

RINGKASAN

Kopi adalah salah satu komoditas yang memiliki nilai ekonomis yang cukup tinggi dan menjadi komoditas strategis di Indonesia. Kualitas kopi arabika sangat dipengaruhi oleh manajemen teknik budidayanya. Kecamatan Pejawaran merupakan wilayah yang potensial dalam pengembangan perkebunan kopi, namun kurangnya pengelolaan menyebabkan hasil kurang optimal. Dalam pengembangan tanaman kopi diperlukan teknik budidaya yang tepat agar produktivitas kopi meningkat. Dalam merancang teknik budidaya yang tepat, harus mengetahui permasalahan mendasar yang ada didaerah tersebut, contohnya kesuburan tanah, aspek budidaya serta karakter fisiologis tanaman sehingga data tersebut dapat dilanjutkan untuk menerapkan suatu teknik yang tepat. Penelitian ini bertujuan untuk: 1) mengetahui keragaan dan manajemen teknik budidaya kopi arabika di desa sarwodadi 2) mengetahui pengaruh perbedaan ketinggian terhadap hasil dan karakter fisiologis kopi di Desa Sarwodadi 3) mengetahui pengaruh kondisi lingkungan terhadap hasil dan karakter fisiologis kopi di Desa Sarwodadi.

Penelitian ini dilaksanakan pada bulan Juli sampai bulan September 2019 di Laboratorium Agronomi Fakultas Pertanian Universitas Jenderal Soedirman. Sampel tanaman kopi diambil dari perkebunan rakyat diwilayah Pejawaran, Banjarnegara. Pemilihan lokasi penelitian dilakukan dengan Teknik survei dengan rancangan pengambilan sampel dilakukan menurut pola *stratified random sampling* merupakan proses pengambilan sampel melalui proses pembagian populasi kedalam strata. Strata yang dimaksudkan dalam penelitian ini yaitu berdasarkan ketinggian tempat. Pelaksaan penelitian di bagi dalam 4 strata ketinggian yaitu strata 1 pada ketinggian 800 m dpl, strata 2 pada ketinggian 1,000 m dpl, strata 3 pada ketinggian 1,200 m dpl, dan strata 4 pada ketinggian 1,400 m dpl dimana dari masing-masing ketinggian diambil 8 tanaman sampel yang di amati. Variabel yang diamati meliputi tinggi tanaman, jumlah biji perdompol, hasil pertanaman, bobot perbiji, stomata dan kandungan klorofil. Data pengamatan dianalisis dengan menggunakan uji F pada taraf kesalahan 5%, jika berbeda nyata dilanjutkan dengan uji DMRT. Analisis korelasi sederhana digunakan untuk mempelajari derajat dan bentuk hubungan perbedaan ketinggian terhadap hasil dan karakter fisiologis tanaman kopi.

Hasil penelitian menunjukkan bahwa Keragaan budidaya di Desa Sarwodadi sangat beragam dan belum sesuai dengan budidaya kopi yang baik, para petani hanya mengambil hasil tanpa melakukan perawatan optimal seperti yang di anjurkan. Ketinggian 1200 meter di atas permukaan laut memiliki hasil yang paling baik terhadap karakter fisiologis dan hasil dengan rata-rata hasil 6,04kg/tanaman, bobot 8,42g/biji, kerapatan stomata 191,68 unit/mm² dan bukaan stomata 3,28 μm .

SUMMARY

Coffee is a commodity that has a high economic value and is a strategic commodity in Indonesia. The quality of Arabica coffee is greatly influenced by the management of its cultivation techniques. Pejawaran sub-district is a potential area in the development of coffee plantations, but the lack of management causes less than optimal results. In developing coffee plants, proper cultivation techniques are needed so that coffee productivity increases. In designing appropriate cultivation techniques, it must know the underlying problems that exist in the area, for example soil fertility, cultivation aspects and plant physiological characteristics so that the data can be continued to apply an appropriate technique. This study aimed to : 1) determine the performance and management of Arabica coffee cultivation techniques in Sarwodadi Village 2) Determine the effect of altitude differences on the yield and physiological characteristics of coffee in Sarwodadi Village 3) Determine the effect environmental conditions on yield and physiological character of coffee in Sarwodadi Village.

This research was carried out in July to September 2019 in the Laboratory of Agronomy, Faculty of Agriculture, Jenderal Soedirman University. Coffee plant samples were taken from plantations of the people in Pejawaran area, Banjarnegara. The selection of research sites was carried out by survey technique with the design of sampling carried out according to the stratified random sampling pattern, which was the process of taking samples through the process of dividing the population into strata. Strata that are intended in this study are based on altitude. The research was divided into 4 strata, namely strata 1 at 800 meters above sea level, strata 2 at 1,000 meters above sea level, strata 3 at 1,200 meters above sea level, and strata 4 at 1,400 meters above sea level where from each height 8 sample plants were taken. The observed variables included plant height, number of seeds per wet, crop yields, seed weight, stomata and chlorophyll content. Observation data were analyzed using the F test at an error level of 5%, if significantly different continued with the DMRT test. Simple correlation analysis was used to study the degree and shape of the relationship of height differences to the yield and physiological characteristics of coffee plants.

The results showed that the performance of cultivation in Sarwodadi Village was very diverse and not yet in accordance with good coffee cultivation, farmers only took the results without carrying out the optimal maintenance as suggested. An altitude of 1200 meters above sea level has the best results on physiological characters and yields with an average yield of 6.04kg / plant, a seed weight 8.42g, a stomata density of 191.68 unit/mm² and a stomata opening of 3.28 μ m.