

Imidazolinone resistant rice in contrasting production systems in Latin America

The advent of Clearfield® technology



Uruguay / Colombia / Venezuela / Brazil

Prospecting and Impact

The implemented initiative

This project was born with the idea of preventing and alerting about more complex situations that will arise in the future if we do not make proper use of Clearfield® Technology. The objective was to generate recommendations that contribute to a rational

management of the herbicides of the imidazolinone family and of the varieties resistant to these, allowing this weed control technology to be sustainable over time.

Research and development

The technological solution

Four experiments were carried out in Río Branco and the Experimental Unit of Paso de la Laguna, Uruguay, one in Calabozo in the state of Guárico, Venezuela, three in Santa María and two in Pelotas, Río Grande del Sur. The effect of imidazolinones applied to Clearfield® rice on the following species was studied: rice (*Oryza sativa*) without resistance, forage sorghum (*Sorghum bicolor* x *Sorghum sudanensis*), white clover (*Trifolium repens*), red clover (*T. pratense*), ryegrass (*Lolium*

multiflorum) and lotus (*Lotus corniculatus*). The dissipation and half-life of imazethapyr and imazapic in water and soil were also analyzed. The evolution of resistance to ALS inhibitors in weedy rice (red rice) and weeds was evaluated as a consequence of the use of Clearfield® rice varieties and the maximum hybridization rate between Clearfield® rice and biotypes was studied. of weedy rice (red rice).



620
Trained technicians



3
Training workshops

MÁS INFO



Results

Herbicides used with Clearfield® Technology showed a medium risk of accumulating in the first 20 cm of depth in the soil, especially where higher sand contents and / or more acidic pH are present. The information generated in the project clearly shows that Clearfield® Technology used wisely and intelligently will decrease

infestations of weedy rice (red rice) at a low population level. To achieve this, it will be necessary to implement a surveillance among the actors for many years until the particular farms are declared free of weedy rice (red rice) until the area with these characteristics is expanded.

Main donors

Participating Organizations

