

SELECTIVITY OF ACC-ASE INHIBITOR HERBICIDES IN RICE VARIETIES

Claudia Marchesi

Instituto Nacional de Investigación Agropecuaria, Tacuarembó, Uruguay, E-mail:
cmarchesi@tb.inia.org.uy

Echinochloa crus-galli is the main weed in rice systems, and usually is controlled with ALS, carotenoid-pigment synthesis or photosynthesis inhibitors, and synthetic auxins. Some ACCase inhibitors without safeners are available but much less used due to possible injury to rice. Moreover, resistance issues over some of the above mentioned herbicides are evolving. Therefore is crucial to learn how to use ACCase herbicides in order to have alternative products. Selectivity of two doses (a commercial rate X and 1,5 X) of cyclohexanediones (DIMs) and aryloxyphenoxy-propionates (FOPs) and a control without herbicides were tested in three varieties at two growing stages (2 leaves and 1 tiller) in an uncontrolled environment. Germinated seeds were transplanted into 1500-cm³ pots, standing four plants each. A spraying precision chamber equipped with a 8002 flat nozzle, delivering 113 lha⁻¹ at 200 kPa was used. Plant Height and visual score of injury were evaluated at 27 and 56 days after application (DDA). Plant dry matter aboveground was measured at 113 DAA. Differences between herbicides were observed in all varieties, among doses and application time. Metamifop was very well tolerated by all varieties, no matter doses or rice stages. INIA-Tacuarembó –temperate japonica- tolerated profoxydim at commercial rates in both stages, but not setoxydim; INIA-Olimar – indica- was affected by DIMs in early stages but not later, whereas INIA-Merín –indica-, sustained growth with profoxydim at a commercial rate while could not cope with setoxydim. Information about how new varieties respond to known herbicides and how common varieties respond to new herbicides is key to delay herbicide resistance evolution.

Palabras clave: profoxydim, metamifop, setoxydim, indica, japonica

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