## Project Title:

**Evaluation of appropriate tree-grass combinations using selected tree species and grasses for improved livestock productivity**

<table>
<thead>
<tr>
<th>Institute</th>
<th>Arid and Range Lands Research Institute</th>
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<tbody>
<tr>
<td>Center(s)</td>
<td>KALRO Kiboko</td>
</tr>
<tr>
<td>Principal Investigator</td>
<td>Bosco Kidake;</td>
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<td>Other investigators</td>
<td>Paul Katiku; Bryan Ogillo; Mnene WN; Denis Kubasu;</td>
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### Problem Statement

There exists a large pool of desirable grasses, shrubs and trees under differing ecological systems that if domesticated or well managed can greatly improve feed production in ASAL. Unfortunately, little knowledge on the characteristics and qualities of these plants, particularly their effects on other forage species exists which has resulted in them being neglected, mismanaged and degraded.

### Objective(s)

To evaluate a system of integrating trees into improved pastures in the semi-arid areas of Southern Eastern Kenya.

### Planned Activities

1. Determine the effect of tree spacing of 5x5m, 7.5x7.5m and 10x10m spacing on herbage yield of Cenchrus Ciliaris (Ceci).
2. Determine effect of intercropping grass and Melia volkensi trees on the trees’ growth parameters.
3. Determine Nutrient composition of Ceci grass monitored over time.
4. Determine soil nutrient profile over time.
5. To understand farmer perspectives on agroforestry and tree-grass integration practices in Kathonzweni and Kibwezi Sub Counties.
6. To identify the test farmers who could participate in the tree-grass intercrop studies.

### Outputs

A system of integrating trees into improved pastures in the semi-arid areas of Southern Eastern Kenya was evaluated.

### Outcomes

The project provided an opportunity for utilization of a melia woodlot that previously no crops could be established underneath thereby increasing forage production and consequently improved livestock production.

### Budget

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### Start date

2012-05-01

### End date

2017-04-30

### Funded by

EU-ASAL APRP;

### Collaborators

Utheu-wa-aka Self Help Group-Kibwezi;