A REPORT on KIKO TECHNOLOGY™ to INCREASE RICE PRODUCTION

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SYNOPSIS of the RICE TRIAL RESULTS 2010 to 2013

Water is one of the most fundamental resources for the agriculture sector, yet one of the least understood and largely taken for granted. The Kiko Technology was formulated on the scientific premise that water's harmonics at a molecular level can be accelerated (e.g. phonon molecular theory), in turn increasing productivity for any earth-grown or hydroponic crop.

From 2010 to 2013, this four years study conducted in Thailand, Vietnam and the Philippine respectively with variation of rice seed types and planting soil condition projects a strong message to all global rice cultivators and millers. The results yield ranges from 20% to a staggering 35%. Amongst those trials harvested in the Philippine, the add-on profit projection corresponds from Peso 7,200 (US$ 400) @ +20% to 25,000 (US$ 625) @+35% per hectare @ Peso 18/kg to the farmer's net income. In addition Kiko Technology improves the soil conditions which correspond to saving of at least Peso 4,000 to 5,000 (US$ 100 to 125) in fertilizer dosage. More vibrant healthy paddy rice plants minimize common pests like thrip, stem-borer, rice case worm … etc and rodent damage.

INTRODUCTION TO THE WORLD RICE INDUSTRY

Beside the common perusal of increasing rice production and supply by most producing countries, there is an increase in the growth rate of demand for rice. Similarly, the rice and total cereal demand scenario became more complex. Increased demand for rice was greatest in low-income countries and regions, where cheap carbohydrates to meet energy requirements are still the primary need of consumers.

In these countries, despite a declining trend, the demand elasticity's for rice and other cereals for both the low-income and high-income groups remain high. This increase in demand is caused both by accelerating growth of per capita incomes in most of these countries, and by quite high population growth rates.

The food grain demand growth was particularly high in China. Despite of generated total rice supply between Apr 2013-Mar 2014 to 191.48 million tons, China had overtaken Nigeria to import 3.2 million tons in the same corresponding period and started to resort to large imports of alternative staple food like wheat.

Trends for high growth in demand for total cereals including rice, are likely to continue in the low-income developing countries for at least the next two or three decades.

For the case of Philippine, in 2013, despite some 25 typhoons that entered the areas, the country's full year palay (un-milled rice) production was 18.4 million MT. However Philippine still had to import some 800,000 tons of rice from Vietnam in 2013.

By virtue of the Green Revolution of Irrigation, improved varieties and "fertilizers", the country was able to overcome the natural disadvantages in land endowment in past years. However all those Filipino farmers whom have already adopted this technology package in the past are now finding a blockage to contribute further growth. Meanwhile this unfavorable trend is aggravated by their population growth at above 2% per annum, much higher than in neighboring developing countries.

World Top 10 Rice Exporting Country in 2012 (Millions of M Tons)			World Top 10 Rice Importing Country in 2012 (Millions of M Tons)	
1. India	8.00		1. China	2.34
2. Vietnam	7.00		2. Nigeria	2.45
3. Thailand	6.50		3. Indonesia	1.25
4. Pakistan	3.75		4. Iran	1.90
5. Brazil	0.90		5. Philippines	1.50
6. Uruguay	0.85		6. EU-27	1.40
7. Cambodia	0.80		7. Iraq	1.20
8. Myanmar	0.60		8. Saudi Arabia	1.15
9. Argentina	0.65		9. Malaysia	1.08
10. China	0.50		10. Ivory Coast	0.95

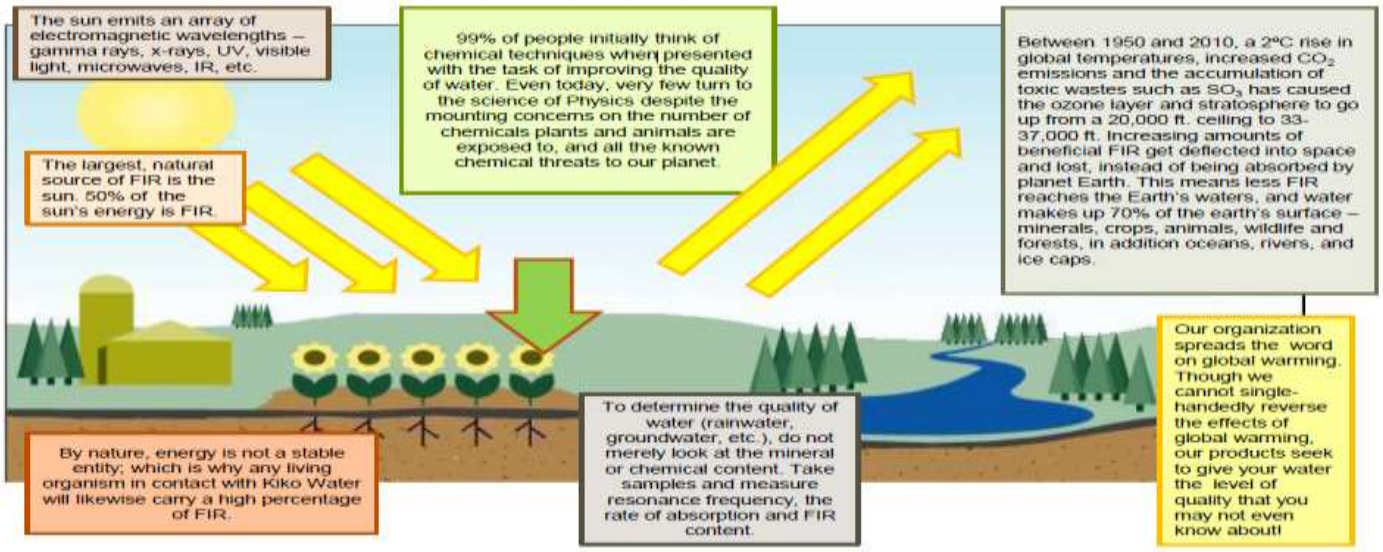
The KIKO TECHNOLOGY™ provides a complementary technique to these long in-grained farming practices –via the "physics of water" e.g. water frequency at a molecular level - "Water" is the most fundamental resource, yet the most overlooked component to increase farm yield. This report validates a 4 year-long study in cooperation with reputable regional rice research institutions and private rice production entities alike.

The Kiko Technology is a Game Changer to relief countries from over reliance on rice import in the future. The minimum 20% to as high as 35% more rice presents an unprecedented opportunity for rice planters, millers, government organizations and R&D efforts. Kiko Technology provides a sustainable solution to address the industry's growth rate, escalating fertilizer/*pesticide* costing and profitability concerns.

SUMMARY of the KIKO TECHNOLOGY™ RESULTS

The science behind the Kiko Technology™ was developed by the Founder Mr. James T. Osugi a former engineer in the NASA aerospace program. There is a global climatic change, denied or otherwise by governments, yet verifiable by sophisticated laboratory testing (e.g. equipment such as Nuclear Magnetic Resonance, Far Infrared spectrometers, surface tension dynes etc.)

The continuous atmospheric damage means today's water simply does not vibrate as fast as it once did 60 years ago. Kiko Technology allows our water to become vibrant in nano-seconds; the action coined "energized or activated water". The fundamentals behind the science are seemingly mysterious yet the field results are quantified yields, freshness, shelf life and productivity.



The technology is formulated in Japan, the carrier being natural volcanic stones that change the molecular interrelations including bond structure, surface tension, far infrared absorption and harmonic motion (the science is related to "phonon molecular theory").



Benefit Summary for Rice Planters

PARAMETERS	BENEFITS ACHIEVED WITH KIKO TECHNOLOGY™ TREATMENT
Seeding germination	5 – 10% higher
Days to flowering	10 – 15 days earlier
Panicles count/M2	Ranges from 17% (Vietnam CLRRI trial) to 36% (La Paz trial) more.
Tillers per plant	50% more
Extra yields per ha	Average 20 to 35% more
Stalk & root structure	Cleaner & healthier; far more efficient water & nutrient uptake, sturdier & healthier
Pests	Less to nil insects or rodent bites – implies pesticides savings
Soil Conditions	Improved pH; phosphorous (PO4), potassium (K+) levels remained high - implies less lime and urea usage

TESTING PROTOCOL

These four years long study commenced since end of 2009 till early 2013 were conducted in various trial sizes in Thailand, Philippine & Vietnam. Some of these trial tests were conducted together with third party laboratory and rice research institute e.g. AMTEC (Philippine) and CLRRI (Vietnam) to analyze and publish the growth procedures, yield enhancement as well as grain quality results to uphold objectivity.

In some of the test rice seeds were soaked in Kiko energized water (one cartridge per 1,000 L of water) for 24 to 48 hours under sun light. After which transfer the Kiko treated rice seeds to the nursery to grow seeding. This process will enhance the seeding germination cum speeding up the rice plant overall growth after transferring to the grow-out filed.

The size of rice trial tested sites ranged from 0.16 Ha (Chachoengsao Province, Thailand) to 2.5 Ha (Caramutan, La Paz, Tarlac, Philippines).

The normal commercial dosage is five (5) Kiko cartridges per 10,000 square meters of planted paddy rice (a hectare), containing the proprietary frequency-induced volcanic stones were buried 5 cm below the soil surface in evenly sped grid formation within the Kiko-treated area. The Control grids farmed with the same seeds and identical planting

practices were either situated ranging from closest 200 to 500 meters away. So far more prominent hybrid rice seed varieties ever tested were SL-8H (Philippine) and OM5451/OM4900 (Vietnam).

In this study, one of the trial's objectives at Caramutan, La Paz, Philippine was to evaluate how Kiko energy cans influent the soil alkalinity with its farming area registering historical acidic ground soil with frequent acid rain fall that attributes to consistent lower yield. The post Kiko treatment results were once again proven to be spectacular.

Amongst these trials, Kiko energy proves its positive effect to release dormant minerals and OH-ions from deep sub-soils into top soils. This protocol verifies Kiko Technology influence upon soils condition and boosting the crop's resistance against pest damage.

In addition to the extra yields (20 to 35%) and healthier plants, other value added benefits after APPLY WITH Kiko were:

- Pests & Insects – Least damage from common pests like thrip, stem-borer or rodent bites
- Resistance to virus – More speedy recovery
- Higher milling recovery and better rice grain quality
- Soil Improvement - The soil alkalinity and nutrients naturally improved thence significantly minimizes fertilizer costs.
- Wind resistance and stalk cutting – Stalks were healthier, sturdier to fence off wind blow cum easier to cut.
- Crop bio mass – Producing from double to more than 3 times in individual crop plant weight, provides more straw fiber materials for grain–fed stock & paper making.

KIKO RICE TRIAL RESULT SUMMARIES

Case study # 1 Thailand	
Date	22 November 2009 (planting) – 3 March 2010 (harvest)
Location	Chachoengsao Province, Thailand
Subject	Rice
Conducted By	White Crane Co. Ltd. & KIKO Technology Limited
Objectives	To observe the effects of KIKO Technology on wet paddy rice farming.
Procedures	Two (2) identical fields were used to set up a test and a control. In the test KIKO field, one (1) Tritan cartridge was planted in a gird-formation every 1 rai (1,600 sqm). These rice paddies were rain-irrigated so having the cartridges directly planted in the soil ensured the product touched rain water & hitting the ground at all times.
Results	• Within 3 days, the KIKO field took on a uniformly greener hue than the control. This trend continued between days 11–17. • On 17th day, random crop samples were taken from the two fields and compared. The KIKO crop samples were consistently 20–30% taller, had 20–30% more leaves per tilter and a denser, longer root system. • At harvest, the total Palay yield from the KIKO field was 35% higher than the control field. • A random sampling of 1,000 milled KIKO grains weighed an average of 29 gm verses that of Control of 21.8 gm. • The KIKO rice also showed 40% less broken grains.

	  **Control grain is lighter with more broken grain** **KIKO grain**

Case study # 2 Thailand	
Date	14 May, 2011 (planting) – September 2011 (harvest)
Location	Nakhon Sawan, Thailand
Subject	Rice
Conducted By	KIKO Technology Ltd.
Objectives	To observe the effects of KIKO Technology on wet paddy rice farming.
Procedures	A test plot of 17 rai was set aside and one (1) KIKO cartridge per rai was installed directly in the soil. (One rai is 40 x 40 M = 1,600 SqM)
Results	• The farmer, Kun Yon, noted a brighter green coloring throughout the KIKO field. Stalks were sturdier and less susceptible to wind – when stalks slump over, it is an issue which makes harvesting harder. • The farmer was facing problem with rodents eating the crop and would use mouse traps to catch an average of 6 rodents per day. Upon Kiko installation, he had noticed the crops were not eaten through and no longer seeing any mice in the KIKO treated field.

Case study # 3 Philippine	
Date	11 August 2011 – 30 October, 2011 (harvest)
Location	Pampanga, Philippines
Varieties	SL-8H Indica x Japonica hybrid
Conducted By	Tentex, KIKO Technology Limited Distributor, Philippines
Objectives	Comparison of average weight per Cavan bag between KIKO treated and control farm produced Palay rice. One cavan bag weighs 55 kg.

Procedures	Two (2) identical sized fields were used to set up a test and a control plot respectively. KIKO was introduced to the test field on 11-Aug-12, 3 weeks after seeding. No Kiko was introduced to the control field and all other planting factors were kept constant.
Results	The KIKO field matured faster, thus the farmer was able to harvest it earlier. The KIKO Palay rice weighed at average of 58 kg per Cavan bag whilst the control rice weighed only 55 kg per cavan bag. The weight difference was 3 kg or +5.5% per bag after applied with KIKO.
Notes	• During the trial, both fields were hit by a typhoon. The damage to the Kiko field was more extensive due to a more exposed location. The control field was better protected by a neighboring mountain. • Despite of the natural disaster, the farmer is satisfied with the results of a 5.5% average weight gain in yield per cavan bag. • On average, SL-8H seed produces by SL- Agritech Corporation can produce up to optimum of 100 Cavan bags or 5,500 Kg per hectare with good planting soil in Philippine.

Case study # 4 Philippine	
Date	Feb to May 2012 – Dry Season
Location	Pampanga, Philippines
Varieties	SL-8H Indica x Japonica hybrid verse local in-bred rice seed (Control)
Conducted By	Mr Chris Cortez, private farm owner
Objectives	Comparison of growth yield between KIKO and Control Palay rice.
Procedures	A 0.66 hectare rice field was allocated as KIKO test plot, treated with 6 kIKO cartridges. . Another plot of 0.8 hectare rice field (without Kiko) planted with local in-bred rice seed was allocated as Control plot for growth comparison. Both plots were applied with rain-irrigation & normal farming practices over the entire dry season.
Results	• The KIKO plot harvested palay rice of 80 Cavan bags (x 55 kg = 4400 kg) whereas the Control plot could only delivered 48 Cavan bags (x 55 = 2640 kg) despite of its larger farm area. The prorated incremental yield on KIKO treated field was a staggering 85.9 % more than Control. • In addition, KIKO treated crops produced denser roots, higher panicle grain count, taller stalk, greener leaves, whiter grain color, fewer golden Kuhol snail damage and no presence of rodent. • KIKO field also used 33% less fertilizer dosage (4 bags) compared to the control plot (6 bags).

Case study # 5 Philippine	
Date	Feb to May 2012
Location	Nueva Ecija, Central Luzon Philippines
Varieties	SL-8H Indica x Japonica hybrid
Conducted By	Ka Puncan Co-op in Nueva Ecija Province, part of the Los Banos University's outreach program for farmers.
Objectives	Comparison of growth performance between KIKO treated and Control Palay rice.
Procedures	A 1.5 hectare of farm installed with nine (9) KIKO cartridges was demarcated as KIKO test plot during the dry season. Another identical sized farm was served as the Control plot. Both planted with the same SL-8H seeds, same types of fertilizer, identical farming practices were deployed in both test and Control plots to keep differences to a minimum. Nevertheless, treatment of pesticide was eliminated in this trial.  A third-party laboratory - Agricultural Machinery Testing & Evaluation Center (AMTEC) analyzed and published the grain quality results to uphold objectivity.
Results	Although the final harvested yield statistics on both comparing rice fields were not disclosed by Ka Puncan Co-op, they indicated that the average panicle count was 260 from the Control whereas 320 was recorded in the KIKO field. This showed an increase of 23**%** which implied higher yield after KIKO treatment at harvest. Moreover, farmers also reported that they managed to cut back one bag of fertilizer in the KIKO field, saved Peso 2,000. In the AMTEC's grain QC report (full details see appendix 1), following KIKO focused comparison against the Control were unveiled: • Grain dimension : Width + 0.4%, Thickness +8% • Immaturity grain: Kiko 1.0%, Control 11.6% • Purity : + 14.1% • Whiteness Index : + 13.9% • Head Rice Recovery (Milled): Kiko 64.3%, Control 54.6%, improved by 17.7%

Case study # 6 Vietnam	
Date	13 March to 18 Jun 2012
Location	Can Tho, Mekong Delta, Vietnam

Varieties

OM 5451 fragrant rice (Hybrid seed by CLRRI)

Conducted By

Seagull Marine – Petroleum Coporation, KIKO Technology Distributor, Vietnam.

A third-party laboratory – Vietnam Academy of Agricultural Science, Cuulong Delta Rice Research Institute (CLRRI) analyzed and published the grain quality results to uphold objectivity.

Objectives

Comparison of growth performance & grain quality between KIKO treated and Control Palay rice.

Procedures

Five (5) KIKO Tritan cartridges were used in a 4,000 SqM field as KIKO test plot whilst no cartridge was applied in an identical sized field as the Control plot, located 500 M away.

Both plots were river-irrigated & cultivated as per normal farming practices.

Results

Comparison parameters	Control	KIKO Treated
Days to harvest	87 days	89 days
Noticeable pests	Yes	30% less
Panicles per Sq M	463 panicles/Sq M	543 panicles/Sq M
Avg. length per panicle	21.6 cm	22.5 cm
No. of filled grains/panicle	296 grains	340 grains
No. of unfilled grains/panicle	94 grains	61 grains
Biomass weight	13.6 gm	31.6 gm
Root length (at max. tilling)	19.7 cm	27 cm
Weight per 100 seeds	27.3 gm	27.7 gm
Yield (M Tons/Ha)	3.7	4.1
Extra yield in kg (vs. control)	-	+374 kg / hectare
% yield increase (vs. control)	-	+10%
Fertilizer dosage	As normal	20 % less
Milling Recovery & Quality Variables		
% of milled rice	77.6 %	78.2 %
% of rough head rice	43.9 %	50.5 %

% of milled head rice	66.2 %	74.6 %
% of chalky grains	50.2 %	36.2 %
% of amylose content in rice/GT	22.0 %	21.8 %
Alkali digestion degree	6.3	6.6

- Both KIKO & Control plots were infected Rice tungro bacilliform virus (RTBV) at earlier growth stage & were gradually recovered before harvest. This may explained the relatively lower yield harvested in both plots. On average, OM5451 hybrid seeds said to capable of generating up to 6 M Tons per hectare.
- Despite of the light incremental yield of 10%, CLRRI recognized KIKO cartridges positively that boosted crop growth, yield and milling quality of OM5451 seed.
- KIKO treated field was observed to have a stronger tilling capacity that enhances crop resistance against wind cum delivered 2.3 times bio mass weight gain.
- According to CLRRI Water Sampling Report dated 08 Jun 2012, higher existence of nutrients (PO4 & K+) was recorded in the soil of KIKO field in both 45 days after transplanting & flowering stages respectively. This was despite of 20% cut back of fertilizer dosage in the KIKO filed (see appendix 2).
- CLRRI also commented that the Milling & Grain Quality in the KIKO field were comparatively better – this is an important criterion from a marketing standpoint.
- By Vietnam standard, head rice recovery (based on rough rice) varies from 25% to 65%.
- In this trial, head rice in KIKO field (50.5%) was 6.6 percentage points higher than the Control (43.9%).
- Post milling head rice, KIKO was 74.6%, recorded 8.4 percentage points higher than Control (66.2 %).

Case study # 7 Vietnam	
Date	21 May 2012 to 30 September 2012
Location	Can Tho, Mekong Delta, Vietnam
Varieties	OM 4900 (Hybrid seed by CLRRI)
Conducted By	Seagull Marine – Petroleum Coporation, KIKO Technology Distributor, Vietnam. A third-party laboratory – Vietnam Academy of Agricultural Science, Cuulong Delta Rice Research Institute (CLRRI) analyzed and published the grain quality results to uphold objectivity.
Objectives	This was a back to back rice trial from earlier test for comparison of growth performance & grain quality between KIKO treated and Control Palay rice.
Procedures	Five (5) KIKO Tritan cartridges were used in a 4,000 SqM field as KIKO test plot whilst no cartridge was applied in an identical sized field as the Control plot, located 500 M away. Both plots were river-irrigated & cultivated as per normal farming practices.

Comparison parameters	Control	KIKO Treated

Results

Days to harvest	109 days	107 days
Panicles per m2	346 panicles/m2	388 panicles/m2
Avg. length per panicle	26.3 cm	26.8 cm
No. of filled grains/panicle	93	104
No. of unfilled grains/panicle	33	35
Biomass weight/individual plant	17.5 gm	56.9 gm
Root length (at max. tilling)	16.1 cm	31.8 cm
Paddy bulk density (kg/m3)	560.5	598.6
Yield (M Tons/Ha)	4.08	4.14
Extra yield in kg (vs. control)	-	+60 kg / Ha
% yield increase (vs. control)	-	+1.5 %
Fertilizer dosage	As normal	20 % less
Milling Recovery & Quality Variables		
Coefficient of Hulling	0.945	0.974
Coefficient of Wholeness	0.721	0.765
Hulling efficiency	68.1 %	74.5 %
% of milled rice	76.5 %	79 %
% of rough head rice	49.8 %	50.8 %
% of chalky grains	94.6 %	91.6 %
% of amylose content in rice/GT	17.3 %	17.8 %
Alkali digestion degree	1.1	1.7

- Despite of the pressure of bad climate, e.g. consistently cloudy, heavy rain and frequent storms occurred on both test rice fields, KIKO cartridges positively affected the growth, yield and milling quality of OM4900.
- KIKO crop's root length was significantly denser and thicker with bio mass 3.25 times heavier than those in Control field.
- As result of prolonged inclement weather over the growth period, yield in the Kiko field was slightly higher than Control field,
- Milling and grain quality of KIKO rice were also comparatively better. KIKO milled rice (79%) was 2.5 percentage points higher than Control rice (76.5%).
- KIKO treatment positively improved water quality in KIKO rice field with consistent balanced pH and correspondingly produced more nutrients in the soil of KIKO filed than the Control field (see appendix 3). Lesser fertilizer dosage was applied in KIKO field. These led to the improved development of root system as well as plant biomass of KIKO crop.

Case study # 8 Taiwan	
Date	May to September 2012
Location	Hsilo Township, Yunlin County, Western Taiwan
Subject	Tai-Long Fragrant Rice (Local hybrid)
Conducted By	Mr Chang Chin-Shun, Chen-Sheng Rice Production Co-op

Objectives	To observe paddy rice growth & milled grain quality after Kiko treatment
Procedures	Rice seeds were soaked in Kiko energized water prior to transfer to the seeding nursery. Kiko cartridges were deployed in the test farm as per standard protocol.
Results	 2012 RICE CONTEST in Taiwan  2012 CHAMPION RICE PACK • Chen-Sheng Rice Production Co-op participated in the "2012 Taiwan Top Ten Grade Rice Contest" organized by the Agriculture & Food Agency, Council of Agriculture of Executive Yuan. • A total of 1,585 farmers from 14 cities/counties & 55 townships took part in this annual event. • Mr Chang's " Kiko Energized Rice" emerged as double winners in both Individual & Group events. • This fascinated production team has yet won any award in similar rice grading contest thus far and the rice co-op is pleased to see how Kiko Technology can help them to change the trend and improve their profitability by producing higher grade rice in the future.

Case study # 9 Philippine	
Date	Mid Oct 12 to 31 Jan 13
Location	Caramutan, La Paz, Tarlac, Philippines
Subject	SL-8H Indica x Japonica hybrid
Conducted By	A private farm owner
Objectives	To observe the effects of Kiko Technology on wet paddy rice growth on historical acidic ground soil with frequent acid rain fall, attributing to overall lower yield. Average yield in this area is around 4.0 M Tons and never exceed 4.5 M Ton per Ha.
Procedures	A 2.5 Ha rice farm planted with SL-8H Hybrid seed was deployed with 16 Tritan cartridges including 1 cartridge being permanently immerged beneath water surface in the irrigating water holding tank.

	An adjacent 1.0 Ha rice farm planted by another farmer with the same seed was allocated as Control field, 200 M away. Both farms were irrigated by underground water & cultivated as per normal farming practices.

Results

Comparison parameters	Control	KIKO Treated
Days to harvest	120 days	112 days
Seeding Germination percentage	85% (48 hours)	96% (20 hours)
Days to Flowering	10-15 days later than KIKO crops	50 - 55 days
Crop leaves	Normal	Denser & greener
Crop stalks	Normal	Taller, thicker with stronger wind resistance
Crop roots	Normal	Darker color, longer, thicker & more vibrant
Panicle sampling count per m2 (on 88th days)	148 - 280	265 - 382
Tiller count per stalk (2 days before harvest)	5 – 15	15 – 23
Palay Yield/Ha (M Tons)	2.31	5.39
Extra yield/percentage (Kg)	-	+ 3,008 Kg /+126%
Fertilizer dosage	As normal	30% less
Noticeable pests	Yes	Rarely
Noticeable rodent	More than 100	Only 6
Soil pH change	Applied 3 M Tons of lime to neutralize pH	Totally nil application of lime, soil pH naturally changed from 5.5 (seeding) to 7.0 (harvest)

- KIKO tillers were still growing in height with more tiller shoots budded up at Day 88.
- Both KIKO & Control fields were infected by Rice tungro bacilliform virus (RTBV) at earlier growth stage. Nevertheless, KIKO crops managed to recover fast & delivered more convincing yield performance at harvest, exceeded the average norm.
- More realistic yield enhancement by KIKO would be in the range of 20% against maximum average (4.5 MT) to 35% against common average (4.0 MT) per Ha.
- No lime dosage was needed on KIKO field as KIKO cartridges helped its soil pH to naturally improved from 5.5 (seeding stage) to 7.0 (harvest).
- Up to 30% cut back of fertilizer dosage in KIKO filed. Both contributed significant saving in overall planting cost.

KIKO 265 – 382 panicles per m2

Control 148 – 280 panicles per m2

KIKO tillers count by Nueva Ecija Province Agriculture Department official (left)
KIKO founder, Mr James Osugi (right)

KIKO roots were darker, denser, longer, more vibrant (right)

CONCLUSIONS

1) Kiko Technology improves water utilization at the molecular level by an action called harmonics (e.g. frequency of water). This frequency is not visible to the human eye; however for plants animals and living organisms the effects seen in this trial study are from a scientific viewpoint, comparable to the 200+ other studies. Many crop yields increased from 10% to 90% above and beyond Control including palay rice, strawberries, tomato, spinach, okra, zucchini, chili, lime orchards, flowers and other agriculture crops.

2) Kiko Technology presents Game Changing opportunities for paddy rice planters. The improvements quantified in this report include more palay rice yields, higher milling recovery percentage, higher quality milled rice grains and resistance to pest and rodent damage.

3) Kiko Technology improves soil conditions by penetrating dormant and tightly bond minerals and OH- ions deep in the sub-soil. More R&D effort is required but this study presents sufficient qualitative observations that a healthy vibrant soil lessens insect and fungus damage.

4) Kiko cartridges are best used by burying in the Earth spaced about 20 - 30 meters (the rate is 5 cartridges spaced evenly over one hectare area). In addition these studies also confirm that rice seed after soaking in Kiko energized water in the first 24 hours will influence and increase germination rates.

5) These studies also confirm that the energy within the Kiko volcanic stones will spread over a very large surface area. The spread moves horizontal and vertical to a depth at least 20 - 40 meters. The resistance to FIR energy is another wavelength frequency called microwaves which are emitted by the Sun.

6) Kiko Technology is currently conducting larger scale rice trial test on improving rice fields with the SOMA Group in Cambodia, verifying similar benchmarks as presented in this report.

7) Our studies open the opportunity for future R&D cooperative efforts such as in the fields of plant entomology, nutrient uptake, urea formulations, seed technology or adopting frequency or quantum energy techniques to combat insects and pests.

8) Overall studies verify that the science behind Kiko Technology changes the physics of water, including moisture particles, and this has a knock-on, Game Changer effect for rice output and health.

END OF KIKO REPORT

Appendix 1

AMTEC

AGRICULTURAL MACHINERY TESTING AND EVALUATION CENTER

PALAY SAMPLE ANALYSIS

Date of test : May 24-25, 2012
Location of test : AMTEC Grain Analysis Laboratory
Test Requested by : S. L. AGRITECH

Results of Laboratory analysis of palay samples

There were two different palay samples brought to AMTEC laboratory for analysis. Each was analyzed for standard Paddy Milling Potential.

ITEMS	Samples	
	With KT	Without KT
1.Grain Dimensions (mm)		
Length	7.01	7.0
Width	2.37	2.16
Thickness	1.86	1.71
Grain Type	Long & Slender	
2. Paddy Bulk Density (kg/m^3)	541.7	535.3
3. Moisture Content (%)	12.5	11.2
4. Purity (%)	96.6	84.6
5. Cracked grains (%)	16.0	39.0
6. Immature grains (%)	1.0	11.6
7. Chalky grains (%)	8.39	3.49
8. Yellow & Fermented (%)	5.19	7.80
9. Red Rice (%)	0.03	0.08
10.Laboratory Milling Test		
Coefficient of Hulling	0.911	0.894
Coefficient of Wholeness	0.735	0.584
Hulling Efficiency (%)	66.9	52.2
Total Milling Recovery (%)	64.2	68.4

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Appendix 1 (cont)

AMTEC

AGRICULTURAL MACHINERY TESTING AND EVALUATION CENTER

ITEMS	With KT	Without KT
Head Rice Recovery (%)		
Based on Milled Rice	64.3	54.6
Based on Rough Rice	41.3	37.3
Broken Rice (%)		
Based on Milled Rice	33.4	39.9
Brewer's Rice		
Based on Milled Rice	2.27	5.46
Whiteness Index	46.5	40.8

Analyzed by:

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Approved for release:

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Appendix 2

VIETNAM ACADEMY OF AGRICULTURAL SCIENCES
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WATER SAMPLE ANALYSIS

Date of test: June 8th, 2012
Location of test: Soil Science and Microbiology Division, CLRRI
Test Requested by: Seagull Marine – Petroleum Corporation

Field test area: 1hectare/test field

ITEMS	Test field with Kiko		Control field	
	Upstream	Inland	Upstream	Inland
I. First sampling – 45 days after transplanting				
pH	8.4	7.9	6.9	7.0
EC (mS/cm)	0.2	0.2	0.2	0.3
NH_4^+(mg/kg)	11.4	9.3	39.1	11.3
NO_3^-(mg/kg)	0.8	0.7	4.3	0.7
PO_4^{3-}(mg/kg)	0.6	1.6	1.2	0.9
K^+(mg/kg)	22.9	13.4	28.0	6.4
II. Second sampling – flowering stage				
pH	6.9	6.6	7.4	6.9
EC (mS/cm)	0.1	0.2	0.2	0.2
NH_4^+(mg/kg)	13.1	9.0	14.0	10.2
NO_3^-(mg/kg)	0.6	0.4	0.7	0.4
PO_4^{3-}(mg/kg)	0.1	0.4	0.1	0.0
K^+(mg/kg)	21.0	13.6	26.9	11.1

Analyzed by:

NGUYEN KIM THU

Approved by:

CAO VAN PHUNG
Head

Appendix 3

VIETNAM ACADEMY OF AGRICULTURAL SCIENCES
CUULONG DELTA RICE RESEARCH INSTITUTE
ThoiLai, Cantho, Vietnam ---- Tel: +84 7103 861954; Fax: +84 7103 861457
Website: http://clrri.org/; Email: clrri@hcm.vnn.vn

KIKO Rice Trial May to September 2012 Analysis Report

Table: Milling quality

ITEMS	SAMPLES	
	With Kiko	Control
1. Grain Dimensions (mm)		
Length	10.3	10.3
Width	2.6	2.6
Thickness	2.2	2.2
Grain type	Long & Slender	
2. Paddy bulk density (kg/m^3)	598.6	560.5
3. Moisture Content (%)	13.5	13.0
4. Purity (%)	99.7	99.6
5. Chalky grain (%)	91.6	94.6
6. Laboratory milling test		
Coefficient of Hulling	0.974	0.945
Coefficient of Wholeness	0.765	0.721
Hulling efficiency (%)	74.5	68.1
Total milling recovery (%)	79.0	76.5
Head rice recovery (%)		
Base on milled rice	64.3	65.2
Base on rough rice	50.8	49.8
Broken rice (%)		
Base on milled rice	32.4	31.1
Brewer's rice		
Base on milled rice	3.3	3.7

Appendix 3 (cont)

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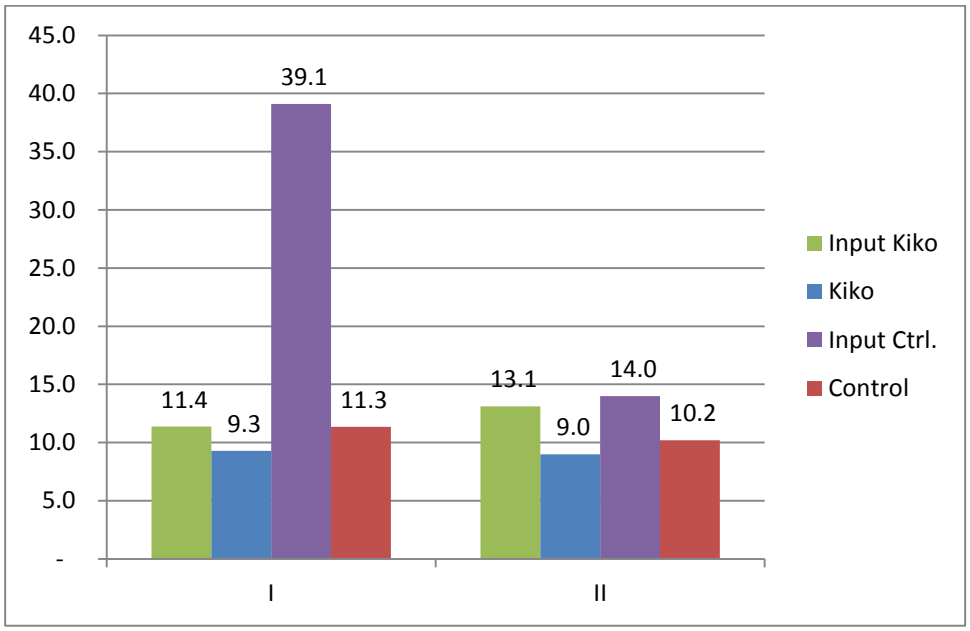
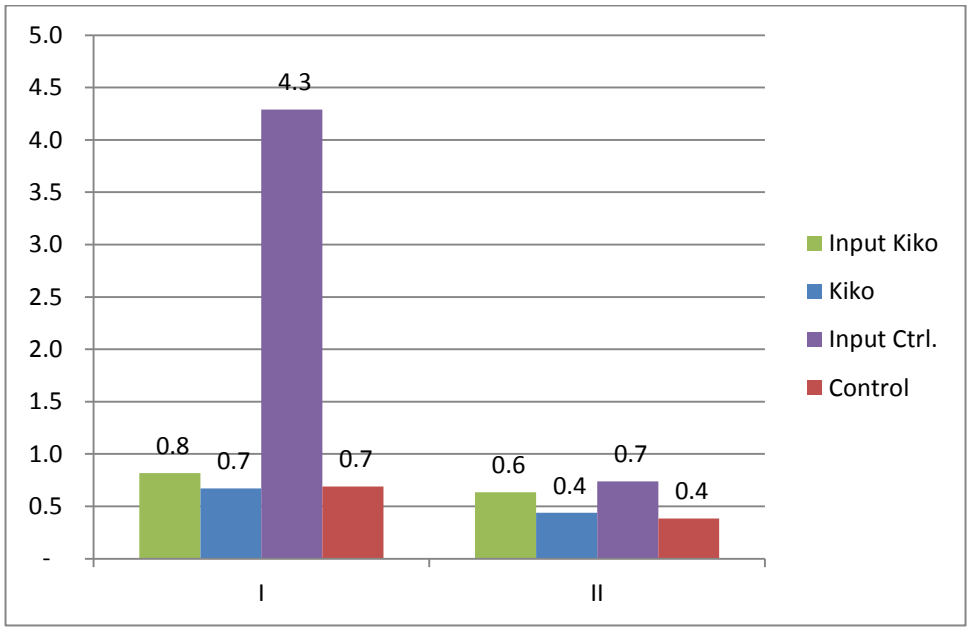
NH4+ (mg/kg)



NO3- (mg/kg)



Appendix 3 (cont)

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PO4+ (mg/kg)