

PENGARUH HERBISIDA PARAKUAT TERHADAP PERTUMBUHAN TANAMAN TOMAT (*Solanum lycopersicum* L.)

INTISARI

Penggunaan herbisida dalam upaya pembasmian gulma tanaman budidaya sudah sering dilakukan. Salah satu jenis herbisida yang umum dijumpai adalah herbisida parakuat. Penggunaan parakuat selain dapat mematikan gulma tanaman budidaya tentunya juga akan berpengaruh terhadap pertumbuhan tanaman budidaya itu sendiri. Penelitian ini dilakukan untuk mempelajari pengaruh herbisida parakuat terhadap pertumbuhan tanaman tomat sebagai tanaman non-target. Tanaman tomat berumur 5 minggu setelah tanam disemprot parakuat sebanyak 1 ml per tanaman, dengan konsentrasi parakuat masing-masing sebesar 0.25 ml/l, 0.5 ml/l, 0.75 ml/l, dan 1 ml/l dengan ulangan sebanyak 3 kali untuk setiap konsentrasi parakuat. Parameter pertumbuhan berupa tinggi tanaman, diameter batang, berat basah tanaman, dan berat kering tanaman diamati dan diukur setiap minggu selama 5 minggu berikutnya, sampai tanaman tomat berumur 10 minggu setelah tanam. Analisis data dilakukan dengan menggunakan metode ANOVA dan dilanjutkan dengan uji DMRT (*Duncan's Multiple Range Test*). Hasil pengukuran parameter pertumbuhan menunjukkan bahwa pemberian parakuat menghambat pertumbuhan tanaman tomat. Semakin tinggi konsentrasi parakuat yang digunakan, semakin rendah pertumbuhan tanaman yang terukur.

Kata kunci: parakuat, herbisida, pertumbuhan, tomat, *Solanum lycopersicum*

EFFECT OF PARAQUAT HERBICIDE ON TOMATO (*Solanum lycopersicum* L.) GROWTH

ABSTRACT

Application of herbicide as one of many ways in weed control and management is widely known. Paraquat is one of chemical herbicide used to control a very broad range of weeds in crops. However, paraquat application on weeds not only kills the weeds but also affects the crops growth itself. This research was conducted to evaluate the effect of paraquat on tomato growth as a non-target plant. 5 weeks old tomato plants was sprayed with 1 ml of various concentrations of paraquat, which were 0.25 ml/l, 0.5 ml/l, 0.75 ml/l, and 1 ml/l with 3 replications for each concentration. Growth parameters such as plant height, stem diameter, fresh weight, and dry weight of each plant were observed and measured every week for the five following weeks after paraquat was applied. Data analysis was conducted using ANOVA followed by DMRT (*Duncan's Multiple Range Test*). The result of growth parameters measurement showed that paraquat application on tomato plant inhibits its growth. The higher the concentration of paraquat was applied, the lower the growth paramaters were measured.

Keywords: Paraquat, herbicide, plant growth, tomato, *Solanum lycopersicum*