

**SORGHUM HALAPENSE AND S. VERTICILLIFLORUM IN SOUTH-
WESTERN PUERTO RICO¹**

Sorghum halapense, a 40-chromosome, rhizomatous weedy grass known as Johnson grass, and *S. verticilliflorum*, a 20-chromosome, non-rhizomatous



FIG. 1.—Plants of *S. halapense* (left) and *S. verticilliflorum* (right).

weedy grass,² have become problem weeds in west, southwest and south Puerto Rico in the past 2 to 5 years (fig. 1). A survey was made of 141 sites from Arecibo to Santa Isabel to determine distribution of these two pests (fig. 2).

¹ Manuscript submitted to Editorial Board October 5, 1971.

² Huskins, C. L. and Smith, S. G., A cytological study of the genus *Sorghum* Pers. I. The somatic chromosomes, *J. Genet.* 25: 241-9, 1932.

S. halapense was found at 15 of these sites, 12 on or near the Agricultural Experiment Stations of Isabela, Lajas and Fortuna.

S. verticilliflorum was found as far north as Aguadilla with increasing intensity southward to Central Eureka, a sugar mill near Mayagüez, and in areas free as late as 2 years ago. Highest population densities were found east of Central Eureka, near Lajas, Barrio Paris, Santa Rita, Yauco and Playa de Guayanilla. None were found near Santa Isabel.

It is suggested that *S. halapense* may have been introduced into Puerto Rico as a forage grass which later escaped, and that *S. verticilliflorum* was

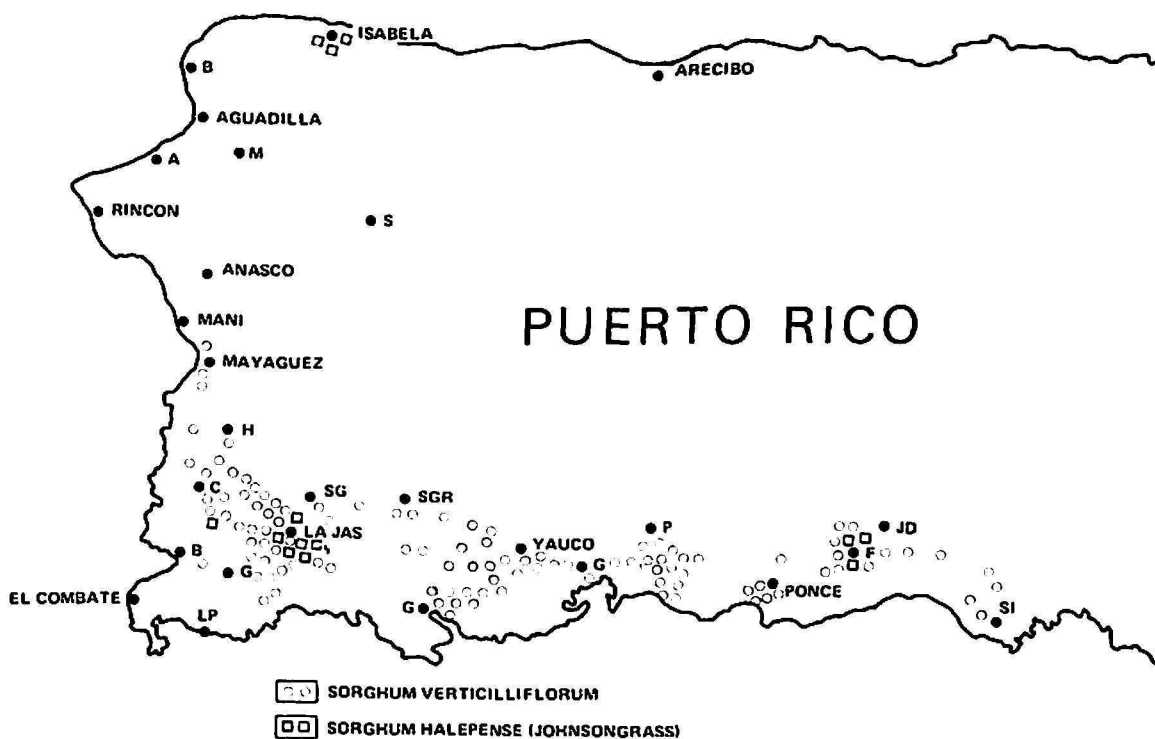


FIG. 2.—Map of the western half of Puerto Rico showing distribution of *S. halapense* and *S. verticilliflorum*.

introduced probably from Hispaniola or Jamaica as a contaminate in roughage for livestock in the often drought stricken Lajas Valley, as a contaminate in introduced grass seeds, or in the digestive tracts of imported horses.

S. halapense can be controlled only with repeated treatment and persistence. Recommendations³ suggest Dalapon at 3.5 to 5.0 pounds of active ingredient in 20 gallons of water sprayed on actively growing plants, repeated as necessary for control. In addition, Dalapon or MSMA may be mixed in diesel oil or water at the rate of $1\frac{7}{8}$ to $3\frac{3}{4}$ pounds to 10 gallons

³ Texas A & M University, Suggestions for weed control with chemicals, Agr. Exp. Sta. and Agr. Ext. Serv. B-1029/1969, 1969.

and used as a directed spot-spray treatment. Do not graze or feed forage from treated plots.

S. verticilliflorum should be controlled easily with rates of Karmex as applied to sugarcane. Recommended rates of Ametryne and Atrazine used on sugarcane should also control this grassy weed.

Efforts must be made to remove both these weedy sorghums from Puerto Rico because of possible reductions in crop yields, potential problems in crop cultivation, and because North American seed companies use Puerto Rico with increasing frequency as a winter breeding nursery and testing area for commercial sorghums.

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