



Effects of ammonium-glufosinate application at two phenological stages on the rice cultivar Cocodrie

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The objective of this study was to evaluate the effects of ammonium-glufosinate, a non-selective, broad specter contact herbicide when sprayed at two phenological stages on the rice cultivar Cocodrie. The study was conducted in a greenhouse at Texas A&M University, in December 2017, using trays filled with pot soil in a randomized blocks experimental design, with four replications and two factors: ammonium-glufosinate doses (control, 200, 300, 450 and 900 g_{i.a.}/ha), and phenological stage (needle-point and V₁/V₂). Planting occurred on November 27th, 2017 and spraying happened at two times: December 1st and 4th. Analyzed variables were plant height and injury level at 7, 14 and 21 days after spraying and at the end of the study plant survival and dry mass weight. Data was analyzed through regression using a log-logistic model with confidence intervals on SigmaPlot. For both stages plant height was affected when compared to the control, but at the needle-point stage plants recovered and growth inhibition was overcome at 14DAS independent of the herbicide dose. At V₁/V₂ stage, injury level was very high and there was no sign of recovery, as for the needle-point stage, injury level went from 90% at 7DAS to 60% at 14DAS and to 40% at 21DAS. Dry mass weight had a similar behavior for both stages, not differing between them. Corroborating with the behavior of the others variables, survival rate was greater than 80% for all the herbicide doses at the needle-point stage, and decreased with increasing doses for plants at V₁/V₂ stage.

Palavras-chave: *Oryza sativa*, needle-point, contact herbicide

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