

**Ministry of Agriculture, Livestock and Irrigation**  
**Department of Agriculture**  
**(Chin State)**



# Selection of Suitable Potato Among Five Different Varieties



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# Introduction

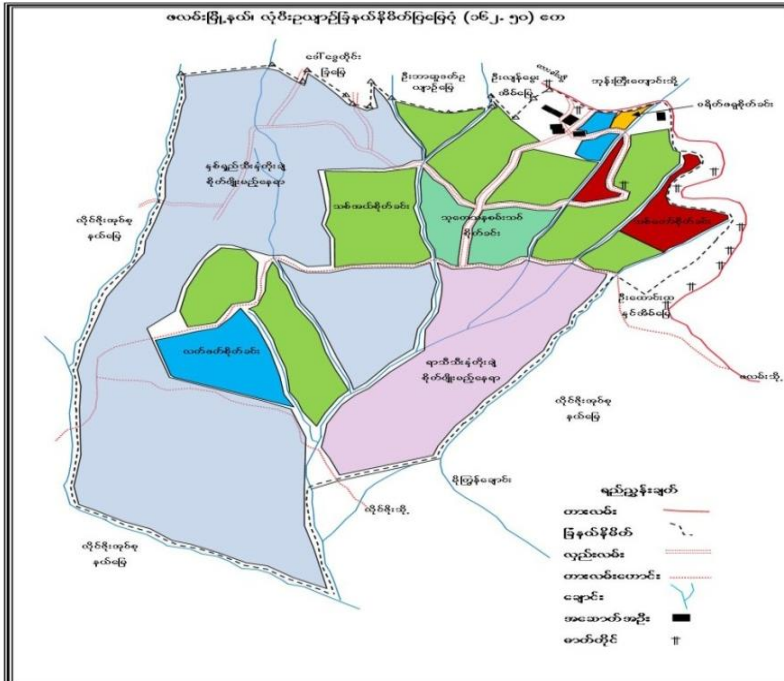
- ✓ Five kinds of potato varieties were introduced, namely; Netherlands (markies and carolus), USA (Oakdale), India (Lady rosetta) and Myanmar (Shan variety) in February 2018
- ✓ All these varieties were grown at the same time to know the best result.

# Objectives

- ✓ To find out the most suitable potato varieties in Chin State
- ✓ To produce quality potato seeds
- ✓ To encourage the local farmers to grow profitable potato varieties
- ✓ To distribute the potato seeds to farmers and, for field demonstration
- ✓ To develop their income and living standard of farmers

# Regional Background

- Lunpi farm was established in 1958-1959
- The main objective is to develop and disseminate new agricultural technologies and various crops for farmer through field demonstration



Average Rain fall - 75.06 Inches

Temperature - (-2 °C) - 35 °C

Elevation - (4900 to 5300ft)

Soil pH - 4.5 to 6.5

Type Of Soil - Chin Hill Complex Soil

# Characteristics of five potato varieties

| No | Characteristics    | Markies          | Carolus                | Oakdale      | Lady Rosetta   | Shan Variety |
|----|--------------------|------------------|------------------------|--------------|----------------|--------------|
| 1  | Shape Of Tuber     | Oval             | Oval                   | Oval         | Round          | Oval         |
| 2  | Color of Skin      | Cream            | Red parti-colored      | Cream        | Red            | Cream        |
| 3  | Color Of flesh     | Light yellow     | Light yellow           | Light Yellow | Light Yellow   | Light Yellow |
| 4  | Depth of eyes      | Shallow – Medium | Shallow – Very Shallow | Medium       | Shallow-Medium | Shallow      |
| 5  | Smoothness of skin | Medium           | Smooth                 | Medium       | Medium         | Medium       |

Source ; [www.eurogrow.co.nz/varieties/markies](http://www.eurogrow.co.nz/varieties/markies)

# Land Preparation and Sowing



- Land Preparation by using conventional cultivation method
- All weeds and debris were cleaned and burned

- Spacing is between 1.5 by 2.5 inches



# Weeding and Fertilizer Application



- Weeding was made 2 times/ a month



- Compound Fertilizers were applied three times with 30kg of each times during cultivation.

# Crops Monitoring/ Evaluation and Crops Data Collection



Two months after plantation of the potato plants

Three months after plantation



# Growing for testing five different Potato varieties



# Harvesting



- ✓ Markies and Carolus from Netherland were found to be the best suitable varieties in Chin State



## Result of ( 5 ) Potato Varieties

| Sr | Variety<br>(Country)    | Sowing<br>Date | Harvesting<br>Date | Seeds<br>rate<br>(Viss) | Yield<br>Percent(%) | Yield<br>( Viss) |
|----|-------------------------|----------------|--------------------|-------------------------|---------------------|------------------|
| 1  | Carolus<br>(Nederland)  | 12.2.2018      | 8.6.2018           | 20                      | 60.85               | 137              |
| 2  | Markies<br>(Nederland)  | 12.2.2018      | 16.6.2018          | 20                      | 70.10               | 142              |
| 3  | Oakdale<br>(USA)        | 12.2.2018      | 21.5.2018          | 20                      | 40.65               | 93               |
| 4  | Lady rosetta<br>(India) | 12.2.2018      | 5.5.2018           | 20                      | 30.00               | 60               |
| 5  | Shan<br>(Myanmar)       | 12.2.2018      | 17.5.2018          | 20                      | 40.25               | 85               |

# Figure showing the quality of each varieties



# Field Demonstration to students of Sate Agricultural Institute, lungpi, Falam



# Field Demonstration and Training for Potato Cultivation



# Edible Quality and Crops Character of Five Different potatoes Varieties

| Sr | Varieties    | Edible Quality | Pest and Diseases resistance | Life Span (Days) | Average Plant Height ( cm) |
|----|--------------|----------------|------------------------------|------------------|----------------------------|
| 1  | Carolus      | Good           | Good resistance              | 114              | 62.5                       |
| 2  | Markies      | Good           | Good Resistance              | 122              | 55                         |
| 3  | Oakdale      | Medium         | Medium resistance            | 97               | 47.5                       |
| 4  | Lady Rosetta | Excellent      | Low resistance               | 80               | 25                         |
| 5  | Shan         | Medium         | Low resistance               | 93               | 45                         |

# Testing edible quality among five different Potato Varieties



- ✓ Eating quality of these varieties were tested together with the farmers in Lungpi farm, and DOA Staffs in the office

# Conclusion

- ❖ The experimental site ( Lungpi, Falam Township) is suitable for these five varieties
- ❖ All the five varieties have high yields but two varieties of Nederland (**Markies and Carolus**) have better yield and edible quality
- ❖ Farmers are more prefer the two Netherlands varieties than the other 3 varieties ( Shan, Oakdale, Lady rosetta)

# Suggestion

- ❖ I would like to suggest that all the five varieties are suitable to grow in hilly regions.
- ❖ But the two Nederland varieties should be distributed to farmers to whom engaged in mass potato production.
- ❖ Other crop experimentations are also should be done in hilly region like Chin state.

**Thank You for Listening and  
Warmly welcome to your suggestion**

