

THE WILD GOSSYPIMUM HIRSUTUM OF PARAGUAY**James McD. Stewart****University of Arkansas****Department of Crop, Soil, and Environmental Sciences****PTSC 115****Fayetteville, AR****Santiago Bertoni****Estación Experimental Chaco Central****Ministerio de Agricultura y Ganadería****Cruce de los Pioneros, Paraguay****Abstract**

In April of 2007 an expedition to collect dooryard cottons of *Gossypium barbadense* L. in the Chaco region of Paraguay was undertaken. To our surprise the indigenous people of the Chaco do not maintain cotton as a garden plant in their gardens, consequently only one accession of *G. barbadense* was encountered. This accession was maintained only as an ornamental plant because of its large showy flowers. Contrary to expectations, pictures taken of cotton near Puerto Penasco by a worker at the EECC suggested that the cotton was a wild *G. hirsutum* L. Seeds were obtained by the worker but these have not yet been germinated to establish the plant type. The leader of the German Mennonite Mission, which is active in the Chaco of Paraguay, indicated to us that he had seen cotton on a new property of the mission. With the help of an indigenous guide we visited the site and discovered that the wild plants growing beside a wet-weather lake, in fact, were *G. hirsutum*. The guide indicated to us that no cotton had been produced in that area, plus the plants had characteristics of the wild cottons found in South Florida and the north coast of the Yucatan Peninsula, particularly the former. Like its northern relatives the wild *G. hirsutum* of Paraguay is photoperiodic, has red petal spots on whitish petals, small capsules and seeds covered with relatively short brownish lint. The plants occurred next to an area of water accumulation during rains, in partial shade, and apparently have their roots wet for a short period during their annual cycle. Because there is no outlet for the accumulated water, the possibility exists that salt has accumulated in the soil, indicating salt tolerance in the accession, but this must be verified. The main difference between the northern wild *G. hirsutum* and the wild *G. hirsutum* of Paraguay was in the vestiture of the foliage. The accession from Paraguay has numerous short hairs on the foliage so that the leaves feel fuzzy to the touch. Whether this imparts a degree of drought tolerance, or is protection against sucking insects remains to be seen. Seeds were collected from the plants and germinated for controlled observations in Fayetteville, AR. This constitutes the southern most record of wild *G. hirsutum* in the Americas.