

# Summary of improvements - usage HERBAGREEN in Rice farming

August. 2010

ITEM		Herbagreen – USAGE / RAI	HG improvement	Herbagreen – USAGE / RAI	HG improvement	Herbagreen – USAGE / RAI	HG improvement
		K. Lung Somsong		K. Saeri		K. Korn	
Harvest kg/Rai	per rai	736 kg	+ 38.9%	745 kg	+ 50,08 %	922 kg	+31.7%
Soil setting		600		100		100	
Seed		500		625		450	
Sowing		50		50		0	
Herbagreen		1200		225		750	
Fertilizer		260		1050		420	-75%
Hormone				0		0	
Grass killer		260		0		150	
Pestizide		100		150		0	
Rent labour		0		0		35	
Gasoline		0		150		-	
Car+harvest		600		350		424	
Total cost		3,470	7.80%	2,650	+ 9.3 %	2,329	-18%
Income		6,845	38.90%	5,662	+ 50.8 %	7,120	38%
Profit / Rai		3,375	97.50%	3012	+ 126.6 %	4,791	105%
Cost / earning ratio		97%		113,7%		205%	

ITEM		Herbagreen – USAGE / RAI	HG improvement	HG – USAGE / RAI ( 15 Rai )	%	HG field Mr. Gorn ( 15 Rai )	%
		K. Mam		K. Gorn		K. Dean	
Harvest kg/Rai	per rai	1,015 kg	+35%	795 Kg	49%	795 Kg	66%
Soil setting		100		100		100	
Seed		450		450		450	
Sowing		0		0		0	
Herbagreen		83		850		850	
Fertilizer		722		420	less 65%fertilizer	420	
Hormone		56		0		0	
Grass killer		150		100		100	
Pestizide		67		0		0	
Rent labour		134		37		37	
Gasoline		555		400		400	
Car+harvest		478		413		413	
Total cost		2,795		2770	3%	2770	
Income		7,617		7,155	49%	7,155	67%
Profit / Rai		4,822	172%	4,385	127%	4,385	114%
		173%		158%		158%	

Location : District - Phanom Thuan, Province Kanchanaburi

Farmer Name : Farmer K. Lung Somsong in servilance of local COOP organization.

Control Plot Size : No actual Control Plot

HG Plot Size : 1.4 Rai

HG Appication : 4 Times

Plot size is 1,4 Rai. No actual Control Plot was used to compare. According to the farmer, the previous maximum output he been only 530 kg / Rai.

Testing started by the rice age of 20 days. The farmer already used 1 time Urea.

Afterwards no more additional fertilizer was used. HERBAGREEN was sprayed 4 times in 3 week cycles.

Throug out the whole test no Pesticides were needet. Only Grass Killer has been sprayed. The whole result is converted to 1 Rai as calculation standard

ITEM		Control -USAGE per RAI ( 1.4 Rai )	HG – USAGE per RAI ( 1.4 Rai )	HG improvement	%
Harvest kg/Rai	per rai	530 kg	736 kg	+ 206 kg	+ 38.9%
Soil setting	1	600	600		
Seed		500	500		
Sowing		50	50		
Herbagreen		0	1200		
Fertilizer	3	1110	260		
Hormone					
Grass killer		260	260		
Pestizide		100	100		
Rent labour		0	0		
Gasoline		0	0		
Car+harvest		600	600		
Total cost		3,220	3,470	250	7.80%
Income		4,929	6,845	1,916	38.90%
Profit / Rai		1,709	3,375	1,666	97.50%
Cost / earning ratio		53%	97%		

Location : District - Lam Luk Ka, Province Cheacheangsau, near BKK;

Farmer Name : K. Saeri.  
Control Plot Size : 5.3 Rai  
HG Plot Size : 1.1 Rai  
HG Application : 2 Times

The plot was divided into 5.3 Rai Control plot and 1.1 Rai where HG was 2 time applied.

The test was applied when the Rice has already grown to the age of 40 days.

### Spraying 2 times HG

The farmer continued his normal fertilization and Pesticide application. At the harvesting day the HG plot was cut first and delivered to the mill, the control crop was separated by 2nd harvesting M/C and truck.

The whole result is converted to 1 Rai as calculation standard.

HG Quality standard was confirmed at 92% by the Mill.

**Formulation HG used:** 1 time sprayed , per machine: 20 litre water, 80 gr HG;

2 machine per Rai = 40 litres water 160 gr. HG / Rai

**Usage Formulation:** 100 liters Water mixed with 200 gr. Herbagreen ---

40 liters / 160 gr HG sprayed on 1 Rai

ITEM		Control G. Usage per Rai ( 5.3 Rai )	price	HG USAGE per Rai (1.1 RAI )	HG improvement	%
Harvest kg/Rai	per rai	494 kg		745 kg	+ 251 kg / rai	+ 50,08 %
Soil setting/Rai	1	100		100		
Seed	1	625		625		
Sowing	1	50		50		
Herbagreen		0		225	2 time HG	
Fertilizer	3	1050		1050		
Hormone		0		0		
Grass killer	3	0		0		
Pesticide	2	150		150		
Rent labour		0		0		
Gasoline		150		150		
Car+harvest	1	350		350		
Total cost		2,425		2,650	+ 225 Baht	+ 9.3 %
Income	7.6	3,754	7.6	5,662	+ 1,908 Baht	+ 50.8 %
Profit / Rai		1,329		3,012	+ 1,683 Baht	+ 126.6 %
Cost / earning ratio		54,8%		113,7%		

Location : District - Lam Luk Ka, Province Cheacheangsau, near BKK

Farmer Name : K. Gorn  
Control Plot Size : 2.5 Rai  
HG Plot Size : 10 Rai  
HG Appication : 3 Times

The test was started by putting Herbagreen on seeds before sowing. First time spraying of HG started with rice age of 20 days . 2nd spraying with 40days, 3rd spraying with 60 days.

The farmer used 2 times fertilizers, reduced by 65% less and a cheaper product.

No pestizides have been used !

Rice developed pinackles evenly through out the field, also in the middle of the field! (one of clear difference to regular fertilizing)

HG Rice delivered to Mill reached an all time high quality approval of 96% (for the first time in this area), Control only 88%!

**HG Formulation used:** Seed powdering 2 kg, 1st spray 400 gr/Rai, 2nd+3rd spray each 200 gr/Rai

1st spraying used used 25 liters water and 200 gr HG per machine. 2nd+3rd spraying used 25 liters water and 100 gr HG per M/C.

**Usage Formulation:** 100 liters Water mixed with 400 gr. Herbagreen ---

250 liters / 1 kg / 10 Rai with 2 Machines per Rai

ITEM		Control -USAGE per RAI ( 2,5 rai )	HG - USAGE per RAI ( 10 Rai )	HG improvement	%
Harvest kg / Rai	per rai	700 kg	922 kg	+ 222 kg	+31.7%
Soil setting	1	100	100		
Seed		450	450		
Sowing		0	0		
Herbagreen		0	750	4 time HG	
Fertilizer	3	1680	420	-1,260	-75%
Hormone		0	0		
Grass killer		150	150		
Pestizide		0	0		
Rent labour		35	35		
Gasoline					
Car+harvest		424	424		
Total cost		2839	2,329	-510	-18%
Income		5,180	7,120	1,940	38%
Profit / Rai		2,341	4,791	2,450	105%
Cost / earning ratio		82%	205%		

This farm has delivered to the rice mill with **96% Seed quality** the **highest standard** by :

Location : District - Lam Luk Ka, Province Cheacheangsau, near BKK

Farmer Name : K. Samarn  
Control Plot Size : was damaged by rats  
HG Plot Size : 9 Rai  
HG Application : 1 Times

The HG Plot size is 9 Rai, the Control plot was damaged by Rats. Therefore previous harvest Results were taken for conclusion. The test started when the Rice was 60 days of age. Only 1 time Herbagreen was applied.

The farmer used 3 times fertilizers and pestizides. The harvest increase was very good, but suffered some quality problems such as blackened Rice corns and blossoming of pinackles.

The Rice delivered to the Rice-Mill reached 92% quality.

**Formulation HG used:** 1 time sprayed , 1 kg on 9 Rai 360 liters of water, mixed with 1 kg HG

**Usage Formulation:** 360 liters Water mixed with 1 Kg. Herbagreen --- 360 liters / 1 kg HG sprayed on 9 Rai

ITEM		Control -USAG per Rai ( 9 Rai )	price	HG – USAGE per RAI ( 9 Rai )	HG improvement	%
Harvest kg /Rai	per rai	7 – 800 kg in		1,015 kg	265 kg	+35%
Soil setting	1			100		
Seed				450		
Sowing						
Herbagreen				83	1 time HG	
Fertilizer	3			722		
Hormone				56		
Grass killer				150		
Pestizide				67		
Rent labour				134		
Gasoline				555		
Car+harvest				478		
Total cost				2,795		
Income			7.5	7,617		
Profit / Rai				4,822		172%
Cost / earning ratio				172.50%		

Location : District - Lam Luk Ka, Province Cheacheangsau, near BKK

Farmer Name : K. Gorn  
 Control Plot Size : 2.5 Rai  
 HG Plot Size : 15 Rai  
 HG Appication : 5 Times

According to the farmer the previous output was 533 kg / Rai.

Herbagen was put to seeds and 4 time sprayed through out growth period.

The farmer used 65% less fertilizer by 2 times bringing it out. 0 pestizides were needet.

The clear harvest increase resulted from a even pinackle development throughout the whole field.

The Herbagen Rice quality delivered to the Rice-Mill reached 96% (for the first time in this area)

HG Formulation used per machine : 20 liter water, 80 gr HG; (2 table spoon)

Usage per Rai: 1,5 - 2 machines sprayed(30-40 liter water), 120 - 160 gr. HG/Rai diluted in water.

Usage Formulation: 600 liters Water mixed with 2 kg. Herbagen ---

item		Control -USAGE / RAI ( 15 rai )	price	HG - USAGE / RAI ( 15 Rai )	HG improvement	%
Harvest kg / Rai	per rai	533 kg in past		795 Kg	+ 262 kg	49%
Soil setting	1	100		100		
Seed		450		450		
Sowing		0		0		
Herbagen		0		850	4 Time Spray	
Fertilizer	3	1200		420	- 780	less 150/5-fertilizer
Hormone		100		0		
Grass killer		100		100		
Pestizide		100		0		
Rent labour Spray		0		37	+ 37	
Gasoline		400		400		
Car+harvest		413		413		
Total cost		2863		2770	- 93	3%
Income		4,797	9	7,155	2,358	49%
Profit / Rai		1,934		4,385	2,451	127%
Cost / earning		67%		158%		

Location : District - Lam Luk Ka, Province Cheacheangsau, near BKK

Farmer Name : Control plot: K. Dean; compared with HG field K.Gorn Patom  
(neighbour fields from presentation folders)

Control Plot Size : 25 Rai

HG Plot Size : 15 Rai

HG Appication : 1 time for seeds, 4 Times spraying

Control field Mr. Dean:

The farmer used 3 times fertilizers but 0 pestizides as he id not have time.

The rice filed appeared uneven, pinackles ok developed but with many emty - and black coloured seeds.

After receive of delivered poor rice quality, rice mill payed lower price to farmer.

This farmer did not use HG, but was competing with Mr. Gorn in using NPK fertilizers.

On the day of harvest, below result result was evident and Mr.Dean is changing to HG.

ITEM		Control field Mr. Dean ( 25 rai )	price	HG field Mr. Gorn ( 15 Rai )	difference:	%
Harvest kg / Rai	per rai	480 kg		795 Kg	+315	66%
Soil setting	1	100		100		
Seed		280		450	170	
Sowing		50		0		
Herbagreen	0	0	5	850	850	
Fertilizer	3	1008	2	420	- 660	
Hormone		38		0	-192	
Grass killer		120		100		
Pestizide	0	12	0	0		
Rent labour		72		37	- 35	
Gasoline		208		400	+192	
Car+harvest		330		413	+83	
Total cost		2218		2770	+552	
Income	8.9	4,272	9	7,155	+ 2883	67%
Profit / Rai		2,054		4,385	+2331	114%
Cost / earning		92.70%		158%		

Conclusion: by using HG, Mr. Deans Profit increased 58,275 Baht on 25 Rai - or **174,825 Baht per year**. ( 3 time farming/year)

Mr. Dean has alltogether 60 Rai rice fields. By using Herbagreen he can **increase his yearly profit by 419,580 Baht!!!!**