

Ministry of Agriculture, Livestock and Irrigation

Department of Agriculture

Shwebo District



***Yield Trial of Locally Cultivated Pawsan
Varieties in Shwebo District***

U Hla Moe Kyaw

Staff Officer Wetlet Township

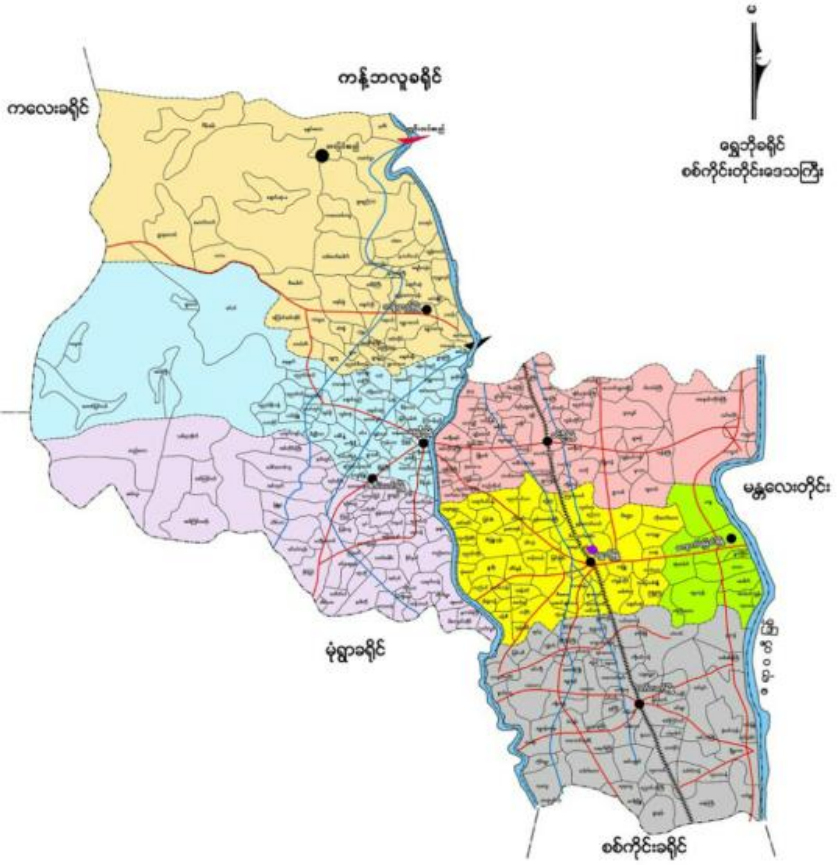
Shwebo District, Department of Agriculture

Site Selection of Yield Trial

- Crop Name - Pawsan Varieties(Early Maturity,Medium Maturity,Late Maturity)
- Village Name - Lain Pin
- Township Name - Wet Let
- District Name - Shwebo
- Region Name - Sagaing

The Map and Constitution of Shwebo District

“ရွှေဘိုခရိုင်အခြေပြမြေပုံ”



Shwebo district is located in Sagaing Region and consists of Shwebo, WetLetm, Khin U, Ye U, Taze, Depayinn township and Kyauk Myaung area.

- ရည်ညွှန်းချက်
- | | | |
|----------------------------------|-------|-------------------|
| ၀၁။ မြို့နယ်/ခရိုင်နယ်နိမိတ် | ----- | ■ ရွှေဘို |
| ၀၂။ မြို့နယ်ခြားနယ်နိမိတ် | ----- | ■ ဝက်လက် |
| ၀၃။ ကော့ရွာဆိုင်ရာမြို့နယ်နိမိတ် | ----- | ■ ဝင်းဦး |
| ၀၄။ မြစ်/ချောင်း | ~~~~~ | ■ ဝေဦး |
| ၀၅။ မီးရထားလမ်း | ===== | ■ တန့်ဆည် |
| ၀၆။ ကားလမ်း | ————— | ■ နီပယ် |
| ၀၇။ ခရိုင်/မြို့နယ် | ● ● | ■ ကော့ကုတ်မြောင်း |

Agricultural Background of Shwebo District

- Total Area - 1992729 ac
- Total Cultivated Area - 1167504 ac (59%)
- Cultivated Lowland Area - 646391 ac
- Irrigated Lowland Area - 440708 ac (68%)
- Rainfall (Regular) - 46 days, 31.41"
- Rainfall (2016) - 56 days, 36.81"
- Rainfall (2017) - 53 days, 40.41"
- Temperature (2017) - Januray-13.1°C(min),
- April-42.1°C (max)

There is no July drought condition in 2017 due to the rainfall (5.80") in July. Therefore the cultivated Pawsan varieties were well developed.

Demonstration Plots and Trials Conducted in Shwebo District (2017-2018)

No	Content (Demonstration/Trial)	Conducted			
		Township	Group	Farmer	Acre
1	Intregrated High Technology Village	1	1	62	300
2	Yield Trial for Pawsan Varieties	1	1	1	1.50
3	SRI Monsoon Rice	7	7	7	20
4	United Nilar SRI Monsoon Rice	4	7	12	50
5	Sowing Methods of Monsoon Rice	7	7	7	14
6	Drum Seeder Monsoon Rice	1	1	5	10
7	BMP Monsoon Rice	8	16	49	330
8	Cropping Pattern Monsoon Rice	5	5	5	5
9	BMP Groundnut (Monsoon)	6	6	19	70
10	BMP Sesame (Monsoon)	3	3	9	60

Demonstration Plots and Trials Conducted in Shwebo District (2017-2018)

No	Content (Demonstration/Trial)	Conducted			
		Townshi p	Group	Farmer	Acre
11	BMP Pigon Pea (Monsoon)	3	3	8	60
12	BMP Greengram (Monsoon)	3	3	5	25
13	BMP Blackgram (Monsoon)	1	1	1	6
14	BMP Maize (Monsoon)	1	1	12	20
15	BMP Groundnut (Winter)	5	5	16	55
16	BMP Sesame (Winter)	5	6	10	60
17	BMP Chickpea	5	5	21	70
18	Sowing Methods of Summer Rice	6	6	6	12
	Total (18)	7	84	255	1168.5

Objectives of the Study

1. To select the most adaptable pawsan variety for local farmers.
2. To collect the data records for each tested pawsan variety.
3. To maintain the quality of the best pawsan variety by selection and cultivation.

Data Records for Pawsan Varieties Yield Trial (2017-2018)

No	Content	Pawsan (early maturity variety)	Pawsan (medium maturity variety)	Pawsan (Late maturity variety)
1	Township Name	Wet Let	Wet Let	Wet Let
2	Village Name	Lain Pin	Lain Pin	Lain Pin
3	Farmer Name	U Nyan Cho	U Nyan Cho	U Nyan Cho
4	Field No	3459	3459	3459
5	Plot No	D -39	D- 39	D -39
6	Acre	0.50	0.50	0.50
7	Sowing Date	3.8.2017	3.8.2017	3.8.2017

Data Records for Pawsan Varieties Yield Trial (2017-2018) (cont;)

No	Content	Pawsan (early maturity variety)	Pawsan (medium maturity variety)	Pawsan (Late maturity variety)
8	Transplant Date	25.8.2017	25.8.2017	25.8.2017
9	Sowing Method	8" x 8"	8" x 8"	8" x 8"
10	Fertilizer Use			
	Basal (compound)	12:24:24 (37.5 kg/ac)	12:24:24 (37.5 kg/ac)	12:24:24 (37.5 kg/ac)
	Basal (Gypsum)	50 kg/ac	50 kg/ac	50 kg/ac
	1 st Time(compound)	15:15:15 (25 kg/ac)	15:15:15 (25 kg/ac)	15:15:15 (25 kg/ac)
	2 nd Time (potash+urea)	12.5 kg/ac+ 12.5 kg/ac	12.5 kg/ac+ 12.5 kg/ac	12.5 kg/ac+ 12.5 kg/ac

Data Records for Pawsan Varieties Yield Trial (20172018)(cont;)

No	Content	Pawsan (early maturity variety)	Pawsan (medium maturity variety)	Pawsan (Late maturity variety)
11	Pest Management	(Acephate) 500g/ac	(Acephate) 500g/ac	(Acephate) 500g/ac
12	Panicle Initiation	23.9.2017	15.10.2017	29.10.2017
13	Flowering(Initial)	25.10.2017	11.11.2017	22.11.2017
14	Flowering (Fully)	6.11.2017	22.11.2017	30.11.2017
15	Harvested Date	18.12.2017	6.1.2018	15.1.2018
16	Days to Maturity	135	150	160
17	Plant Height (ft)	3'9"	4'	4'5"
18	Panicle Length (inch)	10.5"	11.9"	11.5"

Data Records for Pawsan Varieties Yield Trial (2017-2018) (cont;)

No	Content	Pawsan (early maturity variety)	Pawsan (medium maturity variety)	Pawsan (Late maturity variety)
19	Population	87000	87500	86700
20	Effective Tiller/Hill	8.00	9.00	8.15
21	Filled Grain/Panicle	87	95	90
22	1000 Grains Weight	27g	27g	27g
23	Yield (bsk/ac)	78.28	96.72	82.22

Photo Records of Pawsan Varieties Yield Trial



Photo Records of Pawsan Varieties Yield Trial



Photo Records of Pawsan Varieties Yield Trial



Field Day for Observations of Pawsan Varieties Trial



Conclusions

Pawsan (Early Maturity Variety)

- Duration : About 135 days
- Low yield due to low filled grains/panicle
- Full flowering - 1 st week Nov and harvested time - 2 nd week Dec.
- Low resistant to pests & diseases
- Weak stem strength
- Lodging

Conclusions(cont;)

Pawsan (Medium Maturity Variety)

- Duration : About 150 days
- High yield due to the large number of filled grains per panicle
- Full flowering - 3rd week Nov/ Harvested Time - 1st week Jan
- Resistance to pests & diseases
- **Suitable and adaptable variety with the location and climate of Shwebo Region**

Conclusions (cont;)

Pawsan (Late Maturity Variety)

- Duration : About 160 days, latest maturity variety
- Highest plant height and strong stem strength
- Medium yield
- Full flowering - 4th week Nov
- Harvested Time - 2nd week Jan
- If the still flowering stage would meet the coldest weather condition (<14 °C), it might reduce the filled grains.

Suggestion

- Among the tested pawsan varieties in Shwebo region , **pawsanyin (medium-maturity variety)** was the most suitable and adaptable for the local farmers.



Thank You

Department of Agriculture

Shwebo District