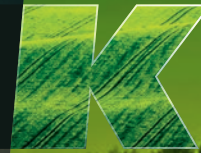




SafeRock®



A natural resource to enrich the earth



SAFEROCK® - COMPANY OVERVIEW

Pomerite® - Bringing Sustainability to Developing Nations

Introducing Pomerite®

Pomerite® is a 100% natural mineral soil conditioner that revitalises agricultural soil, dramatically increasing global crop yields and heavily reduces the need for harmful chemical fertiliser by up to 50%.

To date, numerous crop trials have been conducted across the globe, providing substantial evidence that Pomerite® has the ability to improve the soils' structure and enhance the crops' nutritional value and quality while also increasing the amount of crops grown by up to 30%.

By applying the mineral to crop fields Pomerite® is able to enhance farming globally, helping to combat unsustainable food consumption demands and struggling farmers in developing countries.

SafeRock® is committed to creating an environmentally stable future with its 100% natural resource by rebuilding and improving long term soil stability where it is needed most, maximising the efficiency of fertilisers, improving agricultural nutrient and water retention, and most importantly significantly enhancing global farming soils, yields and local farmers' profitability.



Despite all our accomplishments we owe our existence to a six-inch layer of topsoil and the fact it rains.



Out of the long list of nature's gifts to man, none is perhaps so utterly essential to human life as soil.
- Hugh Hammond Bennett

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SafeRock® Global Mission

The SafeRock®'s global mission is first and foremost to ensure farming is sustainable, responsible and environmentally friendly in a world where agriculture accounts for around 27% of global greenhouse gas emissions.



Reduce greenhouse gasses including Methane, CO2 and Nitrous Oxide



Reduce the unnecessary high usage of water in farming



Reduce global food supply issues by increasing soil fertility



SafeRock®'s global mission is to ensure farming is sustainable.

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Pomerite[®] Critical Values

Recent Pomerite[®] crop trials show that the conditioner increases rice yields by an average of 418 kg per acre.

That's equivalent to an additional 4,600 meals!

Pomerite[®] trials also show increased nutrient content in crops produced.

That's reversing a 70 year trend of falling nutritional values in grown produce!

Pomerite[®] can reduce CO2 emissions by up to 600m MT per year.

Global rice production contributes 3.6bn MT of CO2 into the atmosphere.
So that's equivalent to removing 204 coal burning power stations!



Healthy soil is a requirement for life.
- SafeRock[®]

Pomerite[®]

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Pomerite[®] Key Facts



100% Natural

Reduces co2 emissions and greenhouse gasses emitted by chemical fertilisers.



Nutrient Supplement

Pomerite[®] contains a vast number of essential nutrients to fuel crop growth and fertilize soil.



Increases Quantity of Crop Yields

Increased crop yields contribute to combat global supply issues as well as improving the livelihoods of farmers.



Increases Quality of Product and Soil

Pomerite[®] re-mineralises agricultural soil to build a long-term and robust solution to global farming.



Pomerite[®] is Insoluble

Substantially improving long-term soil fertility and reducing nutrient losses through leaching.



Contains Silica

Providing silica elevates the release of phosphates to protect and defend against pests and disease.



Soil erosion is second only to population growth as the biggest environmental problem the world faces.
- David Pimentel, professor of ecology and agriculture at Cornell University

Pomerite[®]

SafeRock[®]

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Overview

In 2011, the SafeRock® founders made an exciting discovery when they analysed a sample of rock known only by the local farmers to have unique properties that stimulate nutrition and growth.

Extensive research showed the mineral to be almost totally unique in its qualities and offers a complete solution through soil conditioning and provision of revitalising properties, capable of dramatic improvements to crop yields, and significantly reducing the need for chemical fertiliser and the environmental burden this creates.

Independent trials have followed in the US, UK, Africa, India, and South East Asia. Africa, India and South East Asia are a principle focus for the product given the extent of soil degradation in agricultural farmland across much of these nations due to the climate and there is already substantial interest for Pomerite® amongst these markets.

The successful outcomes of these product trials have established key relationships with some of the largest international agri businesses and developing country governments.



Water and soil are the most valuable commodities on the planet.



Man – despite his artistic pretensions, his sophistication and his many accomplishments – owes his existence to a 6-inch layer of topsoil and the fact that it rains. – Paul Harvey

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Pomerite® Background

It has been discovered that this astonishing mineral, Pomerite® was formed 400 million years ago due to global plate tectonic activity during the Devonian period.

The convergence of the Mid-Atlantic tectonic plates caused a shelf of sedimentary sandstone to rise up from the ocean bed and be deposited on the continent we now know as North America and Greenland.

The formation of Europe had a late arrival of land that came from this continent in the form of what we now know as Ireland and Scotland. The Saferock® Quarry, located in Northern Ireland, is where this sedimentary deposit originated from beneath the ocean floor and has broken the land surface.

After extensive research and trials, it has also been found that the mineral contains a substantial composition which can be applied to a multitude of applications from farming to aquaculture.

Simply through crushing into powder (with zero additives) the internationally approved and recognised, 100% natural product (Pomerite®) has a wide range of beneficial applications in global agricultural markets with its proven ability to radically increase crop nutritional values and yield, whilst reversing soil degradation.



Soil erosion is second only to population growth, as the biggest environmental problem the world faces.



*Out of rocks we have life.
– Pomerite®*

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The SafeRock® Journey

Utilising data collected from pot trials and incubator trials, SafeRock® commissioned field trials on high value crops in various climatic environments. To date, independent trials have been completed in the US, Canada, India, Vietnam, Zimbabwe, Namibia and the UK. Trials are continuing in UAE, China, Pakistan, Bangladesh, Cambodia, Malaysia, Philippines, and in Africa.

The overwhelming results from the trials has led to substantial interest and pre-orders from global agricultural businesses. The trial evidence shows Pomerite® acts as a micronutrient supplement, soil conditioner and acidity regulator while also enhancing the soil biota and reducing the amount of chemical fertiliser required.

At the outset, the ability to produce Pomerite® in an ethical way, without putting a strain onto the very environment it is meant to help, was a key directive. The challenge was to extract the product, crush it, and transport it around the world with the smallest carbon footprint possible.

A breakthrough came in 2019, after exhaustive trials and tests, when it was discovered that the product could be Micronized. This intensive crushing procedure meant that not only was the product becoming finer, but it was becoming stronger as it released nutrients more rapidly, and its higher surface area dramatically increased the action of Pomerite® clay minerals.

The staggering result is that Pomerite® is now in excess of 10x its original activity, leading to smaller shipments, fewer lorries, and a smaller carbon footprint globally.



More than 90% of the worlds industrial production of urea is destined for use as a nitrogen-release fertilizer. This MUST stop if we are to safely feed our world and care for our planet. - SafeRock®

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Pomerite® Micronized Product

The product development of Pomerite® micronization led to further benefits discovered with more application and more demand.

K Aquaculture

One of the main challenges facing the aquaculture industry is keeping toxic ammonia levels under control. Despite numerous proposed solutions, none have been particularly successful. An in-house Pomerite® laboratory test managed to reduce free ammonia in a test solution by 21% with 3g of Pomerite® in a 200ml solution. This has prompted SafeRock® to purchase state-of-the-art ammonia testing equipment which should enable us to accurately quantify micronized Pomerite® abilities to reduce ammonia toxicity in aquatic conditions.

K Seed Coatings

Seed coatings offer one of the most efficient methods of increasing crop yield and improving product quality resulting in dramatic improvements in farmers' production. A recent Pomerite® study in conjunction with Greenwich University (London, UK) demonstrated an improvement in germination rates of 100% in maize seeds, along with earlier and healthier shoot development.

K Fertigation

This targeted approach requires much lower application rates of fertiliser and irrigation water than is required by broadcasting methods. Through micronisation, Pomerite® not only drastically reduces the quantity of mineral required, but will also prevent the sedimentation and blockage of fertigation lines and nozzles.



Actual picture of Pomerite® micronized product >

Pomerite®

SafeRock® **K**

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Pomerite® Rice Trials

Trials conducted in India, the USA, Canada, Zimbabwe and Vietnam also provide evidence of the staggering results in crop yield and nutritional value when adding the Pomerite® mineral.

The Pomerite® Mineral Impact on Wheat Growth – conducted in 2014-15 at the Krishi Vigyan Kendra (KVK) research farm which reported a 28% increase in wheat grain yield as well as impressive increases in soil nutrient levels, a higher crop quality and nutrient content.

The Pomerite® Mineral Impact on Paddy Rice Growth – conducted in 2015-16 at KVK by the Ministry of Agriculture, India, and the Indian Agricultural Research Institute (IARI), New Delhi. The results showed rice plants outperformed their non-Pomerite® counterparts in every plot, irrespective of the levels of fertiliser treatments applied. It was observed that on average, plant height increased by 23%, the number of branches increased 49% and the final overall rice yield increased by 17.3% representing c.418kg of rice per acre.

It has also been discovered that Pomerite® is water insoluble, unlike most urea and NPK fertilisers, which leads to lower nutrient losses via leaching. Repeated applications will increase soil quality, build up the available nutrient status and support the growth of soil organic carbon levels. Soil analysis within the wheat trial showed an increase in soil organic carbon of 41% following the use of Pomerite®. Microbes and earth worms thrive in re-mineralised soil which increases aeration, nutrient and organic matter processing, and water holding capacity. An improved soil will result in much lower irrigation water needs.

The trials repeatedly show an improved quality and nutritional value of crops for farmers. For example, Maize trials showed reduction of urea by 50% with the same yield obtained using Pomerite® meaning local farmers can obtain the same yield while using half the amount of chemical fertiliser. This reduces the harmful environmental impacts of fertiliser as well as reducing costs for local farmers.



Pomerite® trial results from the world's 3 key crops:
Yield: Wheat +28% / Rice +17.3% / Maize +53.4%

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Pomerite® Modes of Application

K

Micronutrient Supplement

The addition of Pomerite® is proven to supply trace elements very efficiently and has obtained higher yields in multiple varieties of crops, even when traditional trace mineral supplements have been used.

K

Fertilizer Enhancer

In numerous trials it has been shown that the farmer is able to reduce fertilizer inputs by at least 25% (potentially up to 50%) and still obtain the same yield. This can result in significant savings to the farmer.

K

Soil Conditioner

Repeat applications of Pomerite® will continue to build up nutrient levels, improve soil quality and increase natural soil diversity; damage caused by overuse of urea and NPK fertilisers can be reversed.

K

Increases Soil Biota

Pomerite® is a 100% organic food source for microbes and earthworms, stimulating microbial and earthworm activity.

K

Acidity Regulator

Pomerite® can help decrease the acidity of soils, reducing the need for lime applications and improving nutrient availability.



Soil is where life begins, soil is where food begins.
- Pomerite®

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SafeRock® The Company

SafeRock® Limited (the company) was incorporated as a research and development company and holds no sales to date due to the licenses and trials required throughout the world for the product to enter the market. SafeRock® Limited holds the intellectual property of completed trials, as well as all registered trademarks of the product (see "Registered Trademarks" on slide 18). To date, in excess of £15 million has been invested in bringing the product to market, of which the R&D and trademarks alone have cost circa £10 million. All IP material is available upon request.

The company was set up in 2013 and currently has a team of six individuals, including the two founders, with vast degrees of experience from the mining industry and pharmaceuticals to sales and finance.



The team has worked on this exciting project for thirteen years to date, developing the product through R&D and successful pot and fields trials.



Soil is the soul of the earth.
- Pomerite®

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Appendices

MINERAL EXTRACTION SITE IMAGES

ANALYSIS BREAKDOWN

ANALYSIS REPORT 2022

REGISTERED TRADEMARKS

PROJECT TIMELINE TO DATE

IN THE PRESS



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Mineral Extraction Site



Rescue the soil, restore the eco system.
- Sadhguru

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SafeRock® Analysis Breakdown



Nutrients	mg/kg	Percentage (%)
Phosphorous (P)	500	0.05
Potassium (K)	55,000	5.5
Sodium (Na)	16,000	1.6
Magnesium (Mg)	13,000	1.3
Sulphur (S)	26	0.0026
Calcium (Ca)	12,000	1.2
Manganese (Mn)	390	0.039
Iron (Fe)	22,000	2.2
Copper (Cu)	9.3	0.00093
Zinc (Zn)	45	0.0045
Selenium (Se)	<0.50	<0.00005
Chloride (Cl)	<50	<0.005
Silicon (Si)	210,000	21
Cobalt (Co)	16	0.0016
Boron (B)	8.5	0.00085



The roots of life start in the soil.
- SafeRock®

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SafeRock Ltd
 113a Broadway
 Leigh on Sea
 Essex
 SS9 1PG
 United Kingdom

Spijkensisse, 10 September 2022

ANALYSIS REPORT No SF-006977.002

Product Sedimentary Rock
 Reference SafeRock
 Received on July 19, 2022
 Samples packed in Plastic bag
 Seals No seal

The sample was delivered by BF Projects and analyzed according to the instructions received.

Method: ICP-OES/ ICP-MS- (ECO/AV/IMA/007) (based on ISO14869-2) (In-house method)

Determination of anions by Ion Chromatography after dissolution /aqueous extraction

Component:	Result (mg/kg):	Result (%):
Fluoride (F)	<50	<0.005
Chloride (Cl)	<50	<0.005
Bromine (Br)	<50	<0.005
Iodine (I)	<50	<0.005

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Richard van de Wetering
 Business Unit Manager Minerals

Page 1 of 4

SGS Nederland B.V. | Malledijk 18 | P.O. Box 200 3200 AE Spijkensisse The Netherlands | +31 (0)181 69 33 33 | +31 (0)181 62 35 66 | www.sgs.com

VAT no. NL004407726B01

Member of the SGS Group

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ANALYSIS REPORT No SF-006977.001

Determination of metals on solid sample by ICP-OES

Component:	Result (Mg/kg):	Result (%):
Silver (Ag)	<1.0	<0.0001
Boron (B)	8.5	0.00085
Barium (Ba)	210	0.021
Cobalt (Co)	16	0.0016
Copper (Cu)	9.3	0.00093
Iron (Fe)	22000	2.2
Lithium (Li)	31	0.0031
Manganese (Mn)	390	0.0390
Nickel (Ni)	34	0.0034
Phosphorous (P)	500	0.0500
Sulphur (S)	26	0.0026
Strontium (Sr)	48	0.0048
Zinc (Zn)	45	0.0045
Zirconium (Zr)	110	0.0110

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 Business Unit Manager Minerals

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ANALYSIS REPORT No SF-006977.001

Component: (%)	Result (Mg/kg):	Result (%)	Component:	Result (Mg/kg):	Result
Samarium (Sm)	0.30	0.00003	Thallium (Tl)	0.36	0.000036
Tin (Sn)	1.8	0.00018	Thulium (Tm)	<0.20	<0.00002
Tantalum (Ta)	0.72	0.000072	Uranium (U)	1.6	0.00016
Terbium (Tb)	<0.20	<0.00002	Tungsten (W)	0.67	0.000067
Tellurium (Te)	<0.050	<0.000005	Yttrium (Y)	12	0.0012
Thorium (Th)	5.9	0.00059	Ytterbium (Yb)	0.12	0.000012

Determination of metals on solid sample by ICP-MS and Alkali melt

Component:	Result (Mg/kg):	Result (%)
Aluminium (Al)	45000	4.5
Calcium (Ca)	12000	1.2
Potassium (K)	55000	5.5
Magnesium (Mg)	13000	1.3
Sodium (Na)	16000	1.6
Silicon (Si)	210000	21
Titanium (Ti)	2300	0.23

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SGS Nederland B.V.
P.O. Box 200
NL - 3200 AE Spijkenisse


Richard van de Wetering
Business Unit Manager Minerals

SGS Nederland B.V. Malledijk 19 P.O. Box 200 3200 AE Spijkenisse The Netherlands t +31 (0)181 69 33 33 f +31 (0)181 62 35 66 www.sgs.com

VAT no. NL004407726B01

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Modal Mineralogy

Measurement	Sample name	QUARRY 2
	Lab code	3HG91
	X-ray Pixel Spacing	9
	No. Particles	5990
	Measurement Mode	PMA
	No. Analysis Points	343437
Mineral Volume (%)	Quartz	38.06
	Plagioclase feldspar	17.20
	K-Feldspar	21.93
	Muscovite	2.30
	Biotite	5.97
	Chlorite	12.04
	Fe silicates	0.38
	Other silicates	0.16
	Calcite	0.99
	Dolomite	0.05
	Rutile	0.45
	Ilmenite	0.06
	Fe-Ox/CO3	0.17
Grain Size (Avg Microns)	Apatite	0.13
	Zircon	0.08
	Pyrite	0.02
	Others	0.02
	Quartz	80.4
	Plagioclase feldspar	40.8
	K-Feldspar	37.1
	Muscovite	29.6
	Biotite	17.3
	Chlorite	22.7
	Fe silicates	17.3
	Other silicates	14.1
	Calcite	29.6
Dolomite	74.7	
Rutile	15.2	
Ilmenite	30.4	
Fe-Ox/CO3	25.5	
Apatite	43.0	
Zircon	77.0	
Pyrite	18.1	
Others	13.3	

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SafeRock® Registered Trademarks

Country	Mark	Application Date	Registration No.	Registration Date	Status	Classes	Class Specification
Indonesia	SafeRock®	26/07/2013	IDM000504774	05/10/2015	Registered	01, 03, 05, 31	01 Chemicals for use in agriculture; fertilisers; soil conditioners; mineral fertilising preparations; raw mineral substances; manures; chemical substances for preserving food stuffs; chemical compositions for use in cosmetics; chemical preparations for use in cosmetic products; ingredients for cosmetics.
India*	SafeRock®	30/07/2013	1195511		Pending	01, 03, 05, 31	
China*	SafeRock®	30/07/2013	1195511	27/02/2015	Granted	01, 03, 05, 31	
Australia*	SafeRock®	30/07/2013	1195511	16/04/2014	Granted	01, 03, 05, 31	03 Toiletries; cosmetics; skin care preparations; bath preparations; essences for skin care; body cleaning preparations; beauty care preparations; perfumery.
USA*	SafeRock®	30/07/2013	1195511	17/02/2015	Granted	01, 03, 05, 31	05 Vitamin supplements; mineral dietary supplements for animals; mineral supplements for feeding livestock; mineral dietary supplements for humans; pharmaceutical preparations; veterinary preparations; dietetic substances adapted for medical use; dietetic substances adapted for veterinary use; dietary supplements for humans; dietary supplements for animals.
Vietnam*	SafeRock®	30/07/2013	1195511	22/04/2015	Granted	01, 03, 05, 31	
European Union	SafeRock®	05/07/2013	11962131	28/11/2013	Registered	01, 03, 42	31 Animal feed; animal foodstuffs; mixed animal feed; synthetic animal feed; grains and agricultural, horticultural and forestry products not included in other classes; live animals; fresh fruits and vegetables; seeds; natural plants and flowers; foodstuffs for animals; malt.
European Union	SafeRock®	01/11/2012	11313244	01/04/2013	Registered	01, 05, 31	
Canada	SafeRock®	16/07/2013	TMA945, 722	10/08/2016	Registered	01, 03, 05, 31	42 Geological Research

* International Trade Mark

There can be no life without soil and no soil without life.
- Charles E. Kellogg

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Saferock® - Project Timeline to Date

A natural resource to enrich the earth





Martin V Kemp MRICS

Organic Farming

SafeRock Mineral (SRM) Impact on Cotton Growth

SME WORLD had earlier carried a series of article on a unique natural resource - Safe Rock Agri. It is 100% natural and has been certified for use in organic farming as a soil conditioner. Field trials carried out using Safe Rock mineral in crops in various countries in diverse climatic conditions have revealed astounding results.

Encouraging observations have been made of cotton plants growing on two equal size areas of a sub-divided 0.4 ha (one acre) plot farmed by Mr. Pralad S. Sontakee at Jalkost, Latur district, in the Maharashtra state of India which is situated on the western coast north of Goa, and includes Mumbai. This region in Latur district is very well known as cotton belt in West India.

The climate is sub-tropical with a rainfall of 400-500mm, and temperatures in the range 30-38 Celsius. The soil type is medium to black.

The trial was carried out under the supervision of a Certified Crop Advisor, Ravindra Botve, Ravindra in consultation with Bill Avery, Chief Agronomist Safe Rock Minerals Ltd worked out the protocol for carrying out this trial. The quantity required of Safe Rock was delivered at site of trial.

Local farmers are aware of the apparent effect of SafeRock mineral, and have greeted that enthusiastically.

The area was sown with Ajeet Bt 155 seed at 625g per hectare on 28th May 2014 at spacings of 120x120cm, and 40:20:20 NPK fertilizer applied on 18th June 2014.

Resistance to sucking complex was achieved with Neem based bio-pesticide.



The soil in the second area received the same treatment with the exception that 50 kg of SafeRock mineral was added.

At mid-August the cotton plants in both areas were inspected. Data related to their growth was collected with particular regard to plant height, the number of fruiting branches and the total number of flowers on the plants.

Five plants in each row were selected for observation at random. This representative sample of plants in each area was studied in detail and data averaged for each area.

Comparison of cotton plant growth				
	Average plant height (cm)	Number of fruiting branches	Number of flowers per plants	Number of bolls per plant
Without Safe Rock	83.40	7.20	52.00	40.00
With Safe Rock	108.00	11.40	74.00	60.00
improvement %	29.50%	58.33%	42.31%	50.00%

It is evident from the above table that a significant improvement of plant height, number of fruiting branches, number of flowers and flower conversion to boll on each plant has taken place.

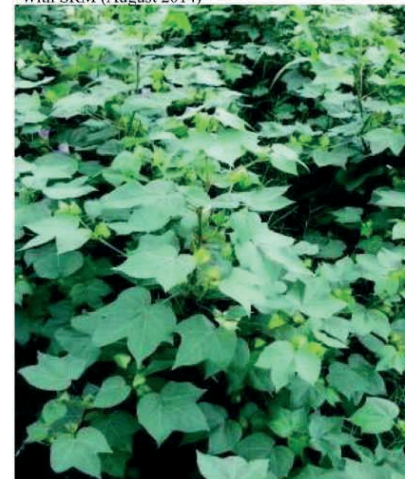


This is also evident from the following images:

Without SRM treatment.(July 2014)



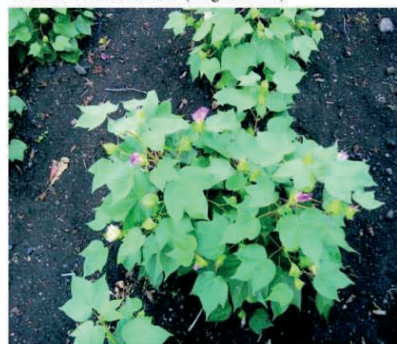
With SRM (August 2014)



With SRM treatment. (July 2014)



Without SRM treatment (August 2014)



We will be continuing to monitor the relative progress of plants in the two areas up to the point we can collect and weigh cotton bolls to confirm that these results translate to increased yield of saleable cotton. We will also examine the economics of the addition and beneficial effect of SafeRock mineral at that time.

We will also report on the farmers meeting where the progress of this trial will be shared.

The news about results on cotton trials in India has been very well received in Philippines and the authorities there has marked 100,000 hectares of agriculture land for conducting trials on Palm Oil Plantation.

Like in case of India, application rate of Safe Rock shall also be 400 kgs per/acre or 1 tonne per/ha annually. Bill Avery has indicated 100,000 tonne for the trial would be a good starting point and considering there in excess of several million hectares of oil palm in Philippines and Indonesia one crop could take our total resource sales annually once trials are completed and proven.

For more details on this natural resource, visit www.saferockminerals.com

(Martin V Kemp MRICS, is Commercial Director – Saferock Minerals Ltd.)

SafeRock® Mineral (SRM) Impact on Wheat Growth

"The result of a high quality crop trial speaks for itself. It is with great pleasure that SafeRock® Minerals can now release the latest results from wheat trials to the informed readership of industry leaders and businessmen, through SME World magazine."

SafeRock® Minerals has been certified for use in organic agriculture as a mineral soil conditioner. Trials to date have proven better plant growth, water infiltration and retention, increased yield, improved long term soil quality, and reduced loss of nutrients in soil. Following on from the hugely successful "SafeRock® Minerals Impact on Cotton Growth" trial seen in SME World (September 2014, Pgs 40-41) where 50% increases in cotton bolls were obtained, further field trials on wheat have now been completed with similarly impressive results.

Field trials examining the effect of SafeRock® Minerals on wheat crops were undertaken in 2014-15 in conjunction with KVK (Krishi Vigyan Kendra), Sitapur (UP) a unit of ICAR (Indian Council of Agricultural Research), Ministry of Agriculture, Government of India and the Indian Agricultural Research Institute, New Delhi (IARI).

Two plots of one acre each were identified within the research farm for the trial. The soil of the experimental site was salty loam/salty clay loam, flat, well drained and



Mr Peter Senior, MRPharmS
Technical Director, SafeRock® Minerals Ltd

mildly alkaline. The area typically ranges in temperature from 20-40°C, with rainfall between 85-140mm.

In November 2014 the wheat crop (*Triticum aestivum* L.) was sown at the KVK research farm at Katiya, Sitapur, UP under the supervision of Mr Manish Kumar Bisen MSc(Ag), PGDAGM at a broadcast rate of 40 kg per acre. The first one acre plot was fertilized during the growing season with 50 kg DAP (basal dose), then 50 kg Urea (1st top dressing) then another 40 kg Urea (2nd top dressing). The second plot received identical fertilizer applications except that SafeRock® Minerals was also added at a total dose of 275 kg, applied during field preparation, at the root zone and as a top dressing.

As the trial progressed, staff at the research farm commented on the observed health of the young growing wheat – tall, full and rich green in colour:-



With SafeRock® Minerals- 17/01/2015



Without SafeRock® Minerals- 17/01/2015

Soil samples were taken before and after the experiment, and tissue samples of the wheat crop were also taken and analysed by the Indian Agricultural Research Institute, and interpreted by Dr. D.S. Rana, PhD. Growth parameters such as plant height, number of plants, straw yield and grain yield were recorded from appropriate sampling areas, with threshed grains and yields reported at 12% moisture content.

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Without SafeRock® Minerals- 30/01/15



With SafeRock® Minerals- 30/01/15

Plant heights of the SafeRock® Minerals wheat taken during the growing cycle, ranged from 13.5% to 25% taller than the control group (non-SRM area), and at maturity in April 2015, the crop was harvested. The yield of wheat grains from the SafeRock® Minerals area was 2570 kg compared to the control area yield of 2010 kg, a 27.9% increase in yield. Similar increases in straw yield were also seen. This alone caused much excitement within the research farm, but the soil and tissue analyses showed even more benefits of adding SafeRock® Minerals.

Soil samples taken from the two experimental plots were analysed and showed some astounding results. Use of SafeRock® Minerals resulted in higher concentrations of ALL available nutrients compared with the control plot. There was a tremendous increase in organic carbon (41%), available phosphorus (63%), copper (34%), boron (51%), calcium (62%), magnesium (111%), sulphur (28%) and sodium (42%) content over control (Table 1).

Table 1: Available nutrients status in soil after harvesting

Parameters	Control	SRM
pH	5.17	5.66
E.C. (dS/m)	0.28	0.16
Organic Carbon (%)	0.29	0.41
Available N (kg/ha)	179	188
Available P (kg/ha)	13.4	21.8
Available K (kg/ha)	234	247
Available S (mg/kg)	13.2	16.9
Available Zn (mg/kg)	0.79	0.88
Available Cu (mg/kg)	0.56	0.75
Available Mn (mg/kg)	5.63	6.57
Available Fe (mg/kg)	6.85	8.32
Available B (mg/kg)	0.49	0.74
Available Mo (mg/kg)	0.66	0.82
Available Ca (me/100g)	7.65	12.43
Available Mg (me/100g)	0.75	1.58
Available Na (me/100g)	0.85	1.21

These trends were also found in the plant tissue analysis. The SafeRock® Minerals wheat crop resulted in higher concentrations in ALL nutrients in grain and straw compared with the control crop (Table 2). In particular, the huge increase in Calcium and Magnesium in the wheat grains of 29% and 63%, show how efficiently SafeRock® Minerals helps plants to increase their uptake of nutrients from the soil, making more nutritious grain and straw produce.

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Table 2: Effect of SRM on nutrient concentration in wheat grain and straw

Parameters	Grain (Control)	Grain (SRM)	Straw (Control)	Straw (SRM)
N (%)	2.19	2.31	0.712	0.756
P (%)	0.318	0.324	0.051	0.056
K (%)	0.279	0.288	1.512	1.569
Zn (ppm)	35.62	38.34	21.36	22.41
Cu (ppm)	10.19	10.38	15.22	15.63
Mn (ppm)	34.72	35.12	55.24	56.07
Fe (ppm)	56.87	62.41	367.2	412.6
Ca (ppm)	686	885	2264	2867
Mg (ppm)	335	546	437	488

These results show that not only does SafeRock® Minerals help to increase the yield of wheat by nearly 30%, but that it also improves the efficiency of crop nutrition ensuring more highly nutritious produce than with conventional fertilizers alone. The balanced ratio of micro nutrients and trace elements within SafeRock® Minerals ensures that the growing crop has access to every nutrient it needs for optimum utilisation of applied fertilizers and results in healthy vigorous growth.

As a long term benefit, SafeRock® Minerals remains in the soil for many seasons. Soil quality increases with repeat applications as micronutrients stimulate biota, biomass and organic matter content.

The successful results of SafeRock® Minerals on the wheat crop at KVK farm, Sitapur has impressed the researchers so much, that they are currently undertaking further trials on paddy rice. Initial feedback from them is very positive and exciting, and we look forward to sharing the results in due course.

For more details on this natural resource, visit www.safrockminerals.com

For enquiries please contact:

Mr Gaird
Tel: 9810418476
Email: bkgaing@safrockminerals.com
Mr Atul Kumar Pal
Tel: 9810469993
Email: atulkumar@safrockminerals.com
Mr Ashish Arora
Tel: 981142568 / 7838090707
Email: ashisharora@safrockminerals.com

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Trials at KVK Carried out by:
Manish Kumar Bisen
M.Sc (Agriculture)
Soil Science and Agri. Chemistry

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SafeRock® Minerals Impact on Maize Growth

SafeRock® Minerals (SRM) has been involved in numerous crop trials throughout the world and continues to demonstrate and prove its ability to increase crop yields, enhance fertiliser efficiency, re-mineralise agricultural soils, and improve the quality and nutrient content of cultivated crops. It has been certified for use in organic agriculture as a mineral soil conditioner.

Field trials examining the effect of SafeRock® Minerals on maize crops were undertaken in 2015 by Dr D S Rana, Vice President of Saptrishi Vedic Agriculture Research & Development Foundation (<http://www.vedic-agriculture.com>).

Field Experiment

The field experiment was carried out at the Indian Agricultural Research Institute, New Delhi (IARI) research farm during *khari* season 2015. The soil of the experimental site was typically sandy loam, flat, well drained and mildly alkaline. The experiment followed a randomized block design (RBD) with three replications. The experimental field was ploughed followed by deep harrowed and proper levelling before sowing of the maize crop on 13th July 2015. The crop was sowed after proper tillage of the experimental plots at spacing of 60 cm and 20 cm between row and plants, respectively. In each plot a uniform plant stand was maintained and standard agronomic practices were followed for raising and maintaining the crop.

The crops were harvested at maturity on 21st October, 2015 manually from ground level, and the aboveground biomass was removed from the plots. Grain and stover (leaves & stalks) samples were collected after recording the yields and sent for nutrient analysis. Post-harvest soil samples (0-15 cm depth) were also collected from all the plots for further analysis. Total nutrient uptake by the crops was computed by

Treatment	Description
T1	NPK (100%) + SRM (100%)
T2	NPK (50%) + SRM (100%)
T3	NPK (25%) + SRM (100%)
T4	Urea (100%) + SRM (100%)
T5	FYM (50%) + SRM (100%)
T6	SRM (100%)
T7	NPK (150%)
T8	NPK (100%)+Sulphur
T9	NPK (100%)+Zinc
T10	Urea alone (100%)
T11	Unfertilized (Control)

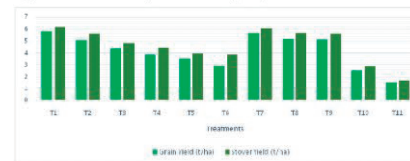
multiplying nutrient content with the above ground grain and stover yields.

Here, 50, 100 or 150% denote the percentage of the soil-test based recommended fertiliser dose. The 100% NPK rate for maize was 150-33-50 kg/ha. Urea, diammonium phosphate and muriate of potash were used to supply N, P and K, respectively, except in T₆ where single superphosphate was used as P fertilizer to supply P and S. In T₉, Zn was applied through zinc sulphate.

Table 2: Mean yields of maize (t/ha) under different fertilizer treatment

Treatment	Yield (t/ha)	
	Grain	Stover
T ₁ - NPK (100%) + SRM (100%)	5.84	6.15
T ₂ - NPK (50%) + SRM (100%)	5.07	5.58
T ₃ - NPK (25%) + SRM (100%)	4.37	4.81
T ₄ - Urea (100%) + SRM (100%)	3.88	4.40
T ₅ - FYM (50%) + SRM (100%)	3.53	3.98
T ₆ - SRM (100%)	2.94	3.88
T ₇ - NPK (150%)	5.63	6.02
T ₈ - NPK (100%)+Sulphur	5.16	5.64
T ₉ - NPK (100%)+Zinc	5.12	5.59
T ₁₀ - Urea alone (100%)	2.53	2.88
T ₁₁ - Unfertilized (Control)	1.56	1.69

Fig. 1. Grain and stover yields of maize (t/ha) under different treatments



From the overall trial results obtained, the maximum yields of maize grain and stover were produced by applying NPK (100%) + SRM (100%), closely followed by NPK (150%) alone. The presence of SRM in the soil increases the efficiency of the 100% NPK fertiliser application, to produce a yield that is even higher than by applying an extra 50% NPK to the soil. Both treatments outperformed all other tested fertiliser additions.

When observing the total nutrient uptake by the crops (see Table 3), again the NPK (100%) + SRM (100%) treatment is closest to the 150% NPK treatment. It requires an extra 50% addition of NPK fertiliser to match the efficiency gains seen with the SRM treatment. Comparing all 100% NPK treatments, SRM outperforms all others in the study -

Many farmers choose to apply only urea to their fields as a nitrogenous fertiliser. This is not an optimum fertiliser strategy, but it is one that is often employed in practise so it was included in the trial.

Table 3: Total nutrient uptake by crop under different treatments in maize 2016.

Treatment	Total nutrient uptake (kg/ha)					
	N	P	K	S	Zn	
T ₁ - NPK (100%) + SRM (100%)	115.8	15.0	86.7	11.4	0.421	
T ₂ - NPK (50%) + SRM (100%)	99.6	13.6	64.8	8.0	0.301	
T ₃ - NPK (25%) + SRM (100%)	81.2	10.6	48.2	6.0	0.228	
T ₄ - Urea (100%) + SRM (100%)	79.7	10.4	58.8	5.1	0.250	
T ₅ - FYM (50%) + SRM (100%)	67.7	8.8	44.7	5.4	0.204	
T ₆ - SRM (100%)	66.7	8.8	46.8	5.9	0.212	
T ₇ - NPK (150%)	124.8	16.8	90.9	10.5	0.282	
T ₈ - NPK (100%)+Sulphur	88.6	11.6	59.2	12.7	0.301	
T ₉ - NPK (100%)+Zinc	95.8	12.4	65.6	7.8	0.430	
T ₁₀ - Urea alone (100%)	63.8	8.3	42.7	4.6	0.243	
T ₁₁ - Unfertilized (Control)	34.2	4.5	21.7	2.8	0.134	

they do not come close to matching the total nutrient uptake levels of N, P and K seen when SRM is present with the 100% NPK.

When the same NPK (100%) + SRM (100%) grain yield is compared with alternative NPK plus micronutrient supplements such as sulphur or zinc, SRM outperforms them by 13.2% and 14.1% respectively. Even with sulphur or zinc supplementation alongside 100% NPK, the same yields were obtained when SRM was present with only 50% NPK (grain: 5.16, 5.12 and 5.07 t/ha; stover: 5.64, 5.59 and 5.58 t/ha respectively) – with SRM in the soil the same yield could be achieved with HALF the NPK fertiliser, and without additional micronutrient supplementation!

Many farmers choose to apply only urea to their fields as a nitrogenous fertiliser. This is not an optimum fertiliser strategy, but it is one that is often employed in practise so it was included in the trial. Using urea alone at 100% of the recommended amount produced a grain yield of 2.53 t/ha. By adding SRM (100%) to the same urea application, increased grain yield to 3.88 t/ha, an increase of 53.4%

SafeRock® Minerals is most effective when used to increase the efficiency of applied fertilisers, whether inorganic or organic. However, it was interesting to see that when only SRM was applied to the soil a grain yield of 2.94 t/ha resulted. Compared with the unfertilised control grain yield of 1.56 t/ha, showed that SRM by itself increased grain yield by 88.5%! The stover yield increased by a huge 130%! This demonstrates the impressive beneficial impact that SafeRock® Minerals can have upon an agricultural soil.

By adding farmyard manure at a rate of 1000kg/acre (50% recommended amount) to the 100% SRM plot, increased the yield still further by an extra 20.1% showing that SRM is an excellent addition to organic farming systems.

Samples of soil, maize grain and maize stover were all taken from the Indian Agricultural Research Institute, New Delhi (IARI) farm for analysis.

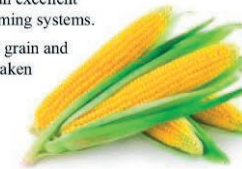


Table 4: Status of Micro-nutrients in maize grain:

Treatments	Iron (Fe)	Copper (Cu)	Manganese (Mn)	Zinc (Zn)	Calcium (Ca)	Magnesium (Mg)	Sulphur (S)	percent (%)	
								mg/kg	mg/kg
T ₁ - NPK (100%) + SRM (100%)	58.26	4.48	8.14	101.86	0.813	0.12	1.23		
T ₂ - NPK (50%) + SRM (100%)	29.65	3.61	7.18	80.44	0.812	0.11	1.18		
T ₃ - NPK (25%) + SRM (100%)	25.25	3.05	6.08	62.56	0.812	0.09	0.88		
T ₄ - Urea (100%) + SRM (100%)	31.17	3.04	7.28	81.36	0.812	0.10	0.88		
T ₅ - FYM (50%) + SRM (100%)	25.34	3.26	6.84	76.35	0.811	0.11	0.93		
T ₆ - SRM (100%)	30.66	3.67	8.45	96.98	0.815	0.12	0.93		
T ₇ - NPK (150%)	52.80	3.65	7.26	91.64	0.807	0.11	1.08		
T ₈ - NPK (100%)+Sulphur	28.57	3.08	7.15	76.66	0.811	0.10	1.08		
T ₉ - NPK (100%)+Zinc	48.86	3.67	8.28	102.89	0.812	0.13	1.08		
T ₁₀ - Urea alone (100%)	33.50	3.24	7.22	90.76	0.807	0.12	0.94		
T ₁₁ - Unfertilized (Control)	31.22	3.83	7.68	84.80	0.809	0.09	0.82		

Table 5: Status of Micro-nutrients in maize straw:

Treatments	Iron (Fe)	Copper (Cu)	Manganese (Mn)	Zinc (Zn)	Calcium (Ca)	Magnesium (Mg)	Sulphur (S)	percent (%)	
								mg/kg	mg/kg
T ₁ - NPK (100%) + SRM (100%)	57.36	8.13	37.25	348.97	0.55	0.44	4.89		
T ₂ - NPK (50%) + SRM (100%)	48.24	8.34	33.68	281.91	0.51	0.43	4.32		
T ₃ - NPK (25%) + SRM (100%)	41.36	9.02	38.47	281.36	0.50	0.40	4.09		
T ₄ - Urea (100%) + SRM (100%)	47.84	8.15	38.06	248.28	0.49	0.43	4.33		
T ₅ - FYM (50%) + SRM (100%)	45.48	7.42	37.30	243.88	0.46	0.44	4.29		
T ₆ - SRM (100%)	43.47	8.12	36.03	261.43	0.51	0.39	4.08		
T ₇ - NPK (150%)	66.17	9.07	48.28	371.43	0.49	0.40	4.12		
T ₈ - NPK (100%)+Sulphur	48.57	8.22	34.92	279.38	0.46	0.41	4.28		
T ₉ - NPK (100%)+Zinc	69.16	8.18	55.05	272.28	0.50	0.42	4.53		
T ₁₀ - Urea alone (100%)	48.80	8.34	36.44	258.48	0.46	0.39	4.07		
T ₁₁ - Unfertilized (Control)	49.58	8.80	50.68	252.21	0.41	0.31	3.68		

The plant tissue results again showed that with the NPK (100%) + SRM (100%) treatment, not only were yields maximised, but the final crop harvest was more nutritious, being the most consistently high in secondary macro and micro-nutrient content than the alternate treatments. Individual micronutrient supplements performed well in their own single element nutrient analysis, but SafeRock® Minerals with its broad spectrum of micronutrient content and clay mineral efficiencies, invariably outperformed them in all other elements of nutrient content, as well as being superior in yield.

SafeRock® Minerals currently undergoing numerous field trials all over the world at the highest levels of educational, governmental and corporate involvement. We look forward to sharing the results of these trials in due course.

For more information on SafeRock® Minerals, and to request full trial information please visit www.saferockminerals.com or contact:



PETER SENIOR MRPHARMS
Technical Director
SafeRock® Minerals Ltd



DR D S RANA PHD
Vice President & Agricultural Expert
Saptrishi Vedic Agriculture Research & Development Foundation

SafeRock® Minerals (SRM) IMPACT ON PADDY RICE GROWTH

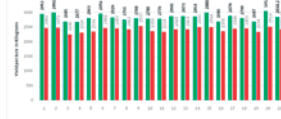
SafeRock® Minerals is a 100% natural mineral soil conditioner that re-mineralises agricultural soil and increases the efficiency of applied fertiliser treatments. Numerous crop trials to date have shown improved crop yields, reduced fertiliser applications, improved soil structure and available nutrient content, as well as higher quality, more nutritious crop produce.

The "SafeRock® Minerals (SRM) Impact on Paddy Rice Growth" trial was undertaken in 2015-16 at KVK (Krishi Vigyan Kendra), Sitapur, a unit of ICAR (Indian Council of Agricultural Research), Ministry of Agriculture, Government of India and the Indian Agricultural Research Institute, New Delhi (IARI). An earlier field trial, "SafeRock® Minerals (SRM) Impact on Wheat Growth" was also conducted in 2014-15 at the KVK research farm, which reported a 28% increase in wheat grain yield and impressive increases in the levels of soil available nutrients, and higher crop quality and nutrient content (reviewed in SME World, Sept 2015, Pages 24-25). The results of the earlier successful wheat trial impressed the research team so much, that they then expanded the field trials for paddy rice to include an additional 19 test farms as well as their own research farm.

The Efficacy

The objective of the "SafeRock® Minerals Impact on Paddy Rice Growth" trial was to understand the efficacy of SafeRock® Minerals (SRM) on paddy rice growth, with particular reference to its agronomical superiority in combination with normal farming practices and nutrition programs. The trial was designed, implemented and supervised by Dr. D.S. Srivastava, with Dr. Anand Singh acting as Chief Scientific Advisor at KVK, Sitapur. Soil samples from each test farm were initially taken and analysed for nutrient content, to determine the recommended application rates for fertiliser treatments such as urea, diammonium phosphate (DAP) and muriate of potash (MOP). The trial was designed to encompass variations in fertiliser treatments, soil types and pH (from 6.7 to 7.9), seed variety and seed application rates to provide a "real world" scenario of agricultural diversity. SafeRock® Minerals was applied at a consistent rate of 100 kg/acre in all test farms, tilled into the soil at the time of soil preparation.

Sl. No.	Name of Farmers	Address	SRM	SRM+SRM	Region	Pincode
1	Georg Prasad	Chaurur, Bhojan	2053	2402	497	1834
2	Zorabhai Prasad	Chaurur, Bhojan	2092	2471	351	2108
3	Kuldeep Mehta	Chaurur, Bhojan	2085	2285	425	1835
4	Bhagat Prasad	Chaurur, Bhojan	2077	2310	305	1849
5	Mehra Kumar	Chaurur, Bhojan	2093	2330	402	1839
6	Manish Kumar	Chaurur, Bhojan	2092	2450	498	1837
7	Abhishek	KamlaBhawan	2025	2407	308	1842
8	Vijay Kumar	Deogarh	2081	2402	330	1838
9	Shyam Singh	Deogarh	2086	2320	351	1839
10	Maheshwar Singh	Deogarh	2080	2350	425	1835
11	Shyam Prasad	Deogarh	2078	2325	445	1837
12	Prakash Prasad	Deogarh	2073	2411	450	1831
13	Prakash Kumar	Deogarh	2084	2420	385	1848
14	Prakash Kumar	Deogarh	2088	2501	444	1833
15	Prakash Kumar	Deogarh	2088	2350	331	1846
16	Prakash Kumar	Deogarh	2079	2440	431	1838
17	Prakash Kumar	Deogarh	2079	2403	348	1811
18	Prakash Kumar	Deogarh	2087	2324	382	1832
19	Prakash Kumar	KVK, SITAPUR	2082	2314	330	2148
20	Ananya	2082-26	24435	4743	1828	



The main objective for the paddy rice trial was not only achieved, but comprehensively demonstrated. When SRM was applied with sufficient nitrogen, the SRM rice plants outperformed their non-SRM counterparts in every single plot, irrespective of the levels of other fertiliser treatments applied. Considering the potential variations between the soils in 20 separate test farms, it was impressive to see increases in plant height, number of tillers (branches), as well as overall yield, across the board! Across all 20 test farms, the final results showed:-

- the average increase in plant height (at 45 DAT) was +23%
- the number of tillers (branches) increased +49%
- the final overall rice yield averaged an extra 418 kg/acre/acre, an increase of +17.3%

Given the variations in soil conditions between the 20 test farms, and the different fertiliser treatment quantities and nutritional supplements added, it is a tremendous testament to the versatility of SRM that consistently better plant growth and yield resulted. In wide ranging conditions, SRM was able to support plant growth by making nutrients more plant available from the soil and fertiliser

The results of applying SafeRock® Minerals are seen not only with significant yield increases, but also with improved soils and more healthy and nutritious produce grown.

applications. Fertiliser efficiency was increased leading to yield improvements in every test farm. Additional findings from similarly treated farms within the trial were equally impressive:-

- Farm #2 compared the addition of SRM to a plot using 100% normal farming practices (100% recommended urea and DAP applications). The control plot achieved a yield of 2471 kg/acre, whilst the addition of SRM at only 100 kg/acre, boosted yield to 2992 kg/acre, an increase of 21.1%. Similarly, the KVK test farm itself used recommended amounts of urea and DAP in two separate one acre plots, and by adding SRM at 100 kg/acre to only one of the plots achieved an increased rice yield of 21.4% (3052 kg vs 2514 kg). Overall, adding SRM at 100 kg/acre alongside recommended amounts of urea and DAP within the trial, increased paddy rice yields by over 21.2%

- There were several farms (#1, #11 and #19) that applied recommended doses of urea plus DAP in their control plots, but in the SRM plot the DAP was completely omitted. In the SRM plot, there was only urea as a nitrogenous fertiliser. In each case, using only urea with SRM resulted in higher yields of 19.9%, 19.1% and 15.1% respectively, an average increase of 18% yield using urea as a sole source of nitrogen.

- In farms #7 and 12, the control plots are given double the recommended amounts of urea and DAP (and MOP with #7) - a common practise used by farmers to try to boost yields. In contrast, the SRM plots were given only half that fertiliser dose but still achieved increased yields of +15.0% and +18.4% respectively - an average increase of 16.7% with HALF the fertiliser dose! This shows the fertiliser efficiency gains possible when SRM is applied. By reducing excess urea and DAP, the farmer saves a great deal of fertiliser cost and allows SRM to efficiently provide nutrition to the crops to still increase yields by nearly 17%! **Less fertiliser with increased yield!**

Appropriate samples of soil, rice grain and rice straw were all taken from the KVK farm and sent for analysis at the Indian Agricultural Research Institute, New Delhi. The results mirrored the crop trial results from the earlier wheat trial (2014-15) in that not only were yields increased, but the available nutrient content of agricultural soil was greatly increased and the final crop harvest was more nutritious, being higher in macro and micro-nutrient content than the control crops.

Status of Nutrients in Rice Soil in the KVK Farm in Sitapur

Nutrients	With SRM	Without SRM
Organic C (g/kg)	6.9	4.8
N (mg/kg)	106.3	90.6
P (mg/kg)	13.2	10.1
K (mg/kg)	162.5	106.7
S (mg/kg)	10.8	8.7
Zn (mg/kg)	1.12	0.91
Cu (mg/kg)	0.92	0.83
Mn (mg/kg)	8.64	7.22
Fe (mg/kg)	5.38	4.07
Ca (mg/g)	4251	3921
Mg (mg/g)	619	557
B (mg/kg)	0.46	0.38

For the soil samples, use of SafeRock® Minerals resulted in higher concentrations of ALL tested available nutrients compared with the control plot. There was a very significant increase in organic carbon (44%), available phosphorus (30.7%), potassium (52.3%), nitrogen (17.3%), calcium (8.4%), magnesium (11.1%), sulphur (24.1%), zinc (23.1%), copper (10.8%), manganese (19.7%), iron (32.2%) and boron (21.1%) content over control. This is due in part to the micronutrient content of SafeRock® Minerals itself. However, more importantly, the clay minerals within SafeRock® Minerals demonstrate their effectiveness as a nutrient holding and exchange matrix - the nutrients within the soil and applied by fertilisers, are held ready and available for plant uptake. The clay minerals within SafeRock® Minerals efficiently increase the availability of nutrients within the soil, and this is clearly visible in the figures above.

Status of Nutrients in KVK Grain & Straw in the KVK Farm in Sitapur

Nutrient	Grain		Straw	
	With SRM	Without SRM	With SRM	Without SRM
Protein %	8.45	7.92	8.12	7.58
N (%)	1.42	1.33	0.72	0.68
P (%)	0.08	0.07	0.01	0.01
K (%)	0.28	0.21	0.08	0.21
S (%)	0.007	0.006	0.006	0.007
Ca (mg/kg)	18.4	17.7	4.4	7.7
Mg (mg/kg)	78.2	76.7	36.7	39.7
Fe (mg/kg)	93.7	92.7	38.4	38.4
Cu (mg/kg)	1005	985	3047	3207
Mn (mg/kg)	312	298	593	487
B (mg/kg)	0.06	0.07	0.02	0.13

Again, we can see that the use of SafeRock® Minerals has increased the nutritional value of rice grain AND rice straw produced versus the control crops. Higher concentrations of ALL tested nutrients were found in rice grains and rice straw grown with SafeRock® Minerals. This is due to more efficient uptake of nutrients from the soil, and as a result of increased availability of nutrients within the soil.

The results of applying SafeRock® Minerals are seen not only with significant yield increases, but also with improved soils and more healthy and nutritious produce grown.

Trial with SRM

During the trial, another beneficial property of SafeRock® Minerals was demonstrated. Many farms in India have a problem with high levels of iron in their soils, and some of the trial farms were no exception. The iron latches onto developing root systems and can result in toxicity and root rot, consequently leading to crop damage and poor yields. Trial agronomists highlighted the difference between the developing root systems in plots of rice grown with and without SRM. Photographs taken show that rice cultivated without SRM had the distinctive red coloration of iron and reduced root development. However, rice grown in SRM plots had white, healthy and more fully developed root systems, aiding more effective nutrient uptake.

A major benefit of SafeRock® Minerals, particularly when applied to the paddy rice environment, is that SafeRock® Minerals is not water soluble and so is not leached from the soil.



With SafeRock® Minerals Without SafeRock® Minerals

This impressive visual aid shows the nutrient exchange matrix within SafeRock® Minerals at work. The clay minerals within the natural resource show how efficiently SRM is able to buffer chemical imbalances within agricultural soils, to the benefit of better root development and hence increased nutrient uptake, plant growth and drought resistance.

Another major benefit of SafeRock® Minerals, particularly when applied to the paddy rice environment, is that SafeRock® Minerals is not water soluble and so is not leached from the soil. Repeated applications build up the available nutrient status and soil organic carbon levels, improving long term soil structure and water holding capacity. Microbes and earthworms thrive in re-mineralised soil which in turn also increases aeration, nutrient



PETER SENIOR MRPHARMS
Technical Director
SafeRock® Minerals Ltd



DR ANAND SINGH
MSC (HORTICULTURE)
PHD (FRUIT SCIENCE)
Sr Scientist-cum-Head
Krishi Vigyan Kendra - II,
Sitapur, Uttar Pradesh, Pin- 261145



DR D.S. SRIVASTAVA
MSC (AG), PHD (NEMATOLGY)
PGDGM
Scientist-Plant Protection
Krishi Vigyan Kendra - II,
Sitapur, Uttar Pradesh, Pin- 261145

Scientists estimate that it took a thousand years for an inch of topsoil to accumulate.
- Caroline Fraser

Pomerite

SafeRock®

A natural resource to enrich the earth

*A nation that destroys
its soil, destroys itself.*

26 February 1937, President Franklin D Roosevelt

Thank You.

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