

TWMRF's ongoing interest in *Lathyrus* and lathyrism

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It was in September 1985 at the first colloquium on *Lathyrus* and lathyrism that researchers from many isolated disciplines came together to develop a coordinated effort with a sense of purpose and urgency. The transforming moment was the airing of a videotape that I had recorded in northern India in 1983 while working on lathyrism with Peter Spencer. This showed the tragic clinical effects of continued consumption of the grass pea in the form of walking difficulties, inappropriate leg movements, and frank limb paralysis. These images galvanized the Pau conferees - most of whom were plant scientists - into action to develop low-toxin strains of the grass pea as a useful dryland crop and to prevent lathyrism in future generations. This scientific cooperation was known as INILSEL, the International Network for the Improvement of *Lathyrus sativus* and the Eradication of Lathyrism. Third World Medical Research Foundation (TWMRF), which led INILSEL for many years, carried out interdisciplinary research projects on the grass pea and lathyrism in Bangladesh and Ethiopia. The work in Bangladesh defined the neurophysiological deficits of lathyrism and pointed the way for bench research on cellular targets of the grass pea neurotoxin. TWMRF-sponsored research in Ethiopia, which was underwritten by the generosity of the British public through the funding of Band Aid, was an ambitious, multidisciplinary project that examined the prevalence of lathyrism and the relationship between grass pea consumption. Through cooperation with Clayton Campbell in Canada, low-toxin lines of grass pea were introduced into Ethiopia for adaptation to local conditions and

eventual distribution of hybrids to farmers. *Lathyrus* researchers in Ethiopia, Bangladesh, India and throughout the world were kept abreast of the latest developments through the *Lathyrus* and Lathyrism Newsletter, edited by plant scientist Avtar Kaul, as well as the publications of the several symposia sponsored by TWMRF in coordination with other funding agencies, including IDRC. The work began by TWMRF in Ethiopia and Bangladesh continued apace through the initiatives of Redda Haimanot, Fernand Lambein and Anisul Haque, among others, with funding from the European Commission among other sources.

The recommendations emerging from the Pau conference in 1985 coincided with the activation of research by ICARDA in Aleppo, Syria, to develop low-toxin strains of *L. sativus*. It is therefore a great source of satisfaction and hope that ICARDA announced last month the development by Adel El-Beltagy and colleagues of virtually toxin-free cultivars of *L. sativus* that offer the yield, taste and environmental ruggedness of the original plant. ICARDA is now taking steps to establish methods for the rapid distribution of the new strains to small landholders in developing countries. All INILSEL researchers are strongly encouraged to read a fuller account of this breakthrough in J. Raloff's article entitled "Detoxifying Desert's Manna in the July 29, 2000 edition of Science News Online (<http://www.sciencenews.org/20000729/bob1.asp>).

This is the optimum time to re-energize our global research efforts to promote safe strains of the grass pea to promote human nutrition and prevent disease. Much research needs to be done, and the results of these efforts should be distributed to the INILSEL network and beyond. As the Raloff article notes, there are opportunities for grass pea development beyond areas where lathyrism is endemic. I am thus delighted that Colin Hanbury of CLIMA has taken the initiative to reactivate the [Lathyrus Lathyrism Newsletter](#) in association with TWMRF.