

## ABSTRAK

**Yolanda Stevanie, NIM 4161220026 (2016). Pengaruh Ethephon Terhadap Pematahan Dormansi Benih dan Produksi Bawang Merah (*Allium cepa* L.var. *aggregatum group*) Varietas Samosir.**

Penelitian ini bertujuan untuk mengetahui pengaruh interaksi konsentrasi dan waktu perendaman ethephon serta tingkat keoptimalannya terhadap pematahan dormansi benih dan produksi bawang merah varietas Samosir. Penelitian dilaksanakan pada bulan Februari 2020 – Mei 2020. Pembuatan larutan dan perendaman benih dilakukan di Laboratorium Biologi FMIPA Universitas Negeri Medan dan penanaman benih dilakukan di Balai Penelitian Tanaman Sayuran, Desa Tongkoh, Berastagi, Sumatera Utara. Rancangan yang digunakan dalam penelitian adalah Rancangan Acak Kelompok Faktorial. Faktor pertama dalam penelitian ini meliputi konsentrasi ethephon (K) yaitu 1500 ppm, 2000 ppm, 2500 ppm dan 3000 ppm. Faktor kedua meliputi waktu perendaman ethephon (W) yaitu, 5 menit ( $W_1$ ), 10 menit ( $W_2$ ) dan 15 menit ( $W_3$ ). Parameter yang diamati ialah daya tumbuh benih, tinggi tanaman, jumlah daun, bobot basah umbi dan bobot kering umbi. Data yang diperoleh dianalisis melalui sidik ragam dengan uji lanjut BNT atau LSD (Least Significant Difference). Hasil penelitian menunjukkan adanya pengaruh interaksi konsentrasi dan waktu perendaman zat pengatur tumbuh terhadap persentase daya tumbuh dan bobot basah umbi namun tidak berpengaruh pada tinggi tanaman, jumlah daun dan bobot kering umbi. Konsentrasi dan waktu perendaman paling optimal adalah 2000 ppm selama 5 menit ( $K_2W_1$ ).

**Kata kunci :** Bawang Merah, Ethephon, Dormansi, Produksi.



## ABSTRACT

**Yolanda Stevanie, NIM 4161220026 (2016). The Effect of Ethephon On Seeds Dormancy Breaking and Production of Samosir Variety Onions (*Allium cepa* L.var.*aggregatum* group).**

This study was aimed to determine the effect of ethephon on seeds dormancy break and production of Samosir variety onions. The study was conducted in February 2020 - May 2020. Soaking the seeds was carried out at the Biology Laboratory of the Faculty of Mathematics and Natural Sciences, State University of Medan and the planting of seeds was carried out at the Vegetable Crops Research Institute, Tongkoh Village, Berastagi, North Sumatra. The design used in the study was factorial randomized design. The first factor in this study included the concentration of ethephon (K), namely 1500 ppm, 2000 ppm, 2500 ppm and 3000 ppm. The second factor includes the immersion time of ethephon (W) are 5 minutes (W1), 10 minutes (W2) and 15 minutes (W3). The parameters observed were growth power, plant height, number of leaves, tuber wet weight and tuber dry weight. The data obtained were analyzed by analysis of variance with the BNT test or LSD (Least Significant Differences) test. The results showed that the interaction of concentration and time of immersion of growth regulators of ethephon significantly affected the percentage of growing power and tuber wet weight but did not affect plant height, number of leaves and tuber dry weight. The most optimal concentration and soaking time is 2000 ppm for 5 minutes (K2W1).

**Keywords:** Ethephon, Dormancy, Production, Seeds, Onions.

