

RESEARCH NOTES

DELETERIOUS EFFECT OF SIMAZINE ON MOSAIC- INFECTED SUGARCANE

Because of the increased cost it is now almost prohibitive to use manual labor for the control of weeds in growing many crops. This is especially true in the cultivation of sugarcane. More than 90 percent of the chemicals consumed in weed control in Puerto Rico are used in the cultivation of this crop.

When properly handled and applied, the weedicides recommended for use in the Island have no injurious effect on the germination and development of the cane plant. We want to report an interesting observation made in the course of routine applications of the herbicide Simazine (2-chloro 4, 6 bis-ethylamine) s-triazine to control weeds in cane grown for experimental purposes.

No injurious effects were noticed when the herbicide was applied in solution, at a rate of 1 pound per acre, to healthy cane varieties, either as a pre-emergent or postemergent treatment. However, when Simazine was applied at the same concentration to mosaic infected canes of variety B.34104, growing in flats in the laboratory, a remarkable effect became apparent, consisting of an intensification of the already present chlorosis, stuntiness, lodging, and basal stem rot of the plants. No such effect was observed in the nontreated mosaic-infected plants.

As far as we know this is the first time that such an effect of a herbicide on mosaic-infected sugarcane plants has been reported. Taking into consideration the facts that Simazine, as well as other herbicides such as CMU, are being used increasingly in the control of weeds in our sugarcane fields, and that we still have a large acreage of mosaic-infected canes such as B.37161 in the Island, we consider it of interest to publish this preliminary note. Experiments are in progress to study further the effects of Simazine as well as of other herbicides on mosaic-infected canes.

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