**Ministry of Agriculture, Livestock and Irrigation**

**Department of Agriculture**

**Tanintharyi Region, Dawei District**

**Launglone Township**

# Study on Varieties Test of Five Different Rainfed Lowland Rice Varieties in Rainy Season

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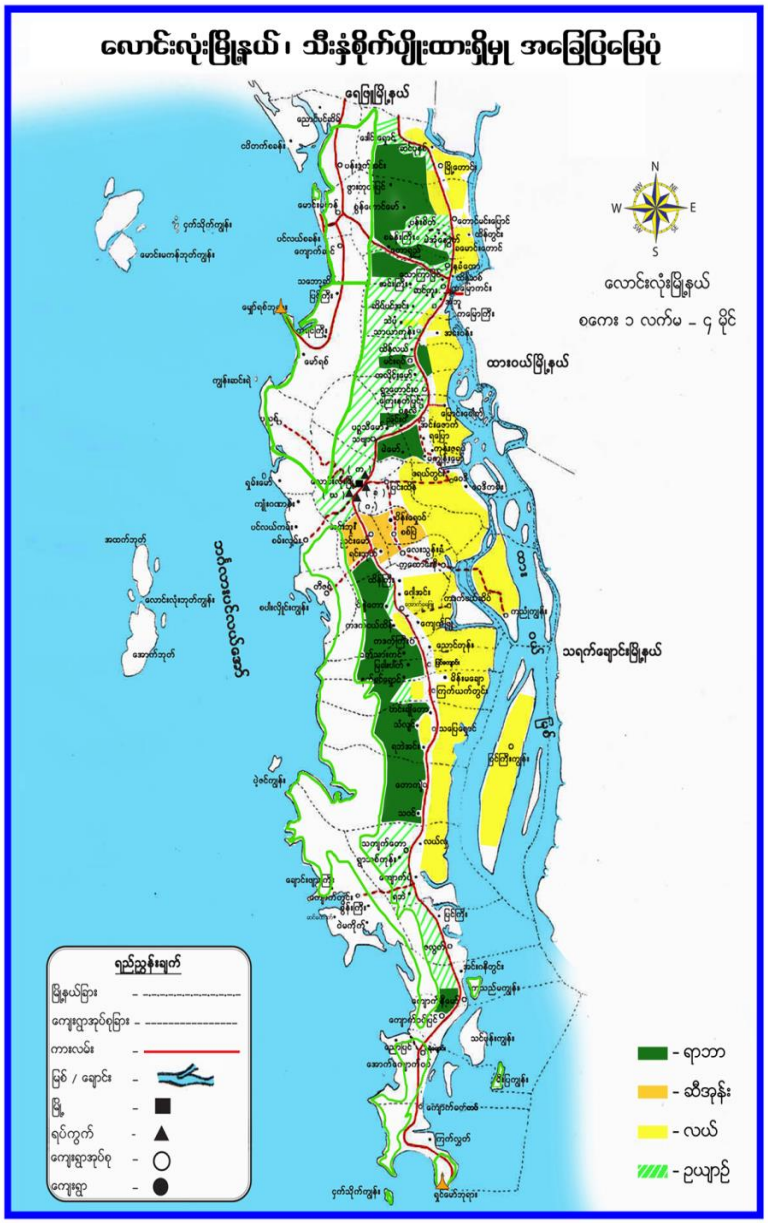
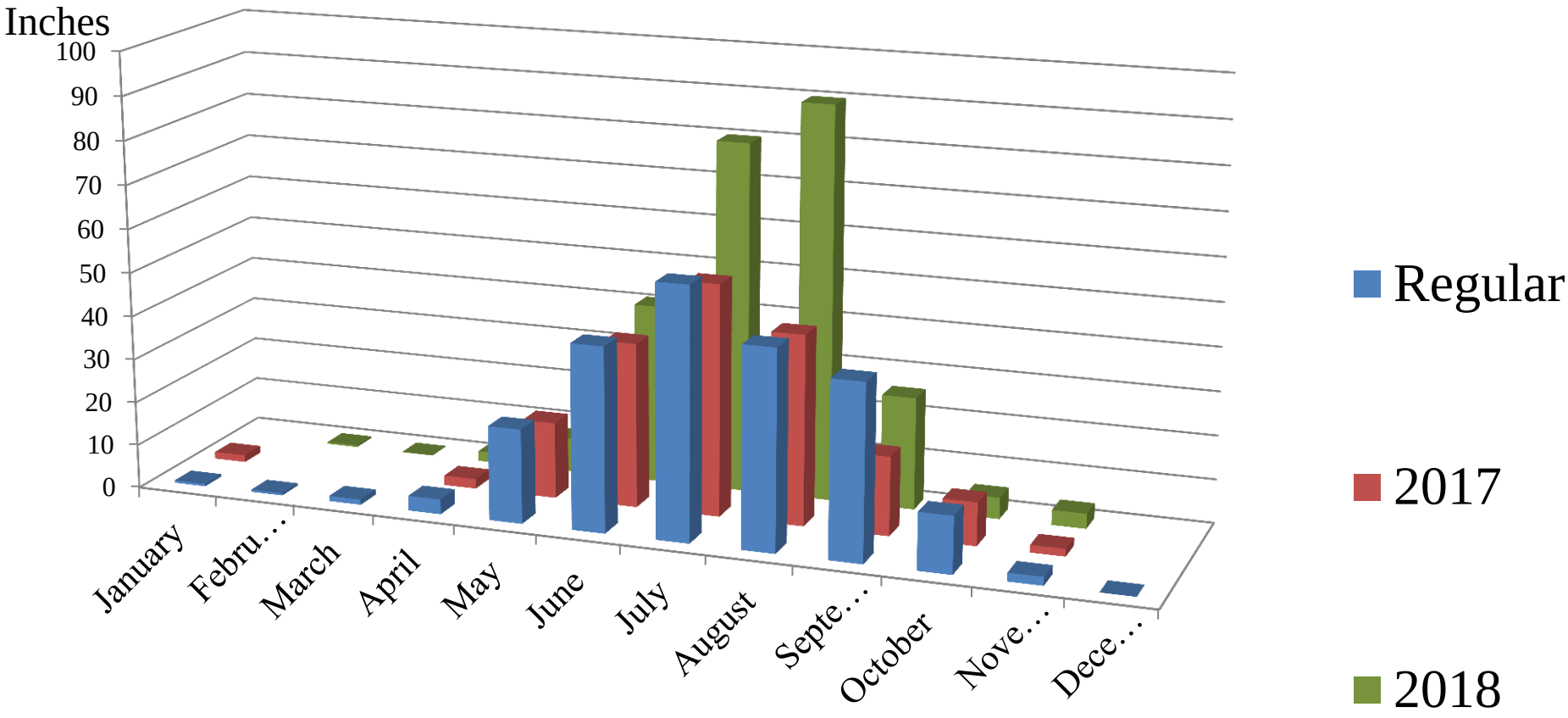
# Background History of Launglone Township




- N latitude - 14° 05' N
- E longitude - 98° 12' E
- Sea level - Above 150 '
- East to West - 12 miles
- South to North - 44 miles
- Area - 227788 ac (355.92)sq-mile
- Population - 146544
- Village tract - 45
- Village - 110
- Household - 23926

# Rainfall Data of Launglone Township



# Main Crops Production in Launglone Township (2017-18)

| Sr | Crop | Sown arces (ac) |
|---|---|---|
| **1** | **Paddy (Monsoon rice)** | **41266** |
| **2** | **Oil crop** | **42** |
| | Sesame | 32 |
| | Sunflower | 10 |
| **3** | **Pulses** | **559** |
| **4** | **Industrial crops** | **16767** |
| | Rubber | 14811 |
| | Oil – palm | 1956 |
| **5** | **Horticulture crops** | **23792** |

- Rice is the most important crop, grown on(41266)acres, about (47)% of the total cultivated area in Launglone township.
- At present, rice production is about ( 2936076)baskets in 2017-18.
- The population is estimated to be around (146544) persons and the demand for local consumption alone will be in the proximity of (2266835)baskets and the security percentage is (123%).

# Objective

- To select the suitable variety for rice based cropping pattern
- To study the performance of their agronomic characters and yield
- To know the adaptable variety with local condition
- To know the insects and diseases resistance varieties
- To extend production and utilization of high yielding varieties appropriate with local condition
- To improve the income of farmers and their socio-economic status

# Experimental Design

| | |
|---|---|
| Season | - rainy season 2017 |
| Location | -Tharyargyone village, Launglone township,Tanintharyi region |
| Farmer | - U Pe Gyi |
| Design | - On farm test ,Five varieties with one replication |
| Plot Size | - 0.19 ac ( 5 sub – plot) |
| | - one sub-plot was ( 50'×33.3') |
| Length of Planting row | - 50 feet |
| Number of Planting row | - 50 rows |
| | (one row with 100 hills and total with 5000 hills) |
| Spacing | - 8 "×6" |

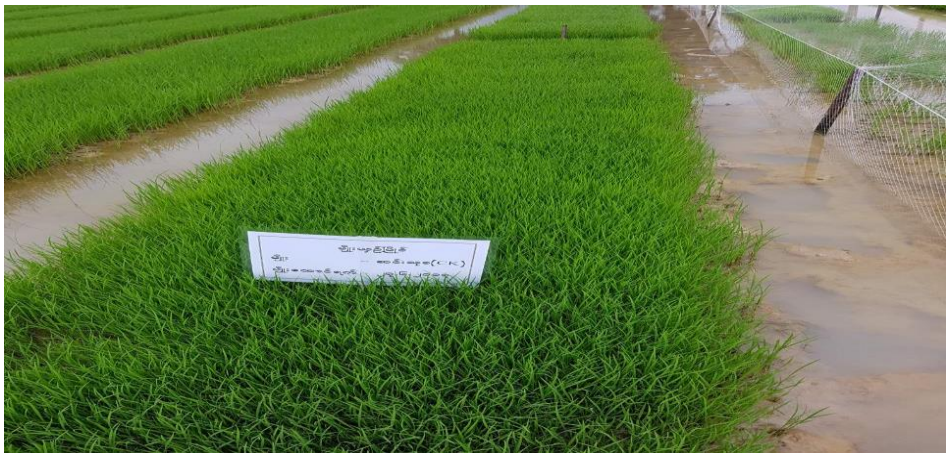
## Activities( Materials and Methods)

- The experiment was conducted at Tharyargyone village,Launglone Township ,Dawei District ,Tanintharyi Region in rainy season ,2017.
- Sinayeyar-1, Sinayeyar -3, LPD104-B-B4-34-1-1-2, LPD104-B-B1-8-1-1-1, Sinthukha(ck) were included in the experiment.
- Land preparation was well- done and prepared the seed-bed.
- Seeds are sown in nursery on June 27,2017 and transplanted on July 18,2017.
- The experiment design was on farm test with one replication.
- Sub-plot size was ( 50'×33.3').

## Activities( Materials and Methods)

- Seedlings were transplanted at 3 plants per hill with the spacing of (8" ×6 ").
- 6 kg of Urea per plot, 6 kg of T- super phosphate per plot and 6 kg of Potash per plot were applied as basal dressing.
- 6kg of Urea per plot, 6 kg of T- super phosphate per plot and 6 kg of Potash per plot were applied at 30 days after transplanting .
- Cultural management was carried out till harvest .
- Always monitoried the field inspection and roughing was done(two time).
- Yield and yield component data were taken and analyzed.

# Seedbed Conditions of Five Different Rainfed Lowland Rice Varieties



# Main Plot (including five sub-plots) of  Five Different Rainfed Lowland Rice Varieties

# 30 Days After Transplanting





# The Characteristic of Sinayeyar-1Variety


- Plant height(cm) - 105
- Panicles per hill - 5
- 50% flowering day - 1.10.17
- Filled grains per panicle - 110
- 1000 grains weight(g) - 21.5
- Yield (bsk/sub -plot) - 2 bsk-8 pyi
- Yield (bsk/ acre) - 74
- Maturity (days) - 142

# The Characteristic of Sinayeyar-3 Variety


- Plant height(cm) - 108
- Panicles per hill - 6
- 50% flowering day - 28.9.17
- Filled grains per panicle - 94
- 1000 grains weight(g) - 21.0
- Yield (bsk/sub -plot) - 2 bsk-8pyi
- Yield (bsk/ acre) - 74
- Maturity (days) - 141

# The Characteristic of LPD104-B-B4-34-1-1-2 Variety


- Plant height(cm) - 115
- Panicles per hill - 5
- 50% flowering day - 26.9.17
- Filled grains per panicle - 101
- 1000 grains weight(g) - 24.2
- Yield (bsk/sub -plot) - 2 bsk- 10 pyi
- Yield (bsk/ acre) - 77
- Maturity (days) - 140

# The Characteristic of LPD104-B-B1-8-1-1-1 Variety


- Plant height(cm) - 112
- Panicles per hill - 5
- 50% flowering day - 26.9.17
- Filled grains per panicle - 99
- 1000 grains weight(g) - 24.0
- Yield (bsk/sub -plot) - 2 bsk-9 pyi
- Yield (bsk/ acre) - 75
- Maturity (days) - 140

# The Characteristic of Sinthukha(ck) Variety


- Plant height(cm) - 106
- Panicles per hill - 6
- 50% flowering day - 23.9.17
- Filled grains per panicle - 104
- 1000 grains weight(g) - 20.6
- Yield (bsk/sub -plot) - 3 bsk -1 pyi
- Yield (bsk/ acre) - 81
- Maturity (days) - 138

# Yield and Yield Component Comparison of Five Different Rice Varieties

| Sr | Varieties | Hill no Per acre | Panicles Per hill | Filled grain per panicle | 1000 Grains Weight (gm) | Yield (bsk/ac) |
|---|---|---|---|---|---|---|
| 1 | Sinayeyar-1 | 132000 | 5 | 110 | 21.5 | 74 |
| 2 | Sinayeyar -3 | 132000 | 6 | 94 | 21.0 | 74 |
| 3 | LPD104-B-B4-34-1-1-2 | 132000 | 5 | 101 | 24.2 | 77 |
| 4 | LPD104-B-B1-8-1-1-1 | 132000 | 5 | 99 | 24.0 | 75 |
| 5 | Sinthukha(ck) | 132000 | 6 | 104 | 20.6 | 81 |

# The Characteristics of Five Different Rice Varieties

| Sr | Charcateristics | Sinayeyar-1 | Sinayeyar -3 | LPD104-B-B4-34-1-1-2 | LPD104-B-B1-8-1-1-1 | Sinthukha (ck) |
|---|---|---|---|---|---|---|
| 1 | Plant height(cm) | 105 | 108 | 115 | 112 | 106 |
| 2 | Panicle | 5 | 6 | 5 | 5 | 6 |
| 3 | 50% flowering(days) | 1.10.17 | 28.9.17 | 26.9.17 | 26.9.17 | 23.9.17 |
| 4 | Filled grain/ Panicle | 110 | 94 | 101 | 99 | 104 |
| 5 | 1000 grains weight | 21.5 | 21.0 | 24.2 | 24.0 | 20.6 |
| 6 | Yield (bsk/sub plot) | 2bsk – 8 pyi | 2bsk -8 pyi | 2bsk-10 pyi | 2bsk-9 pyi | 3bsk-1 pyi |
| 7 | Yield(bsk/ac) | 74 | 74 | 77 | 75 | 81 |
| 8 | Maturity(days) | 142 | 141 | 140 | 140 | 138 |

# Results and Discussion

**LPD104-B-B4-34-1-1-2** gave good yield due to the combined effect of filled grains per panicle, fair panicle per hill, good plant population and 1000 grains weight.

**LPD104-B-B1-8-1-1-1** gave fair yield due to fair panicles per hill, good filled grains per panicle and good 1000 grains weight(gm).

**Sinayeyar-1** gave low yield due to fair panicles per hill, good filled grains per panicle and low 1000 grains weight (gm).

**Sinayeyar -3** gave low yield due to good panicles per hill, low filled grains per panicle and low 1000 grains weight (gm).

# Results and Discussion

**Sinthukha(ck)**gave high yield due to good plant population ,good panicles per hill, good filled grain per panicle and low 1000 grains weight(gm).

# Conclusion

- Among five varieties, Sinthukha was found to be high yield varieties and fair eating quality. LPD104-B-B4-34-1-1-2 gave good yield, LPD104-B-B1-8-1-1-1 gave fair yield,Sinayeyar-1 and Sinayeyar-3 gave low yield.
- The local farmers interested LPD104-B-B4-34-1-1-2 and Sinthukha.
- Sinthukha was adaptable for cultivating in rainy season. It was suitable than other four cultivars.


Thank You For Your Attention
Department Of Agriculture
Launglone Township