Introduction of dolichos lablab crop

Scientific name: ***Lablab purpureus***

Common English name: **Hyacinth bean**

Swahili name: **Fiwi**

Local name/N Tanzania: **Ngwara**

Common name in Kenya: **Njahe**

Introduction of dolichos lablab crop

- It is believed that lablab is a crop which is native to Africa but lost its popularity in early 1900's after the introduction of *phaseolus* beans.
- *Phaseolus* took over because it grows faster and cooks faster than lablab.
- *Lablab* is a potential legume drought tolerant food and cash crop as reported by farmers, which if promoted it can solve the problems of hunger and poverty in the marginal rainfall areas.

Introduction cont…..

- The crop is also a potential source of food for human and animals during off season (when all other crops have dried out).
- *Lablab* was reintroduced in Tanzania for soil cover crops in Conservation Agriculture (CA) together with other cover crops such as mucuna, pigeon pea, cow pea, canavalia etc between 1998 and 2011.
- It was introduced to address soil problems such as low soil fertility, poor soil structure, weed competition, and limited labor in crop production.

Introduction cont…..

- Farmers selected it against other cover crops for adoption in CA because of its tolerance to drought. It also became a source of food and cash, especially in marginal rainfall areas.
- Farmers are currently growing it for food and cash by intercropping it in Maize and also as a sole crop. Some farmers in Arusha, Arumeru, Monduli Karatu districts are currently using it for food and livestock. 70% of lablab is sold to Kenya while 30% is used for food and livestock feed under zero grazing.

Introduction cont…..

- During the drought in 2009/10 most of the CA farmers in the districts mentioned above lost their maize crop but were able to survive with the harvest from lablab.
- Today lablab has been recognized as one of the potential climate resilient crops to combat the climate change effect into agriculture. It has potential in soil fertility reclamation, (it fixes nitrogen in the soil, it produces a quick soil cover, it is a good source for food to animals and human.

LABLAB AN UNDER ESTIMATED CROP FINDS ITS NICHE

Canadian Foodgrains Bank
A Christian Response to Hunger

Mennonite Central Committee

Lablab crop for :

Conservation Agriculture,

Climate resilience & food for human and livestock

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OUTLINE

- **EFFECT OF INTERCROPPING MAIZE TO LABLAB BIOMASS**
- **LABLAB GRAIN YIELD**
- **LABLABS PEST**

4 Weeks After Planting

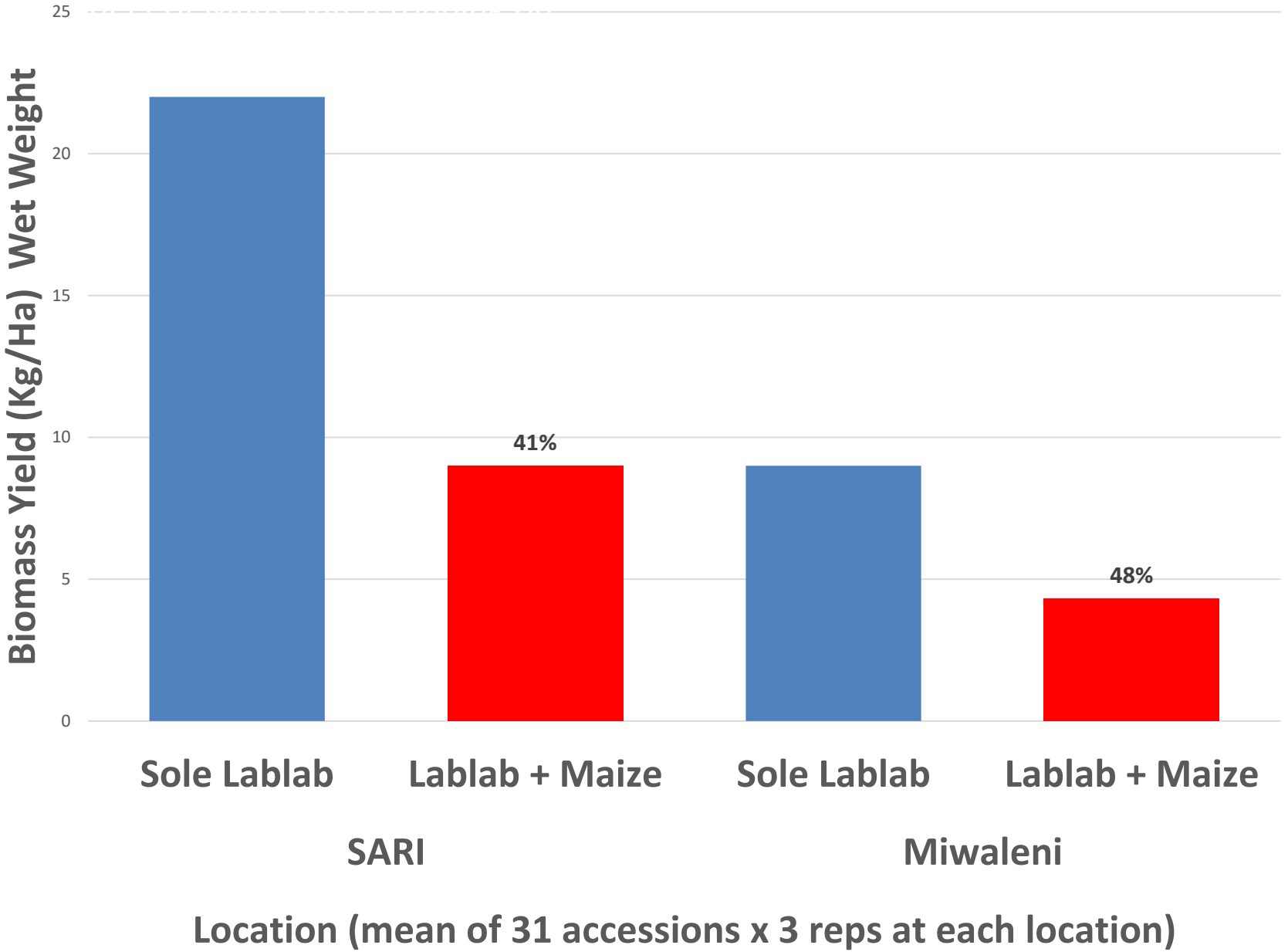
2 Months After Planting

3 Months after Planting

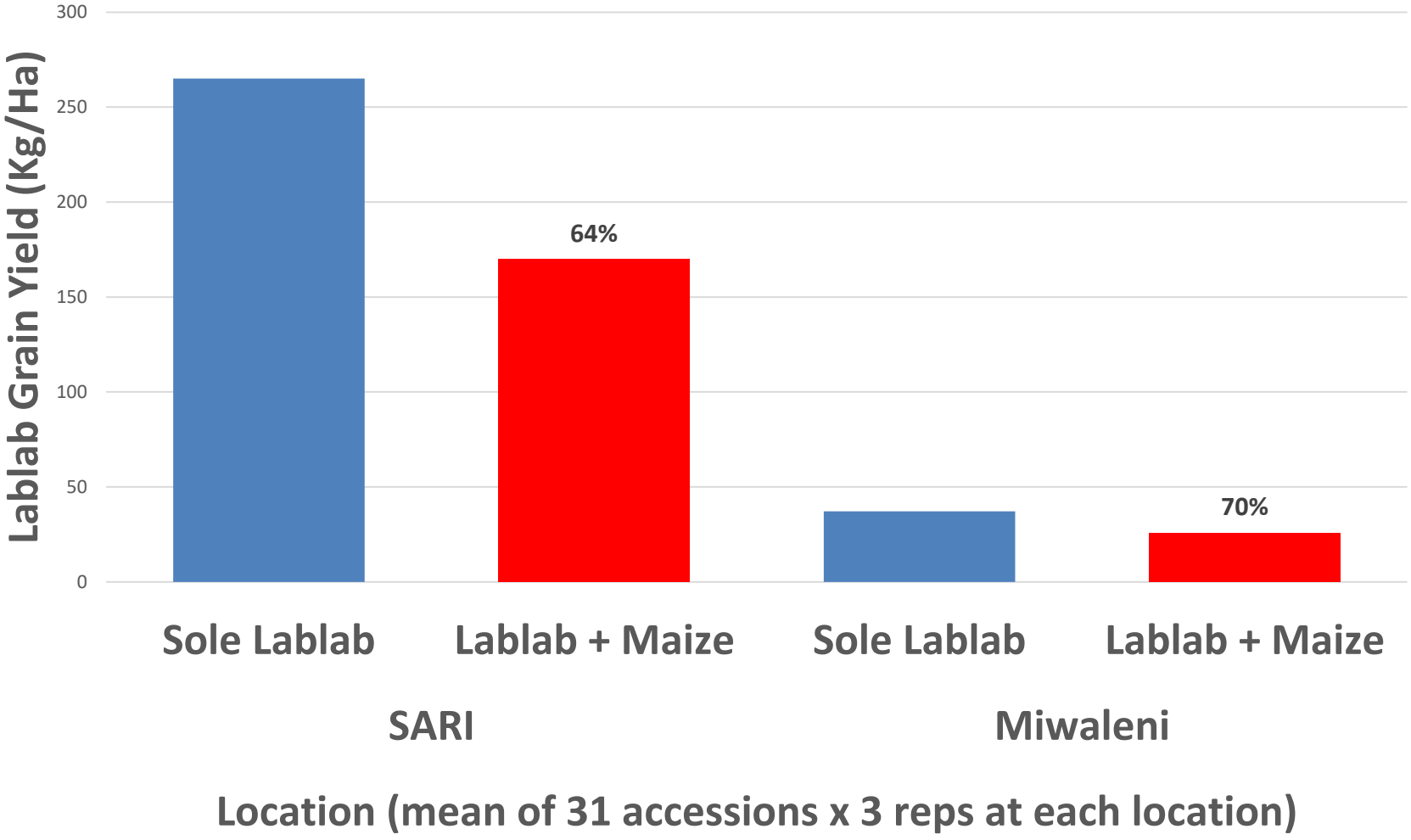
4 Months After Planting

5 Months: Farmer Rating

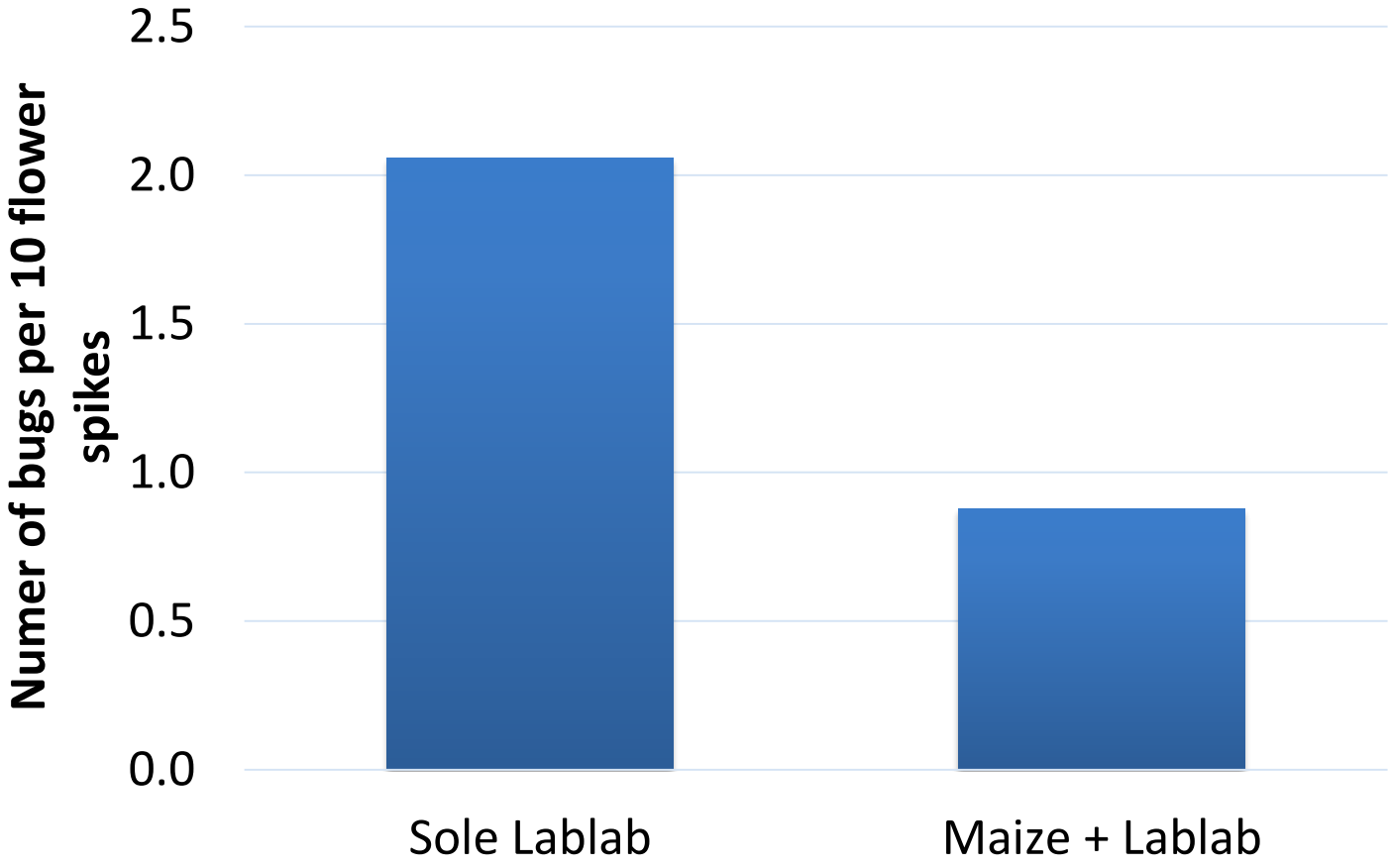
EFFE EFFECT OF MAIZE INTERCROPPING ON LABLAB BIOMASS YIELD, 2016 CT



LABLAB EFFECT OF MAIZE INTERCROPPING ON LABLAB GRAIN YIELD, 2016 YIELD, 2016



Effect of Intercropping on Pod Sucking Bugs, SARI 2016



Miwaleni			SARI			Liamungu	
Accession	Sole Lablab	Lablab +Maize	Accession	Sole Lablab	Lablab +Maize		Sole Lablab
Vuli 2 cowpea	250.2	292.9	**Karamoja Red**	1059	944	**Echo Cream**	1070
Fadhari cowpea	144.8	303.6	**Q 6880B**	1031	300	**SARI Chungu**	903
CIAT 22759	154.5	77.3	**Highworth**	844	412	**SARI Rongai**	868
Eldoret W7 Black 1	181.5	40.4	**DL1002**	728	312	**Dodoma white**	799
HA-4	171.5	34.1	**SARI Chungu**	598	333	**ILRI 6536**	749
Kitui cowpea	163.6	22.7	**ILRI 14437**	472	377	**Eldoret W7 Black 1**	743
Eldoret G1 Black 2	109.1	71.7	**SARI Rongai**	401	393	**DL1002**	666
SARI Rongai	104.9	40.4	**Fadhari cowpea**	499	291	**Q 6880B**	658
DL1002	21.8	92.4	**Echo Cream**	525	257	**Eldoret G1 Black 2**	603
Q 6880B	25.7	65.3	**Karatu Black**	522	204	**SARI Nyeupe**	555
ILRI 6930	79.4	11.3	**Dodoma white**	365	335	**CIAT 22759**	541
Eldoret M5 Cream	6.6	83.5	**Eldoret M5 Cream**	375	257	**ILRI 14437**	478
ILRI 6930 Cream	83.2	4.8	**CIAT 22759**	397	200	**ILRI 11630**	477
Agondra cowpea	43.9		**Eldoret G1 Black 2**	359	216	**Karatu White**	390
ILRI 14411	14.2	53.2	**Eldoret B1 Maridadi**	317	172	**ILRI 6930**	366
Karamoja Red	8.0	49.0	**SARI Nyeupe**	433	54	**Rongai**	363
ILRI 6536	27.9	26.0	**ILRI 6930**	318	149	**ILRI 6930 Cream**	355
ILRI 11630	45.0	7.6	**Rongai**	328	96	**DL1001**	238
SARI Chungu	29.8	12.7	**Vuli 2 cowpea**	237	183	**Kitui cowpea**	231
Rongai	19.3	14.1	**ILRI 13700**	135	264	**Eldoret M5 Cream**	219
ILRI 10979	0.0	32.5	**Agondra cowpea**	198		**ILRI 10953**	196
ILRI 10953	3.6	22.2	**DL1001**	289	94	**CPI 81364**	160
ILRI 13700	20.4	2.6	**HA-4**	266	64	**Karatu Black**	153
CPI 81364	1.6	19.4	**ILRI 10979**	181	140	**Eldoret B1 Maridadi**	133
Highworth	12.0	8.0	**ILRI 14411**	80	237	**Fadhari cowpea**	124
Karatu Black	2.8	15.2	**ILRI 6536**	152	138	**PI 195851**	117
ILRI 14437	5.3	12.0	**CPI 81364**	115	122	**HA-4**	113
SARI Nyeupe	9.3	0.0	**Kola Black**	92	111	**Highworth**	101
Eldoret B1 Maridadi	3.4	5.0	**PI 195851**	132	53	**ILRI 13700**	60
Echo Cream	4.7	0.7	**ILRI 11630**	76	70	**Vuli 2 cowpea**	47
DL1001	3.6	1.9	**Karatu White**	91	46	**ILRI 14411**	35
Kola Black	2.1	0.0	**ILRI 10953**	75	27	**ILRI 10979**	19
Dodoma white	1.9	0.0	**Mean**	**365**	**214**	**Kola Black**	10
PI 195851	0.3	0.0				**Lalibela**	0
Karatu White	0.1	0.0				**Mean**	**369**
Mean	**50.2**	**40.6**					

Late Dry-Season Soil Cover

Late Dry Season Soil Cover

Conclusions

1. LABLAB IS A PROMISING CLIMATE RESILIENT CROP AND

2. WE NEED MORE SEASONS BEFORE WE CAN CONCLUDE OUR EXPECTED FINDINGS