**Project Title:** Evaluating Small Ruminants Performance Fed on Range Grass-legume in a Feedlot System in Makueni

**Annual Report**

<table>
<thead>
<tr>
<th>KCSAP livestock Applied</th>
<th>Value chain: Red meat</th>
<th>Duration: 18 Months</th>
<th>Start Date: Oct 2020</th>
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</thead>
</table>

| Lead Institution:       | KALRO Kiboko          |
| PI and contacts:        | Bernard Kipkoech Korir |
|                         | bernardkorir@gmail.com|

**Background:** This project aimed at validating finishing systems of small ruminants targeted to improve meat product quality and quantity while reducing greenhouse gas emissions and improving the livelihoods of livestock keepers in the arid and range lands of the country. This will be achieved through feeding sheep and goats with selected pastures, dual purpose dolichos lablab and cowpeas which are rich in crude protein.

**Objectives**
1. To formulate, test and document finishing rations based on locally available feed materials.

**Expected Outputs**
1. Appropriate feeds and feeding strategies for enhanced small ruminant productivity identified and tested.
2. Developed feeding strategies packaged and disseminated.

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**ANNUAL REPORT**

**I ACHIEVEMENTS**

**Objective 1:** Formulate livestock finishing diets based on locally available feed material

**Activity 1.1**
1. Establishment, processing and storage of the finishing diets ingredients.

**Achievement 1.1**

The feeds were established on-station. The feeds were harvested and stored for use in the feeding trial. Animal feeding stalls were constructed.

**Activity 1.2**

Determine nutritive value and develop utilization technologies of the new diets.
Achievement 1.2
The nutrient contents of the feeds were determined and processing has been initiated awaiting the purchase of the sheep so as to initiate the feeding trial.

II Other achievements (e.g. patents, publication such as journal papers, technical reports, presentation in workshops and conferences etc.). List them with proper citations
None

III Constraints and how they were overcome

Delayed accounting of advanced resources has led to late completion of trials. This has forced the Centre to request KALRO hqts for support.

IV Summary of funds received, accounted for and balance

<table>
<thead>
<tr>
<th>Project Amount</th>
<th>Amount Received</th>
<th>Amount accounted for</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(KES)</td>
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<tr>
<td>3,863,650</td>
<td>1,891,616</td>
<td>1,626,214</td>
<td></td>
</tr>
</tbody>
</table>

IV Way Forward
Activities Planned for the Period Oct 2021-June 2022
1. Test and document effectiveness of the formulated rations on sheep and goats