

## RINGKASAN

Kopi Robusta dapat tumbuh optimal pada ketinggian 400-1.000 meter di atas permukaan laut (m dpl) dengan temperatur 21-24°C. Curah hujan yang sesuai untuk tanaman kopi adalah 2.000-3.000 mm per tahun dengan rata-rata bulan kering 1-3 bulan, akan tetapi harus masih ada hujan. Desa Sarwodadi dikenal sebagai daerah pegunungan dengan ketinggian tempat yaitu 900-1600 m dpl. Pola budidaya yang dilakukan di Desa Sarwodadi Kecamatan Pejawaran dinilai masih kurang baik dan tergolong konvensional. Karakter agronomis tanaman kopi robusta dipengaruhi oleh beberapa faktor salah satunya yaitu elevasi atau ketinggian tempat. Penelitian ini bertujuan untuk: 1) mengetahui dan mengkaji pola budidaya kopi robusta di Desa Sarwodadi, 2) mengetahui dan mengkaji perbedaan karakter fisiologis dan agronomis tanaman kopi robusta di beberapa ketinggian tempat Desa Sarwodadi, 3) mengetahui dan mengkaji hubungan antara karakter fisiologi dan agronomis kopi robusta di dataran tinggi Desa Sarwodadi.

Penelitian ini dilaksanakan pada bulan Juli sampai bulan September 2019 di kebun kopi Desa Sarwodadi, Kecamatan Pejawaran, Kabupaten Banjarnegara. Pemilihan lokasi penelitian dilakukan dengan melakukan survei dimana terpilih 3 ketinggian tempat yang memiliki jumlah tanaman kopi yang lebih besar atau memiliki jumlah populasi yang memadai. Lokasi penelitian tersebut meliputi ketinggian 1.000 m dpl, 1.200 m dpl dan 1.400 m dpl, sampel tanaman yang diambil adalah 10% dari total populasi tanaman. Variabel yang diamati meliputi tinggi tanaman, diameter batang, jumlah cabang produktif, jumlah tandan per tanaman, stomata, kandungan klorofil dan hasil per tanaman.

Hasil penelitian menunjukkan bahwa Ketinggian tempat 1.000 m dpl memiliki kandungan klorofil, jumlah tandan per tanaman dan hasil per tanaman lebih baik daripada ketinggian lainnya yaitu 20,95 mg/g, 8,64 mg/g, 113 dan 6,64 kg. Kandungan klorofil a dan b berhubungan sangat kuat positif terhadap jumlah tandan. Bukaan stomata berhubungan kuat positif terhadap jumlah cabang produktif. Tinggi tanaman berhubungan kuat negatif terhadap cabang produktif dan jumlah tandan. Diameter batang berhubungan kuat positif terhadap jumlah tandan. Jumlah cabang produktif berhubungan sangat kuat positif terhadap hasil.

## SUMMARY

*Robusta coffee can grow optimally at an altitude of 400-1,000 meters above sea level (m asl) with a temperature of 21-24 °C. Appropriate rainfall for coffee plants is 2,000-3,000 mm per year with an average dry month of 1-3 months, but there must still be rain. Sarwodadi village is known as a mountainous area with a height of 900-1600 m above sea level. The cultivation patterns carried out in Sarwodadi Village, Pejawaran District, are considered to be still inadequate and conventional. The agronomic characteristics of Robusta coffee plants are influenced by several factors, one of which is the elevation or altitude. The aims of this research were to: 1) study the robusta coffee cultivation patterns in Sarwodadi Village, 2) study the different physiological and agronomic characteristics of Robusta coffee plants at several altitude in Sarwodadi Village, 3) study the correlation between physiological characters and agronomic coffee Robusta in the highlands of Sarwodadi Village.*

*This research was conducted in the small holder coffee plantation of Sarwodadi Village from July to September 2019, Pejawaran District, Banjarnegara Regency. The selection of research sites was carried out by conducting a survey where 3 altitudes were selected that had a greater number of coffee plants or had an adequate population. The research sites include 1,000 m asl, 1,200 m asl and 1,400 m asl, plant samples taken were 10% of the total plant population. The observed variables were plant height, stem diameter, number of productive branches, number of bunches per plant, stomata density, stomata openings, content of chlorophyll a, content of chlorophyll b and yield per plant.*

*The results showed that the altitude of 1,000 m asl had chlorophyll content, the number of bunches per plant and yield per plant was higher than the other heights of 20.95 mg / g, 8.64 mg / g, 113 and 6.64 kg. The content of chlorophyll a and b have very strongly correlation to the positive number of bunches. Stomata openings have positively correlation to the number of productive branches. Plant height have negatively correlation to productive branches and bunches. The stem diameter have positively correlation to the number of bunches. The number of productive branches have very strongly correlation to the positive results.*