

FIELD TRIP TO SENGE WOMEN COOPERATIVE SOCIETY KAWOKO

1. OBJECTIVE;

- i. Creating awareness of the Evakuula and its importance to the smallholder dairy farmers
- ii. Promoting and marketing the Evakuula.

2. a).About the cooperative

Senge women cooperative is a women farmers group located in kawoko a rural area in Wakiso district.

The major objective of the society is empowering women and helping them improve their incomes and standards of living. The farmers are involved in dairy farming on a very small scale and retail business.

The farmers have 2-3 animals milked every day and the milk sold off. The major problem faced by the farmers is the price reduction of the evening milk since the farmers cannot keep the milk fresh overnight and fail to reach the markets on time.

Boiling the milk is one way of preserving it but this not only keeps the milk from spoilage but also greatly affects its quality making the milk less acceptable at the market. The farmers got to know about the Evakuula through their leader Ms. Cate who attended the C.B.S POWESA exhibition and picked great interest in the Evakuula and thought it wise that the rest of the members of the cooperative should know about it and later purchase it for the cooperative in order to solve all the problems listed above.

The Evakuula as a viable solution to the problem

The Evakuula was designed to cool and preserve milk to a temperature of about 10°C below room temperature.

Thermization performed on fresh milk, reduces the number of spoilage microbes in the milk by a significant amount and evaporative cooling provides an environment of low temperature that is not conducive for rapid growth, hence maintaining the milk fresh with all its nutritive constituents. This will therefore enable the farmers have their milk fresh and acceptable at the market and since the Evakuula uses no energy source there will be no power charges to worry the rural farmers.

Interactions between the farmers and the smallholder team.

Communication from the marketing manager Mr. Abia Katimbo;

Mr. Abia introduced the case; most of the milk in Uganda's Dairy industry is produced by smallholder farmers like the Senge Women's Cooperative society dealing in small numbers of cows, zero grazed or range – grazed on mixed small average farms. The problem is that millions of such farmers cannot deliver their evening milk to markets the next day because they lack access to affordable refrigeration. Mr. Abia urged the farmers not to worry at all because

smallholders fortune and thermogen has innovated the Evaporative cooler for the dairy industry which solves their problems.

Communication from the production Engineer Mr. Joseph Galiwango;

Mr. Joseph Galiwango explained in details how the evaporative cooler works, describing all the processes beginning from thermization (reduction of microorganisms in the milk) to cooling process.

RESULTS OF THE INTERACTION;

The members of the Senge women's cooperative society were excited and astonished by the technology and promised to get their society two completely functioning evaporative coolers immediately after constructing its shed that would aid in maintaining the temperature of the Evakuula which they were willing to build after nearly a week and needed the Evakuula by Tuesday 11th July 2017.

QUESTION AND ANSWER SESSION

| QUESTIONS | ANSWERS |
|---|---|
| Can the Evakuula be used without the thermization unit and still preserve milk? | The Evakuula involves two processes; the thermization and evaporative cooling processes. The thermization process reduces the number of microorganisms which would lead to spoilage of milk. In a situation where the Evakuula is alternatively used to cool soft drinks, it can be used without the thermization unit. |
| Do we boil the milk before putting it in the thermization unit? | NO. Thermization water is boiled and milk "in can" is put in the hot water for about 45 minutes until it attains a temperature of about 58°C. |
| Which assurance can we have as far as security is concerned; can't thieves come at night, dismantle and carry away the Evakuula including the milk being preserved? | The components of the Evakuula are made of steel which is strong, the combination of the components and the constituents in the Evakuula are extremely heavy (in tonnes), implying that it's not mere carrying away. Nevertheless, maximum security can be guaranteed if the supports of the Evakuula |

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| | are placed in the ground and strengthened using concrete or locally one can compress stones around the supports to keep it firm in the ground. |
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CONCLUSION

- The service was a success as the farmers appreciated the efforts of smallholder fortunes and two units are yet to be sold off.
- It was not until I went to the field trip to Kawoko that I learnt how the general public can appreciate the efforts of Smallholder Fortunes and Thermogen stakeholders which virtually began as an idea, researched on, developed a prototype, and became an innovation and finally a solution to small-scale dairy farmers.

APPENDIX



Figure 1. Ms. Cate introducing the smallholder team



Figure 2. Mr. Katimbo addressing the farmers.



Figure 3. Mr. Galiwango addressing the farmers.