

## Pengaruh Ragam Jarak Tanam terhadap Pertumbuhan dan Produksi Sawi Hijau Organik

### *Effect of Variety of Planting Distances on Growth and Production of Organic Green Mustard*

Muhammad Imam Nugraha<sup>1\*</sup>, Chatimatun Nisa<sup>2</sup>, Riza Adrianoor Saputra<sup>3</sup>

<sup>1,3</sup>Department of Agroecotechnology, Faculty of Agriculture, Universitas Lambung Mangkurat, Banjarbaru, Kalimantan Selatan, 70714, Indonesia

<sup>2</sup>Department of Agricultural Cultivation, Faculty of Agriculture, Universitas Lambung Mangkurat, Banjarbaru, Kalimantan Selatan, 70714, Indonesia

Received 08 July 2021; Accepted 07 October 2021; Published 31 December 2021

#### ABSTRACT

Modifying cultivation techniques potentially enhances mustard physical qualities to attain the demanded marketable value. The reputation of organic mustard propels farmers to implement modified cultivation techniques to improve harvest quality further. Planting space is one of the modifiable technical cultivations to achieve sustainable crop production. This research used soil planting media from acid dry land to optimize agricultural land use and cow manure as primary fertilizer to implement organic farming. This research objective is to figure the effect of different planting spaces on the growth and productivity of mustard greens that applied organic cultivation method. The preliminary arrangement of the research was a single-factor randomized block design. The factors were studied with different planting spaces: control without planting spaces, planting space of 20x20, 25x25, 30x30, 35x35, and 40x40 cm<sup>2</sup>. The outcomes revealed that the mean values of mustard green plant height (13.38 cm) and the number of leaves (9 strands) had significant differences to the control treatment (10 cm plant height and seven strands number of leaf). The results showed that the optimum planting space of organic mustard cultivation was 40x40 cm<sup>2</sup> which achieved significantly higher plant height and the number of leaves than the control without planting spaces. This research's planting space of 40x40 cm<sup>2</sup> is appropriately suitable for monocropping systems in acid dry land. It can alter plant population and distribute environmental resources for sustaining crop growth and production.

**Keywords:** *Brassica juncea*; leaf width; number of leaves; plant height; productivity

**Cite this as (CSE Style):** Nugraha MI, Nisa C, Saputra RA. 2021. Pengaruh ragam jarak tanam terhadap pertumbuhan dan produksi sawi hijau organik. *Agrotechnology Res J.* 5(2):35–41. <https://dx.doi.org/10.20961/agrotechresj.v5i2.51845>.