

ABSTRAK

Tanaman kopi merupakan salah satu komoditi perkebunan yang banyak dibudidayakan di Indonesia dan memiliki nilai ekonomis yang cukup tinggi diantara komoditi perkebunan lainnya. Ada beberapa jenis kopi yang dibudidayakan di Indonesia, diantaranya adalah kopi Robusta, kopi Arabika, dan kopi Liberika. Kopi Liberika dapat beradaptasi dan hidup dengan baik di lahan marginal seperti lahan gambut. Selain lahan gambut, jenis lahan marginal lainnya yang banyak tersebar di Provinsi Jambi adalah lahan Ultisol. Upaya ekstensifikasi tanaman kopi Liberika ke lahan ultisol diperlukan untuk memperluas lahan tanaman kopi Liberika dan memanfaatkan lahan marginal yang tersebar luas di Provinsi Jambi. Pada lahan ultisol diperlukan input berupa amelioran seperti pupuk kotoran sapi agar dapat digunakan sebagai lahan yang produktif. Pupuk kotoran sapi memiliki kandungan unsur hara N, P, dan K yang dibutuhkan oleh tanaman. Tujuan penelitian ini adalah mempelajari respons pertumbuhan tanaman kopi Liberika pada pemberian pupuk kotoran sapi di lahan Ultisol, dan mendapatkan dosis pemberian pupuk kotoran sapi dengan pertumbuhan tanaman kopi Liberika terbaik di lahan Ultisol.

Penelitian ini dilaksanakan di Kebun Percobaan *Teaching and Research Farm* Fakultas Pertanian Universitas Jambi, Desa Mendalo Indah, Kecamatan Jambi Luar Kota, Kabupaten Muaro Jambi, Provinsi Jambi dengan jenis tanah Ultisol pada ketinggian ± 35 meter di atas permukaan laut. Penelitian ini dilaksanakan pada bulan Februari sampai dengan Mei 2025. Rancangan Acak Kelompok (RAK) yang terdiri dari 1 faktor dan 5 taraf yaitu : tanpa pupuk kotoran sapi, 5 kg pupuk kotoran sapi per tanaman, 10 kg pupuk kotoran sapi per tanaman, 15 kg pupuk kotoran sapi per tanaman, 20 kg pupuk kotoran sapi per tanaman. Setiap perlakuan diulang sebanyak 4 kali sehingga terdapat 20 satuan percobaan. Setiap satuan percobaan terdiri dari 4 tanaman, diantaranya 2 tanaman sampel sehingga didapatkan 40 tanaman sampel dari 80 tanaman keseluruhan. Setiap tanaman dikelompokkan berdasarkan tingginya sehingga diperoleh 4 kelompok, yaitu kelompok I dengan tinggi bibit 48-59 cm, kelompok II dengan tinggi bibit 60-69 cm, kelompok III dengan tinggi bibit 70-79 cm, dan kelompok IV dengan tinggi bibit 80-89 cm.

Hasil penelitian menunjukkan bahwa terdapat respons pertumbuhan tanaman kopi Liberika pada pemberian pupuk kotoran sapi di lahan Ultisol. Dosis 15 kg pupuk kotoran sapi per tanaman merupakan dosis dengan penambahan tinggi tanaman, jumlah daun dan jumlah cabang terbaik terhadap pertumbuhan tanaman kopi Liberika di lahan Ultisol.

Kata kunci : *Kopi Liberika, pupuk kotoran sapi, lahan Ultisol*

ABSTRACT

Coffea plants are one of the plantation commodities that are widely cultivated in Indonesia and have a fairly high economic value among other plantation commodities. There are several types of coffea cultivated in Indonesia, including Robusta coffea, Arabica coffea, and Liberica coffea. Liberica coffea can adapt and grow well on marginal land such as peatlands. In addition to peatlands, other types of marginal land that are widely spread in Jambi Province are Ultisol lands. Efforts to extend Liberica coffea plants to ultisol lands are needed to expand Liberica coffea plantations and utilize marginal lands that are widely spread in Jambi Province. On ultisol lands, input in the form of ameliorants such as cow dung fertilizer is needed so that it can be used as productive land. Cow dung fertilizer contains the nutrients N, P, and K needed by plants. The purpose of this study was to study the growth response of Liberica coffea plants to the provision of cow dung fertilizer on Ultisol land, and to obtain the dose of cow dung fertilizer with the best growth of Liberica coffea plants on Ultisol land.

This research was conducted at the Teaching and Research Farm Experimental Garden, Faculty of Agriculture, University of Jambi, Mendalo Indah Village, Jambi Luar Kota District, Muaro Jambi Regency, Jambi Province with Ultisol soil type at an altitude of ± 35 meters above sea level. This research was conducted from February to May 2025. Randomized Block Design (RAK) consisting of 1 factor and 5 levels, namely: without cow dung fertilizer, 5 kg of cow dung fertilizer/plant, 10 kg of cow dung fertilizer/plant, 15 kg of cow dung fertilizer/plant, 20 kg of cow dung fertilizer/plant. Each treatment was repeated 4 times so that there were 20 experimental units. Each experimental unit consisted of 4 plants, including 2 sample plants so that 40 sample plants were obtained from a total of 80 plants. Each plant is grouped based on its height so that 4 groups are obtained, namely group I with a seedling height of 48-59 cm, group II with a seedling height of 60-69 cm, group III with a seedling height of 70-79 cm, and group IV with a seedling height of 80-89 cm.

The results of the study showed that there was a response to the growth of Liberica coffea plants in the provision of cow dung fertilizer on Ultisol land. A dose of 15 kg of cow dung fertilizer/plant is the dose with the best increase in plant

height, number of leaves and number of branches for the growth of *Liberica coffea* plants on Ultisol land.

Keywords: *Liberica coffea*, cow dung fertilizer, Ultisol land