



Ministry of Agriculture, Livestock and Irrigation  
Department of Agriculture  
Rakhine State, Sittwe



# Salinity Resistance Varieties of Rice On Farm Trial

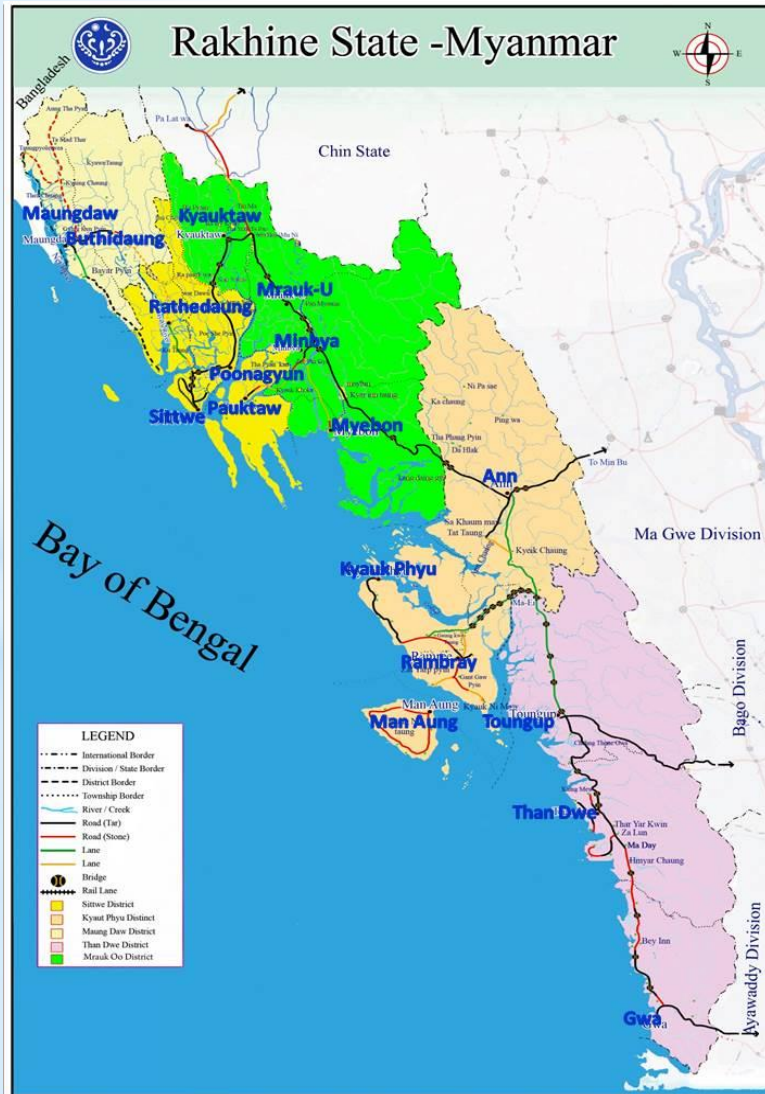


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- Rakhine State      ➡      Sea water coastal region and heavy rainfall  
  
Located on the western coast of Myanmar along the Bay of Bengal
- Climate            ➡      tropical monsoon type
- Main Crop         ➡      rice - 89 % of total net sown area  
  
yield - 64.09 million baskets of rice per yield  
  
➡      rice, pulses, oil seed crops, industrial crops, kitchen crops and vegetables

# Location Map of the Rakhine State

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## Location

- Latitude - 17 °30' N - 21 °30'N
- Longitude - 90 °10' E - 94 °50' E
- Western coast of Myanmar

## Border Country

- Bangladesh to the northwest

## Sea Frontier

- The Bay of Bengal to the west

## Border Regions

- Chin State to the north
- Magway Division, Bago Division and Ayeyarwady Division to the east.

## Total Land Area

- 14200.08 Sq –miles (9088053 acres)

## Capital

- Sittwe

## Objectives

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- To produce new varieties and higher yield
- To determine adaptable new varieties production in Rakhine State
- To replace salinity resistance varieties instead of local varieties



# Experimental Information

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- Crop - Salinity resistance varieties of rice
- Experiment Type - Simple Trial
- Farmer's Name - U Tun Thar Sein
- Township - Pauk Taw
- District - Sittwe
- State - Rakhine



# Experiment - Simple trial with five treatments

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## Treatments

T1 - IR-11T-255

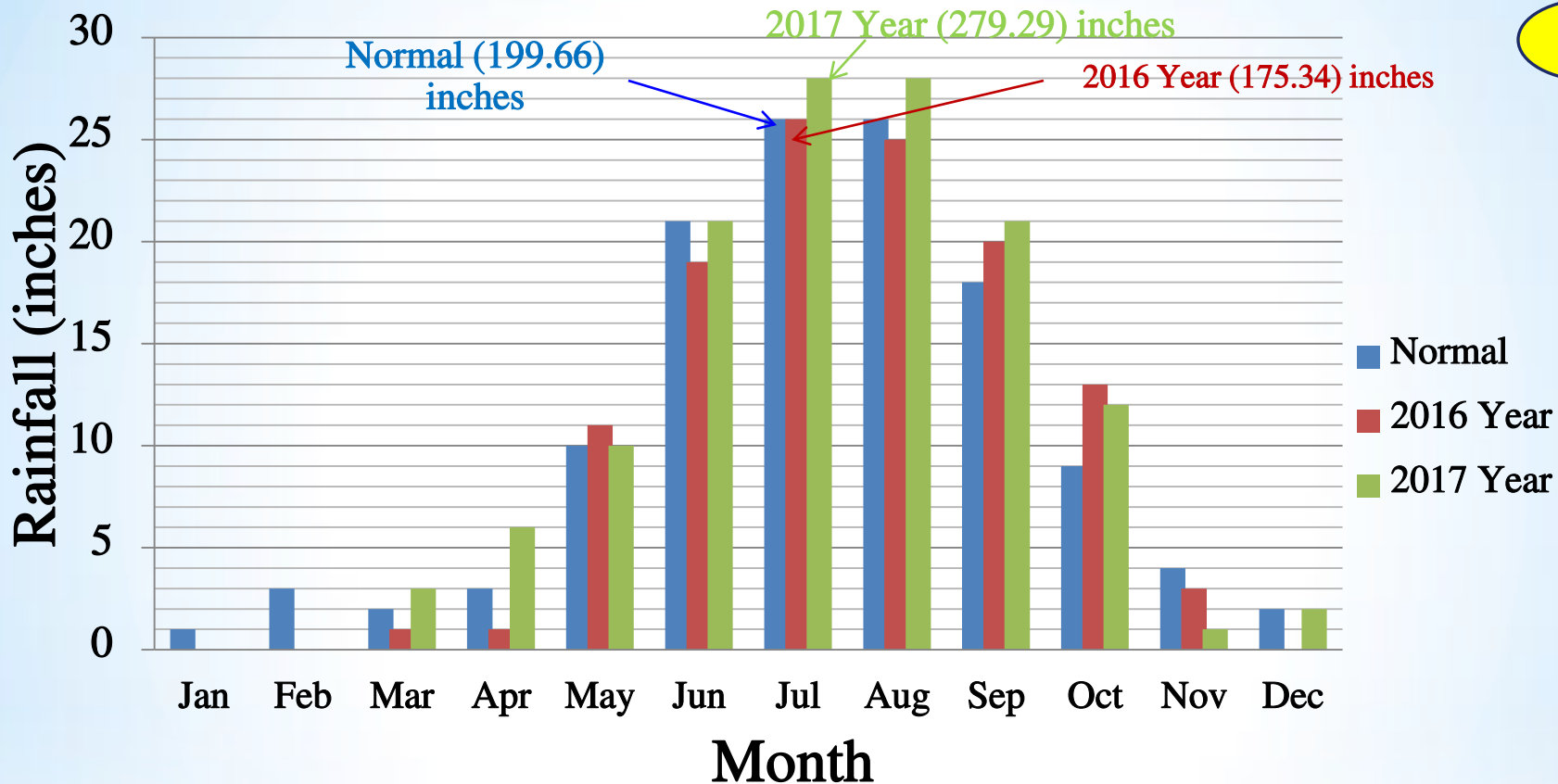
T2 - IR-11T-159

T3 - Salinas-12

T4 - Salinas-18

T5 - Pyi Myanmar Sein





Content	Normal		2016		2017	
	Day	Inches	Day	Inches	Day	Inches
Total Rainfall	125	199.66	119	175.34	132	279.29

Figure [1] Monthly Rainfall in Pauk Taw

**Table (1) Experimental Condition**

Sr.	Item	Field No.	Holder No.	Area of Plot	No. of Row	Plant Spacing
1	IR-11T-255	1085B	4/8	50'×33.3'	50	8"×6"
2	IR-11T-159	1085B	4/8	50'×33.3'	50	8"×6"
3	Salinas-12	1085B	4/8	50'×33.3'	50	8"×6"
4	Salinas-18	1085B	4/8	50'×33.3'	50	8"×6"
5	Pyi Myanmar Sein	1085B	4/8	50'×33.3'	50	8"×6"

# Activities

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# Activities

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**Table (2) Input Application**

Sr	Item	IR- 11T- 255	IR- 11T- 159	Salinas- 12	Salinas- 18	Pyi Myanmar Sein
1	Fertilizer	-	-	-	-	-
	- Urea	4kg	4kg	4kg	4kg	4kg
	- T-super	2kg	2kg	2kg	2kg	2kg
	- Potash	1kg	1kg	1kg	1kg	1kg
2	Intercultivation	2 times	2 times	2 times	2 times	2 times

**Table (3). Main Data of Characteristics of Salinity Resistance Rice Varieties**

Sr.	Items	IR-11T-255	IR-11T-159	Salinas-12	Salinas-18	Pyi Myanmar Sein
1	Date of Sowing	14.7.17	14.7.17	14.7.17	14.7.17	14.7.17
2	Date of Transplanting	3.8.17	3.8.17	3.8.17	3.8.17	3.8.17
3	Date of 50% flowering	3.10.17	5.10.17	3.10.17	4.10.17	5.10.17
4	Days of 50% flowering	78	80	78	79	80
5	Plant height (inches)	3 ' 9"	3 ' 6"	3 ' 10"	3 ' 6"	3 ' 9"

**Table (4). Main Data of Yield and Yield Components**

Sr.	Items	IR-11T-255	IR-11T-159	Salinas-12	Salinas-18	Pyi Myanmar Sein
1.	No. of panicle per hill	6	10	9.5	9.5	11.4
2.	No. of spikelets per panicle	102	96	68	79.1	70.9
3.	No. of filled grain per panicle	92	78	57	59	59
4.	Date of harvesting	1.11.17	1.11.17	1.11.17	1.11.17	1.11.17
5.	Yield of Trial Plot	3.44	3.41	3.26	2.67	3.04
6.	Grain Yield (bsk per acre)	90.52	89.73	85.79	70.26	80.00

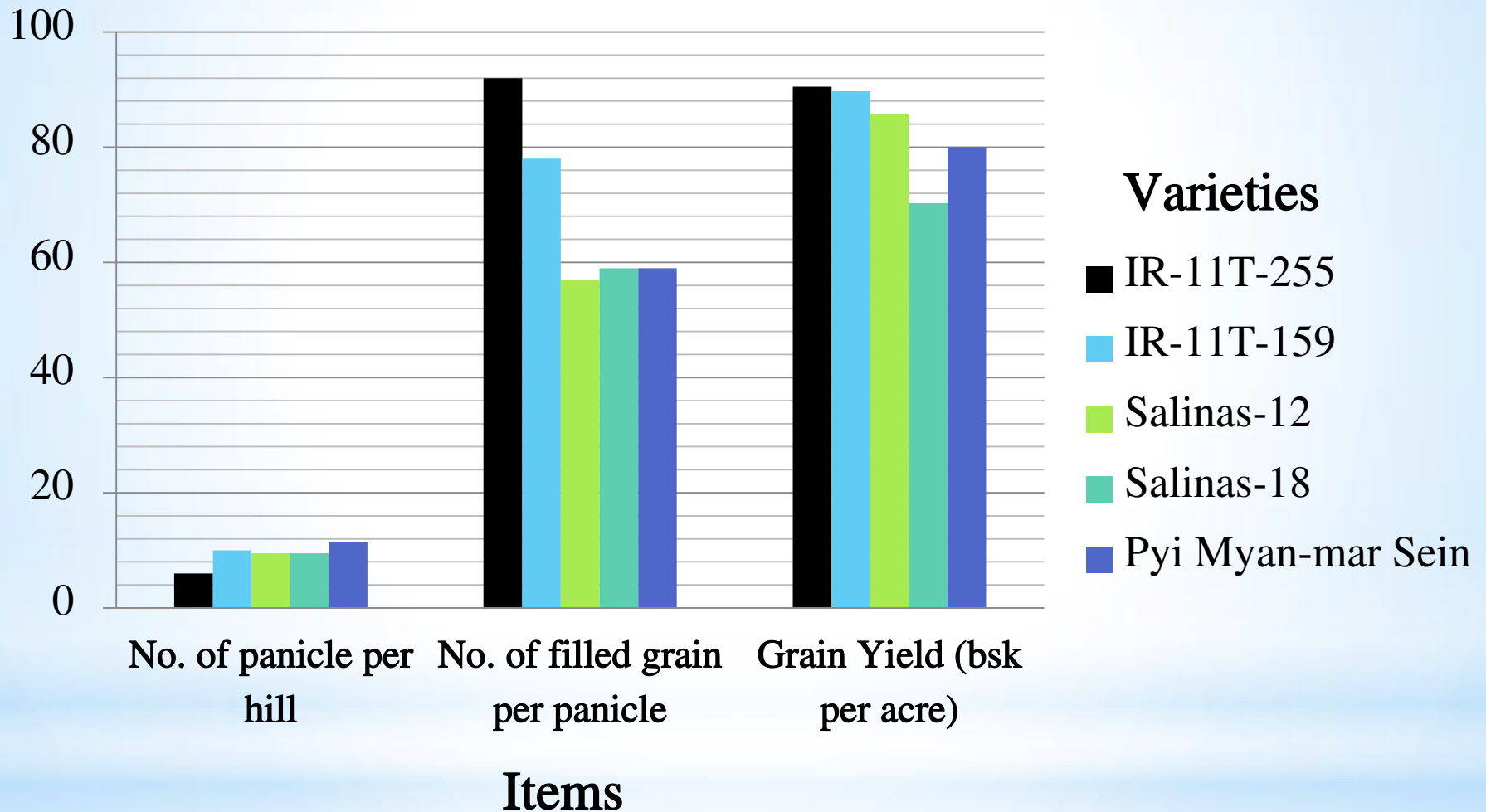


Figure [2] Comparison of Yield and Yield Components

## Data Collection



Among of these varieties IR11T-255 variety was the second highest plant height and the highest grain yield. IR-11T-159 variety gave the second highest grain yield and number of filled grain per panicle was the second highest. Variety of Salinas -12 had highest plant height and the third highest yield.

In flooded area, trial plot of new saline resistance varieties and local varieties (Nga Sein, Cary Let Rom) should be made.



Thank You

