

Maziwa Zaidi (More Milk) in Tanzania

Irrigated Improved forages for smallholder dairy in Kilosa, Mvomero and Babati Districts, Tanzania

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Key messages

- Dairy farming is an important enterprise for income generation, food security and soil fertility.
- Increasing dairy productivity requires adequate supply of quality feed in smallholder farms which requires the use of high yielding and of quality forages that can maximize productivity per unit area.
- Napier grass is the most widely established and adopted grass in dairy production in TZ and other ECA countries.
- Napier gave yields of 48 to 82 tons of dry matter / ha /year under good agronomic and management practices.
- Surplus fodder can be conserved and be used when there is feed shortage and maintain milk supply.
- Conserved fodder could be sold at profitable price.

Opportunities to invest and scale

- Deliberate effort to creating awareness and capacity building to all stakeholders on fodder production as an enterprise to generating incomes by both public and private sector
- Assured availability of quality forage all year around require participation of all key stakeholders, at each level; forage production, consumption and marketing.
- Private sector have shown ability to design forage technologies that are labour saving and gender sensitive such as wooden and motorized forage choppers
- Private sector have potential to validate and disseminate recommended proven good forage technologies e.g. hay making; silage making;
- Strengthening forage seed system and assurance of quality forage planting material need involvement of both public sector and private sector.

Objectives and approach

- To contribute to food production, improving nutrition, and accelerating economic development while protecting the environment.
- On-farm irrigated fodder demonstrations and farmer participatory evaluation approaches were used, with technical support of animal nutrition laboratory service.

Key results

Table 1. Forage yield from Napier pure stand and Napier-legume mixture in farmers field Kilosa, Mvomero and Babati District

Average Forage Yield	Rudewa (Kilosa)	Mkindo (Mvomero)	Gichemdea (Babati)
Napier pure stand (tons DM/ha)	14.411	12.232	11.421
Napier Mix lablab (tons DM/ha)	24.850	18.170	-
Napier Mix Siratro (tons DM/ha)	17.240	16.770	-

- High yields were obtained from both fodder grass and grass – legume mixture had higher yields than pure stand

Table 2 - Farmers subjective appraisal on Ensiled fodder -Silage

Variable	Colour (%)	Aroma (%)	Attractiveness (%)	CP(%)
Napier + Molasses + pit	96	100	100	10.1
Napier+ Molasses + bag	93.5	98	98	9.7
Napier+maize bran+ pit	90	88	86	10.4
Napier+maize bran+ bag	91	82	92	10.5
Napier alone (Control)	84	86	86	8.2

- Note: Farmer reported similarity in colour, aroma and attractiveness of the silage made regardless of the type of silo and the type of sugar sprinkled.
- The silage that had molasses scored high in almost all parameters assessed



Photo 1: Integrated Napier/lablab fodder; Photo 2: Participatory Forage Agronomic Evaluation in farmers fields



Photo 3: Surplus fodder harvested for silage; Photo 4: Chopping using local merchants/pangas and metal coppers (motorized chopper are preferred)



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