
NEPAL
BHUTAN
INDIA
CHINA
BANGLADESH
Myitkyina
Mandalay
Lashio
Bay of Bengal
INDIAN OCEAN
LAOS
VIETNAM
Yangon
Moulmein
THAILAND
MYANMAR
(Burma)
Tavoy
Mergui
INDIA
CAMBODIA
Andaman Sea
Myanmar
0
400 km

Trial Report
Comparison Trial Test Result of Grow Pros
(Trial Protocol)

Company Name:	National Sanpya Co., Ltd
Name of Product:	Grow Pros
Contents	(1) Humic Acid – 12% (2) Pseudomonas Putida – 10^6 CFU / ml
Form of Product	Liquid
Purpose	To test the effectiveness and harmfulness of Grow Pros Product on crops.
Test Location	Hlegu Township
Test Crop	Rice (Small Pearl kind)
Test Acre	0.5 Acre
Test Design	Simple Trial
Season	Summer 2016
Plans:	
Trial 1	T1 = No Treatment (Control)
Trial 2	T2 = Grow Pros

The Ratio

Grow Pros 1 gal / acre - Mix 10 gallons water with 1 gallon Grow Pros. Spray the mixture onto the soil thoroughly for one time before planting the crop.

Procedure

A Simple Trial test for Grow Pros Product was performed on 2015-2016 summer rice crop in Hlegu Township, Ye Mon Village, Myanmar. The kind of rice is named Small Pearl. The testing was conducted on 0.5 acre field. Rice seeds were sowed on Dec 28, 2015. On Jan 19, 2016, 22 days old rice seedlings were moved to the trial field prepared with Grow Pros. These seedlings were replanted in group of 2 to 3 tillers at 8" x 6" apart.

There were no fertilizer used in both Control and Grow Pros trials. The same crop management method was carefully applied to both Trials in control field and GrowPros field. Trial 1 field (T1) was Control without any treatment and Trial 2 field (T2) was treated with Grow Pros product only.

On Jan 17, 2016, the Trial 2 field was sprayed thoroughly with a mixture of 1 gallon Grow Pros and 10 gallons water before planting the seedlings. The usage was 1 gallon per acre. There was only **one application** of GrowPros product during the testing period. The 22 days old rice seedlings were planted after the application of Grow Pros Product. Data was collected two times, once on **Feb 18, 2016** (exactly one month from the planting) and again on **Apr 18, 2016** at harvest time.

Analysis of the Result

The data collected on February 18, 2016 at one month after planting showed significant differences of the rice plants from T1 Control Field and T2 Grow Pros Field.

Table (1) Data collected after 30 days Date: Feb 18, 2016

Trial	Plant Height (cm)	Multiple Stems	Note
T1	43.3	11.6	-
T2	55.2	14.4	-

Table (2) Data Collected at Harvest Time Date: Apr 18, 2016

Trial	Plant Height (cm)	Multiple Stems	Stem length (cm)	One Stem		Weight of 1000 seeds (g)	Yield per Plot (g)	Yield per Acre (tin)*
				Successful Seeds count	Failed Seeds count			
T1	90.7	7.5	21.7	83	58	25.1641	378	72.4
T2	105.9	10.3	23.9	140	11	26.7089	574	109.9

***1 tin (Myanmar Unit) = 10.8 gallons or 1.16 bushels**

Cost Analysis

Extra Yield using GrowPros	= 37.5 Tin*
The Profit will be	= 37.5 tin x 4000 Kyats *
	= 150,000 kyat profit

* Note:

Tin (Myanmar Unit) = 1.16 bushels

Kyat = Myanmar Currency (approximately 1000 Kyat = US$1)

Note: Simple Trial for Permit in Myanmar

Summer 2016 Rice (Small Pearl)
Plantation period - Dec 28, 2016 - Apr 18, 2016
The GrowPros product applied on Jan 17, 2016 when 22 days old rice seedlings were transferred to the trial fields.
The data were collected two time on Feb 18, 2016 (one month) and on Apr 18, 2016 (harvest time).

Data Analysis and Recommendation based on Grow Pros Product Trials Result

The effectiveness of Grow Pros Product was tested on rice crops using Simple Trial method, comparison of productions between untreated soils Control T1 and GrowPros treated soils T2. The test data from Grow Pros treated T2 field showed impressive results, higher plant heights and more multiple stems at just one month trial period. It was apparent that applying Grow Pros with beneficial microbe to the field before planting was effective and helped grow stronger crops.

Comparing the results from the two trial fields T1 and T2 shows that the yield from Grow Pros treated field T2 is significantly better than non-Grow Pros treated Control field T1 in every important category of multiple stems, successful seeds, failed seeds, weight of 1000 seeds, and yields per acre. The test concludes that Grow Pros product is effectively beneficial to the health and crop productions.

It is further concluded that the ease of mixing Grow Pros Product and water and the ease of spraying application confirmed that not only it did not harm the rice crops but it actually increased yields and profitability. It is definitely beneficial for the farmers who will use this product.

*The trial result is based on the Grow Pros sample product that provided to the trial department.

(Signature)
Khin Mi Mi Aung
Deputy Director General
Trial Representative
Ministry of Agriculture
Land Use Department

Table (1)

Data Collected after One Month Date: Feb 18, 2016

No.	Trial T1		Trial T2		
	Plant Height (cm)	Multiple Stems	Plant Height (cm)	Multiple Stems	Note
1	40.5	11	55.6	14	
2	46.5	11	54.7	14	
3	40.3	11	55	18	
4	45	11	56.5	17	
5	46	10	54.7	14	
6	48	11	50.5	15	
7	43.5	10	55.7	18	
8	44.6	10	55.6	10	
9	40.1	9	56.7	11	
10	38	13	57.2	13	
Avg.	43.3	11.6	55.2	14.4	

Table (2)

Data Collected at Harvest Time **Date: Apr 18, 2016**

No.	Trial T1			Trial T2		
	Plant Height (cm)	Multiple Stems	Stem Length (cm)	Plant Height (cm)	Multiple Stems	Stem Length (cm)
1	100	9	21	111	8	24
2	103	9	20	109	10	24
3	110	8	22	100	12	23
4	100	10	23	105	8	25
5	95	10	22	108	11	24
6	93	7	23	99	10	23
7	94	8	21	103	12	25
8	97	10	22	108	10	24
9	90	9	21	106	12	24
10	90	10	22	110	10	23
Avg.	97.2	9.0	21.7	105.9	10.3	23.9

Data Facts

	T1	T2
Successful Seeds	**83**	**140**
Failed Seeds	**58**	**11**
Weight of 1000 seeds (g)	**25.1642**	**26.7089**
Yield per Plot (g)	**378**	**574**
Yield per Acre (Tin)	**72.4**	**109.9**