



Ministry of Agriculture, Livestock and Irrigation
Department of Agriculture, Kayah State

**Findings on Sesame Varietal Trial
in Kayah State**

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Introduction

- Title - Sesame Varietal Trial in Kayah State
- Crop Name - Sesame (8 Varieties)
- Trial Type - Simple Yield Trial (8 Varieties)
- Place of Trial - Shan Pine Quarter
Bawlakhe Township, Bawlakhe District
Kayah State
- Presenter - U Myo Myint Aung
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Introduction.....

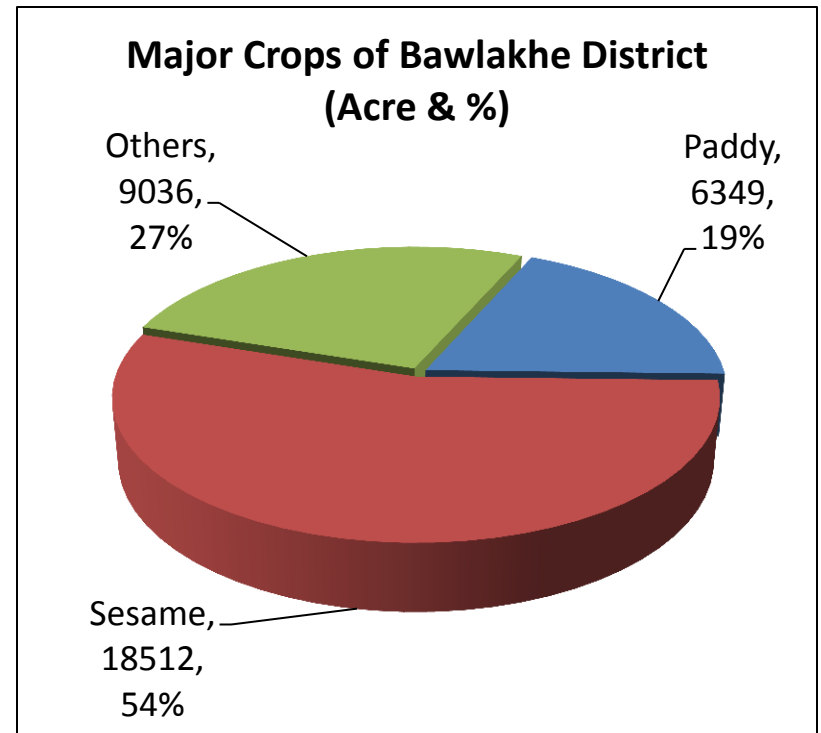
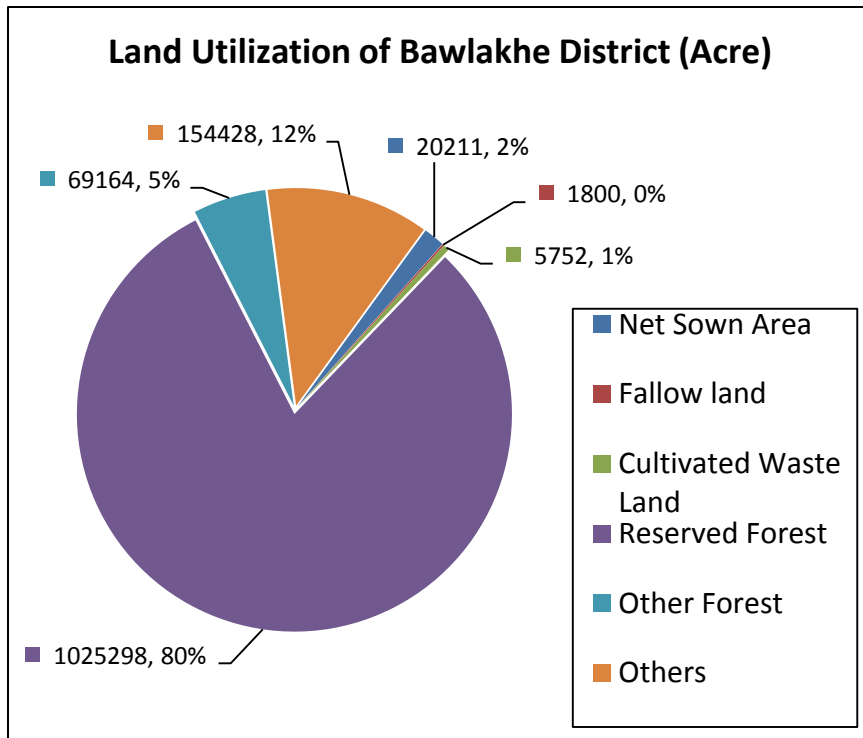
Rationale

- Sesame is Major crop in Kayah State mainly cultivated in Bawlakhe District
- Sesame from Kayah state has high market potential in terms of low FFA, less chemical residues and bio-contamination
- Initiating as a Myanmar GAP crop
- Tracing of seed source
- Diversifying Sesame market

Introduction.....

Climate and Agro-ecological Condition

- Rainfall <30 inches, uneven precipitation and high temperature in Sesame growing season (May~Sep)



Purpose

- To find and provide necessary multi-locational trial data for selection of marketable Sesame varieties with characteristics of good adaptation to local climatic and agro-ecological condition in major Sesame production area of Kayah State.

Activities

- Trial Name - Sesame Varietal Trial (2017-2018)
- Farmer's Name - U Aye Maung
- Place - Bawlakhe Township, Shan Pine Quarter,
- No. of Varieties - (8) Varieties : YSS-00092, YSS-00180,
YSS-02037, YSS-00220, YSS-00216,
YSS 00217, Sin Yadanar-14, Sa Mone
Net (Local Check)
- Trial Type - Simple Yield Trial (No Replication)
- Total Plot Size - 0.028 Acre

Activities.....

Field management

	Activities	DAS	Date	
			From	To
1	Land Preparation	- 2	1 Jun, 2017	2 June,2017
2	Application of fertilizer	0	7 June, 2017	-
3	Seed sowing	0	7 June, 2017	-
4	Thinning, 1 st weeding, N application	15-16	22 June, 2017	23 June, 2017
5	Foliar application, 2 nd weeding	31	8 July, 2017	9 July, 2017
6	Pest prevention	54	29 Jul, 2017	-
7	Harvesting	78-83	24 Aug, 2017	29 Aug,2017

Results

Agronomic Traits

Entry	Variety	DTF	DTM	PH(cm)	HFC(cm)	NCP	TSW(g)
1	YSS-00092	July 9	Aug 24	197	81	37	2.6
2	YSS-00180	July 12	Aug 24	177	74	31	2.6
3	YSS-00217	July 10	Aug 26	169	52	30	2.5
4	YSS-00220	July 10	Aug 24	189	77	28	2.5
5	YSS-00216	July 14	Aug 26	158	85	28	2.5
6	YSS-02037	July 12	Aug 24	172	72	32	2.5
7	Sa Mone Net	July 14	Aug 25	160	80	29	2.5
8	Sin Yadanar-14	July 15	Aug 29	180	90	26	2.5

Sowing Date : 7 June 2017 DTF : Days to flowering HFC : Height to first capsule
DTM: Days to maturity NCP : Number of capsule per plant
PH : Plant height (cm) TSW: Thousand seed weight (gm)

Results.....

Yield Component Data

Sr.	Variety Name	Plant Height (cm)	No. of Branches	No. of capsules/ Plant	1000 Grain weight (gm)	Yield/Acre (Basket)	Rank (By Yield)
1	Sa Mone Net	160	6	60	2.5	12.27	4
2	YSS-00220	189	6	65	2.5	10.56	5
3	Sin Yadana-14	180	8	60	2.5	12.62	1***
4	YSS-00217	169	4	65	2.5	12.48	3
5	YSS-00092	197	6	60	2.6	10.03	6
6	YSS-00180	177	8	55	2.6	8.96	8
7	YSS-00216	185	6	63	2.5	12.58	2
8	YSS-02037	172	6	55	2.5	9.6	7*

* Farmer's choice (Black Sesame)

Summary of Findings

- Three entry varieties (YSS-00216, YSS-00217, Sin Yadanar-14) were found slightly higher yield than local check variety (Sa Mone Net)
- Although highest number of branches/plant and number of capsules/plant were found in two entry varieties YSS-00216, YSS-00217, the capsule size and seed size are slightly smaller than local check variety (Sa Mone Net)
- Moderate resistance to Black Stem disease found in 2 entry varieties (YSS-00216, YSS-00217) and high resistance found in Sin Yadanar-14 while local check variety Sa Mone Net found no any pest incidents.
- More prefer and interesting by local farmers are Sin Yadanar(14) and YSS-02037 as black Sesame and have high market demand.







Conclusion

- 2 Entry varieties(YSS-00216, YSS-00217) and 1 improved variety(Sin Yadanar-14) each from DAR were found interesting and could be candidates as potential varieties.
- High seed yield compared with local check variety of Sa Mone Net.
- Resistance to Sesame Black Stem disease (*Rhizoctonia bataticola*)
- The results achieved could be used for improvement of sesame varieties in various location of Kayah State.



Thank you for your kind attention!