



# Ministry of Agriculture, Livestock and Irrigation



## Liming Experiment in Myaungmya Township

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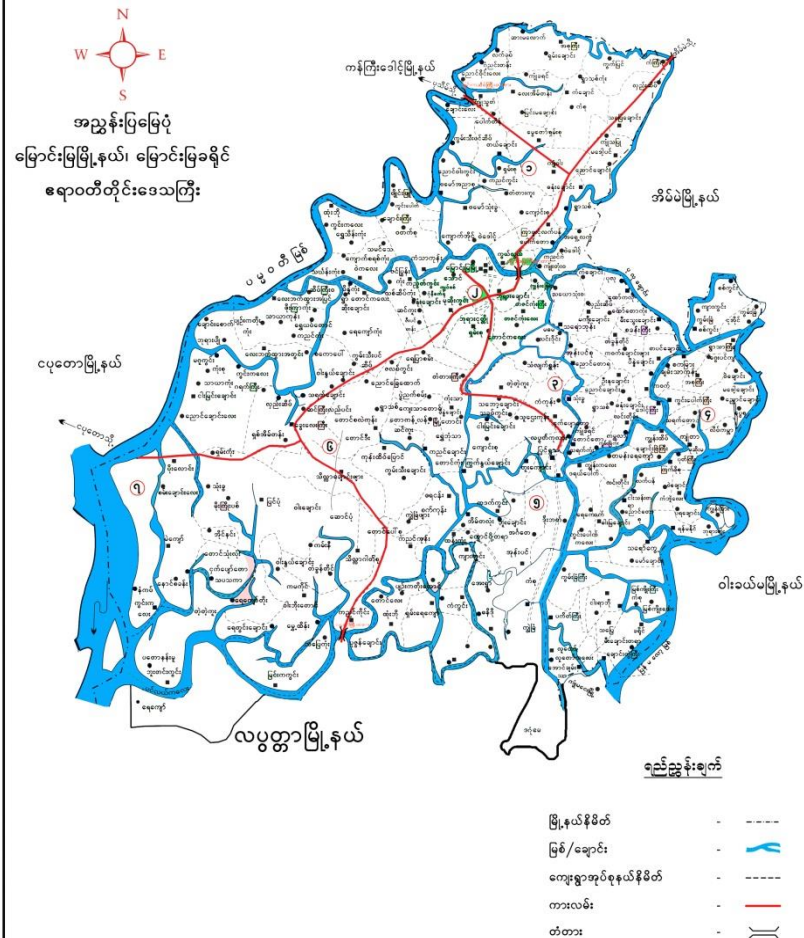
# Liming Experimental Plot

1. Crops - Sinthukha(Rice)
2. Experimental Design - Simple trails
3. Village - Kyonewar
4. Township/District - Myaungmya/ Myaungmya  
- Ayeyarwady Region
5. Farmer ' s Name - U Tun Wai
6. Field No./Plot No. - 218/1536A, 12/2
7. Small Plot Size - (0.5)ac



# Background Data of Myaung Township

## မြောင်းမြမြို့နယ်မြေပုံ



- Township - Myaungmya
- Area - 2663Sq/mile
- Sowing Acres - 165337ac  
(monsoon)
- Ecology - Delta Region
- Average Rainfall- 125 days/102"
- Temperature - 25°C , 35 ° C
- Altitude - 20' 6 "
- Main Crop - Paddy

# Rice Ecosystem and Area Of Myaungmya Township

1. Favorable Area	147926 ac
2. Flooding Area	9090 ac
3. Deep-water Area	8321 ac
• <b>Total rice sown areas</b>	<b>165337 ac</b>
1. High Yielding Varieties	110660 ac
2. High Quality Varieties	29711ac
3. Local Varieties	24966ac
<b>Varieties</b>	<b>165337ac</b>

# Problem Background

- ✓ High rainfall
- ✓ Intensive crop production
- ✓ Using only nitrogenous fertilizer
- ✓ Iron toxicity
- ✓ Yield is stagnant although using more fertilizer

# Objectives

- ❖ To raise Soil pH
- ❖ To improve soil fertility
- ❖ To increase nutrient availability
- ❖ To achieve yield increase

# Activities

- Applying lime one month ahead monsoon paddy
- Ploughing into 6 inches depth
- Transplant into experimental plot in (20)days
- Collecting the data(30-DAT, 60-DAT)
- Checking pH changes after harvest

# Land Preparation after Liming



Liming and Soil Preparation to Demonstration Plot at Kyone War Village





# Transplanting into experimental plot



Transplanting Demonstration Plot at Kyone War Village





# Collecting The Data



# Liming vs pH

	<b>Lime</b>	<b>pH</b>	<b>Difference</b>
2013-14	-	4.5	
2014-15	200 viss/ac/yr	4.70	+0.20
2015-16	200 viss/ac/yr	5.0	+0.3
2016-17	200 viss/ac/yr	5.25	+0.25

# Yield Components

Year	No.of hills	Effective tiller	No. of Spikelet	Filled grain %	1000 grain wt(gm)	Yeild/ac (Bsk.)
2013-14	128000	-	-	-	-	71.23
2014-15	128000	7	101	88.1	20.6	78.65
2015-16	128000	7	104	90.38	20.6	83.07
2016-17	128000	7.5	106	90.47	20.6	90.81

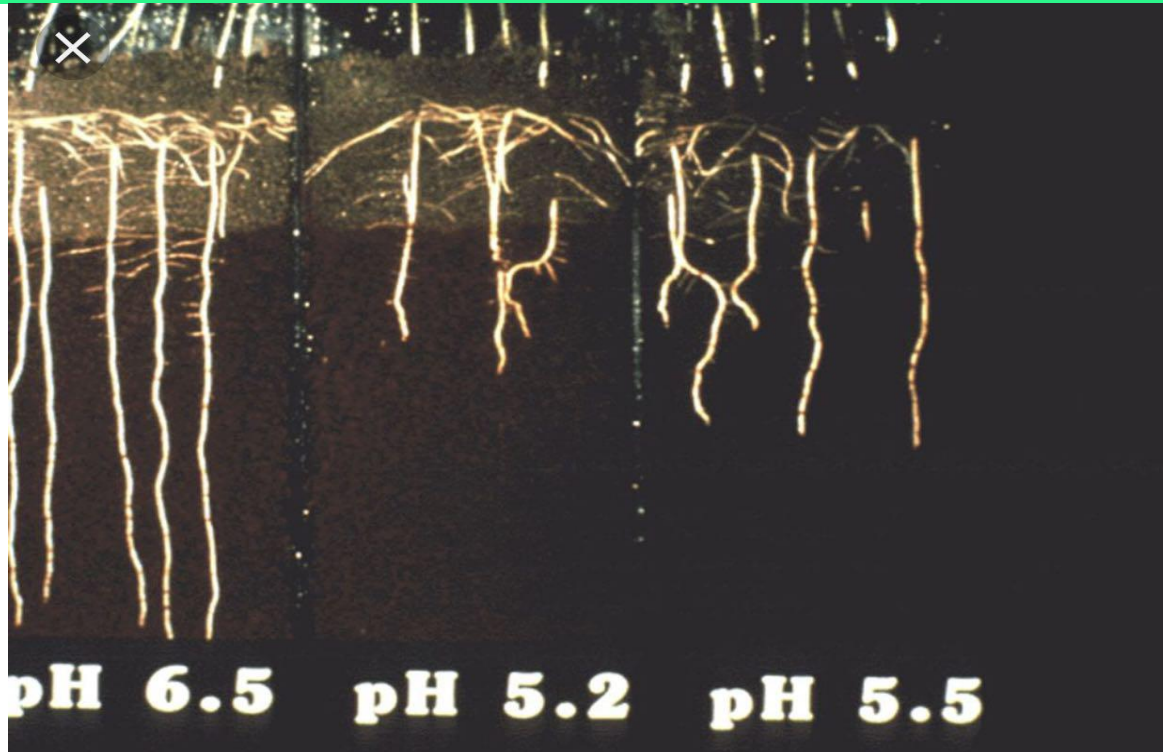
**Note. Fertilizer rate Urea-(1)bag,T-super (1/2)bag, potash (1/4)**



# Experimental Data

No.	Year	Varieties	Experiment Yield	Control Yield	Yield difference (+/-)
1	2014-2015	Sin Thu Kha	78.65	70.35	(+)8.3
2	2015-2016	Sin Thu Kha	83.07	69.17	(+)13.9
3	2016-2017	Sin Thu Kha	90.81	73.25	(+)17.56

# Discussion



Control



Liming

# Discussion

- pH is increased year by year
- Yield increasement is greater than control every year
- Disease infectation is getting lesser than before
- Lesser crop lodging
- Filled grain percent is increased
- Iron toxicity is getting lower

# Suggestion

- Lime should be incorporated every year
- Animal manure/compost/green manure should be applied
- Compound fertilizer should be used rather than using only nitrogenous fertilizers
- Crop rotation should be practice
- Awareness of farmers for soil improvement



# Soil Sampling Activities Of Myaungmya Township (2018-2019)

No	Favourable acres	Sampling acres(first)	Sampling acres (second)	Sampling acres (third)	Remarks
1	147926	44000	53000	50926	Finish First time

pH 4 - 5	- 1508 ac	- 3.43%
pH 5 - 6	- 42311.08ac	- 96.16%
pH 6 - 7	- 180.92 ac	- 0.41%
	- 44000	

# Farmer Field Day of apply limming



# Conclusion

- 2016-17 pH range(+0.75) is more than 2013-14
- Yield also increase year by year
- Lime applying must be use in rice-rice growing areas





# THANK YOU FOR YOUR KIND ATTENTION