

Project Summary

_Title	Botanical Pesticides for Bio-control of Spider Mites and Anthracnose in French Beans
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Purpose	The proposed project is aimed at the development and promotion of pro-poor spider mites and anthracnose disease management strategies to improve yield and quality of French beans and livelihoods of smallholder farmers producing the crop.
Project Summary	<p>French bean is a major export crop and income earner for smallholders in Kenya. Spider mites (<i>Tetranychus urticae</i>) and anthracnose (<i>Collectotricum lindemuthianum</i>) are among the major pests and diseases limiting its production. Over-reliance of pesticides to manage these pests has created more problems than resolving them. This project aims to undertake a comprehensive inventory of available indigenous knowledge of pest control methods in French bean production areas with a view to proposing promising ones as potential industrial crops and enhance their utilisation by growers for improved productivity and family incomes. The project will also conduct bioactivity evaluations and crop response studies of <i>Leonotis nepetifolia</i> and <i>Ocimum gratissimum</i> plant extracts in the laboratory and on-farm to establish their effectiveness. Two post graduate students will be actively involved in the activities of evaluating indigenous botanicals for use as bio-control agents in French bean production in the smallholder farming environments. The students will in the process benefit immensely from the already established bioassay protocols and laboratory/field</p>

	capacity for stored grains that will be appropriately adapted in this study. Results of this study are expected to provide useful leads on the potential of plant extracts as alternatives to synthetic pesticides in the management of the spider mites and anthracnose disease in the East Africa region.
Country and Specific Location(s)	Kenya
Participating Institutions	Egerton University
Start Date	September, 2012
End date	August, 2014
Amount of Funding	US \$ 59,882

