

ABSTRAK

Haifa Azzahra Sasmita. 2026. Respon Tanaman Semangka Kuning (*Citrullus lanatus* L.) Terhadap Kombinasi Dosis Tepung Tulang Ayam Dengan Pemangkasan Cabang. Dibimbing oleh Yati Setiati Rachmawati dan Cecep Hidayat.

Penggunaan pupuk anorganik secara terus-menerus berpotensi menurunkan kualitas tanah sehingga diperlukan alternatif pemupukan yang lebih berkelanjutan. Tepung tulang ayam merupakan pupuk organik yang mengandung nitrogen, fosfor, dan kalsium, sedangkan pemangkasan cabang merupakan teknik budidaya yang dapat mengoptimalkan distribusi fotosintat menuju organ reproduktif. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian tepung tulang ayam dan pemangkasan cabang terhadap pertumbuhan, hasil, dan kualitas buah semangka kuning. Penelitian dilaksanakan pada bulan Maret hingga Juni 2026 di Cicalengka, Kabupaten Bandung, menggunakan Rancangan Acak Kelompok (RAK) yang terdiri atas 10 perlakuan dan tiga ulangan. Data dianalisis menggunakan analisis ragam (ANOVA) pada taraf nyata 5% dan dilanjutkan dengan Uji Jarak Berganda Duncan (DMRT) apabila menunjukkan pengaruh nyata. Hasil penelitian menunjukkan bahwa pemberian tepung tulang ayam dan pemangkasan cabang tidak berpengaruh nyata terhadap panjang tanaman, jumlah daun, diameter batang, diameter kanopi, indeks panen, bobot buah per tanaman, dan ketebalan kulit buah. Namun, perlakuan tersebut berpengaruh nyata terhadap diameter buah serta berpengaruh sangat nyata terhadap umur berbunga dan kadar kemanisan buah. Perlakuan tepung tulang ayam $2,25 \text{ t ha}^{-1}$ tanpa pemangkasan cabang menghasilkan diameter buah terbesar, yaitu 8,07 cm, sedangkan perlakuan tepung tulang ayam $2,25 \text{ t ha}^{-1}$ dengan pemangkasan menyisakan lima cabang menghasilkan kadar kemanisan tertinggi, yaitu 10,33 °Brix.

Kata kunci: semangka kuning, tepung tulang ayam, pemangkasan cabang, pertumbuhan, hasil, kualitas buah.

ABSTRACT

Haifa Azzahra Sasmita. 2026. Response of Yellow Watermelon (*Citrullus lanatus* L.) to Different Rates of Chicken Bone Meal Combined with Branch Pruning. Supervised by Yati Setiati Rachmawati and Cecep Hidayat.

Continuous use of inorganic fertilizers may reduce soil quality, necessitating more sustainable fertilization alternatives. Chicken bone meal is an organic fertilizer containing nitrogen, phosphorus, and calcium, while branch pruning is a cultivation technique that can optimize the distribution of photosynthates to reproductive organs. This study aimed to determine the effects of chicken bone meal application and branch pruning on the growth, yield, and fruit quality of yellow watermelon. The study was conducted from March to June 2026 in Cicalengka, Bandung Regency, using a Randomized Complete Block Design (RCBD) consisting of 10 treatments and three replications. Data were analyzed using analysis of variance (ANOVA) at a 5% significance level, followed by Duncan's Multiple Range Test (DMRT) when significant effects were observed. The results showed that chicken bone meal application and branch pruning had no significant effects on plant length, number of leaves, stem diameter, canopy diameter, harvest index, fruit weight per plant, or fruit rind thickness. However, the treatments significantly affected fruit diameter and highly significantly affected flowering time and fruit sweetness. Chicken bone meal at 2.25 t ha⁻¹ without branch pruning produced the largest fruit diameter (8.07 cm), while 2.25 t ha⁻¹ chicken bone meal with pruning to five branches produced the highest sweetness (10.33 °Brix).

Keywords: yellow watermelon, chicken bone meal, branch pruning, growth, yield, fruit quality.