

## ABSTRAK

**Muhamad Farhan Ikhsanudin, 2026. Respons Pertumbuhan dan Hasil Tanaman Selada Merah (*Lactuca sativa* L.) Terhadap Pemberian Tepung Tulang Ikan Tongkol. Di bawah bimbingan Cecep Hidayat Dan Liberty Chaidir**

Peningkatan produksi selada merah (*Lactuca sativa* L.) di Indonesia belum diimbangi dengan perbaikan teknik budidaya, terutama terkait pemanfaatan pupuk organik sebagai solusi degradasi tanah akibat penggunaan pupuk anorganik secara berlebihan. Limbah tulang ikan tongkol merupakan bahan organik yang kaya unsur hara, khususnya nitrogen, fosfor, kalium, dan kalsium, sehingga berpotensi dimanfaatkan sebagai pupuk organik berbentuk tepung. Penelitian ini bertujuan untuk mengetahui pengaruh serta dosis optimal tepung tulang ikan tongkol terhadap pertumbuhan dan hasil tanaman selada merah. Penelitian dilaksanakan pada Januari–April 2026 di Desa Melatiwangi, Kabupaten Bandung, menggunakan Rancangan Acak Kelompok (RAK) dengan 5 perlakuan: tanpa pupuk (P0), 20 g/polybag (P1), 25 g/polybag (P2), 30 g/polybag (P3), dan 35 g/polybag (P4), masing-masing diulang 5 kali. Parameter utama meliputi tinggi tanaman, jumlah daun, luas daun, indeks panen, serta bobot segar. Data dianalisis menggunakan analisis sidik ragam (ANOVA) 5% dan apabila berpengaruh nyata dilanjutkan dengan uji Duncan Multiple range test (DMRT) pada taraf yang sama. Hasil penelitian menunjukkan bahwa pemberian tepung tulang ikan tongkol memberikan pengaruh terhadap pertumbuhan dan hasil tanaman selada merah. Perlakuan P4 (35 g/polybag) menghasilkan pertumbuhan terbaik dengan tinggi tanaman 18,4 cm dan jumlah daun 18,14 helai pada 35 HST serta luas daun tertinggi sebesar 115,281 cm<sup>2</sup>. Bobot segar tertinggi juga diperoleh pada P4 sebesar 228 g tanaman<sup>-1</sup>, sedangkan perlakuan kontrol menghasilkan 62 g tanaman<sup>-1</sup>. Pemberian tepung tulang ikan tongkol tidak memberikan pengaruh nyata terhadap indeks panen, dengan nilai berkisar antara 0,67–0,73. Berdasarkan hasil penelitian, dosis 35 g/polybag merupakan perlakuan yang memberikan respons pertumbuhan dan hasil terbaik pada tanaman selada merah.

Kata kunci : Ikan tongkol, Selada merah, Tulang ikan

## ABSTRACT

**Muhamad Farhan Ikhsanudin, 2026. Growth and Yield Response of Red Lettuce (*Lactuca sativa* L.) to Application of Skipjack Tuna Bone Meal. Under the guidance of Cecep Hidayat And Liberty Chaidir**

The increase in red lettuce (*Lactuca sativa* L.) production in Indonesia has not been matched by improvements in cultivation techniques, particularly regarding the use of organic fertilizers as a solution to soil degradation caused by excessive use of inorganic fertilizers. Skipjack tuna bone waste is an organic material rich in nutrients, particularly nitrogen, phosphorus, potassium, and calcium, making it potentially useful as an organic fertilizer in powder form. This study aims to determine the effect and optimal dosage of skipjack tuna bone meal on the growth and yield of red lettuce plants. The research was conducted from January to April 2026 in Melatiwangi Village, Bandung Regency, using a Randomized Block Design (RBD) with five treatments: no fertilizer (P0), 20 g/polybag (P1), 25 g/polybag (P2), 30 g/polybag (P3), and 35 g/polybag (P4), each replicated five times. The main parameters included plant height, number of leaves, leaf area, harvest index, and fresh weight. Data were analyzed using a 5% analysis of variance (ANOVA) and, if significant, a Duncan Multiple Range Test (DMRT) was used at the same level. The results showed that the application of skipjack tuna bone meal affected the growth and yield of red lettuce. The P4 treatment (35 g/polybag) produced the best growth, with a plant height of 18.4 cm and 18.14 leaves at 35 days after planting, as well as the highest leaf area of 115.281 cm<sup>2</sup>. The highest fresh weight was also obtained from P4, reaching 228 g plant<sup>-1</sup>, while the control treatment produced 62 g plant<sup>-1</sup>. The application of skipjack tuna bone meal did not significantly affect the harvest index, which ranged from 0.67 to 0.73. Based on the results, the dosage of 35 g/polybag provided the best growth and yield response of red lettuce under the conditions of this study.

Keywords: Tuna, Red Lettuce, Fish Bone