EDITORIAL EDITORIAAL EDITORIALES

Jatropha curcas: Miraculous Plant or Tree of the Devil ?

Access to energy is a prerequisite for development. In many tropical countries the structural increase in fossil fuel prices due to their scarcity affects negatively the activities of economic stakeholders, who need electricity or fuel to work. To cover better the energy needs of the countries concerned, some institutions and organizations have begun to consider more and more the potential of agro-energy plants since 2007. Among these *Jatropha curcas* L. has generated particular enthusiasm based on its numerous putative assets. According to its most convinced promotors, *J. curcas* can simultaneously produce large amounts per hectare of non-edible high quality oil, restore marginal soils, improve the fertility of all soil types, reforest degraded land, promote tenure security, limit the wandering livestock's damage to the crops, diversify farmers' incomes, and supply by-products with phytosanitary and therapeutic uses.

However the miraculous qualities of *Jatropha* are increasingly challenged by other stakeholders (mainly NGOs), who have a much more negative opinion regarding the effects of its spreading cultivation. They claim that, based on the results available from the first attempted plantations, *Jatropha curcas* does not deliver satisfactory yields on marginal land. Grown on an industrial scale, it needs large amounts of inputs (fertilizers and pesticides), but even then the yields are often less than expected. The costs of the inputs combined with low yields and high harvesting costs invariably result in negative returns from *Jatropha* plantations. According to the most "outrageous" of its critics *Jatropha* is a plant of the devil, whose cultivation will never be sustainable either economically, environmentally, or socially. Some of them however acknowledge that *Jatropha* may play a positive role in the alleviation of rural poverty when it is grown on a small scale and is associated with food crops or used as hedges around fields.

These controversies highlight the need for multidisciplinary knowledge to inform policy makers on strategies to adopt regarding *Jatropha* dissemination. For that purpose it is essential to have reliable data on: (i) the ability of the plant to adapt to poor soils and to rainfall variability in tropical environments, (ii) its susceptibility to diseases and pests, (iii) its performances according to soil type and the cultivation practices (in pure stand or intercropped, with varying levels of inputs, with or without irrigation), (iv) its economic (profitability compared to other crops), environmental (possible effect of the plant multi-toxicity), and social (risk of work overload, possible consequences on land tenure) sustainability.

Given the importance of this issue for rural development in many tropical regions, we will pay special attention to all quality scientific information on the major above-mentioned questions that will be submitted for publication to Tropicultura in the future.

I hope you enjoy reading this first issue of 2011.

Prof. Dr. Guy Mergeai
Chief Editor