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INTERFERENCE CAUSED BY GLYPHOSATE-SUSCEPTIBLE

AND - RESISTANT GOOSEGRASS (ELEUSINEINDICA [L.]

GAERTN.) ON CHINESE FLOWERING CABBAGE

(BRASSICA CHINENSIS VAR. PARACHINENSIS)

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ABSTRACT

Field experiments were conducted to determine the effect of goosegrass biotypes that are susceptible (S) and resistant (R) to glyphosate on the Chinese flowering cabbage yield at densities of 0 to 40 plants m². Observed yield loss ranged from 32.1 to 66.8% and 29.4 to 66.6%, caused by the S and R biotypes, respectively, meanwhile predicted yield loss ranged from 25.0-61.0% and 20.4-61.9% respectively. There was no significant difference between the S and R biotypes on either the fresh weight (yield), leaf area or number of leaves of Brassica. However, a significant difference in the height of the crop due to the S or R biotype competition was observed. Emergence of 5 plants m² and above of goosegrass with the crop should be controlled to prevent significant yield loss, irrespective of the biotype.

ABSTRAK

Kajian lapangan telah dijalankan untuk menentukan kesan biotip rentan (S) dan rintang (R) rumput sambau terhadap glifosat ke atas hasil sawi bunga, dengan menggunakan aras kepadatan rumpai dari 0 hingga 40 pokok m². Kehilangan hasil yang dicerap masing-masing berjalat antara 32.1 hingga 66.8% dan 29.4 hingga 66.6% dengan kehadiran biotip S dan R manakala jangkaan kehilangan hasil masing-masing adalah 25.0-61.0% dan 20.4-61.9%. Tiada perbezaan bererti antara biotip S dan R ke atas berat basah (hasil), keluasan daun mahupun bilangan daun Brassica. Namun, ketinggian tanaman telah memaparkan perbezaan yang bererti akibat daripada persaingan biotip S atau R dengan sawi bunga. Kemunculan rumput sambau sebanyak 5 pokok m² dan ke atas harus dikawal untuk mengelakkan kehilangan hasil secara bererti, tanpa mengira biotip yang wujud dalam lapangan.

Key words: Interference, glyphosate, Brassica, Eleusine indica

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