



Short term weed shifts under Clearfield technology in no tillage dry-seeded rice

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Rice acreage with Clearfield technology under dry-seeded rice culture is growing in Uruguay. Diesel oil price at the domestic market leaves farmers reluctant to spend money in land tillage. The objective of this experiment was to evaluate short term weed shifts under no-tillage dry-seeded rice when rates of imazapyr plus imazapic were sprayed one or two years in a row over the same plots. Treatments evaluated were a check sprayed with clomazone on preemergence followed by bispyribac-sodium and quinclorac tank-mixed on postemergence, 98, 147, 196, 294 g ie ha⁻¹ of imazapyr plus imazapic on postemergence and an additional treatment of 98 on preemergence followed by 98 on postemergence. Treatments were placed on a complete randomized block design with four replications. Plots were 4.8 m width by 8 m length. Weed counts were done using a quadrat of 0.5 m by 0.5 m randomized two times in each plot before postemergence herbicides were applied. Clearfield rice was seeded on land that had been summer-tillage and -leveled in 2007, on rice-stubble in 2008 and after one year without crop in 2010. Multivariate analysis (MANOVA) was applied and graphical representation of data by treatment was carried out with profile diagrams. Populations of *Panicum ditochomiflorum*, *Digitaria sanguinalis*, *Portulaca oleracea* and *Eclipta prostrata* dropped sharply; meanwhile, *Echinochloa crusgalli* stand was reduced by 26%, remaining enough plants to become a highly competitive population at the beginning of the third Clearfield rice. Populations of perennials like *Eriochloa lugens*, *Leersia hexandra*, *Alternanthera phyloxeroides* and *Baccaris spicata* increased. Density of *Cyperus esculentus* was low and some tiny-seed species of the rush family increase too. Regardless of species belonging to grass- or broadleaf-family, very small-size seed species not emerged after the first year and some perennial species tended to be more abundant.

Palavras-chave: rice, Clearfield Technology, imazapyr, imazapic, weeds shift

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