<table>
<thead>
<tr>
<th>Title</th>
<th>Assessment of Weed Control Practices and Potential Weed Management Strategies for improved Maize productivity among Smallholder Farmers in Swaziland</th>
</tr>
</thead>
</table>
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| Purpose | To identify constraints, pathways and conditions that stakeholders need to address for improving agricultural productivity and livelihoods on the basis of improved weed management practices in Swaziland |
| Project Summary: | The weed control technologies employed by smallholder maize farmers in Swaziland remain grossly inadequate in bringing weeds under control leading to an estimated 70% maize yield losses based on field appraisals. There is a dearth of information on why farmers use methods of weed control in current practice that diminish expected yields arising from the use of improved varieties and soil amendment practices. Therefore, this study identifies constraints, pathways and conditions that stakeholders need to address for improving agricultural productivity and livelihoods through improved weed management practices. Two MSc. students will be selected to benefit from this graduate student research grant program and four undergraduate students will be provided with a research exposure opportunity. The MSc. Agricultural Economics student will be responsible for assessing economics aspects of the different weed control methods and the MSc. Crop Science will evaluate the most productive weed control methods through on-farm experiments and observation. A range of selected pre-plant, pre-emergence and post-emergence herbicide combinations will be tested against manual (hand weeding) and cultural (intercropping + hand weeding) methods of weed control. The Agricultural Innovation systems approach will be used as a delivery approach in this |
Smallholder farmers, Ministry of Agriculture- Research department, IRD-organisations, major input dealers, and University of Swaziland are among the selected actors.

**Keywords:** Weeds, Mother-Baby-trials, Maize, Agricultural innovation system, university of Swaziland.

<table>
<thead>
<tr>
<th>Country and Specific location(s):</th>
<th>Swaziland: Shiselweni, Hhohho, Manzini and the Lubombo regions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating Institutions:</td>
<td>• Ministry of Agriculture</td>
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<tr>
<td></td>
<td>• International Relief Development organisation</td>
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<tr>
<td>Start Date:</td>
<td>1st July, 2015</td>
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<tr>
<td>End Date:</td>
<td>30th July, 2017</td>
</tr>
<tr>
<td>Budget</td>
<td>USD 56,667</td>
</tr>
</tbody>
</table>
Douglas Kibirige holds a PhD in Agricultural Economics of the University of Fort Hare-Alice, South Africa, MSc. Agricultural and Applied Economics of Makerere University (Uganda), Bachelor’s degree in Agribusiness Management of Makerere University (Uganda), and a Diploma in Food Processing Technology of Uganda Polytechnic Kyambogo (Uganda). Dr. Kibirige (PhD) is an Agricultural Economist working at the University of Swaziland with key roles being; teaching, researching and community service. Dr. Kibirige (PhD) has vast experience in service delivery; he has for example served as a Quality Assurance Officer in food industries, Agribusiness Field Officer in Agribusiness Consulting Firms, Research Field Coordinator and consultant in several assignments such as with Dathine Agribusiness Consultants (U) Ltd, Appropriate Technology (U) Ltd, and Friends Consultants (U) Ltd. Among others. Dr. Kibirige has also worked with Voluntary Services Overseas (VSO-International) in Ghana as a livelihood Development Specialist, and as a consultant at Agricultural and Rural Development Research Institute (ARDRI)-University of Fort Hare-Alice-South Africa. Dr. Kibirige is also an entrepreneur; he is one of the proprietors of “One Tree One Child Project” in O.R Tambo District Municipality of South Africa; this project is modelled based on his previous learning and experience in a similar project in Ghana. Dr. Kibirige is passionate about enhancing sustainable agriculture productivity and agribusiness development among smallholder farmers. He has also contributed to the body of science through various peer-review journal publications as well as a reviewer in several internationally recognised journals.

Selected Publications


Africa: Department of Agricultural Economics and Management, Faculty of Agriculture, University of Swaziland, Luyengo, Swaziland; International Journal of Economics, Commerce and Management United Kingdom Vol. II, Issue 12, Dec 2014: ISSN 2348 0386.


