significant effect on all observation variables. In addition, the interaction between the administration of goat manure fertilizer and mulch did not show a significant effect on all observed parameters..

Keyword: *Cowpeas, Goat Manure, and Straw Mulch.*