



▲土壌活性剤「収獲力」1.0 2.500 円(脱検) ※大容量タイプ(20 £ タンク)もございます

SHUKAKU-BIKI

"POWER HARVEST"

Bio-Organic Fertilizer

Formulated and Manufactured in Japan



TABLE OF CONTENTS

ntroduction	
The Nutritional Features of SHUKAKU-RIKI "POWER HARVEST" Bio-Organic Fertilizer	1
The Power House Components of SHUKAKU-RIKI "POWER HARVEST" Bio-Organic Fertilizer	
How Does SHUKAKU-RIKI "POWER HARVEST" Bio-Organic Fertilizer Effectively Work in Plants	,
Other Advantages of SHUKAKU-RIKI "POWER HARVEST" Bio-Organic Fertilizer	3
Protocol and Application Manual of SHUKAKU-RIKI "POWER HARVEST" Bio-Organic Fertilizer	
Tabular Summary of SHUKAKU-RIKI "POWER HARVEST" Bio-Organic Fertilizer	
Drenching Application14	ł
mportant Reminders and Precautions20)
Appendix I (The Plant Nutrition Index)22	
Appendix II (The Soil Index and Disorders)2	<u>)</u>
Appendix III (Bio-efficacy Results)	

INTRODUCTION

SHUKAKU-RIKI "POWER HARVEST" Bio-Organic Fertilizer is a

fermentation product that is environment-friendly and functionally ensures optimum plant growth and development for desirable yield and productivity thus economically rewarding.

Fertilization thru drenching method using the liquid **SHUKAKU-RIKI "POWER HARVEST" Bio-Organic Fertilizer** is the fastest way of boosting plant growth from poor soil fertility, nutrient deficiencies, environmental stress factors, pests, and diseases.

SHUKAKU-RIKI "POWER HARVEST" Bio-Organic Fertilizer richly contains readily available organic nutrients and trace elements that traverse directly to the root system of the plant for better uptake. It has soil conditioners that soften and create better soil structure conducive to the growth of the roots of the crops. Oxygen in the soil will increase due to improved soil aeration and permeability. It is a fertilizer that does no harm to natural environment.

SHUKAKU-RIKI "POWER HARVEST" Bio-Organic Fertilizer can be widely used for the entire cropping season of all kinds of crops at 7-15 days interval for those following Organic Farming System. It can also be applied alternately for at least 14-days interval with synthetic/granular fertilizer. It is highly recommended to reduce synthetic fertilizer application up to 50 percent of the whole recommended rate for those using the Inorganic Farming System. This addresses soil acidity thus promoting optimum nutrient and water uptake ensuring proper growth and development of the plant.

WHAT IS

SHUKAKU-RIKI "POWER HARVEST"

BIO-ORGANIC FERTILIZER?



 A nutritionally complete power house organic liquid fertilizer formulated and manufactured in Japan
 Contains alginic acid, amino acid, organic matter and

probiotic microorganisms

a

3 Rich in essential macro and trace elements

POWER HOUSE COMPONENTS OF SHUKAKU-RIKI" POWER HARVEST " BIO-ORGANIC FERTILIZER FOR COMPREHENSIVE PLANT DEVELOPMENT

•ESSENTIAL MACRO ELEMENTS

①Nitrogen for chlorophyll synthesis which gives plants their green color and is involved in creating food for the plant through photosynthesis.

2Phosphorous for energy transfer, photosynthesis, and nutrient movement within the plant.

BPotassium for enzyme activation that affects protein, starch and adenosine triphosphate (ATP) production in the plant.

•ALGINIC ACID

Found in brown algae /sea weed/kelp, is an essential soil conditioner that combines with metals in the soil to create a polymer which retains significant amount of moisture more so during adverse/dry season thus enhancing the soil structure/texture that promotes maximum uptake and mobilization of water and nutrient, and aeration. Thus, plant roots have better access to both nutrients and air within the soil, resulting to optimum growth and development.

•AMINO ACIDS

From fish oil of skipjack and milkfish, act as natural biological stimulants and organic chelating agents for trace elements to promote recovery from abiotic stress. Fish oil also supplies trace elements necessary for overall plant growth and development.

•ORGANIC MATTER/CHICKEN MANURE

Addition of organic matter to soil increases soil water holding capacity, improves soil structure, pH, aeration, and drainage. It also reduces erosion and fertilizer leaching.

PROBIOTIC EFFECTIVE MICROORGANISMS

Scientifically selected beneficial microorganisms/inoculants are naturally occurring bacteria, fungi and other microbes for very effective biological control. They serve as inhibitors of the growth of harmful or disease-causing soil-borne microorganisms thereby protecting the host plant from possible infection. They also act as decomposers that converts dead tissues in the soil to readily available nutrients for better or facilitated uptake boosting plant productivity and health.

•TRACE ELEMENTS

Calcium (Ca) is for the formation of cell walls and cell membranes.
 Magnesium (Mg) is for activation of specific enzyme systems. Boron (B) is for cell wall synthesis and essential for cell division. Zinc (Zn) helps the plant to withstand cold temperatures. Manganese (Mn) sustains metabolic roles within different plant cell compartments.



HOW DOES

SHUKARU-RIKI "POWER HARVEST" BIO-ORGANIC FERTILIZER **WORK EFFECTIVELY IN THE PLANTS?**

When **SHUKAKU-RIKI "POWER HARVEST" Bio-Organic Fertilizer** is applied directly to the soil, it will immediately act as a **soil conditioner**. It stimulates chemical reactions by combining molecular substances to promote soil decongestion and enhances soil texture thus allowing optimum nutrients and water uptake, and facilitates better air movement.



As a result, all vital nutrients of **SHUKAKU-RIKI "POWER HARVEST"** Bio-Organic Fertilizer are optimized by fast mobilization from the roots upwards. Effective probiotics proprietary in **SHUKAKU-RIKI "POWER HARVEST" Bio-Organic Fertilizer** effectively protect plants from vascular and soil-borne diseases. Thus, plants eventually grow faster, stronger, and healthier becoming vigorously productive.

OTHER IMPORTANT USES OF <u>SHUKAKU-RIKI</u> "POWER HARVEST " BIO-ORGANIC FERTILIZER

1. SOIL CONDITIONER

• Amends soil acidity, structure, soil nutrients deficiencies and availabilities

2. NUTRITIONALLY COMPREHENSIVE FERTILIZER

• Stimulates efficient absorption of all essential nutrients by the plants

3. PLANT GROWTH STIMULANT

• Increases photosynthetic efficiency, accelerates nutrient absorption and operation, increases chlorophyll content, enhances crop quality, has significant effect on rooting, germination, flower promotion, fruit growth and fruit protection of crops.

4. BOOSTING AGENT

• Improvement of crop quality, enhancement of crop drought resistance, disease resistance, stress resistance, and immunity.

ILLUSTRATIVE PROCEDURE FOR APPLICATION OF SHUKAKU-RIKI "POWER HARVEST" BIO-ORGANIC FERTILIZER FOR CEREAL CROPS (RICE, CORN AND SORGHUM)



ILLUSTRATIVE PROCEDURE FOR APPLICATION OF SHUKAKU-RIKI "POWER HARVEST" BIO-ORGANIC FERTILIZER FOR LEAFY VEGETABLES (Cabbage, Chinese Petchay, Lettuce, Spinach, Onion Leaves and etc.)











TABULAR SUMMARY OF

SHUKAKU-RIKI "POWER HARVEST" BIO-ORGANIC FERTILIZER

DRENCHING APPLICATION

I. CEREAL CROPS

	AT LAND			DRENCHING
CROP	PREPARATION,	25 DAYS AFTER	45-50 DAVS	APPLICATION
	AT LAST PLOW	PLANTING		INTERVAL
	DONE			
	5 Liters per	3 Liters per	2 Liters per	
PICE	hectare at 1: 250	hectare at 1: 250	hectare at 1: 250	20 days
RICE	liters dilution	liters dilution	liters dilution	50 uays
	ratio	ratio	ratio	
	5 Liters per	3 Liters per	2 Liters per	
CORN	hectare at 1: 250	hectare at 1: 250	hectare at 1: 250	30 days
	liters dilution	liters dilution	liters dilution	
	ratio	ratio	ratio	
	E Litors por	2 Litors por	2 Litors por	
SORGHUM	5 Liters per	S Liters per	z Liters per	
	hectare at 1: 250	hectare at 1: 250	hectare at 1: 250	30 days
	liters dilution	liters dilution	liters dilution	
	ratio	ratio	ratio	

I. LEAFY VEGETABLES

CROP	0-15 DAYS	16-30 Days	31-75 Days After
		After Planting	Planting
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
CABBAGE	200ml solution per hill at 5	500ml solution per hill at	at 500ml solution per
	days drenching application	7 days drenching	hill at 15 days
	interval.	application interval.	drenching application
			interval.
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
CHINESE	200ml solution per hill at 5	500ml solution per hill at	at 500ml solution per
	days drenching application	7 days drenching	hill at 15 days
PEICHAI	interval.	application interval.	drenching application
			interval.
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
SPINACH	200ml solution per hill at 5	500ml solution per hill at	at 500ml solution per
	days drenching application	7 days drenching	hill at 15 days
	interval.	application interval.	drenching application
			interval.
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
LETTUCE	200ml solution per hill at 5	500ml solution per hill at	at 500ml solution per
LITTOCL	days drenching application	7 days drenching	hill at 15 days
	interval.	application interval.	drenching application
			interval.

	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
SPRING ONION	200ml solution per hill at 5	500ml solution per hill at	at 500ml solution per
	days drenching application	7 days drenching	hill at 15 days
	interval.	application interval.	drenching application
			interval.

II. CUCURBITS VEGETABLES

CROP	0-15 DAYS	16-60 Days	70 and up Days
		After Planting	After Planting
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
CUCUMBER	200ml solution per hill at 5	500ml solution per hill at	at 500 ml solution per
	days drenching application	7-10 days drenching	hill at 15 days
	interval.	application interval.	drenching application
			interval.
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
SQUASH	200ml solution per hill at 5	500ml solution per hill at	at 500 ml solution per
	days drenching application	7-10 days drenching	hill at 15 days
	interval.	application interval.	drenching application
			interval.
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
BITTER	200ml solution per hill at 5	500ml solution per hill at	at 500 ml solution per
GOURD	days drenching application	7-10 days drenching	hill at 15 days
	interval.	application interval.	drenching application
			interval.
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
BOTLE	200ml solution per hill at 5	500ml solution per hill at	at 500 ml solution per
GOURD			hill at 15 days

	days drenching application	7-10 days drenching	drenching application
	interval.	application interval.	interval.
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
MELONS	200ml solution per hill at 5	500ml solution per hill at	at 500 ml solution per
	days drenching application	7-10 days drenching	hill at 15 days
	interval.	application interval.	drenching application
			interval.

I. ROOT CROPS

CROP	0-15 DAYS	16-30 Days	31-75 Days After
		After Planting	Planting
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
RADISH	200ml solution per hill at 5	500ml solution per hill at	at 500ml solution per
	days drenching application	7 days drenching	hill at 15 days
	interval.	application interval.	drenching application
			interval.
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
CARROTS	200ml solution per hill at 5	500ml solution per hill at	at 500ml solution per
	days drenching application	7 days drenching	hill at 15 days
	interval.	application interval.	drenching application
			interval.
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
ΡΟΤΑΤΟ	200ml solution per hill at 5	500ml solution per hill at	at 500ml solution per
	days drenching application	7 days drenching	hill at 15 days
	interval.	application interval.	drenching application
			interval.

I. FRUITING VEGETABLES

BELL PEPPER	0-15 DAYS	16-30 Days	31-75 Days After
		After Planting	Planting
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
ΤΟΜΑΤΟ	200ml solution per hill at 7	500ml solution per hill at	at 500ml solution per
	days drenching application	10 days drenching	hill at 15 days
	interval.	application interval.	drenching application
			interval.
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
EGG PLANT	200ml solution per hill at 7	500ml solution per hill at	at 500ml solution per
	days drenching application	10 days drenching	hill at 15 days
	interval.	application interval.	drenching application
			interval.
	5 ml per liter of water at	5 ml per liter of water at	5 ml per liter of water
OKRA	200ml solution per hill at 5	500ml solution per hill at	at 500ml solution per
	days drenching application	7 days drenching	hill at 15 days
	interval.	application interval.	drenching application
			interval.



IMPORTANT REMINDERS AND PRECAUTIONS

- 1. SHUKAKU-RIKI "POWER HARVEST" BIO-ORGANIC FERTILIZER should be applied religiously following the provided guidelines for most efficient farming results.
- 2. Application of SHUKAKU-RIKI "POWER HARVEST" BIO-ORGANIC FERTILIZER incorporated with Synthetic Fertilizer up to 50 percent of the whole cropping requirement is also recommended in 10-15-day alternate application interval for Inorganic Farming System.
- 3. Ensure at least 50-60% moisture availability in the soil prior the application of SHUKAKU-RIKI "POWER HARVEST" BIO-ORGANIC FERTILIZER.
- 4. Shake the SHUKAKU-RIKI "POWER HARVEST" BIO-ORGANIC FERTILIZER product container before pouring the contents into the mixing vessel to avoid the organic materials from being submerged at left at the bottom of the product container.
- Avoid mixing of SHUKAKU-RIKI "POWER HARVEST" BIO-ORGANIC FERTILIZER with any pesticide products because the activities and efficacy of the Probiotics microorganisms will be affected.
- 6. Application of SHUKAKU-RIKI "POWER HARVEST" BIO-ORGANIC FERTILIZER is preferably done at 5-9 o'clock in the morning or 3-6 o'clock in the afternoon to avoid heat factor that might affect its efficacy prior plant absorption.
- 7. Store the product in cool to room temperature and away from children.

APPENDIX I.

THE PLANT NUTRITION INDEX

MACRO NUTRIENTS	ROLES	DEFICIENCY SYMPTOMS
NITROGEN	Part of the chlorophyll molecule that gives plants their green color and is involved in creating food for the plant through photosynthesis.	First Stage Second Stage Third Stage
PHOSPHOROUS	Vital to plant growth and is found in every living plant cell. Its plant functions include energy transfer, photosynthesis, transformation of sugars and starch.	First Stage Second Stage Third Stage
POTASSIUM	Vital for movement of water and nutrients like carbohydrates in plant tissues, involved in enzyme activation within the plant.	X X X Y Y Y Y Y Y

APPENDIX II.

THE SOIL INDEX AND DISORDERS

		PARAMETERS	
			Nutrient Deficiencies and Toxicity
Category	рН	Description	
	1		
	2	VERY STRONG ACIDIC	
ACIDITY	3		Nitrogen, Phosphorous, Potassium, Sulfur. Magnesium. Calcium. Iron
	4	Strong Acidic	Toxicity, Manganese Toxicity.
	5	Moderately Acidic	
	6	Slightly Acidic	
	7	NEUTRAL	
	8	Slightly Alkaline	
	9	Moderately Alkaline	Nitrogen Deficiency, Iron Deficiency,
	10	Strong Alkaline	Manganese Deficiency, Copper
ALKALANITY	11		Deficiency, and Zinc Deficiency
	12	VERY STRONG ALKALINF	Note: Strongly Alkaline soil is hard and very compact.
	13		
	14		

APPENDIX III

BI**O EFFICACY RESULTS**



CABBAGE:

COMPARATIVE YIELD PERFORMANCE OF SHUKAKU-RIKI "POWER HARVEST" BIO-ORGANIC FERTILIZER- TREATED VS. UNTREATED VEGETABLES LOCATION: KAPATAGAN, DIGOS, DAVAO DEL SUR

T1 100% SHUKAKU-RIKI ORG. FERT.
 T2 100% SYNTHETHIC FERTILIZER
 100.57 91.71
 91.71 91.71
 1.97 1.80
 Total no. of Hills
 Total Yield (kg)
 Average Yield per Hill (kg)









ecokaku

SHUKAKU-RIKI

"POWER HARVEST"

Bio-Organic Fertilizer

Formulated and Manufactured in Japan

Klm. 8 Mc Arthur Highway, Former Davao City Ice Plant Building, Ulas, Davao City

Tel. No. 238-3850

For Technical Inquiries:

09975124932

09351450252

09199012708