

Puan Pramesti Sayidina Mukti. NPM 220311100043. Pengaruh Stimulus Suara Terhadap Pertumbuhan dan Hasil Tanaman Sawi Hijau (*Brassica juncea* L.) dengan Teknologi *Sonic Bloom*. Di bawah bimbingan Bapak Choirul Umam, S. TP., M.T. dan Bapak Fahmi Arief Rahman, S.P., M.Si.

ABSTRAK

Teknologi *sonic bloom* merupakan salah satu inovasi budidaya yang memanfaatkan stimulus suara untuk mengoptimalkan proses fisiologis tanaman sehingga berpotensi meningkatkan pertumbuhan dan hasil tanaman. Namun, efektivitas berbagai jenis stimulus suara terhadap pertumbuhan dan hasil tanaman sawi hijau (*Brassica juncea* L.) masih perlu dikaji. Penelitian ini bertujuan untuk mengetahui pengaruh berbagai jenis stimulus suara terhadap pertumbuhan dan hasil tanaman sawi hijau serta menentukan perlakuan yang memberikan respons terbaik. Penelitian dilaksanakan di Lahan Percobaan Agroekoteknologi Universitas Trunodjoyo Madura menggunakan Rancangan Acak Kelompok (RAK) Non-Faktorial dengan 4 perlakuan yaitu P0 (kontrol), P1 (Murottal Al-Qur'an Juz Amma' Qari' Syekh Alaa Aqel), P2 (musik biola *Canon in D Major*) dan P3 (musik Heavy Metal Afterlife–Avenged Sevenfold). Data dianalisis menggunakan ANOVA dan dilanjutkan dengan uji DMRT taraf 5%. Hasil penelitian menunjukkan bahwa stimulus suara melalui teknologi *sonic bloom* berpengaruh nyata terhadap tinggi tanaman, luas daun pertanaman, jumlah stomata, bobot total dan ekonomis, tetapi tidak berpengaruh nyata terhadap jumlah daun, diameter batang, panjang dan bobot akar, kandungan klorofil, kandungan vitamin C serta kerapatan stomata tanaman sawi hijau. Perlakuan P1 (Murottal Al-Qur'an Juz Amma' Qari' Syekh Alaa Aqel) memberikan respons terbaik dengan tinggi tanaman 18,03 cm, luas daun pertanaman 499,19 cm², bobot total 9,90 g dan bobot ekonomis 9,21 g. Dengan demikian, stimulus suara murottal Al-Qur'an melalui teknologi *sonic bloom* merupakan perlakuan yang memberikan hasil paling konsisten dalam meningkatkan pertumbuhan dan hasil tanaman sawi hijau.

Kata kunci: Teknologi sonic bloom, stimulus suara, sawi hijau, pertumbuhan, hasil tanaman.

Puan Pramesti Sayidina Mukti. NPM 220311100043. The Effect of Sound Stimuli on the Growth and Yield of Green Mustard Plants (*Brassica juncea* L.) Using Sonic Bloom Technology. Under the guidance of Mr. Choirul Umam, S. TP., M.T. and Mr. Fahmi Arief Rahman, S.P., M.Si.

ABSTRACT

Sonic bloom technology is an agricultural innovation that uses sound stimuli to optimize plant physiological processes, potentially boosting plant growth and yield. However, the effectiveness of different types of sound stimuli on the growth and yield of mustard greens (*Brassica juncea* L.) still needs to be studied. This research aimed to find out the effect of various sound stimuli on the growth and yield of mustard greens and to determine which treatment gives the best response. The study was carried out at the Agroecotechnology Experimental Field, Trunojoyo University Madura, using a Non-Factorial Randomized Block Design (RBD) with 4 treatments: P0 (control), P1 (Qur'an Murottal Juz Amma' by Qari' Sheikh Alaa Aqel), P2 (Canon in D Major violin music), and P3 (Heavy Metal Afterlife–Avenged Sevenfold). The data were analyzed using ANOVA and followed by a 5% DMRT test. Research results show that sound stimulation using sonic bloom technology has a significant effect on plant height, leaf area per plant, number of stomata, total weight, and economic weight, but it does not have a significant effect on the number of leaves, stem diameter, root length and weight, chlorophyll content, vitamin C content, or stomatal density of green mustard plants. Treatment P1 (Murottal Al-Qur'an Juz Amma by Qari' Syekh Alaa Aqel) gave the best response with a plant height of 18.03 cm, leaf area per plant of 499.19 cm², total weight of 9.90 g, and economic weight of 9.21 g. Therefore, sound stimulation from Al-Qur'an murottal through sonic bloom technology is the treatment that gives the most consistent results in enhancing the growth and yield of green mustard plants.

Keywords: Sonic bloom technology, sound stimulation, green mustard, growth, crop yield.