

RINGKASAN

Banjarnegara merupakan penghasil kopi arabika terbesar ke tiga di Jawa Tengah memiliki beberapa jenis kopi arabika unggulan salah satunya adalah Kopi Leksana. Kopi Leksana di produksi oleh kelompok tani Sari Tani di Desa Leksana, Kecamatan Karangobar, Banjarnegara. Mayoritas petani memasarkan produk mereka dalam bentuk produk primer. Hanya sebagian kecil petani yang mengembangkan bisnis di bidang pengolahan kopi dan kemudian menjual produk dalam bentuk produk olahan seperti kopi sangrai. Pemrosesan produk kopi perlu dikembangkan untuk meningkatkan nilai tambah produk dan pendapatan petani. Menurut Zain (2019) distribusi keuntungan dari nilai tambah paling besar dihasilkan oleh *roasted bean*. Namun di pasaran, kedai-kedai kopi lebih menyukai untuk membeli produk olahan *green bean* dari kelompok tani Sari Tani dibandingkan produk *roasted bean*. Selain itu, Penyajian kopi lokal Leksana Banjarnegara hingga saat ini masih disajikan dengan cara konvensional yang tidak memperhatikan citarasa kopi yang dihasilkan dengan optimal, karena hanya menyeduh kopi dengan air panas dengan suhu yang tidak diperhatikan atau dengan suhu air yang sangat tinggi. Oleh sebab itu, guna memperoleh citarasa kopi arabika lokal Leksana Banjarnegara yang optimal, maka diperlukan penelitian tentang level penyangraian kopi dan penyeduhan. Penelitian ini bertujuan untuk 1) mengetahui pengaruh variasi level penyangraian terhadap karakteristik fisikokimia kopi arabika lokal Leksana Banjarnegara, 2) mengetahui pengaruh variasi suhu penyeduhan terhadap karakteristik fisikokimia kopi arabika lokal Leksana Banjarnegara, 3) mengetahui interaksi antara variasi level penyangraian dan level suhu penyeduhan, 4) Mengetahui kombinasi terbaik dari variasi level penyangraian dan suhu penyeduhan terhadap karakteristik fisikokimia dan sensori kopi arabika lokal Leksana Banjarnegara.

Penelitian dilaksanakan secara eksperimental di Laboratorium Teknologi Pertanian, Jurusan Ilmu dan Teknologi Pangan, Fakultas Pertanian, Universitas Jenderal Soedirman. Waktu penelitian dilaksanakan dari bulan Desember 2019 sampai Maret 2020. Penelitian menggunakan metode Rancangan Acak Lengkap (RAL) yang disusun secara faktorial dengan 9 kombinasi perlakuan dan diulang 3 kali sehingga menghasilkan 27 unit percobaan. Faktor yang diteliti meliputi variasi level penyangraian (R) yang terdiri dari *light* (R1), *medium* (R2), *dark* (R3) dan suhu penyeduhan (B) yang terdiri dari 75°C (B1), 85°C (B2), 95°C (B3).

Hasil penelitian menunjukkan bahwa pada proses penyangraian kopi arabika lokal Leksana Banjarnegara memberikan pengaruh yang nyata terhadap kadar air dan nilai pH. Berdasarkan hasil penelitian kadar air pada kopi arabika Leksana Banjarnegara sudah memenuhi standar SNI yaitu maksimal 7%, nilai pH perlakuan terbaik pada proses penyangraian tingkat *dark* dimana nilai pH mendekati pH netral. Pada proses penyeduhan suhu seduh berpengaruh nyata terhadap total fenol, kopi yang diseduh dengan suhu 95°C menghasilkan total fenol yang tinggi yaitu 87,46 mg/100gr. Interaksi antara perlakuan penyangraian dan penyeduhan memberikan pengaruh yang nyata terhadap kadar kafein dan total fenol, kadar

kafein terendah dihasilkan oleh perlakuan R3B2 sebesar 0,62 %, yang menghasilkan total fenol tertinggi adalah perlakuan R2B3 sebesar 87,46 mg/100gr. Kombinasi perlakuan terbaik berdasarkan perhitungan dengan menggunakan indeks efektivitas dari aspek fisikokimia dan sensori yaitu pada penyangraian tingkat *medium* (R2) dan suhu penyeduhan 95°C (B3) yang memiliki karakteristik fisikokimia dan sensori sebagai berikut: kadar kafein 0,78 %, total fenol 87,46 mg/100gr, nilai pH 5,5, warna 4 (suka), aroma 4 (suka), rasa 4 (suka), kepahitan 3 (agak suka), dan keasaman 3 (agak suka).



SUMMARY

Banjarnegara is the third largest producer of Arabica coffee in Central Java. It has several types of superior Arabica coffee, one of which is Leksana Coffee. Leksana coffee is produced by the Sari Tani farmer group in Leksana Village, Karangobar District, Banjarnegara. The majority of farmers market their products in the form of primary products. Only a small proportion of farmers develop a business in coffee processing and then sell products in the form of processed products such as roasted coffee. The processing of coffee products needs to be developed to increase the added value of products and farmers' income. According to Zain (2019) the distribution of profits from the greatest added value generated by roasted beans. However, in the market, coffee shops prefer to buy processed green bean products from Sari Tani farmer groups compared to products roasted bean. In addition, the serving of local coffee from Leksana Banjarnegara is still served in a conventional manner that does not pay attention to the optimal taste of the coffee produced, because it only makes coffee with hot water with an unnoticed temperature or with a very high water temperature. Therefore, in order to get the optimal taste of local Arabica coffee from Leksana Banjarnegara, it is necessary to research on the level of coffee roasting and brewing. This study aims to 1) determine the effect of roasting level variations on the physicochemical characteristics of local arabica coffee Leksana Banjarnegara, 2) determine the effect of brewing temperature variations on the physicochemical characteristics of Leksana Banjarnegara local arabica coffee, 3) determine the interaction between variations in roasting levels and brewing temperature levels, 4) Knowing the best combination of variations in roasting level and brewing temperature on the physicochemical and sensory characteristics of local Arabica coffee, Leksana Banjarnegara.

The research was carried out experimentally at the Agricultural Technology Laboratory, Department of Food Science and Technology, Faculty of Agriculture, Jenderal Soedirman University. The research was conducted from December 2019 to March 2020. The research used a completely randomized design method (CRD) which was arranged factorial with 9 treatment combinations and repeated 3 times to produce 27 experimental units. The factors studied included variations in roasting levels (R) consisting of light (R1), medium (R2), dark (R3) and brewing temperature (B) consisting of 75°C (B1), 85°C (B2), 95°C (B3).

The results showed that the roasting process of local arabica coffee, Leksana Banjarnegara, had a significant effect on water content and pH value. Based on the results of the research, the water content in the Arabica Leksana Banjarnegara coffee has met the SNI standard, namely a maximum of 7%, the pH value of the best treatment is in the level roasting process dark where the pH value is close to neutral pH. In the brewing process, the brewing temperature had a significant effect on the total phenol, coffee brewed at a temperature of 95°C resulted in a high total phenol of 87.46 mg/100gr. The interaction between roasting and brewing treatments gave a significant impact on caffeine and total phenol levels, the lowest

caffeine content produced by R3B2 treatment was 0.62%, which produced the highest total phenol was R2B3 treatment of 87.46 mg/100gr. The best treatment combination is based on calculations using the effectiveness index from physicochemical and sensory aspects, namely at level roasting medium (R2) and brewing temperature 95°C (B3) which have physicochemical and sensory characteristics as follows: caffeine content of 0.78%, total phenol 87,46 mg/100gr, pH value of 5.5, color 4 (like), aroma 4 (like), taste 4 (like), bitterness 3 (rather like), and acidity 3 (rather like).

