

Response of growth and yield of job's tears var. *Stenocarpa* due to application frequencies of chlormequat chloride retardant

Fiky Yulianto Wicaksono, Ruminta and Tati Nurmala

Padjadjaran University, Indonesia

Abstract

Job's tears (*Coix lacryma-jobi* L.) is one of the plants that can be used as an alternative food. The main problems of these plants are low yields and crops that are too high. One effort to correct these problems is by giving retardants. This study aimed to determine the growth and yield of job's tears var. *Stenocarpa* by giving Chlormequat chloride (CCC) at various spraying frequencies. This research was conducted in the Experimental Garden of the Faculty of Agriculture, Padjadjaran University, Jatinangor District, Sumedang Regency, in July 2018 to February 2019 that used experimental method. The experiments were carried out on inceptisol soil and during the rainy season. This experiment used randomized block design with four CCC application frequency treatments (no application, 1 time, 2 times, and 3 times) 6 replications. All treatments were sprayed by 2000 ppm CCC. The results showed that giving CCC one time decreased plant height and leaf area index, but increased the number of tillers and number of grains. Further research must be conducted in other environmental conditions to see the effect of CCC accurately.



Biography:

Fiky Yulianto Wicaksono is a doctoral student at Padjadjaran University. His publications have reached 30, including journal articles, conference proceedings, and books. He has published several studies on the agronomy of wheat crops in the tropics and in recent years has examined job's tears plants as an alternative food. The latest publication on job's tears plants was entitled "Growth and Yield of Job's Tears (*Coix lacryma-jobi* L.) Response to Different Types of Oldeman Climate Classification and Row Spacing in West Java Indonesia".

Speaker Publications:

1. Bahrami, K., Pirasteh Anosheh, H., & Emam, Y. (2014). Growth parameters changes of barley cultivars as affected by different Chloromequat Chloride concentration. *Crop Physiology*, 21, 17-27.
2. Pirasteh Anosheh, H., Emam, Y., Ashraf, M., & Foolad, M.R. (2012). Exogenous application of salicylic acid and chlormequat chloride alleviates

negative effects of drought stress in wheat. *Advanced Studies in Biology*, 11, 501-520.

3. Rajala, A. (2004). Plant growth regulators to manipulate oat stands. *Agricultural and Food Science*, 13, 186-197.
4. Rodrigues, O., Didonet, A.D., Teixeira, M.C.C., & Roman, E.S. (2003). *Growth Retardants*. Passo Fundo: Embrapa Wheat Press.
5. Wang, H., Li, H., Liu, F., & Xiao, L. (2009). Chlorocholine chloride application effects on photosynthetic capacity and photoassimilates partitioning in potato (*Solanum tuberosum* L.). *Scientia Horticulturae*, 119(1), 113-116. <https://doi.org/10.1016/j.scienta.2008.07.019>.



[15th International Conference on Agriculture & Horticulture](#); Webinar- August 24-25, 2020.

Abstract Citation:

Fiky Yulianto Wicaksono, Response of growth and yield of job's tears var. *Stenocarpa* due to application frequencies of chlormequat chloride retardant, *Agri 2020*, 15th International Conference on Agriculture & Horticulture; Webinar- August 24-25, 2020

(<https://agriculture-horticulture.conferenceseries.com/abstract/2020/response-of-growth-and-yield-of-job-s-tears-var-stenocarpa-due-to-application-frequencies-of-chlormequat-chloride-retardant>)