



Tropentag, October 11-13, 2006, Bonn

“Prosperity and Poverty in a Globalised World—  
Challenges for Agricultural Research”

## Farmers' Perceptions of *Imperata cylindrica* and *Chromolaena odorata* Fallows in Cameroon

PROSPER FUAMBENG YONGHACHEA, LINDSEY NORRGROVE, RAINER SCHULTZE-KRAFT

*University of Hohenheim, Biodiversity and Land Rehabilitation in the Tropics and Subtropics, Germany*

### Abstract

The productivity and sustainability of most agricultural practices in the humid tropics of Africa such as Cameroon depends primarily upon the relative rate of soil 'quality' decline during the cropping phase, soil quality regeneration during the fallow phase, and the time allocated to the latter. Due to increased population density and demand for arable land, fallow lengths have been shortened and the ability of fallows to restore soil fertility and suppress aggressive weeds such as *Imperata cylindrica* and *Chromolaena odorata* has become less effective. Therefore, fallows are recropped at a younger age when these species are still dominant. A survey was conducted during April-July 2005 in the North West, South West and Littoral provinces of Cameroon to understand how farmers view and value *Imperata* and *Chromolaena* fallows, and to find out preferred ways of controlling *Imperata* and *Chromolaena* in cropped fields. The common local names allude to *Imperata* as a plant that spears or pierces, and/or typifies unproductive situations. As to local names for *Chromolaena*, the names of unpleasant and aggressive people are used. Farmers' perceived that *Imperata* dominated fallows indicate that soils are poor (34%), soils are only suitable for the cultivation of groundnut and sweet potato (28%), soils are 'hard', i.e. compacted and difficult to till (16%), soils are 'sterile', i.e. very unproductive (13%), and soils are not yet ready to be tilled again (9%). All farmers stated that fallows dominated by *Chromolaena* indicate softer and more fertile soils but require very high labour input for land preparation. Farmers indicated that slashing, deep tillage, rhizome removal, mineral fertilisation, weeding and continuous cultivation could effectively control *Imperata*. They recommend that *Chromolaena* control measures should involve stump removal. Farmers could satisfactorily control *Imperata* and *Chromolaena* but a perceived high labour requirement is seen as limiting factor. The results indicated high weed density and declining soil fertility to be due to unsustainable farming practices rather than shortened fallow lengths. Food availability in Cameroon could be improved by paying more attention to general farming practices.

**Keywords:** *Chromolaena*, *Imperata*, soil fertility, weed control