



A USAID-Funded Project on Striga Control in Ethiopia Produces Dramatic Results

The collaborative project between the Ethiopian Agricultural Research Organization (EARO) and the International Sorghum and Millet (INTSORMIL) Collaborative Research Support Program (CRSP) focused on developing effective control for the parasitic weed, striga, in Ethiopia.

Striga has become endemic in many of the sorghum and millet producing regions of Ethiopia, as well as in many other African countries. Available control measures are often found to be either too expensive or impractical for subsistence farmers in Africa.

A pilot project in Ethiopia, funded by the U.S. Agency for International Development (USAID) Office of Foreign Disaster Assistance (OFDA) took an Integrated Striga Management (ISM) approach by combining striga resistant sorghum cultivars with the use of inorganic fertilizers and a water conservation measure using tied-ridges. The project started in 2001 with large-scale production by EARO of five tons of two striga resistant sorghum cultivars. During the 2002 crop season, the pilot project was implemented as an emergency seed relief and demonstration effort in four regions (Amhara, Tigray, Oromia, and Southern) of Ethiopia with outstanding results.

A total of 880 one-half hectare demonstration plots were grown in the four regions. Plots planted to the ISM package (striga resistant sorghum cultivars, P9401 and P9403, with application of 80kg/ha of urea and tie-ridged to avoid water

runoff) yielded as much as four tons/ha while susceptible local cultivars yielded less than one ton. In severe cases, where striga infestation was high, local cultivars failed to produce any grain. The striga resistant sorghum cultivars from Purdue University supported few emerged striga plants, and when complimented with water conservation and nitrogen fertilization, were nearly free of striga.

OFDA provided resources for seed production and distribution as a relief effort to distribute striga resistant sorghum cultivars to farmers threatened by drought and striga. INTSORMIL research funds were used to support the research and development complements of the pilot project.

Past research on development of the striga resistant sorghum cultivars used in the pilot project was supported by USAID through INTSORMIL and by the Rockefeller Foundation via grants to Purdue University.

For further information, contact:

Gebisa Ejeta

Professor of Plant Breeding and Genetics
Purdue University
Department of Agronomy
West Lafayette, IN 47907

Email: gejeta@purdue.edu

Phone: 765-494-4320

FAX: 765-496-2926



Figure A. Local variety 76T23

Pictures show a contrast of plots planted to a striga-susceptible local and a resistant introduction with the ISM package at Kobo, Ethiopia, 23 November, 2002.



Figure B. Striga-resistant variety P9401