



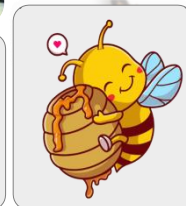
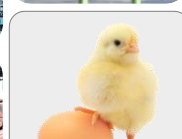
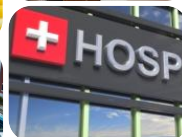
# NANO HIVE

## PRODUCTS & SYSTEM GUIDE

Made in Korea



We hope that all our products and systems, regardless of borders, race, language, wealth, war, or history, will be the ultimate solution to climate change and a truly wonderful tool for all humanity.





1. STERILIZATION & REMOVAL ODOR PART.....3

- PURE NANO CHLORINE DIOXIDE BASIC TECHNOLOGY
- VIRUS ZERO GENERAL [Versatile broad-field sterilization]
- VIRUS ZERO AGRICULTURAL [To remove bacteria & viruses from crops]
- VIRUS ZERO POULTRY [Sterilization of poultry farms, prevention of infectious diseases, sterilization of drinking water]
- VIRUS ZERO ANIMAL [Sterilization of general animals, prevention of infectious diseases, sterilization of drinking water]
- VIRUS ZERO HOSPITAL [Public quarantine, sterilization of hospital space, drinking water, surgical tools, etc.]
- VIRUS ZERO ODOR ZERO [Removal of odors from garbage dumps, households, sewers, etc.]
- VIRUS ZERO FOOD [Maintains the freshness of food, fruits, vegetables, etc. and prevents spoilage etc.]
- VIRUS ZERO DRINKING WATER [For sterilization of human drinking water]
- VIRUS ZERO SWIMMING POOL [For disinfection of swimming pool water]
- VIRUS ZERO ICE [For sterile ice production]
- VIRUS ZERO DS1,2 [Sterilization and deodorization of gym, sportswear, shoes, and exercise equipment]
- VIRUS ZERO PET [Sterilization of pets and removal of odors]



2. FERTILIZER PART.....26

- FERTILIZER BASIC NANO TECHNOLOGY
- BS GREEN-O,1,2,3 [Mineral liquid fertilizer including NPK]
- BS EXCELLENT-7 [Mineral powder fertilizer include NPK]
- BS SUPER-CURE [Functional fertilizer to remove disease]
- BS GRANULE [Mineral granule fertilizer including NPK]
- ALL POWER [Super Power AMINO ACID]
- SALT KILLER [Removal of salt in the soil]
- BSGREEN- M [Trace Mineral Fertilizer]
- WEEKEND FARM [Mineral liquid fertilizer including NPK]



3. ORGANIC PESTICIDE & HERBICIDE PART.....36

- PESTKILL-1 [For removing pests from leaves and stems of crops]
- PESTKILL-2 [For the removal of pests in the soil]
- T-KILL1 [For tick removal of chickens and animals]
- T-KILL2 [To remove mosquitoes and flies]
- KOP [To remove mosquitoes and flies-For home]
- WEED KILLER [non-selective Organic herbicide]
- TERMITE-X [For remove Termite]
- WEEWIL-X1, 2 [For remove Red palm tree weevil]
- GARDEN KEEPER [Eco-friendly insecticide for pest control in home garden]



4. FEED ADDITIVE PART.....46

- ARTZENA 101 [30 kinds of general nutritional supplements such as vitamins and calcium] For all animal
- ARTZENA 102 [Relieve stress from heat] For all animal
- ARTZENA 103 [Fast growth and strong immunity] For General animal
- ARTZENA 104 [Fast growth and strong immunity] For Poultry
- NON SMELL POOP [For Pet]



1. Freshness-maintaining products & Special products for beekeeping diseases..... 53

- GREEN FROG [Freshness preservation agent for food, fruit, grains, etc.] GF5, GF510, GF15, GF30, GF30S
- BEE FRIEND POWER KILL [For removing viruses and bacteria from bees]

2. SPECIAL DRINKING WATER FOR HUMAN HEALTH

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Natural surfactant detergent – PÆAN NATURAL DETERGENT....63

- PÆAN PATRASCHÉ PET SHAMPOO
- PÆAN ANTI-TOX, Natural antidote for hair dye.
- PÆAN HAIR SHAMPOO
- PÆAN LAUNDRY DETERGENT
- PÆAN DISHWASHING DETERGENT
- PÆAN BUCEPHALUS FOR HORSE & CAMEL SHAMPOO

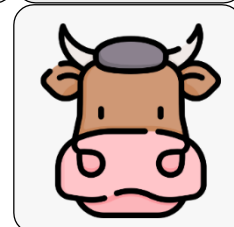
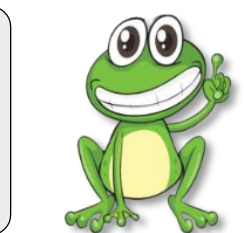
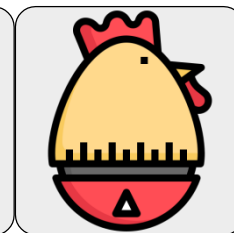
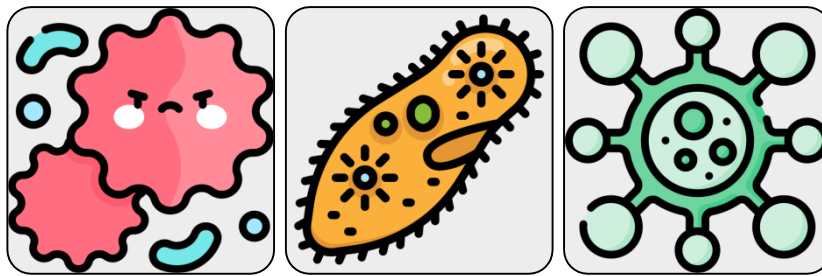


PROJECTS SYSTEM.....72

- LONG-TERM FOOD FRESHNESS PRESERVATION SYSTEM
- Innovative mobile drinking water generation system
- KFCO FOOD PROCESSING SYSTEM
- PMT GS-BIO MINI TUBE POTATO SEED SYSTEM
- KFCO AQUACULTURE SUPPORT SYSTEM
- SMART FARM / KFCO GREEN HOUSE & HYDROPONIC SYSTEM
- KFCO SEED SUPPLY SYSTEM
- LIVESTOCK MANURE & FOOD WASTE COMPOSTING SYSTEM
- WATER PURIFICATION AND ODOR REMOVAL SYSTEM
- EGG STERILIZATION PROCESSING & SUPER EGG PRODUCTION & SUPER EGG SYSTEM.



# 1. STERILIZATION FIELD PURE NANO CHLORINE DIOXIDE





# World Tech Powerhouse – Korea's Amazing Technology

## We Call it VIRUS ZERO

Disinfectant: pure chlorine dioxide -VIRUS ZERO Eco-friendly disinfectant used in a wide range of fields such as food, agriculture, water treatment, industry, hospitals, public quarantine, and livestock.

The world's first storage • transport technology!

ClO2(Chlorine dioxide) is already recognized as a fully functional disinfectant added for medical use and food safety by all major international organizations such as WHO, EPA, FDA, JECFA, KFDA, and HACCP guidelines. Chlorine dioxide, however, due to its high volatility, and cannot be stored or transported in its pure form. However, now it can be stored in long-distance transport by KFC technicians. Chlorine dioxide is a complete environment-friendly disinfectant that does not generate any harmful substance and does not destroy the amino acids in living tissues. In particular, high-risk viruses such as SARS, a Anthrax, fungi, Escherichia coli, Staphylococcus bacterium, Bacillus subtilis, yeast fungi, downy mildew, pestilence, Sclerotinia rot, black blotch, gray mold, wilt, tap rot, Bacterial canker, soft rot, cucumber copperas mosaic, root rot, damping-off, SARS (SARS), HB, Avian Influenza (Bird Flu), the elimination of all odors



Chlorine dioxide is an oxygen-based sterilization. It is not a chlorine

FDA Registration No 3017180767 EU Registration No N-92265, / 2015/830  
KFDA Registration No 20160513307 ISO9001 Registration No Q328220  
MINISTER OF ENVIRONMENT GB20-21-0368

Eco-sterile disinfectants  
Preservative-free  
Alcohol free



- Crop Disinfection Sector:** Soil disinfection / virus control / bacteria control / mold prevention / nursery sterilization / agricultural produce disinfection.
- Water treatment sector :** water purification plant / sewage wastewater / food processing plant wastewater / meat processing / refining company / green algae red tide / pool etc.
- Aquaculture sector:** Fish farms, shellfish farms, shrimp farms, fish market, etc.
- Medical & Industrial Sectors:** Hospitals / schools / military facilities / catering establishments / paper mills / general manufacturing mills / ice factories / crude oil processing plants / refining processes.
- Livestock sector :** Import & Export Livestock Quarantine / Livestock Barn Sterilization / Composting Factory / etc. Sterilization & Odor Removal.
- Living environment sector :** Sterilization of dogs, deodorization, toilet, shoe box, etc. Smell and sterilization / Fruit cleaning / Sashimi / Baby products, etc.



World's Best 6000PPM. FDA, EU, KFDA Registration

● US EPA approved as disinfectant ● US EPA approved as disinfectant and disinfectant for drinking water ● US FDA registered as a food additive (21 CFR 173.300) ● EU recommends to Member States as a disinfectant for drinking water ● US FDA permits use of red meat-related products by immersion or spraying (FCN No. 45) ● US EPA, Detailed Uses and Method Regulations (EPA 738-R-06-007) ● Permitted to use in US FDA, red meat processing, canned food, seafood, ice, restaurant tools (FCN No, 668) ● Ministry of Environment notification 1999-173, sanctioned as food sanitizing disinfectant. ● Ministry of Environment, sewage treatment, chlorine dioxide disinfection facility can work in the best economic evaluation guidelines disinfection ● Designated to be used as sanitizing and disinfecting agent of the Korea Food and Drug Administration Notice 2005-33, ● Notified by Korea Food & Drug Administration Notification No. 2007-74, for the purpose of disinfecting foods such as fruits and vegetables ● Ministry of Agriculture, Forestry and Fisheries, Food Industry Promotion Act No. 9759, Designation and use as a processing aid for organic agricultural products ● Ministry of Agriculture, Forestry and Fisheries, Article 20 of Enforcement Regulation of Livestock Epidemic Prevention Act ● Approved by Korea Food and Drug Administration Notification No. 2009-66, sanitary management material for aquarium ● National Veterinary Research and Quarantine Service, Livestock Specification -1600, Licensed for use in meat processing surface treatment

# VIRUS ZERO : GENERAL



World's Best  
6000PPM.  
FDA, EU, KFDA  
Registration



PURE NANO CHLORINE DIOXIDE 6000PPM

## VIRUS ZERO

바이러스제로®  
FOR GENERAL  
1000ML

Chlorine dioxide is an oxygen-based sterilization. It is not a chlorine



FDA Registration No 3017180767 EU Registration No N-92265, / 2015/830  
KFDA Registration No 20160513307 ISO9001 Registration No Q328220  
MINISTER OF ENVIRONMENT MAQB24111501

- Eco-sterile disinfectants
- Preservative-free
- Alcohol free

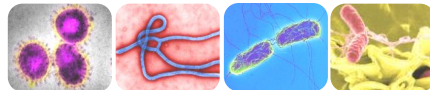


The world's first storage • transport technology! 6000PPM

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For Surface General Sterilization & Disinfectant

LIQUID	500ML/1000ML/20L/200L
TECHNO	KOREA FERTILIZER
MANUFA	KOREA FERTILIZER
SUPPLIER	KOREA FERTILIZER



Ingredient	Chlorine dioxide 0.6%, purified water 99.4%
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A-1 Approved safety level from the World Health Organization

- **Water tank cleaning** •100PPM (50~60:1) •Clean once every 6months •①Remove the water completely, ②Dilute to 100PPM and spray it sufficiently inside the water tank using a low-pressure sprayer. ③Leave it for 30 minutes. Bacteria attached to the surface will flow down by themselves. ④ Wash with a high-pressure sprayer, remove the contaminated water completely, and fill it with water.
- **General Drinking water** •0.5 ~1PPM(12,000~6000:1) •A metering pump is installed at the area where water enters the tank. Automatic adjustment according to the amount of water flowing
- **General room** (emergency, general office, Kitchen, Laundry, baby room) •60PPM (100 : 1) •10 seconds ~ 15 seconds (20㎡ standard) ••Set the number of times for each hospital to be autonomous, and sterilize the respiratory and internal disease related rooms once a day. • Diluted chlorine dioxide is not a problem for adults, but move sensitive babies to other places. • Close food lids before sterilization.
- **Operating room** •200PPM(30 : 1) •1time use immediately after surgery •Before surgery, sterilization in general space is the same
- **Vent ducts, etc** •200PPM(30 : 1) •The duct needs to know the structure clearly. Identify breeding sites of germs
- **Surgical tool** •120PPM (50 : 1) •Dipping for 1 hour, closing the lid to prevent leaking of chlorine dioxide gas • When sterilizing surgical instruments, first use it after cleaning with general drinking water
- **Garbage collection hall** •50PPM(120 : 1) •Sterilization for 5 minutes every 2hours
- **Cooking tools** •50PPM(120 : 1) •1time a day •Stainless steel, plastic, rubber and wood are no problem. However, in the case of ordinary steel materials, clean with sterile water after sterilization (corrosion protection)
- **Sterilization of vegetables, fish, etc.** •5PPM (1,200 : 1) •Dip for 3 seconds, then take out and wash with normal sterile drinking water.
- **Outdoor** (parking lot, landscaping trees, etc.) •60PPM (100 : 1) •Every 15 to 20 days
- **Drinking water of Animal** • Most chicken epidemics start with contaminated water. Dilute VIRUSZERO 1PPM in clean water. The mortality rate will decrease significantly and you will grow well without disease. (6000:1)
- **Normal Space sterilization** •When the ammonia poisoning? Growth inhibition, Hypothermic, Blood pressure rise, Convulsions, Colic, Toe, joint refracted, Snout bends, comatose state, Optic nerve damage, Lung injury, difficulty breathing, Liver edema •Dilute with clean water 200 : 1 (water 200L + 1Liter) •And spray it in the chicken coop 2 times per day- 1time 1Liters/Per 250㎡ (After 30 minutes of feeding) •It is better to spray in the form of fine mist spray as possible. •It is better to spray fine mist as much as possible. •There is no harm in touching the chicken directly. • No longer need to use insecticides on spawning chickens.
- Please add one more usage period during the epidemic period.

● **Dilution Ratio Calculation Method** (In case of 6000PPM VIRUS ZERO)  
▶ Formula: 6000 ÷ PPM = Dilution Ratio.  
Ex1) The indication to use 1PPM is > 6000 ÷ 1PPM = 6000times  
Ex2) The indication to use 5PPM is > 6000 ÷ 5PPM = 1200times.  
▶ The amount of input varies depending on the amount of water.  
Ex1) if water is 1 liter and mix 1PPM, > 1liter(1000mL) water ÷ 6000 times = 0.16mL input.  
Ex2) if water is 20 liters and mix 10PPM, > 20 liters water (20,000 mL) ÷ 600 times = 33.33mL input  
Ex3) if water is 1ton(1000L) and mix 5PPM > 1000L(1ton) of water ÷ 1200 times = 0.83L.





# VIRUS ZERO : POULTRY



LIQUID	500ML/1000ML/20L/200L
TECHNO	KOREA FERTILIZER
MANUFA	KOREA FERTILIZER
SUPPLIER	KOREA FERTILIZER

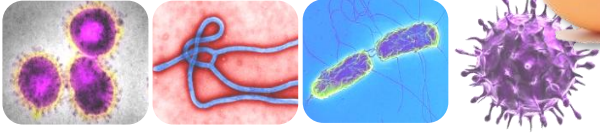
PURE ClO<sub>2</sub> (Chlorine dioxide) 6000ppm



FDA Registration No 3017180767 EU Registration No N-92265. / 2015/830  
 KFDA Registration No 20160513307 ISO9001 Registration No Q328220  
 MINISTER OF ENVIRONMENT MAQB24111501

- Eco-sterile disinfectants
- Preservative-free
- Alcohol free

ClO<sub>2</sub>(Chlorine dioxide) is already recognized as a fully functional disinfectant added for medical use and food safety by all major international organizations such as WHO, EPA, FDA, JECFA, KFDA, and HACCP guidelines. Chlorine dioxide, however, due to its high volatility, and cannot be stored or transported in its pure form. However, now it can be stored in long-distance transport by KFC technicians. Chlorine dioxide is a complete environment-friendly disinfectant that does not generate any harmful substance and does not destroy the amino acids in living tissues. In particular, high-risk viruses such as SARS, a Anthrax, fungi, Escherichia coli, Staphylococcus bacterium, Bacillus subtilis, yeast fungi, downy mildew, pestilence, Sclerotinia rot, black blotch, gray mold, wilt, tap rot, Bacterial canker, soft rot, cucumber coppers mosaic, root rot, damping-off, SARS (SARS), HB, Avian Influenza (Bird Flu), the elimination of all odors



VIRUS ZERO-P	CONTENTS	NOTES
Sterilization of chicken Drinking Water	-Dilute 1 to 2 ppm in drinking water and supply. (6000:1 to 3000:1 dilution) -.For poultry under one month old, dilute the drinking water to 0.5 ppm and wait approximately 30 minutes before feeding. If the bird is not fully acclimated to VIRUS ZERO, it may irritate the gastric mucosa.	Sterilization of various waterborne diseases in water.
Space sterilization	-Dilute with water at a ratio of 50 to 200 ppm (120:1 to 30:1). -.Adjust the dilution ratio according to the conditions within the space. -.Do not spray directly on the poultry. Use a fine sprayer to spray at the highest point. -.Use space sterilization once every three days to one week, and avoid feeding times. -.Use 1 liter of diluted solution on approximately 500 square meters.	During an epidemic, double the number of uses.
Sterilization of various tools such as trucks	- Dilute with water at 200PPM (30:1) and spray on transport equipment such as trucks. Use a small hand sprayer on workers' shoes, clothing, and other small tools frequently when entering and exiting.	
Feed sterilization	-For feed storage areas (approximately 300-400 square meters), divide one bottle of VIRUS ZERO-POULTRY concentrate into four empty bottles and place them in each corner, keeping the lids open. -.The slowly released VIRUS ZERO gas will sterilize the space and prevent the growth of mold, which can easily form in stored feed.	Sterilization of feed storage space and prevention of various types of mold that can easily occur in feed.

- Benefit
- Chicken mortality is dramatically reduced. •Even if an epidemic occurs, there is no infection and the odor around it disappears.
- Maintain a legally prescribed antibiotic injection system. But The drug is greatly reduced.

•Chlorine dioxide is not chlorine, oxygen-based steriliant.



●Dilution Ratio Calculation Method (In case of 6000PPM VIRUS ZERO)  
 ►Formula: 6000 ÷ PPM = Dilution Ratio.  
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 Ex3) if water is 1ton(1000L) and mix 5PPM > 1000L(1ton) of water ÷ 1200 times = 0.83L.



## Research Article

## Effect of Chlorine Dioxide on the Performance, Meat Quality, Gut Health, Microbial Load, Noxious Gas Emission and Immune Responses of Broiler Chicken

<sup>1</sup>M.R. Hassan, <sup>2</sup>M. Rahman, <sup>3</sup>A.S. Naushinara, <sup>1</sup>M.A.G. Rabbani, <sup>3</sup>S. Alam, <sup>1</sup>S. Faruque, <sup>1</sup>S. Sultana, <sup>2</sup>M.E. Huda, <sup>4</sup>M.S. Alam, <sup>4</sup>M.S. Ahsan, <sup>4</sup>M.H.E. Emu and <sup>5</sup>N. Sultana

<sup>1</sup>Poultry Production Research Division, Bangladesh Livestock Research Institute, Savar, Dhaka, Bangladesh

<sup>2</sup>Department of Environmental Sciences, Jahangirnagar University, Savar, Dhaka, Bangladesh

<sup>3</sup>Animal Health Research Division, Bangladesh Livestock Research Institute, Savar, Dhaka, Bangladesh

<sup>4</sup>Multiple Health Pharma Limited, Mohakhali, Dhaka, Bangladesh

<sup>5</sup>Office of the Director Research, Bangladesh Livestock Research Institute, Savar, Dhaka, Bangladesh

## Abstract

**Objective:** The experiment was conducted to study the effects of chlorine dioxide (ClO<sub>2</sub>) on the growth performance, meat quality, gut health, microbial load, noxious gas emissions and immune responses of broiler chickens. **Methodology:** The birds were divided into 6 treatments with 5 replications in each treatment. Birds under the T<sub>1</sub> and T<sub>2</sub> treatments received only clean drinking water, whereas in the T<sub>3</sub> and T<sub>4</sub> treatments, 2 ml of ClO<sub>2</sub> was added in 3-liter water for 12 and 24 hrs, respectively. On the other hand, in T<sub>5</sub> and T<sub>6</sub> treatments, 1 ml ClO<sub>2</sub> was added in 6-litre water for 12 and 24 hrs, respectively. **Results:** The inclusion of chlorine dioxide in drinking water did not significantly affect the growth performance and meat quality of the broiler chickens, but the emission of noxious gases from excreta was significantly reduced in different treatments, especially the T<sub>4</sub> treatments. In T<sub>4</sub> treatment, hydrogen sulfide (H<sub>2</sub>S), ammonia (NH<sub>3</sub>) and methane (CH<sub>4</sub>) were significantly reduced. The faces mineral contents, such as nitrogen (N), phosphorus (P), potassium (K), sulfur (S) and zinc (Zn), were significantly reduced compared to the T<sub>1</sub> treatment. ClO<sub>2</sub> also did not significantly affect the blood properties. The bactericidal effects of disinfectant using 60, 100 and 300 ppm were observed to be effective in 60 sec. **Conclusion:** Chlorine dioxide (ClO<sub>2</sub>) is an alternative disinfectant which has no effect on broiler chicken production but significantly reduces noxious gases and microbial load from the environment, which may help to reduce pollution.

**Key words:** Broiler chicken, chlorine dioxide, disinfectant, poultry, virus zero

**Citation:** Hassan, M.R., M. Rahman, A.S. Naushinara, M.A.G. Rabbani and S. Alam *et al.*, 2024. Effect of chlorine dioxide on the performance, meat quality, gut health, microbial load, noxious gas emission and immune responses of broiler chicken. *Int. J. Poultry Sci.*, 23: 100-108.

**Corresponding Author:** M.R. Hassan, Poultry Production Research Division, Bangladesh Livestock Research Institute, Savar, Dhaka, Bangladesh

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**Competing Interest:** The authors have declared that no competing interest exists.

**Data Availability:** All relevant data are within the paper and its supporting information files.

2024

To minimise foodborne pathogens in the stinal system Barnhart *et al.*<sup>11</sup> recommended ble disinfectants might be given orally during ster feed withdrawal. In chickens and pigs, oral tion of chlorine dioxide up to 500 ppm (0.05%) no harmful effects on diet or feed intake<sup>12,13</sup>, having high bactericidal and virucidal action. In case study of chlorine dioxide administered with ater showed an improved feed conversion ratio and rality in broilers<sup>14</sup>. However, no research has been to investigate the effects of chlorine dioxide on the broiler diet. Ahmed *et al.*<sup>15</sup> evaluated the two different amounts of chlorine dioxide on testinal microbiota and pH, excreta microbiota and odorous gas emissions from broiler excreta<sup>15</sup>. The present study was undertaken to evaluate the chlorine dioxide on the growth performance, meat t health, microbial load, noxious gas emission and responses of broiler chicken.

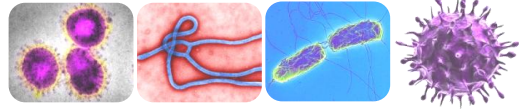
## MATERIALS AND METHODS

**Animals and management:** To execute this program, birds were obtained from commercial

**Objective:** The experiment was conducted to study the effects of chlorine dioxide (ClO<sub>2</sub>) on the growth performance, meat quality, gut health, microbial load, noxious gas emissions and immune responses of broiler chickens. **Methodology:** The birds were divided into 6 treatments with 5 replications in each treatment. Birds under the T<sub>1</sub> and T<sub>2</sub> treatments received only clean drinking water, whereas in the T<sub>3</sub> and T<sub>4</sub> treatments, 2 ml of ClO<sub>2</sub> was added in 3-liter water for 12 and 24 hrs, respectively. On the other hand, in T<sub>5</sub> and T<sub>6</sub> treatments, 1 ml ClO<sub>2</sub> was added in 6-litre water for 12 and 24 hrs, respectively. **Results:** The inclusion of chlorine dioxide in drinking water did not significantly affect the growth performance and meat quality of the broiler chickens, but the emission of noxious gases from excreta was significantly reduced in different treatments, especially the T<sub>4</sub> treatments. In T<sub>4</sub> treatment, hydrogen sulfide (H<sub>2</sub>S), ammonia (NH<sub>3</sub>) and methane (CH<sub>4</sub>) were significantly reduced. The faces mineral contents, such as nitrogen (N), phosphorus (P), potassium (K), sulfur (S) and zinc (Zn), were significantly reduced compared to the T<sub>1</sub> treatment. ClO<sub>2</sub> also did not significantly affect the blood properties. The bactericidal effects of disinfectant using 60, 100 and 300 ppm were observed to be effective in 60 sec. **Conclusion:** Chlorine dioxide (ClO<sub>2</sub>) is an alternative disinfectant which has no effect on broiler chicken production but significantly reduces noxious gases and microbial load from the environment, which may help to reduce pollution.

**Key words:** Broiler chicken, chlorine dioxide, disinfectant, poultry, virus zero

# VIRUS ZERO : ANIMAL & FISH



World's Best  
6000PPM.  
FDA, EU, KFDA  
Registration



FDA Registration No 3017180767 EU Registration No N-92265. / 2015/830  
KFDA Registration No 20160513307 ISO9001 Registration No Q328220  
MINISTER OF ENVIRONMENT MAQB24111501

Eco-sterile disinfectants  
Preservative-free  
Alcohol free

Ingredient	Chlorine dioxide 0.6%, purified water 99.4%
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LIQUID	500ML/1000ML/20L/200L
TECHNO	KOREA FERTILIZER
MANUFA	KOREA FERTILIZER
SUPPLIER	KOREA FERTILIZER

LSD
Bule tongue
Mycoplasma
Crimean Congohaemorrhagic fever
Foot and mouth diseases
RVF(Rift valley fever)
PPR(Peste-des-pieces-ruminants)
Sheep pox = Clavelie
Screw Worm
Q-fever
IBR (infectious bovine rhinotracheitis)
BVD(Bovine Viral Diarrhea)
Anthrax
Spongiform Bovine
Canine madness
Tuberculosis Bovine
Pasteurellosis
Salmonellosis
Listeriosis
Diphtheria
Leptospirosis
Koi Herpesvirus Disease, KHD
Myxobolus koi



### How to Use and Precautions

#### ● Sterilization of drinking water, feed, and transport equipment for general animals

- ① Sterilize animal drinking water with 1PPM. Dilute VIRUSZERO 1PPM in clean water and supply. (1 ton water + VIRUS ZERO 166ml / 6000:1)
  - ② When sterilizing feed or hay, dilute it with 2PPM, spray it like a mist, and dry it well. (Water 20L + 3000:1)
  - ③ Open the lid of the VIRUS ZERO undiluted solution bottle in the feed storage warehouse and place it in a corner to prevent infection such as green mold in the feed. (About 2 bottles of 1000mL per 100m<sup>2</sup>)
  - ④ Disinfect the space inside the barn, and use it after diluting it with 50PPM for transportation equipment (trucks, ships), worker clothes, and shoes. (Water 20L + VIRUS ZERO 166mL / 120:1 / Once a day / Space disinfection is based on 500m<sup>2</sup>)
- It is recommended to spray in the form of a fine mist spray as much as possible.
  - There is no harm in touching animals directly.
  - During the epidemic period, use one more time per day.

#### ● Sterilization of fish

- ① Sterilization of fish farms.
  - A) The bottom of the fish farm should be cleaned and maintained whenever possible.
  - B) VIRUSZERO input to fish farm water.
    - For relatively clean water or always flowing fish farms: 0.5~1PPM. (1 ton water + 83mL~166mL)
    - Medium water condition: 2~3PPM. (1 ton water + 330mL~500mL)
    - Relatively poor water condition: 4~5PPM. (1 ton water + 660mL~830mL)
- ② At the time of shipment of fish : If the fish is immersed in water diluted with 1PPM for about 10 seconds before shipping, the freshness of the fish is doubled and the odor is removed. < \*A type of fish farm where a certain amount of water continuously flows in and out can be operated by installing a metering pump at the inlet.>

#### ● Benefits

- Decreased animal and fish mortality significantly.
- Even if an epidemic occurs, there is no infection and the surrounding odor disappears.
- Fast and healthy growth and improved meat quality.
- Vaccines and antibiotics are not required.

Chlorine dioxide in an oxygen based Disinfectant, Sterilizer and Deodorizer. It is not Chlorine.

Barn Sterilization : Forced defense should be done within 5 km from the affected area. Controlled area sterilization : All moving vehicles must be sterilized. Transport Vehicles and Ships : Vehicles carrying animals must be sterilized before and after shipment. This should be done regardless of whether the disease has occurred.

#### ● Dilution Ratio Calculation Method (In case of 6000PPM VIRUS ZERO)

▶ Formula: 6000 ÷ PPM = Dilution Ratio.

Ex1) The indication to use 1PPM is > 6000 ÷ 1PPM = 6000 times

Ex2) The indication to use 5PPM is > 6000 ÷ 5PPM = 1200 times.

▶ The amount of input varies depending on the amount of water.

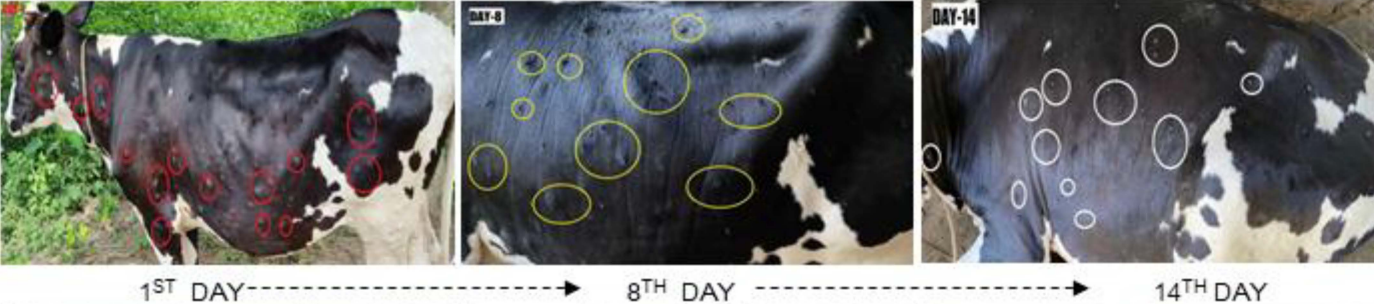
Ex1) if water is 1 liter and mix 1PPM, > 1liter(1000mL) water ÷ 6000 times = 0.16mL input.

Ex2) if water is 20 liters and mix 10PPM, > 20 liters water (20,000 mL) ÷ 600 times = 33.33mL input

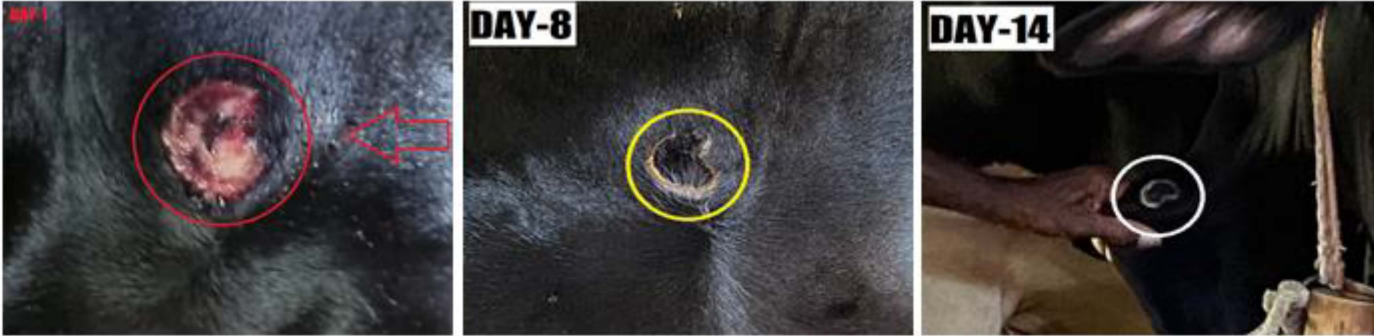
Ex3) if water is 1ton(1000L) and mix 5PPM > 1000L(1ton) of water ÷ 1200 times = 0.83L.

# Application of products for LSD and FMD

COUNTRY & STATE	LSD : 9 <sup>th</sup> . SEPTEMBER.2023 ~ 19 <sup>th</sup> . SEPTEMBER. 2023 Kamalapur, Godagani, Rajshshi, Bangladesh  FMD : 10 <sup>th</sup> . DECEMBER. 2023 ~ 09 <sup>th</sup> . DECEMBER. 2023 Shorifbag, Dhamrai, Dhaka, Bangladesh	
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1<sup>ST</sup> DAY -----> 8<sup>TH</sup> DAY -----> 14<sup>TH</sup> DAY



1<sup>ST</sup> DAY -----> 8<sup>TH</sup> DAY -----> 14<sup>TH</sup> DAY



# VIRUS ZERO : HOSPITAL & QUARANTINE



The world's first storage•transport technology!



ClO<sub>2</sub>(Chlorine dioxide) is already recognized as a fully functional disinfectant added for medical use and food safety by all major international organizations such as WHO, EPA, FDA, JECFA, KFDA, and HACCP guidelines. Chlorine dioxide, however, due to its high volatility, and cannot be stored or transported in its pure form. However, now it can be stored in long-distance transport by KFC technicians. Chlorine dioxide is a complete environment-friendly disinfectant that does not generate any harmful substance and does not destroy the amino acids in living tissues. In particular, high-risk viruses such as SARS, a Anthrax, fungi, Escherichia coli, Staphylococcus bacterium, Bacillus subtilis, yeast fungi, downy mildew, pestilence, Sclerotinia rot, black blotch, gray mold, wilt, tap rot, Bacterial canker, soft rot, cucumber copperas mosaic, root rot, damping-off, SARS (SARS), HB, Avian Influenza (Bird Flu), the elimination of all odors

•Chlorine dioxide is not chlorine, oxygen-based steriliant.

- US EPA approved as disinfectant
- US EPA approved as disinfectant and disinfectant for drinking water
- US FDA registered as a food additive (21 CFR 173.300)
- EU recommends to Member States as a disinfectant for drinking water
- US FDA permits use of red meat-related products by immersion or spraying (FCN No. 45)
- US EPA, Detailed Uses and Method Regulations (EPA 738-R-06-007)
- Permitted to use in US FDA, red meat processing, canned food, seafood, ice, restaurant tools (FCN No. 668)
- Ministry of Environment notification 1999-173, sanctioned as food sanitizing disinfectant.
- Ministry of Environment, sewage treatment, chlorine dioxide disinfection facility can work in the best economic evaluation guidelines disinfection
- Designated to be used as sanitizing and disinfecting agent of the Korea Food and Drug Administration Notice 2005-33,
- Notified by Korea Food & Drug Administration Notification No. 2007-74, for the purpose of disinfecting foods such as fruits and vegetables
- Ministry of Agriculture, Forestry and Fisheries, Food Industry Promotion Act No. 9759, Designation and use as a processing aid for organic agricultural products
- Ministry of Agriculture, Forestry and Fisheries, Article 20 of Enforcement Regulation of Livestock Epidemic Prevention Act
- Approved by Korea Food and Drug Administration Notification No. 2009-66, sanitary management material for aquarium
- National Veterinary Research and Quarantine Service, Livestock Specification - 1600, Licensed for use in meat processing surface treatment

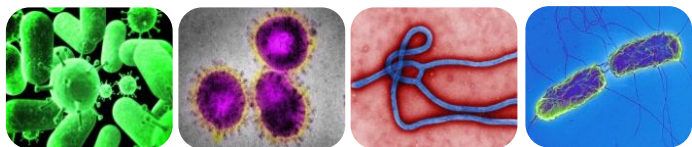
Eco-sterile disinfectants  
Preservative-free  
Alcohol free



FDA Registration No 3017180767 EU Registration No N-92265, / 2015/830  
KFDA Registration No 20160513307 ISO9001 Registration No Q328220  
MINISTER OF ENVIRONMENT MAQB24111501

LIQUID	500ML/1000ML/20L/200L
TECHNO	KOREA FERTILIZER
MANUFA	KOREA FERTILIZER
SUPPLIER	KOREA FERTILIZER

Ingredient	Chlorine dioxide 0.6%, purified water 99.4%
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## How to Use and Precautions

• Use as much as possible with a fine sprayer. • Use in the morning and evening to get better results. • Do not mix with pesticides. Pesticide efficacy may be reduced. • Store the product in a cool, dark place. • Remove bad smell. • Keep away from children.

Division	PPM (Dilution ratio)	Reference (Method)
Water tank cleaning	100PPM (60:1)	Clean once every six months ① Remove the water completely, ② Dilute to 100PPM and spray it sufficiently inside the water tank using a low-pressure sprayer. ③ Leave it for 30 minutes. Bacteria attached to the surface will flow down by themselves. ④ Wash with a high-pressure sprayer, remove the contaminated water completely, and fill it with water.
General Drinking water	0.5 ~1PPM (12,000~6000:1)	A metering pump is installed at the area where water enters the tank. Automatic adjustment according to the amount of water flowing
General room (emergency, general office, kitchen, laundry, baby room)	60PPM (100:1)	10 seconds ~ 15 seconds (20㎡ standard) • Set the number of times for each hospital to be autonomous, and sterilize the respiratory and internal disease related rooms once a day. • Diluted chlorine dioxide is not a problem for adults, but move sensitive babies to other places. • Close food lids before sterilization.
Operating room	200PPM (30:1)	1time use immediately after surgery Before surgery, sterilization in general space is the same
Vent ducts, etc.	200PPM (30:1)	The duct needs to know the structure clearly. Identify breeding sites of germs
Surgical tool	120PPM (50:1)	Dipping for 1 hour, closing the lid to prevent leaking of chlorine dioxide gas When sterilizing surgical instruments, first use it after cleaning with general drinking water.
Garbage collection hall	50PPM (120:1)	Sterilization for 5 minutes every 2 hours
Cooking tools	50PPM (120:1)	1time a day Stainless steel, plastic, rubber and wood are no problem. However, in the case of ordinary steel materials, clean with sterile water after sterilization (corrosion protection)
Sterilization of vegetables, fish, etc.	5PPM (1,200:1)	Dip for 3 seconds, then take out and wash with normal sterile drinking water.
Outdoor (parking lot, landscaping trees, etc.)	60PPM (100:1)	Every 15 to 20 days

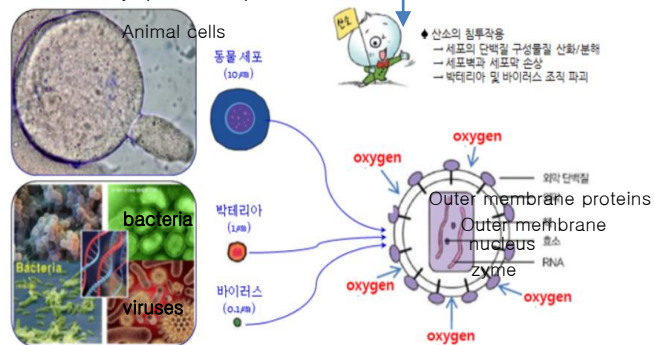
Penetration action of oxygen

- Oxidation / degradation of protein components of cells
- Cell wall and membrane damage
- Bacterial and viral tissue destruction

## ClO<sub>2</sub>의 작용 원리

ClO<sub>2</sub> → 세포의 단백질 구성물질 파괴

ClO<sub>2</sub> - Destroys protein components of cells



## ●Dilution Ratio Calculation Method (In case of 6000PPM VIRUS ZERO)

▶ Formula: 6000 ÷ PPM = Dilution Ratio.

Ex1) The indication to use 1PPM is ▷ 6000 ÷ 1PPM=6000times

Ex2) The indication to use 5PPM is ▷ 6000 ÷ 5PPM=1200times.

▶ The amount of input varies depending on the amount of water.

Ex1) if water is 1 liter and mix 1PPM, ▷ 1liter(1000mL) water ÷ 6000 times = 0.16mL input.

Ex2) if water is 20 liters and mix 10PPM, ▷ 20 liters water (20,000 mL) ÷ 600 times = 33.33mL input

Ex3) if water is 1ton(1000L) and mix 5PPM ▷ 1000L(1ton) of water ÷ 1200 times = 0.83L.









# VIRUS ZERO : FOR PURE ICE

Sterilized ice, of course

It is **ice** with a **sterilizing function.**

# Sterilization/Pure/ICE

바이러스제로 청정얼음

ClO<sub>2</sub>(Chlorine dioxide) is already recognized as a fully functional disinfectant added for medical use and food safety by all major international organizations such as WHO, EPA, FDA, JECFA, KFDA, and HACCP guidelines. Chlorine dioxide, however, due to its high volatility, and cannot be stored or transported in its pure form. However, now it can be stored in long-distance transport by KFC technicians. Chlorine dioxide is a complete environment-friendly disinfectant that does not generate any harmful substance and does not destroy the amino acids in living tissues. In particular, high-risk viruses such as SARS, a Anthrax, fungi, Escherichia coli, Staphylococcus bacterium, Bacillus subtilis, yeast fungi, downy mildew, pestilence, Sclerotinia rot, black blotch, gray mold, wilt, tap rot, Bacterial canker, soft rot, cucumber copperas mosaic, root rot, damping-off, SARS (SARS), HB, Avian Influenza (Bird Flu), the elimination of all odors



FDA No. 3017180767 EU No. N-92266 •  
 KFDANO. NO 20160513307 • KCL Passed  
 G19-054740 • KCL Passed G19- 065386 •  
 FITI Passed G-B01B-000010001- A180 •  
 Hazardous product safety standards  
 according to the Chemical Substance  
 Registration and Evaluation Act (approved  
 by the Ministry of Environment):  
 MAQB24111501

LIQUID	500ML/1000ML/20L/200L
TECHNO	KOREA FERTILIZER
MANUFA	KOREA FERTILIZER
SUPPLIER	KOREA FERTILIZER



## [ICE] Life-changing but sometimes dangerous daily necessities!!

Ice manufacturing technology that has revolutionized the lifestyle of mankind! In particular, the importance is emphasized in the case of fish and shellfish and agricultural products, which are difficult to preserve for a long time due to their characteristics.

However, it looks like clean ice to the naked eye, but if the raw water is not thoroughly sterilized or is contaminated with toxic substances, it is rather a very dangerous food. It spoils seafood.



## What is [VIRUS ZERO STERILIZATION PURE ICE] ?

[VIRUS ZERO STERILIZATION PURE ICE] is manufactured by injecting [pure chlorine dioxide] in the ice manufacturing process to completely remove various bacteria, viruses, and odors in the water, and at the same time, pure chlorine dioxide is left in the ice to use ice. It refers to ice with sterilization and cleaning function, a new technology of Korea Fertilizer Co., Ltd. that removes germs and viruses that are slowly released from fish, shellfish, agricultural products, etc.

**MUST READ! let's study**

## VIRUS ZERO [Pure Chlorine Dioxide ClO<sub>2</sub>] ?

Chlorine Dioxide is a pure disinfectant that leaves no residue.

Internationally recognized substances that work in the most powerful and widest range of pH.

World Health Organization-approved substance that can be widely used from food to industrial water.

### ☐ Eliminates cell membrane destruction of bacteria and viruses

- It directly penetrates the cell membrane of various organic compounds to block and **destroy the proliferation of corrosive and anaerobic bacteria.**

### ☐ Mineral removal and deodorization

- It increases the amount of **dissolved oxygen** by reducing the amount of BOD and COD.
- **Prevents spoilage and maintains freshness** by removing mold and bacteria, which are the cause of odor.
- It does not react with unsaturated fatty acids and oxidizes mercaptans, hydrogen sulfide, and phenol to structurally destroy substances that **cause odor.**

### ☐ No residues

- It does not produce carcinogenic substances such as trihalomethane and chlorophenol, which are incidentally generated from existing chlorine-based sterilization substances (hypochlorous acid, chlorine-based bleach).

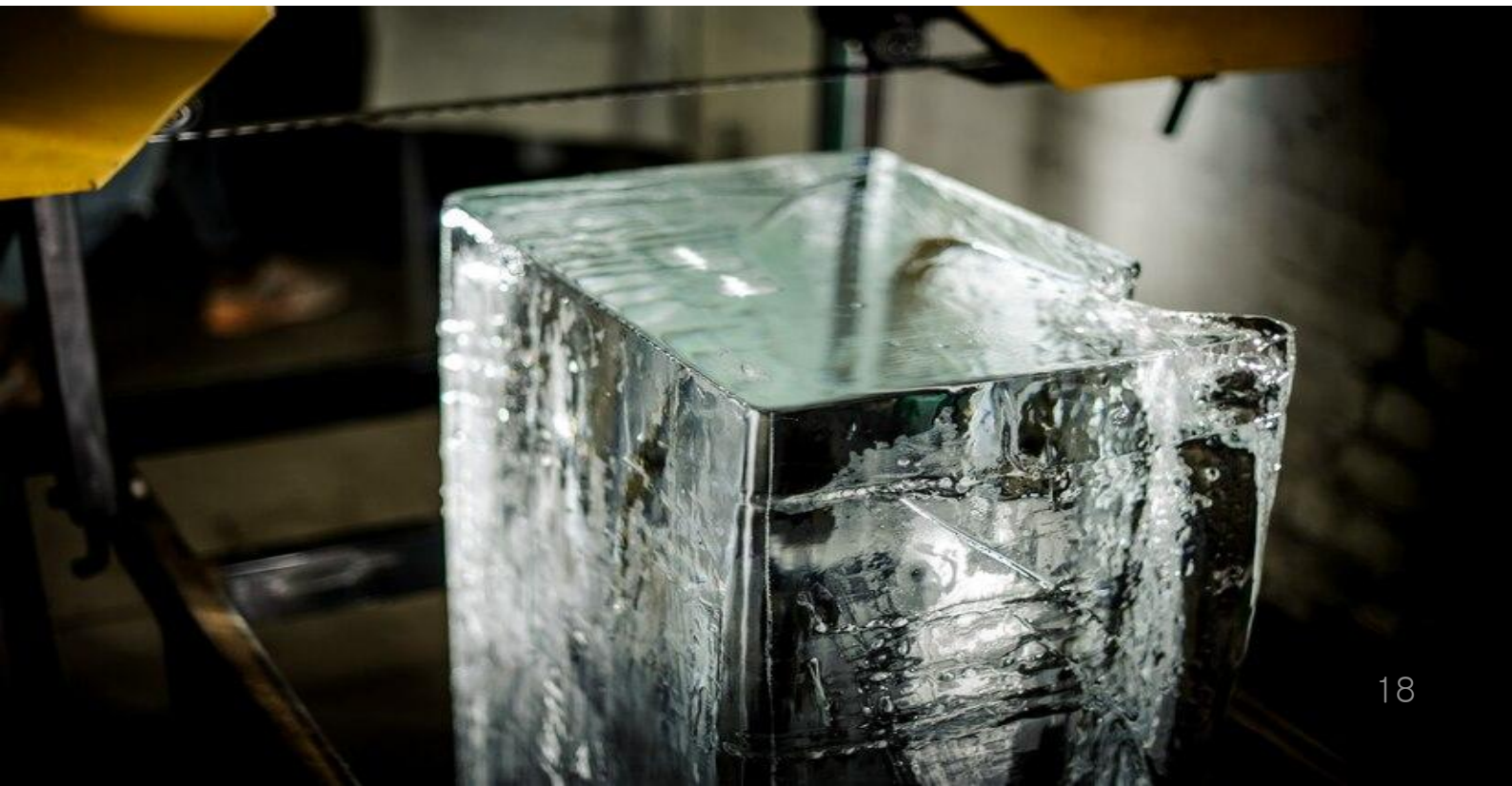
### ☐ Non-toxic to humans

- Proven that it is safe for primates below 100PPM (IPCS, 2002)
- Animal test (rat, dog) 300~600PPM safety test for 85 weeks (HAYASY, 1998)
- Does not produce carcinogenic organic compounds such as chloramine and chloroform
- Prevention of formation of bromate, a by-product of ozone disinfection

### ☐ Recognized as a first-class food additive by the World Health Organization (WHO), used as a drinking water disinfectant at 700 water purification plants in the United States.

### ☐ Wide range sterilization ability from PH2 to PH10

### ☐ Virus agent has more than 250% sterilization ability compared to chlorine-based (lax).





## It is licensed in [Korea, USA] as follows.

·Ministry of Environment Notification No. 1999-173, approved as a disinfectant for drinking water. ·The Ministry of Environment, chlorine dioxide disinfection was evaluated as the best economic feasibility in the sewage treatment plant disinfection facility work guidelines. ·Designated to be used as a sterilizer and disinfectant in Food and Drug Administration Notification No. 2005-33, instruments, etc. ·Permitted for the purpose of sterilization of foods such as fruits and vegetables, according to Food and Drug Administration Notification No. 2007-74. Ministry of Food, Agriculture, Forestry and Fisheries, Food Industry Promotion Act No. 9759, designated as a processing aid for organic products and permitted to use. ·Ministry of Food, Agriculture, Forestry and Fisheries, Article 20 of the Enforcement Rule of the Act on Prevention of Contagious Animal Diseases, Disinfection method, permission to use for equipment and meat. ·Food and Drug Administration Notification No. 2009-66, approved as a sanitary management material for fish restaurant aquariums. National Veterinary Science and Quarantine Service, Livestock Standards Division-1600, approved for use in meat processing surface treatment. ·Permission to use: Recognized for the purpose of sterilization and freshness of confectionery, baking, noodle making, fish, meat and other processed foods

·World Health Organization (WHO): Granted A-1 grade for safety standards. ·US Environmental Protection Agency (EPA): Certified 21164-3 Permission to use for drinking water, factory waste treatment, and environmental cleanup. ·U.S. Food and Drug Administration (FDA): Permission to use cleaning of fruits, vegetables, and food containers, and permission to use disinfection of medical equipment. ·International Committee on Food Additives (UN JECFA): Recognized ADI (Acceptance for Human Intake) Grade A. ·U.S. Department of Agriculture Food Safety Investigation Agency (USDA, FSIS): Permission to use for sterilization and disinfection of food and meat. ·US HACCP: Permission to use in meat disinfection process with high risk of food poisoning.



## [VIRUS ZERO] is certified as follows.



·FDA registration number 3017180767 · EU registration number N-92266 · Korea Food and Drug Administration KFDA registration number N0 20160513307 · KCL passed the sterilization power of the Korea Construction Living Environment Test Institute G19-054740 · KCL Korea Building Living Environment Test Institute Deodorant Passed G19- 065386 · Passed product safety and harmlessness test by FITI researcher G-B01B-O00010001-A180 · Hazardous product safety standards according to the Chemical Substance Registration and Evaluation Act (approved by the Ministry of Environment): G-B20-21-368



## [VIRUS ZERO] is used as follows.

### ■ Application of aquatic products: market, packaging, distribution, storage process.

- Pure ice completely sterilized from the manufacturing process.
- Total volatile nitrogen (TVN) absolute reduction. \*Note 1
- If aquatic products are stored in VIRUS ZERO ice, the TVN concentration is maintained at about 17 and there is almost no odor.
- By using VIRUS ZERO ice, bacterial enzymes and chemical decomposition of marine products are prevented.
- Slow release of pure chlorine dioxide gas as ice melts to prevent spoilage and eliminate odors during processing and transportation of refrigerated and frozen foods.
- The market extends the shelf life and supplies fresh fish and shellfish to consumers.

### ■ Applied to fishing boats: VIRUSZERO ice applied to loading boxes and storage warehouses of fishing boats.

- Maintains the freshness of the harvested seafood to prevent spoilage and lowers the risk of listeria bacteria.
- It is also used in the reuse system of sea water to make ice.
- If VIRUS ZERO is added to the ice manufacturing process for storing marine products, the TVN value can be maintained below 17, supplying fresh fish and shellfish to the market.

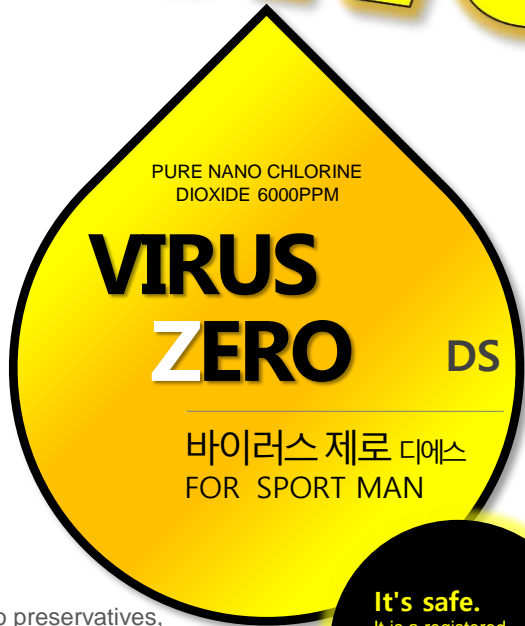
\*Note1) TVN [Total Volatile Nitrogen value] : Excessive fishy smell is a decaying process. Most people are unaware that the smell (fishy smell) inherent in seafood, such as fish and shrimp, is the process by which seafood is spoiled.[TVN] (Total Volatile Nitrogen value) is one of the methods to measure grade deterioration due to decay and deterioration.

Volatile nitrogen is caused by ammonia gas produced during protein breakdown. The TVN concentration of freshly caught fish or shrimp is 4-7. In Europe, chemical treatment is required so that the concentration is less than TVN50. When the concentration of TVN is over 100, it is treated as animal feed. With VIRUS ZERO ice, you get a TVN of 17 or less and have virtually no odor.

Is it natural to smell fishy??

# VIRUS ZERO DS : FOR SPORT ODOR

# Completely Solve!!



## Removes sweat odor & odorous bacteria!!

Exercise mat, sportswear, shoes, exercise equipment!!

The last solution that completely decomposes the odor-causing substances. Korean technology exported to 30 countries around the world!

**VIRUSZERO-DS** is the world's largest concentrated pure chlorine dioxide and is a World Health Organization A-1 grade sterilizing and deodorizing substance. VIRUSZERO is a product approved by the US FDA and EU registration, the Korea Food and Drug Administration, and the Ministry of Environment. It is a Korean technology that is well-received overseas.

No preservatives,  
No synthetic fragrances,  
No alcohol  
ClO2 IS OXYGEN-BASED  
STERILIZER

### It's safe.

It is a registered product with FDA, EU, KFDA, Administration, and Ministry of Environment.



WHO A-1 GRADE DISINFECTANT MATERIAL PURE ClO2 0.02% / ODOR REMOVAL

FDA Registration No 3017180767 EU Registration No N-92265. / 2015/830  
KFDA Registration No 20160513307 ISO9001 Registration No Q328220  
MINISTER OF ENVIRONMENT MAQB24111501



**VIRUS ZERO**

ANTHRA  
BACTERIAL  
CANDIDA  
E. coli  
HEPATITIS  
HERPES  
INFLUENZA  
MAMMARY  
MORBILLI  
MYCOPLASMA  
NOROVIRUS  
POLLUTION  
SALMONELLA  
STAPHYLOCOCCUS  
TUBERCULOSIS  
WATER  
YERSINIA  
EGG DISINFECTION  
LIVESTOCK FEED  
DOG SMELL  
BAD ODOR  
FUNGUS

LIQUID	100ML/500ML/3.75L/20L/200L
TECHNO	KOREA FERTILIZER
MANUFA	KOREA FERTILIZER
SUPPLIER	KOREA FERTILIZER



# VIRUS ZERO PET

General disinfection and deodorization products for people and pets

## 바이러스제로 펫

Sterilization ● Deodorization



FDA No 3017180767 EU No N-92265, / 2015/830  
 KFDA No 20160513307 ISO9001 No Q328220  
 MINISTER OF ENVIRONMENT MAQB24111501

LIQUID	100ML/500ML/3.75L/20L/200L
TECHNO	KOREA FERTILIZER
MANUFA	KOREA FERTILIZER
SUPPLIER	KOREA FERTILIZER

Another precious family member - a clean product for sterilization and deodorization for pets.

Pets are valuable members of the family. You cannot use disinfectants or deodorants that are toxic to your loved ones. Pure ClO<sub>2</sub> (chlorine dioxide) has already been recognized by all international organizations such as WHO, EPA, FDA, JECFA, HACCP, and KFDA for medical, food, water treatment, livestock, and industrial use.

Spray evenly on your pet's house, floor, carpet, and space. Viruses, bacteria, and odors are removed, and mites are eliminated.



○Report number: GB20-21-0368 ○Item: Disinfectant ○Date of manufacture: separately  
 ○Product Name: Virus Zero ○Shelf life: 1 year from the date of manufacture ○Capacity: 1000mL  
 ○Manufacturer: Korea Fertilizer Co., Ltd. T.+8218337786 ○Main substances used: purified water, pure chlorine dioxide ○How to use① Use according to the instruction manual  
 ○Precautions for use ①Store in a cool, dark place indoors and keep out of direct sunlight. ② Keep out of reach of children and do not drink. If the undiluted solution comes into contact with your skin, wash it under running water. ③ If you drink the undiluted solution, induce vomiting and follow your doctor's instructions.



Recommended by a veterinary doctor.

This product has been used continuously in our hospital for the past 3 years. It is highly recommended as a product that is very suitable for deodorizing and removing bacteria without being irritating to pets.

Gwangju Noah Animal Hospital, Korea  
 Director/Doctor Shun hae-soo

**Where to use VIRUS ZERO pure nano chlorine dioxide**

FIELD	PART	PURPOSE
Food Hygiene	● Public institutions, organizations	● Disinfection of fruits and vegetables
	○ Schools	● Various food materials
	○ Public institutions	● Disinfection of aquarium fish, shellfish and water
	○ Army	
	○ Medium and large hospital	
	○ Company	
	● Restaurant business	
	○ Medium and large restaurants	
	○ Sushi restaurant	
	○ Hotel	
	● General house	
Life Hygiene	● Hospital	● Disinfection of surgical supplies
	● Building management and cleaning	● Disinfection and sterilization of doctor gowns and patient clothing
	● Public use facilities	● Disinfection of pool / bath water
	○ swimming pool	● Floor cleaning
	○ Public bath / jjimjilbang	● Water tank disinfection
	● Building cooling tower and apartment water tank	
	● Pet smell, carpet	
Industrial Hygiene	● Water treatment	● Disinfection of drinking water
	○ Drinking water purification plant	● Disinfection before discharge of wastewater
	○ Wastewater Treatment Plant	● Livestock water disinfection
	○ Heavy water treatment plant	● Cleaning and disinfection of agricultural products
	○ Groundwater purification plant	● Livestock meat washing, disinfection
	● Fish, shellfish and shrimp farms	● Disinfection and cleaning inside various factories
	● Livestock watering	
	● Agricultural Products Processing Plant	
	○ vegetable	
	○ fruit	
	● Meat processing plant	
	○ Chicken / Egg	
	○ Pork	
	○ Beef and other animal processing	
● Fast food, canned food processing plant		
Other	● Industrial treatment and water treatment systems	
	● Crude oil plant water treatment system	
	● Secondary recovery of oil fields	
	● Ventilation system	
	●	

Where to use	EPA Registration Number	Application method	Application rate and frequency
<b>Agricultural storage facilities and related equipment</b>			
Agricultural storage equipment: (containers, trailers, containers, etc.)	9150-11	Foam device	Pass 15 ~ 22 liters of diluent through 0.9 liters to the facility (10 minutes contact)
Mushroom cultivation facility: (mushroom contact) stainless tank, transport line, online equipment, picking basket	9150-2, 9150-3 9804-1, 58300-16 58300-19	Spraying device	100~200 ppm
Mushroom facility: (mushroom non-contact space) wall, ceiling, floor	9150-2, 9150-3 58300-16, 9804-1, 58300-19	Spraying device	Total 300 ~ 500 ppm, mold and debris on the wall is 1000 ppm
Potato related facilities: (potato contact) stainless tank, transport line, online equipment, operation equipment	9804-1	Immersion or spray	100 ppm
Potato related facilities: wall, ceiling, floor, production and harvesting equipment, transport truck floor disinfection	9804-1	Spraying device	10 minutes contact
Potato-related facilities: rinse tanks, waterways and lines	9804-1	Chemical pump	5 ppm
Potato storage facility: potato washing and humidifying water	9804-5 9150-12	Spraying	200~400 ppm
Disinfection and sterilization of animal breeding facilities (poultry farms, goats, sheep, cattle, pig farms, barns, etc.)	9150-2, 9150-3 9804-1	Spraying device	200 ppm Before moving in, after shipping
	9150-11	-	
Removal of bacteria and odors from animal breeding facilities	9150-2, 9150-3	Spraying device	200 ppm
Shoe wash	-	immersion	200 ppm
Disinfection of poultry farms: spraying of poultry farm coolant and delivery chickens	9150-2, 9150-3	immersion	Cooling water: 0.5 ~ 3 ppm
Poultry Drinking Water	9150-2, 9150-3	Added to water	Sewage: 5 ppm, drinking water: 0.5 ~ 1 ppm
Egg storage facility and hatching area incubator and related facilities	9150-2, 9150-3	High pressure spray	Pre-wash and spray (20ppm) pre-bottom sterilization (390ppm), fumigation (1000ppm)
	10589-3	spray	1400ppm
Chick facility	9150-2, 9150-3	Fumigation, mopping	Fumigation: 1000ppm, Mop: 390 ppm
Hand washing of poultry facility workers	9150-2, 9150-3	immersion	50 ppm
Gardening: related work areas and facilities	9150-11	Soaking, spraying	253 ppm
<b>Food handling and storage facilities</b>			
Food processing facilities (poultry, meat, fish): sterilization of the food	9150-2, 9150-3 9804-9, 9804-1	1 minute contact	50 ppm
Food processing facilities (poultry, meat, fish): sterilization of non-contact food parts	9804-9 9804-1	10 minutes spray	50 ppm
	10589-3	spray	50 ppm
Dairy, beer factories and bottling facilities: sterilization of non-contact food parts	9804-9 9804-1	10 minutes spray	50 ppm
Dairy, beer factories and bottling facilities: sterilization of food surface contacts	9150-2, 9150-3 9804-9, 9804-1	1 minute contact	Total 200 ~ 1000 ppm, 50 ppm, 100 ppm
Ice factory and machinery	9804-9, 9804-1 9804-5	Pump, injection	20 ppm
Canned sterilization device and pasteurizer	9150-2, 9150-3 9804-9	Chemical pump	5 ppm
stainless transportation equipment, coolers, and the low-temperature sterilizer	9150-2, 9150-3 9804-9, 9804-1	Mixing, filling	20 ppm
Vegetable washing water and tank line	9150-2, 9150-3 9804-1	Pump, injection	5 ppm
Fruit and vegetable washing	9150-2, 9150-3 9804-1	immersion	

Where to use	EPA Registration Number	Application method	Application rate and frequency
<b>Water system</b>			
Drinking water	59055-1	Metering pump	1 ppm or less
	9150-2, 9150-3 9804-1, 9804-5, 9150-9		5 ppm
Ship's water storage system (ballast water)	9150-2, 9150-3 9804-1	Add to Tank	50 ~ 500 ppm
Medium and small town groundwater	9150-2, 9150-3	-	1 ppm
Commercial water filtration system	9804-1	System addition	300 ppm
Dental Clinic: Dental-related fungicides	9150-3, 9804-1	Applicable equipment	500 ppm
General sterilization of public institutions such as hospitals, nursing, and nursery schools	10589-3 9150-11, 9804-1	Spray	1000 ~ 1406 ppm
Disinfection of hospitals, laboratories, hard and porous surfaces (tile floors and walls, ceilings and stainless steel freezers)	9150-2, 9150-3 9804-1	Spraying, mopping	300 ~ 500 ppm
Disinfection of benches, incubators, stainless steel devices, etc.	9150-2, 9150-3 9804-1	Spray	300 ~ 500 ppm
incubator	9150-2, 9150-3 9804-1	Bath, water basin	300 ppm (Odor and dirt removal: 50 ppm)
Sterilization of pressure cookers, etc.	9150-2, 9150-3	Spray, injection	1000 ppm
Eliminate odors in animal breeding rooms, hospital rooms, archives and other workplaces	9150-2, 9150-3 9804-1	Spray on ceiling, wall	1000 ppm
Industrial processing facility	10589-3	Spray	1406 ppm
Deodorization of accommodation, hospitals and restaurants	9804-3	Spray	Spray and wait 10 minutes
swimming pool	59055-1	Metering pump	1~5ppm
<b>Residential facilities</b>			
Pet smells, dirty boxes, carpets and concrete floors	9150-2, 9150-3 9804-1	Soaking, mopping, rinse	Dirty boxes (625 ~ 650 ppm), carpet (500ppm), concrete floor (1250 ppm), animal bath (80 ~ 100 ppm)
Deodorization of toilets and bathrooms, containers for disposal, diapers, etc.	9804-3	Spray	Spray and wait 10 minutes
<b>Industrial treatment and water treatment systems</b>			
Cooling system	59055-1, 9804-9, 9804-1	Batch processing, quantitative water supply	100 ppm 5 ppm
Cooling system using heavy water system	9150-2, 9150-3, 9804-9	-	50 ppm
Cutting oil using water	9150-2, 9150-3		Dilute 10 gallons to 32 ounces per million gallons
Paper mill	9150-2, 9150-3 9804-9, 9804-1	-	1.25 ~ 5 ppm
Ventilation system	9804-1	Spraying, fumigation	500 ppm(10min)

**CERTIFICATE OF CONFORMITY**

**ICB** International Certification Bureau

International Certification Bureau (ICB) has examined the product and the related technical file as per Regulation (EU) 2019/1009 on fertilizers and has been assessed according to the Declaration of Conformity as presented and certifies that the below mentioned product complies with the applicable requirements of the Regulation (EU) 2019/1009 of the European Parliament. All supporting documentations are retained under the premises of the manufacturer. ICB is exclusively responsible for the declaration of conformity. The Directive(s) and Standard or Specification as below.

**Certificate Holder:** Africa Global Bridge LTD  
**Company Address:** Netivot, Ariel Sharon 5, Israel  
**Product Name:** See Annex 1

**Assessment Route:** EC Declaration of Conformity (Regulation (EU) 2019/1009)

**Examined for Compliance with:** Regulation (EU) No. 2019/1009

**Relevant Standard(s)/Technical Specification:** EU Fertilizing Products Regulation (EU) 2019/1009, Biocidal Products Regulation (EU) 528/2012, Plant Protection Products Regulation (EU) 1107/2009

**Harmonized & Applicable Standards References:** EN 16752:2016, EN 16967:2018, EN 16968:2018, EN 16969:2018, EN 16965:2018, EN 16966:2018, EN 16970:2018  
 This regulation sets out requirements for fertilising products placed on the EU market, including composition, labeling, and marketing standards.

**Limitations:** ICB has liabilities limited to the audit for certification of the products and in case of alteration of the products, not agreed upon by us, this declaration will lose its validity automatically.

**Technical file Reference No.:** CE-UK-2023-ICB-99  
**Verification Report No.:** CE2023ICB/UK105  
**Expire date of the Certificate:** March 04, 2025  
**Start of CE Marking:** March 05, 2024  
**Date of issue:** March 05, 2024  
**Certificate No.:** CE-UK-20230100

(Validity of this certificate can be verified at [www.icb-uk.com/directory](http://www.icb-uk.com/directory))

Signed on behalf of ICB Office

**CE** **ICB Marking** CE-UK-20230100

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**CERTIFICATE OF CONFORMITY**

**ICB** International Certification Bureau

List of product(s) attachment to the certificate of compliance  
**Distributor:** Africa Global Bridge LTD

**Annex 1**

Sr. NO.	PRODUCTS	HS Code
01	BSGREEN 0	3105 10 0000
02	BSGREEN 1	3105 10 0000
03	BSGREEN 2	3105 10 0000
04	BSGREEN 3	3105 10 0000
05	EXCELLENT7	2521 00 9000
06	BS-GRANULE	2521 00 9000
07	BSGREEN-M	3105 10 0000
08	BS-SUPER CURE	3105 10 0000

Signed on behalf of ICB Office

**CE** **ICB Marking** CE-UK-20230100

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## 2. FERTILIZER FIELD



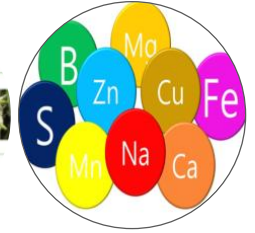
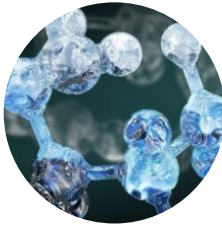
## BASIC TECHNOLOGY

- Despite prevention and treatment with numerous pesticides, new diseases are continuously increasing.
- Therefore, BSGREEN aims to produce healthy crops while at the same time avoiding existing farming methods and restoring natural ecology.
- BSGREEN extracts minerals from Korean mica (KFC), which has the highest purity in the world, and contains abundant trace elements. In particular, in the manufacturing process, special effective microorganisms such as *Tricococcus pasteurii* and *Alcaligenes faecalis* are added to remove the toxicity of nitrogen phosphate and ion chelate, so that crops can easily and quickly absorb it.

Raw water is produced by extracting 60 minerals from mica (Illite) powder with a special method.

*Tricococcus pasteurii* and *Alcaligenes faecalis*, which are special effective microorganisms, are added to the raw water produced in the first step to remove the toxicity of nitrogen phosphate and ion chelate.

NPK, and essential trace elements are added to the secondary stirring to make the final product.

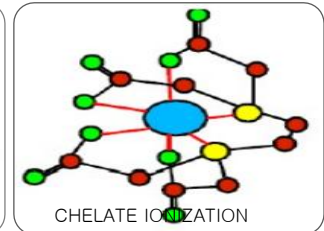
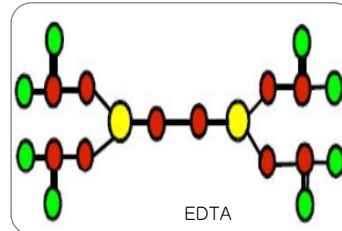


- Strong soil improvement
- Prevention of disabilities due to continuous cultivation
- Nitrogen excess, lack adjustment
- Soil heavy metals, pesticides, neutralizing detoxification

- vigorous root growth
- Improved water efficacy
- Prevention of fruit loss

- Increased yield
- Production of high quality agricultural products
- Improved sugar content, increased storage

- Increased resistance to pests
- Prevention of cold weather
- Promoting photosynthesis



- Chelate ionization
- Detoxification of NPK

KFC's products are high-functionality made with various patented technologies and know-how. These products are products such as agriculture, environment, water treatment, livestock, odor, mosquitoes and other pests, and can be customized according to individual conditions. We have localization plants for each continent and are always waiting for your questions.



1 KOREA FERTILIZER's products in the fertilizer field are not product-oriented manuals, but crop-oriented manuals. If you grow your crops according to KFC's manual, some crops can get double the yield. Any crop can increase yields by as low as 30% or more.



2 Reduced the usage of the fertilizer and improve the efficiency of the utilization. It is added with ammonium nitrogen and amide nitrogen to improve the speed of the effect and last-acting. In the meantime, also added urease inhibitor and nitrification inhibitor to improve nitrogen utilization rate, and the efficiency can last 90-120days. Reduce the amount of topdressing and save fertilizer.



3 Release nutrients, environmentally friendly and high-efficiency. It adds phosphorus activator to make the ineffective phosphorus convert into phosphorus and improve the utilization efficiency of the phosphorus. And it is completely biodegradable. Non-toxic and no pollution.





# BSGREEN ORIGINAL

It can be used regardless of the type of crop.

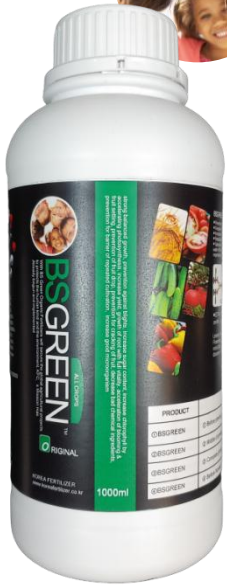
KOREA PATENT 10-1919332/10-1502503

Leaves becomes thick and soft. / An increase in the harvest / Fall prevention of fruit / Flowering and Fertilization promotion / Increase shelf life / Straight root growth / Significant reduction of disease / Healthy growth / Prevention of Cold damage Significant reduction in disease / Healthy growth / Prevention of Cold damage /Increased shelf life / Rapid growth

Total Nitrogen(N).....5%  
 Water Solubility P2O5(P).....3%  
 Water Solubility K2O(K) .....5%  
 Water Solubility ZnO .....0.05%  
 Water Solubility B2O3 .....0.05%  
 Water Solubility Mo .....0.0005%  
 Water Solubility MnO .....0.1%  
 Water Solubility Cu .....0.05%  
 Water Solubility Fe .....0.1%  
 Other fine minerals cannot be labeled as a technical security issue.



PRODUCT	HOW TO USE (1ha)
① BSGREEN	① Before plowing, BSGREEN 1L + water 1000L, Spray to on the all soil or BS GRANULE
② BSGREEN	② Middle of growing, BSGREEN 2L + water 1000L(500:1), spray to leaves, 1ha
③ BSGREEN	③ Complete growth period, BSGREEN, 2L + water 1000L(500:1), spray to leaves, 1ha
④ BSGREEN	④ Before harvest 1week, BSGREEN, 2L + water 1000L(500:1), spray to leaves, 1ha



LIQUID	500ML/1L/20L/200L/1T
TECHNO, MANUFA, SUPPLIER	
KOREA FERTILIZER	

# BSGREEN 1 VEGETABLE

LEAF●ROOT●FRUIT Vegetable

Onions, garlic, burdock, garlic, radishes, carrots, cassava, yams, potatoes, sweet potatoes, Leeks, cabbage, Chinese cabbage, spinach, sesame, tomatoes, eggplant, peppers, cucumbers, watermelons, melons, strawberries, pumpkins, etc.

Leaves becomes thick and soft. / An increase in the harvest / Fall prevention of fruit / Flowering and Fertilization promotion / Increase shelf life / Straight root growth / Significant reduction of disease / Healthy growth / Prevention of Cold damage Significant reduction in disease / Healthy growth / Prevention of Cold damage /Increased shelf life / Rapid growth

Total Nitrogen(N).....7%  
 Water Solubility P2O5(P).....6%  
 Water Solubility K2O(K).....6%  
 Water Solubility ZnO.....0.05%  
 Water Solubility B2O3.....0.05%  
 Water Solubility Mo.....0.0005%  
 Water Solubility MnO.....0.1%  
 Water Solubility Cu.....0.05%  
 Water Solubility Fe.....0.1%



Other fine minerals cannot be labeled as a technical security issue.

PRODUCT	HOW TO USE (1ha)
① BSGREEN 1	① Before plowing, BSGREEN 1L + water 1000L, Spray to on the all soil Or BS-GRANULE
② BSGREEN 1	② Middle of growing, BSGREEN 2L + water 1000L(500:1), spray to leaves, 1ha
③ BSGREEN 1	③ Complete growth period, BSGREEN, 2L + water 1000L(500:1), spray to leaves, 1ha
④ BSGREEN 1	④ Before harvest 2week, BSGREEN, 2L + water 1000L(500:1), spray to leaves, 1ha



LIQUID	500ML/1L/20L/200L/1T
TECHNO, MANUFA, SUPPLIER	
KOREA FERTILIZER	



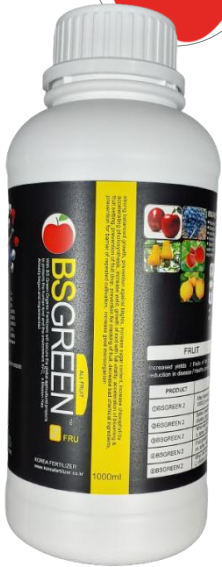
# BSGREEN 2 FRUIT

## FRUIT

Grape, Olive, Palm tree, Sugarcane, Mango, Apple, pear, Tangerines, lemon, Orange, Cashew, Pomegranate, banana, peach etc

Increased yields / Fruits of fall prevention / Promote flowering and Fertilization, Vigorous root growth / Significant reduction in disease / Healthy growth / Prevention of Cold damage / Increase sugar

Total Nitrogen(N).....7%  
 Water Solubility P2O5(P).....5%  
 Water Solubility K2O(K).....4%  
 Water Solubility Mg.....1%  
 Water Solubility ZnO.....0.05%  
 Water Solubility B2O3.....0.05%  
 Water Solubility Mo.....0.0005%  
 Water Solubility MnO.....0.1%  
 Water Solubility Cu.....0.05%  
 Water Solubility Fe.....0.1%  
 Other



LIQUID	500ML/1L/20L/200L/1T
TECHNO, MANUFA, SUPPLIER	
KOREA FERTILIZER	

PRODUCT	HOW TO USE(1ha)
①BSGREEN 2	After harvest before blooming, water and BSGREEN mixed 500:1,( BSGREEN 2L+water 1000L) to pour to around roots. pour it to roots by 13~14 liter to give to roots (or BS-GRANULE)
②BSGREEN 2	Before 2weeks to blooming, water and BSGREEN, 500:1(water 1000L+BSGREEN , 2L) dilution, spray about 3L~5L(300~200Trees) to leaves
③BSGREEN 2	When see the little fruits, BSGREEN, 500:1( water 1000L+ BSGREEN, 2L) dilution, spray about 3L~5L (300~200Trees) to leaves and fruits
④BSGREEN 2	Fruit growing in the middle, BSGREEN, 500:1( water 1000L+ BSGREEN, 2L) dilution, spray about 3L~5L(300~200Trees) to leaves and fruits
⑤BSGREEN 2	When the fruit is largely grown up, BSGREEN, 500:1(water 1000L+ BSGREEN 2L) dilution, spray about 3L~5L(300~200Trees) to leaves and fruits



# BSGREEN 3 GRAIN [Silicate Potassium]

## GRAIN

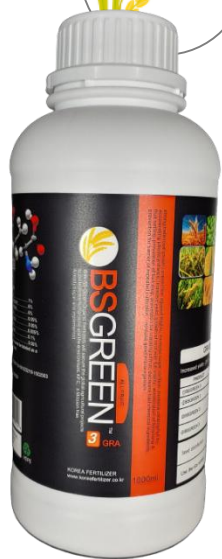
Rice, wheat, barley, corn, sorghum, soybean, Teff . etc

Increased yields (20-30%) / Vigorous root growth / Significant reduction in disease / Healthy growth

Water Solubility K2O(K).....8%  
 Water Solubility silicic acid.....8%  
 Water Solubility Zn.....0.05%  
 Water Solubility boric acid.....0.05%

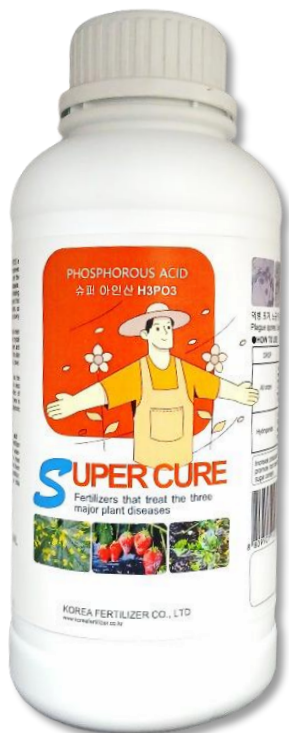


Other fine minerals cannot be labeled as a technical security issue.



LIQUID	500ML/1L/20L/200L/1T
TECHNO, MANUFA, SUPPLIER	
KOREA FERTILIZER	

PRODUCT	HOW TO USE(1ha)
①BSGREEN 3	①Before plowing, use on the all soil, BSGREEN, 1L + water 1000L (Or BS-GRANULE)
②BSGREEN 3	②Approximately 10 days after the planting, BSREEN mix of 2L + water 1000L Evenly sprinkle the leaves.
③BSGREEN 3	③During the growing period( Before seeing the rice grains), A mixture of BSGREEN, 2L + water 1000L sprinkle the leaves. 2Times, 20days interval
④BSGREEN 3	④During the maturity period( after seeing the rice grains), A mixture of BSGREEN, 2L + water 1000 L sprinkle the leaves. 1Times
Seed disinfection	Before sowing rice seeds, wheat seeds, etc., dilute the seeds at a ratio of 1000:1 and soak them for 24 hours. This will remove various bacteria on the seeds.
Use the rice nursery	



LIQUID	500ml/1L/20L/200L
TECHNO, MANUFA, SUPPLIER	
KOREA FERTILIZER	

PHOSPHOROUS ACID  
슈퍼 아인산 H3PO3

**SUPER CURE**  
Fertilizers that treat the three major plant diseases



Plague spores, Downy mildew spores, Powdery mildew spores

*BS SUPER-CURE : A functional fertilizer that fundamentally treats the three most common diseases, Plague spores, Downy mildew spores, and Powdery mildew spores, and increases yield.*

**Main Ingredients**

Water-soluble phosphoric acid P2O3(P)...22.0%  
 Water-soluble K2O(K)... 17.0%  
 Water-soluble boron B2O3... 0.05%  
 Water-soluble molybdenum... 0.001%  
 Other fine minerals cannot be labeled as a technical security issue.

- **Prevention of overgrowth** : As potassium phosphate is supplied freely by freely moving the above-ground and underground parts, it helps growth in line with the supply of nitrogen.
- **Root Growth** : Phosphate and potassium are nutrients for root growth.
- **Death and suppression of pathogens** : Suppresses and kills the phosphate metabolism of pathogens, restores physiological function, and helps with plague, downy mildew, and powdery mildew.
- **Other effects** : Increased production, resistance, sugar content, growth, fruit size, and coloration.

● **Definition of phosphorous acid** Phosphorous acid (H3PO3) is a different structure from phosphoric acid (H3PO4), and it improves the cation exchange capacity of the roots and interferes with the metabolism of phosphoric acid such as late blight, phytiun disease, and downy mildew, thereby directly killing pathogens or inhibiting reproduction. Phosphorous acid liquid is an eco-friendly agent that prevents and recovers from physiological disorders in plants, as well as doubles the control effect when mixed with late blight downy mildew drugs. Phosphorous acid is a raw material that is commonly used when nitrogen is excessive. Phosphorous acid is a highly soluble crystal that is well soluble in water and can freely move the xylem and phloem of the plant. Therefore, it can effectively control the late blight that occurs in the roots of the ground and underground. have.

In addition, unlike general pesticides, phosphorous acid has the characteristic that resistant bacteria hardly appear, and it is less absorbed by plants than phosphoric acid, so the effect of phosphate fertilizers on plants cannot be expected, and there is concern of occurrence of disorders due to excessive phosphoric acid. Also less.

● **Characteristics of BS phosphorous acid** : Phosphorous acid of Korea Fertilizer is a special functional fertilizer composed of glutamic acid and 20 kinds of minerals. It is water-soluble and circulates within the plant,

and it is possible to treat infected strains of fruit tree blight by water tube injection, and there is no emergence and weakness of resistant bacteria. In addition, there is no toxicity to humans and fish, and there is little environmental pollution.

·Circulation in plants due to water solubility ·It is possible to treat strains infected with fruit tree blight by canal injection ·No appearance of resistant bacteria and no harm ·Almost no human, animal, fish toxicity and environmental pollution

Phosphorous acid (H3PO3).High-functional phosphorous acid fertilizer BS SUPER-CURE is not applicable only to specific crops, but it can be used for all crops as it has the effect of treating and preventing late blight that occurs in all plants. Phosphorous acid is called phosphorous acid (H3PO3) because it is phosphoric acid without a single O- in phosphoric acid (H3PO4). Specifically, the P-H structure of the structure without a single O- suppresses the phosphate metabolism of late blight and stimulates the plant's disease defense system, thereby showing the effect of increasing the disease resistance of the plant. It also controls the blight in the underground and above-ground parts by free movement of plant cells. In addition, it is possible to control by supplying phosphite to phosphite caused by Pythium, which has the same properties as late blight, and as a result of various tests, there was a very high control effect against late blight and lettuce, cucumber, tomato and potato blight.

● **HOW TO USE :**

CROP	When to use	Dilution
All crops	-Used in the entire growth period, prevented, or when damage such as downy mildew or plague occurs -Spray once on leaves and stems 1 week before flowering. -If you see small fruits, sprinkle once.	500 times foliar fertilization and whole soil fertilization
Hydroponics	If phosphorous acid is added at a rate of 500:1 during the high temperature in summer, the incidence rate is lowered from 90% to less than 20%.	500:1

Increase production / increase resistance / increase root crop and fruit size / promote root development / improve quality / prevent over grow / increase sugar content

High performance powder fertilizer

# Excellent 7



Increases Harvest  
High Quality fruit  
Soil will be improve

EXCELLENT7 is a powder fertilizer composed of 60 minerals such as zeolite, pozzolan, and NPK. It is non-toxic and is manufactured to restore the soil while planting healthy plants.

- EXCELLENT7 improves the physical properties of the soil and helps color the crops.
- EXCELLENT7 helps prevent diseases by strengthening the immune system of plants and lowers dependence on pesticides.
- EXCELLENT7 improves agricultural efficiency without pesticides and chemical fertilizers.
- EXCELLENT7 is effective in preventing aging of plants as various essential nutrients generate mutual synergies.
- EXCELLENT7 promotes crop growth and ensures productivity improvement.
- EXCELLENT7's unique color of fruit is vivid, and storage capacity is increased, so you can get more commercial profit.
- EXCELLENT7 helps prevent and recover from physiological disorders.



*Korea's science and technology-made high-energy zeolite powder fertilizer*



**Guarantee Major Ingredients**

- Total Nitrogen-13%
- Water Solubility P2O5-11%
- Water Solubility K2O-11%
- Water Solubility SiO2-5.5
- Water Solubility Zn-1.0%
- Water Solubility B2O3-0.5%
- Water Solubility Mo-0.05%
- Water Solubility MnO-0.5%
- Water Solubility MgO-1.0%

POWDER	500g/1kg/20kg/200kg
TECHNO, MANUFA, SUPPLIER	
KOREA FERTILIZER	

HOW TO USE <EXCELLENT7 of 1KG can be used in about 1HA.>		
Crop types	ratio	How many time
<b>Grains</b> (Rice, corn, soybeans, wheat, Sugarcane, etc.)	1000:1	1 <sup>st</sup> time : to on the soil just before plowing 2 <sup>nd</sup> time : rice nursery stage 3 <sup>rd</sup> time : Growth of Tillering Stage 4 <sup>th</sup> time : Earing stage 5 <sup>th</sup> time : Maturity stage 6 <sup>th</sup> time : Harvest 3 weeks ago
<b>Leaf Vegetables</b> (Betel leaves, Lettuce, spinach, cabbage, kale, leeks, sesame, herbs, etc.)		1 <sup>st</sup> time : to on the soil just before plowing 2 <sup>nd</sup> time : early growing stage 3 <sup>rd</sup> time : Growth of maturity Stage 4 <sup>th</sup> time : Harvest 1 weeks ago
<b>Fruits Vegetables</b> (Tomatoes, melon, watermelon, pepper, cucumber, etc.)		1 <sup>st</sup> time : to on the soil just before plowing 2 <sup>nd</sup> time : early growing stage 3 <sup>rd</sup> time : Growth of maturity Stage 4 <sup>th</sup> time : Harvest 1 weeks ago
<b>Root vegetables</b> (Potatoes, carrots, onions, garlic, yam, Cassava, radish, etc.)		1 <sup>st</sup> time : to on the soil just before plowing 2 <sup>nd</sup> time : early growing stage 3 <sup>rd</sup> time : Growth of maturity Stage 4 <sup>th</sup> time : Harvest 1 weeks ago
<b>Fruit tree</b> (lemon, Pears, apples, persimmons, citrus, orange, banana, coffee, almond, mango, etc.)		1 <sup>st</sup> time : To soil on the root around fertilization, before blooming. 1tree 10liters. 2 <sup>nd</sup> time : New bud come out stage 3 <sup>rd</sup> time : when see the little fruits 4 <sup>th</sup> time : Early growing stage 5 <sup>th</sup> time : Mature stage 6 <sup>th</sup> time : Harvest 3 weeks ago

Precautions ● Excessive use may rather hinder plant growth. Adhere to standard usage. ● Please keep out of reach of children.

# BS GRANULE

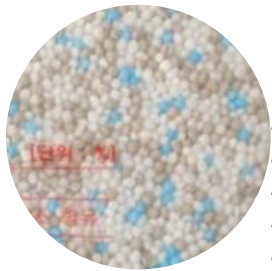


**BS GRANULE** : A granular fertilizer with a diameter of 2-3 mm, a slow-release fertilizer with sufficient nutrients for 90 days.



**BS GRANULE**  
**SUPER POWER**  
 NPK 28-07-08 / Mg-1%, Bo-0.1%  
 Type: granules with a size of 2-3 mm

Nitrification inhibitor fertilizer (DMPP added)
Slow-release fertilizer that lasts 90 to 120 days
Energetic root development
Early harvesting and harvesting of high-quality agricultural products
Safe without gas damage



GRANULE	10kg/200kg
TECHNO	KOREA FERTILIZER
MANUFA	OEM HYEGBHWA INC
SUPPLIER	KOREA FERTILIZER

BS GRANULE is a basic fertilizer suitable for all crops, (NPK & magnesium and boron 28-7-8-1-0.1). BS GRANULE is a miracle fertilizer coated with 60 minerals and special vegetable amino acids. BS-GRANULE is a highly functional soil-improving granular fertilizer containing zeolite and pozzolan NPK. In particular, it works to supply nutrients for a long time without spilling active ingredients from sandy soil. Not only does it reliably produce healthy and high-quality agricultural products, but it also restores the soil to health.

<p><b>LEAFY VEGETABLES</b> : all leafy vegetables such as leek, cabbage, spinach, kale, salad, mustard, beet, bok choy, parsley, garland chrysanthemum, broccoli, leaf radish, etc.</p>	<p>●When planting pot seedlings, put BS GRANULE, 3g at the bottom of the root as shown in Fig. 1. If you have already planted the seedlings, sprinkle 3g each at the bottom of the roots as shown in Figure 2 and cover them with soil. ●After 10 days of planting the seedlings, dilute BS-SUPER CURE to 500: 1 and sprinkle enough once on foliar fertilization or roots. (500:1, 1 ton of water + 2L, 1Ha) ●Please apply BSGREEN-1 once you leave it in maturity.</p>
<p><b>FRUIT VEGETABLES</b> : sesame seeds, tomatoes, eggplants, peppers, cucumbers, watermelons, melons, strawberries, pumpkins, etc.</p>	<p>●When planting pot seedlings, put 3g of BS GRANULE on the bottom of the root as shown in Figure 1. If you have already planted the seedlings, sprinkle 3g each at the bottom of the roots as shown in Figure 2 and cover them with soil. ●One week before flowering, dilute BS-SUPER CURE to 500:1 and spray it once enough on foliar fertilization or roots. (500:1, 1 ton of water + 2L, 1Ha) ● Fertilize leaves with BSGREEN-1 once each in maturity and fruiting season. (500:1, 1 ton of water + 2L, 1Ha)</p>
<p><b>GRAIN</b> : sugar cane, corn, barley, wheat, rice, etc.</p>	<p>● When planting pot seedlings, put BS-GRANULE, 3g at the bottom of the root as shown in Fig. 1. If you have already planted seedlings, sprinkle 3g each at the bottom of the roots as shown in Figure 2 and cover with soil. ● For rice, Wheat, corn, after planting is complete, spread about 70~80kg of BS GRANULE evenly in 1Ha. ● Dilute BS-SUPER CURE to 500: 1 before flowering or during the earliest period and fertilize the foliar surface. (1 ton of water + 2L, 1Ha) ●Foliar application of BSGREEN-3 twice or 3 times during maturation and fruiting. (1 ton of water + 2L, 1Ha)</p>
<p><b>ROOT VEGETABLES</b> : onion, garlic, burdock, radish, carrot, cassava, yam, potato, sweet potato, etc.</p>	<p>●When planting pot seedlings, put 10g of BS GRANULE on the bottom of the root as shown in Figure 1. If you have already planted seedlings, sprinkle 10g each at the bottom of the roots as shown in Figure 2 and cover with soil. ● One week before flowering, dilute BS-SUPER CURE to 500: 1 and spray it once enough on foliar fertilization or roots. (500:1, 1 ton of water + 2L, 1Ha)● Fertilize leaves with BSGREEN-1 once each in maturity and fruiting season.</p>
<p><b>FRUIT</b> : Grape, olive, palm tree, mango, apple, pear, tangerine, lemon, orange, cashew nut, pomegranate, banana, peach, etc.</p>	<p>● In early spring, spread 500g of BS-GRANULE per tree on the root as shown in Figure 3 and cover with soil. ● One week before flowering, dilute BS-SUPER CURE to 500: 1 and fertilize the leaves. (About 1~3 liters per tree) ● After bearing small fruits, and during maturation and fruiting, dilute to 500:1 with BSGREEN-2 and fertilize on the leaves. (3L per 1 tree)</p>



When planting: before planting seedlings, put 10g in the pit. There is no need to use any other fertilizer afterwards.



Figure 2

If you have already planted seedlings, sprinkle 10g near the roots and cover them with soil.

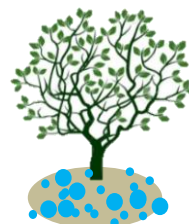
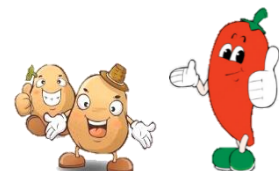


Figure 3

**Fruit Tree** : For fruit trees, spray 500g evenly on the soil before flowering. No other fertilizer is required. In the case of fruit trees, adjust the amount of use according to the type of crop, soil condition, size of the tree, and harvest time.

- Do not use anything left over from moisture. ●Avoid direct contact with the roots.
- Be careful not to eat children or animals.



**NO!**  
Animal Blood,  
Ingredients

SUPER POWER AMINO ACID  
**ALL POWER**  
올 파워



**SUPER POWER AMINO ACID ALL POWER**  
Combination of seaweed amino acid and fulvic acid

**Efficacy of natural fertilizer and amino acid fertilizer**

Amino acids are the basic structural units of proteins that make up the body of all living things, and are also one of the most important components for plants. Amino acids are very helpful for plant growth by reducing the energy that plants need to use for nutrients because they are absorbed quickly by plants by omitting the process of nitrogen transformation.

The use of amino acids enables rapid nutrient absorption, prevents lack of sunlight, has strong resistance to diseases and pests, improves plant nutrient deficiency, and improves fruit yield. In addition, it maximizes the effect by adsorbing and moving various inorganic ions. In addition, amino acids are growth stimulants that help in healthy growth and increase in yield, and are composed of organic compounds similar to those of the human body, which increase the size and sugar content of fruits and vegetables and brighten their color. Amino acid fertilizer manufactured using raw materials collected from nature in this principle is a kind of natural fertilizer widely used in agriculturally advanced countries that aim for natural agriculture.



Ascophyllum nodosum powder

Fulvic powder

Plant Growth Natural Hormone Ingredients  
Amino Acid / Cytokinin / Auxin / Giberlin / Betaine / Mannitol,  
Algin / Laminerin / Oligosaccharide / Vitamin / Polysaccharide

**The world's highest quality North Atlantic Ascophyllum nodosum extract**

KOREA FERTILIZER's [ALL POWER] Ascophyllum nodosum is a North Atlantic seaweed with the highest nutritional content. By chelating various nutrients, it improves the utilization of nutrients in crops, improves soil structure, and plays a groundbreaking function in growth and yield increase. In addition, [ALL POWER] adds high-grade fulvic acid to Ascophyllum nodosum to maintain higher purity and efficacy than any other amino acid on the market.

Total organic matter 50%, water soluble potassium (K2O) 7%, organic nitrogen (Organic N) 0.4%,  
water soluble boron (B2O3) 0.05%, water soluble molybdenum (Mo) 0.0005%, alginic acid 5%,  
amino acid 5%, mannitol 2%, Betaine 100ppm, other 20 physiologically active substances.

Guarantee ingredient	Seaweed extract, humic acid, fulvic acid Boron-0.05 % Molybdenum-0.005 %	
Foliar fertilization, root drench	Dilute 2000:1 and fertilize sufficiently. (Water 20L + 10g) / (Water 1000L + 500g)	
Use period for each crop	common	Activation of growth, reduction of external stress
	fruit trees, grapes	Early germination, just before flowering, fruiting, enlargement
	strawberry	After planting, at the time of flowering of the first episode, 10 days after flowering ~ 2 weeks before and after harvest
	Gourd, Solanaceous	3-4 times at 2-week intervals throughout the entire growing period
	leafy vegetables	3-4 times at 2-week intervals throughout the growing season
flowers	Fertilization divided at 2-3 week intervals after completion of transplant/dormant	



LIQUID/POWDER      500mL/20L/200L  
 TECHNO, MANUFA, SUPPLIER  
 KOREA FERTILIZER

# Salt Killer



A soil conditioner that safely removes salt and improves obstacles caused by continuous cultivation by making it with eco-friendly organic materials.

- Raw materials that do not have to worry about environmental pollution with organic acid formulations.
- By rapidly recovering and reducing salinity, normal growth of crops and yield increase.
- Aggregate the soil to increase microorganisms and promote root development.
- Facilitates absorption of insoluble phosphoric acid components in the soil.
- Used for soil damaged by excessive chemical fertilizers.
- Used in soils with a high incidence of malformed fruits.
- Strengthen root vitality and increase growth activation.



Before Use / After Use

### Criteria and method of use

Category	Salt killer dilution amount
Foliage spray	1,000 times dilution
injected fertilization	1,000 times dilution

ingredient	Lactobacillus Ferment, Water Soluble 100%
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LIQUID	500ml/1L/20L/200L
TECHNO, MANUFA, SUPPLIER	
KOREA FERTILIZER	

**STOP Salinity damage**



A before use right - after use



A before use right - after use



A before use right - after use



### Salt stress Ionic toxicity, Osmotic stress

#### Morphological responses

Stunted plant growth  
Leaf burning -chlorosis  
Low tillering -Poor root growth

#### Effect on crop productivity

Lpikete sterility  
Less florets per panicle  
Less grain weight  
Low harvest index

#### Biochemical responses

Oxidative stress  
Altered metabolism  
High Na<sup>+</sup> transport to shoot  
Lower K<sup>+</sup> uptake  
Low P and Zn uptake

#### Biochemical responses

Oxidative stress  
Altered metabolism  
High Na<sup>+</sup> transport to shoot  
Lower K<sup>+</sup> uptake  
Low P and Zn uptake

#### Physiological responses

Inhibition of photosynthesis  
Stomatal closure  
Decreased water content  
Higher amount of osmolytes  
Low osmotic potential



International Organization for Standardization



ISO 9001 Q328220  
Organic Registration No  
OKCHEON 026-A-10404

# BSGREEN M



LIQUID	500ml/1L/20L/200L
TECHNO, MANUFA, SUPPLIER	
KOREA FERTILIZER	

- **illite**  
●Main component: SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub>, corresponding to Muscovites. ●Physical properties: average thickness 30A, diameter 0.1~0.3, base spacing 10A, specific gravity 2.6. ●Features: - Heavy metal adsorption function (Ag (mercury), Cd (cadmium), Pb (lead), Fe (iron), Cu (copper), etc.- Adsorption of toxic gases (NH<sub>3</sub> (ammonia), SO<sub>2</sub> (sulfur dioxide), H<sub>2</sub>S (hydrogen sulfide gas), Cl<sub>2</sub> (chlorine gas), etc. ●Far infrared radiation●It is an ore with excellent ability to generate negative ions.

#### ● Gelite

Gelite' containing germanium is a natural mineral mineral formed by the deposition of volcanic ash produced as a result of volcanic activity in Korea during the Cretaceous Period of the Mesozoic Era. Function: High-quality far-infrared radiation is emitted to promote plant growth, control humidity, promote plant growth, alkalize acidic soil, improve soil quality, and increase production.

- Thermal action - maintain plant temperature at an appropriate temperature
- Self-purification - maintains the balance of nutrient supply in plants
- Neutralizing action - promotes excretion of wastes in plants & neutralizes odors
- Maturation - promotion of plant growth
- Wet-dry action- Maintaining proper moisture in plants

HOW TO USE (1ha)	
①	Before plowing, BSGREEN-M 1L + water 1000L, Spray to on the all soil
②	Middle of growing, BSGREEN-M 2L + water 1000L(500:1), spray to leaves
③	Complete growth period, BSGREEN-M, 2L + water 1000L(500:1), to leaves,
④	Before harvest 1~2week, BSGREEN-M, 2L + water 1000L(500:1), to leaves,

Water Solubility ZnO.....0.05% Water Solubility B2O3.....0.05% Water Solubility Mo.....0.0005%  
Water Solubility MnO.....0.1% Water Solubility Cu.....0.05% Water Solubility Fe.....0.1%  
Other fine minerals cannot be labeled as a technical security issue.

# 주말농장

# WEEKEND FARM



LIQUID	500ml/1L/20L/200L
TECHNO. MANUFA. SUPPLIER	
KOREA FERTILIZER	

WEEKEND FARM : Mineral fertilizer for home gardeners such as urban agriculture using small-scale soil, vegetable gardens, and rooftops

A nutrient for weekend farms that ideally combines natural minerals and proper nutrients of fertilizers.

- Total Nitrogen(N).....5%
- Water Solubility P2O5(P).....3%
- Water Solubility K2O(K).....5%
- Water Solubility ZnO.....0.05%
- Water Solubility B2O3.....0.05%
- Water Solubility Mo.....0.0005%
- Water Solubility MnO.....0.1%
- Water Solubility Cu.....0.05%
- Water Solubility Fe.....0.1%
- Other fine minerals cannot be labeled as a technical security issue.

Division	Leaf / Fruit / Root vegetable	Fruit
Soil	Before plowing, dilute 500:1 (WEEKEND FARM 40cc + Water 20L), sprinkle on the Ground	After harvest before blooming, water and WEEKEND FARM mixed 500:1, (40cc+water 20L) to pour to around Per 1tree roots.
Early	After 10 days after planting, or when 3 to 4 leaves are present, 1000: 1 dilution is applied to leaves	Before 2weeks to blooming, water and WEEKEND FARM, 500:1 to leaves
Middle	If the flower falls and you see small fruit, dilute 500:1, Sprinkle to the leaves.	When see the little fruits, 500:1 to leaves and fruits. 2times, 10 days interval
Maturity	When the fruit or root fruit grows bigger, 500: 1	
Before harvest	Dilute to 500: 1 and spray on leaves, before harvest 2weeks.	When the fruit is largely grown up, WEEKEND FARM, 500:1 dilution, spray about 3L~5L to leaves and fruits

On the veranda,  
on the roof, on the garden...  
Now, Grow vegetables for your family  
with mineral fertilizer-WEEKEND FARM.  
The taste of vegetables will change.  
The harvest is doubled.  
The soil becomes healthy.  
Of course, it is also good for plants.

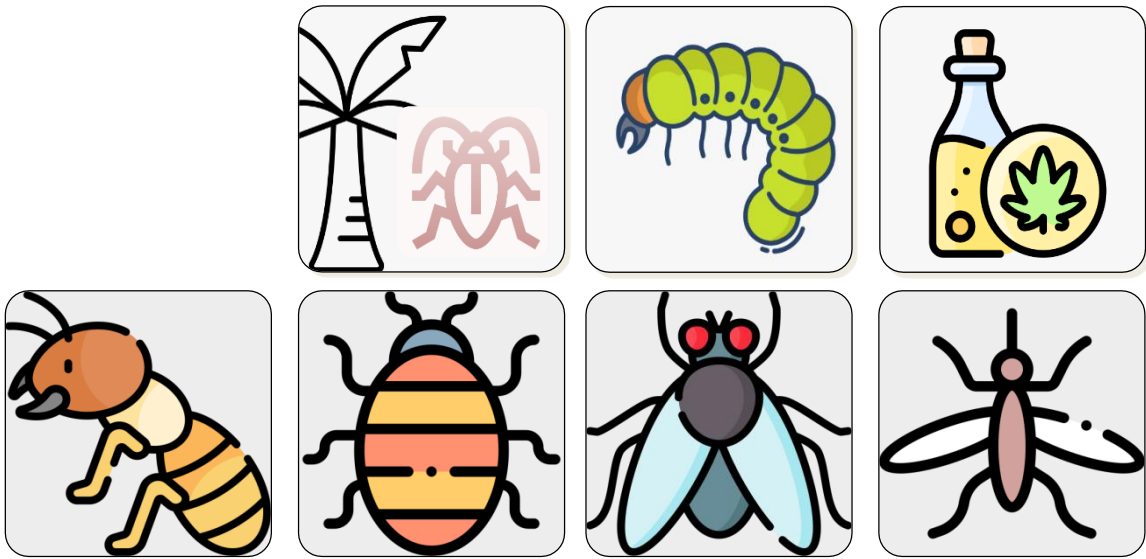


The cabbage is crunchy!  
The potatoes are growing big!  
The peppers grow in clusters!

Keep your family healthy  
with vegetables  
full of minerals!



### 3. ORGANIC PESTICIDE & HERBICIDE FIELD



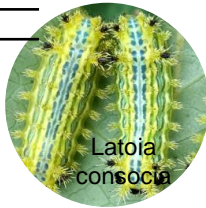
# FOR LEAFS PEST



# PANGSARI PEST KILL ①



Neem extract 10%  
Clove extract 30 %  
Cinnamon Oil 30%  
Other supplements 30%



LIQUID	•NET WEIGHT 500mL(g) •Eco-friendly "Organic Agricultural Material" •Type of material: Pest control material
TECHNOLOGY	KOREA FERTILIZER
PRODUCER	KOREA FERTILIZER
ORGANIC DISCLOSURE No.	3-6-086
RAW MATERIAL (ACTIVE INGREDIENTS)	Neem extract 10%(Azadirachtin), Clove extract 30%(Eugenol), Cinnamon Oil 30%(Citric acid monohydrate)
INACTIVE INGREDIENTS	Other supplements (Purified water) 30%
APPLICATION CROPS	Applies to all crops.
MIX WITH OTHER PRODUCTS	No special problems.

•Eco-friendly "Organic Agricultural Material"  
•Type of material : Disease and pest control material  
•Korea Organic Registration No.: 3-6-086



### Product Feature and Effects

It is a product that combines crop protection function extracted from plants with insecticide materials. This eco-friendly functional insecticide causes no residual concerns and effect as well as quality is guaranteed according to the relevant law. It causes damage to larva and imago through contact poison and anti feedant activity.

### What is a quality certification product?

It refers to an agricultural material where "the effect and quality are guaranteed" and that can be used to produce eco-friendly organic agricultural products.

Mite, peach pyralid Moth, pearl-moth, Small Brown Planthoppers, Grass leaf roller, chestnut Curculio, Aphid, Mythimna separata, Latoia Consocia, Panonychus ulmi, Tetranychus urticae, Magnaporthe grisea, cockroach	200 times	<ul style="list-style-type: none"> <li>● After using it once, check the situation and use it once more after 5 or 7 days.</li> <li>● When the number of individuals is large: every 2-3 days</li> </ul>
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### Cautions

- Shake well before use and immediately after thoroughly diluting
- Do not drink, and keep out of reach of children.
- In case mixed-use with other product, use after you confirm with small amount of test if there is no-chemical harm

### Storage conditions: Shelf-life is : 36months

Store at room temperature Heat stability (2 weeks at 54 °C) : 30 days above 60 degrees

Container disposal: After washing thoroughly with water, dispose of it in the same manner as general plastic disposal regulations.

PESTKILL-2



# FOR IN SOIL PEST

# MYEOLCHUNG

# DAEJANG

# PESTKILL<sup>②</sup>



- Eco-friendly "Organic Agricultural Material"
- Type of material : Disease and pest control material
- Korea Organic Registration No.: 2-5-200



Delia antiqua



white grub



nematode



Mole cricket



Snail

Wood vinegar 7.5%  
Plant extracts 91%  
(Melia azedarach,  
Sophora japonica,  
Chenopodiaceae)

### Product Feature and Effects

- It is a brand new product invented as a result of a research called "Development of eco-friendly organic disease and pest control material and crop growth product using forest resources" supported by the Ministry of Trade, Industry and Energy's leading industry promotion project in Honam Metropolitan Economic Zone.
- With the contact poison activity, it has an immediate effect and the effect lasts long.
- It can be applied to any types of crops including vegetables, farm products, flowers and fruits.

Crop and Disease and Pest	Time and method for use	Amount of use
Nematode, white grub, Delia antiqua, Mole cricket, snail	<ul style="list-style-type: none"> <li>●Before planting the plants: 200 liters of water + 1000 mL of Pestki II2 diluted, then sprinkle enough on about 500 square meters and plow.</li> <li>●If the plant has already been planted: 10 days after planting, dilute the plant in the same proportion and pour enough to penetrate the roots.</li> </ul>	

LIQUID	•NET WEIGHT 500mL(g) •Eco-friendly "Organic Agricultural Material" •Type of material : Pest control material
TECHNOLOGY	KOREA FERTILIZER
PRODUCER	KOREA FERTILIZER
ORGANIC DISCLOSURE No.	2-5-200
RAW MATERIAL (ACTIVE INGREDIENTS)	Wood vinegar 7.5%(Acetic acid), Plant extracts 91% (Melia azedarach, Sophora japonica, Chenopodiaceae-, triterpenoids, limonoids, steroids, flavonoids and carboxylic acid, flavonoids, sophoricoside, and genistein, flavonoids, alkaloids, phenols, and sesquiterpenes)
INACTIVE INGREDIENTS	Other 1.5% (purified water)
APPLICATION CROPS	Applies to all crops.
MIX WITH OTHER PRODUCTS	No special problems.



### Cautions

- Shake well before use and immediately after thoroughly diluting
- Do not drink, and keep out of reach of children.
- In case mixed-use with other product, use after you confirm with small amount of test if there is no-chemical harm

Storage conditions: Shelf-life is : 36months

Store at room temperature Heat stability (2 weeks at 54 °C) : 30 days above 60 degrees

Container disposal: After washing thoroughly with water, dispose of it in the same manner as general plastic disposal regulations.

# JINDISARI TKILL1

## Ticks, Fleas, Bedbugs, Lice

A 1mm subtropical external parasite called TICK, MITE, RED MITE, or CHICKEN LICE. ○During the day, rest without moving in the baskets, shades, etc., at night moves and vampires.  
○TICK can survive up to 9 months without vampires. During chicken and animal breeding periods, cleaning, cleaning and disinfection are required.



- **Damage and Symptoms of TICK Infection**
- Medium that spreads bacterial and viral diseases
- Reduced egg production.
- Anemia, developmental delays, sleep disorders, malnutrition and malnutrition
- **Where do TICKS live?**
- Because chicken Ticks like narrow, dark, and humid places, live mainly on the back of cage cages, upper part, cage column, under feeder, house belt, chicken head.
- In the case of cows, dogs, goats, etc., they reproduce and grow throughout the body.
- **Blocking Tick**
- Do not allow tick to enter the farm from the outside.
- Inflow Path: Items such as humans, wild animals (rats, pigeons, etc.), other chickens and animals, and vehicles, carrying boxes, and eggs carrying containers.
- Block the entry of outsiders inside the house and make direct contact with chickens so that they can enter the farm after replacing the shower with clothes and shoes prepared by the farm.
- Minimize the tick density inside the farm.
- Spray the chemicals within 2 to 3 days after shipping, remove the dust and clean the water. Clean the water with a high pressure cleaner to remove dust and ticks from eggs or larvae.
- After washing and disinfecting, make sure to select the appropriate control chemicals. Disinfection is done in all areas, including ceilings and walls



- Lyme disease
- Babesiosis
- Human granulocytic ehrlichiosis
- Tularemia
- Rocky Mountain spotted fever
- Colorado tick fever
- Human monocytic ehrlichiosis
- Relasing fever
- Severe Fever with Thrombocytopenia Syndrome (SFTS)



# JINDISARI

# TKILL1

BIO ACARICIDE  
TICKS, FLEAS,  
BEDBUGS, LICE



Liquid 500ml  
Neem Oil extract 10%  
Sophora Extract 10%  
Wood vinegar 10%

Ticks act as deadly carriers of animal bloodsucking as well as viruses and bacteria. In particular, in the case of a venomous tick, the poison spreads through the body, causing paralysis from the feet and legs to muscle pain, arms and head over several hours to several days, or even death in severe cases. In particular, in the case of laying hens, due to mite stress, the laying rate is reduced and the egg quality is poor.

**Ticks, Fleas  
Bedbugs, Lice**



LIQUID	•NET WEIGHT 500mL(g) •Eco-friendly "Organic Agricultural Material" •Type of material : Pest control material
TECHNOLOGY	KOREA FERTILIZER
PRODUCER	KOREA FERTILIZER
ORGANIC DISCLOSURE No.	3-5-054
RAW MATERIAL (ACTIVE INGREDIENTS)	Neem Oil extract 10%(Azadirachtin), Sophora Extract 10%(alkaloids), Wood vinegar 10%(Acetic acid, triterpenoids, limonoids, steroids, flavonoids)
INACTIVE INGREDIENTS	Other 70% (Purified water)
APPLICATION CROPS	Pests such as mites, lice, and bed bugs on chickens and general animals
MIX WITH OTHER PRODUCTS	No special problems.

● **Patent Number:** 10-2018-0160742 (chicken mite acaricide composition with natural plant extract as active ingredient)

Neem Oil, Sophora Extract are natural insecticides that humans have used for thousands of years. These plants have remained in some dangerous and sometimes beneficial ways for humans. Korea Fertilizer's team transformed it into maximum profit under the name T-KILL. While various pests such as mosquitoes, flies and mite can be removed in an environmentally friendly manner, this product is particularly effective at removing ticks that can be fatal to animals.

In particular, the poisonous insecticide used to remove poultry ticks remains in the poultry's body as well as in eggs, which seriously harms human health. However, T-KILL can solve this problem.

### How to use

- To prevent mites, or when very small ticks are seen, dilute it with water in a ratio of 10:1 to 20:1 and spray it in the barn. (10L water+1000mL~500mL). Spray twice every 5-7 days. Ticks, red spiders, stink bugs and more.
- Chicken ticks are nocturnal. Chicken mites colonize during the day anywhere they can lay eggs, such as on the body of the chicken (neck, anus, around the comb), in uncovered crevices, and sheltered corners. Chicken ticks larvae are light gray, adults are dark gray, but after bloodsucking, they are dark red, so it is easy to check whether or not they are bloodsuckers. Chicken ticks suck blood on the third day after hatching from the egg, and then become an egg-laying adult on the third day. Therefore, chicken ticks increase exponentially between the moment of emergence and spread throughout the chicken house, causing many infectious diseases and greatly reducing productivity. Therefore, early and rapid control is very important. Depending on the chicken tick colony density, the control program varies (concentration, frequency, monitoring) Once chicken ticks are visible to the naked eye, use their nocturnal characteristics to spray enough just before sunset.
- It is most effective to use a total of 2 times within 7 days.

### Cautions

- Shake well before use and immediately after thoroughly diluting
- Do not drink, and keep out of reach of children.
- In case mixed-use with other product, use after you confirm with small amount of test if there is no-chemical harm
- Storage conditions: Shelf-life is : 36months
- Store at room temperature Heat stability (2 weeks at 54 °C) : 30 days above 60 degrees
- Container disposal: After washing thoroughly with water, dispose of it in the same manner as general plastic disposal regulations.

# SSAGRI T-KILL2

FOR REMOVE  
MOSQUITO & FLIES

Mosquitoes, like other insects, take the stage of egg-larvae- pupa-adults. Until adulthood, depending on the breed and ambient temperature, it usually takes about 5 to 14 days. However, mosquito species that live in cold or no water may stop growing for months until they are warm and watery. The place of laying eggs varies depending on the environment and the types of mosquitoes. Not only fresh water, but also in seawater, eggs in pools, even abandoned tires or bottled water.

That's why when mosquitoes are eradicated, they work on sewers and fill puddles. If it is indoors, it grows in a moderately warm and damp nutritious place. Sewers, vents, toilets, gaps in windows, back of refrigerators, etc. In particular, there is a high probability that the habitat will be invisible, such as behind a refrigerator, a television, or under a sink. The shallow water in the drainage of the underground parking lot is also a good place for mosquitoes to lay their eggs. Mosquitoes larvae usually live in turbid and stagnant water at levels 4-5, rather than clear, clean water at levels 1-3. There are many mosquitoes' natural enemies near the clear water. Mosquitoes larvae change to pupa when mature, and then to adult mosquitoes after 4-5 days.



wood vinegar



Camphor tree extract

We recommend using water and 50:1 to Mosquitoes, flies.  
(water 10L + 200mL). If the number of individuals is large, it is good to use it with a higher dilution ratio. (Water 10L + 400mL)

**Cautions**

- Shake well before use and immediately after thoroughly diluting
- Do not drink, and keep out of reach of children.
- In case mixed-use with other product, use after you confirm with small amount of test if there is no-chemical harm

Storage conditions: Shelf-life is : 36months

Store at room temperature Heat stability (2 weeks at 54 °C) : 30 days above 60

degrees Container disposal: After washing thoroughly with water, dispose of it in the same manner as general plastic disposal regulations.



Raw material plant name	Input ratio(%)
Wood vinegar	30.0
Camphor tree extract	10.0
Other supplements	60.0



## To get rid of mosquito larvae Dancing KILLAVA TWIST

**KILLAVA TWIST FEATURES** • It is packed in a plastic bag that dissolves in water and the granules rise to surface. • With the 10g, it is effective in controlling mosquito larvae that live in 10 tons of water. • The thrown product is floating on the surface of the water and the soluble plastic bag slowly dissolves on the water. • Particles decompose quickly and have a stable effect, dramatically increasing convenience and reducing working hours



Active Ingredient :  
Temephos 2.5%



Simple



Safe

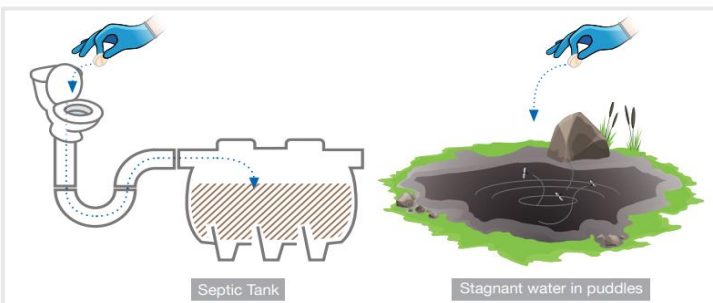


Effectiveness



Convenient

Target Pest	Dosage	Remark
Mosquito larvae	1 bag(5g) / 5 ton	Put the granule bag into water



- Features: Elimination of pests such as mosquitoes, flies and fruit flies.
- Recommendations for use: X 250 solution spray
- Organic Registration Number: 2-6-003

LIQUID	•NET WEIGHT 500mL •Eco-friendly "Organic Agricultural Material" •Type of material : Pest control material
TECHNOLOGY	KOREA FERTILIZER
PRODUCER	KOREA FERTILIZER
ORGANIC DISCLOSURE No.	2-6-003
RAW MATERIAL (ACTIVE INGREDIENTS)	Wood vinegar 30.0% (Triterpenoids, limonoids, steroids, flavonoids, sulfurized), Camphor tree extract 10.0%(palladium)
INACTIVE INGREDIENTS	Other supplements 60.0%(Purified water)
APPLICATION CROPS	Elimination of mosquitoes and flies
MIX WITH OTHER PRODUCTS	No special problems.

Than synthetic herbicides.  
More powerful!  
More Fast!  
More safe!

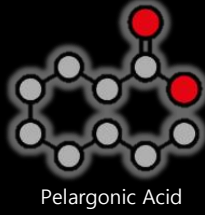


Liquid 500ml  
Pelargonic acid .....80%  
Soluble Boron .....0.05%  
Soluble Molybdenum.....0.0005%  
Other(Purified Water)

In 1992, the EPA approved the marketing of the first pesticide product containing pelargonic acid, and the FDA approved pelargonic acid as a food additive, announcing that foods containing small amounts of pelargonic acid were safe for humans to consume.



# NEW Weed Killer



## GRASS SSAK3 풀삭3

**Product Features :** 1.Made with natural ingredients like C9, edible citric acid, and natural alginic acid, this pesticide-free product is harmless to humans and animals and has virtually no odor. 2.Direct contact with weeds disrupts photosynthesis, resulting in rapid effectiveness. It also decomposes without damaging the soil through rapid vaporization.

**Precautions regarding efficacy and toxicity. :** 1.For herbaceous and weed control, the effects take 1-3 days to take effect. Adjust the dilution ratio carefully, taking into account the season and growth stage. 2.Young weeds will die with a single application, but vigorous weeds or plants with a thick wax layer and strong vitality may require 2-3 applications. 3.Apply on a sunny day, if possible, and ensure thorough application of the weeds. 4.Do not mix with other products, and always wash the equipment after application. 5.Avoid rainy weather and the monsoon season. Note that effectiveness is reduced in winter. 6.The standard dilution ratio is 30:1 to 40:1 with water. Adjust the dilution ratio according to the type of weed. 6. Do not use on edible crops; use only on weeds. 7.Wear safety equipment such as rubber gloves, a mask, and goggles when using. 8.If accidentally ingested, seek medical advice immediately and keep out of reach of children.

**제일분석센터**  
http://www.jeil.com

제일분석센터  
197, 그레포리어  
153-86-8811

**검사 성적서**

과목명	성형/상호	197, 그레포리어	사업등록번호	153-86-8811
주소	주 소	민중동, 서울 영등포구 영등포로 153-86	대표이사	이은미
검사 품목	제초제(이형요소계합제) (적외선 불처리) (W)			
입사연월일	2022. 02. 08	검사연월일	2022. 02. 09	
입사 번호	22-03-G00084	검사 부서	검사부	

**검사 결과**

과목명	검출량	비율(%)	비율(%)	비율(%)
잔류농약 464종	검출되지 않음	0.0000	0.0000	0.0000

2022년 02월 10일  
제일분석센터 대표이사 이은미



● Safety of non-detection of 464 pesticide residues.

**특허증**  
CERTIFICATE OF PATENT

특허 제 10-2317561호

발명자: 김동래

출원일: 2021년 12월 26일

특허청장  
KOREAN INTELLECTUAL PROPERTY COMMISSION

**특허증**  
CERTIFICATE OF PATENT

특허 제 10-2453553호

발명자: 김동래

출원일: 2021년 12월 26일

특허청장  
KOREAN INTELLECTUAL PROPERTY COMMISSION

**United States Patent**

The Director of the United States Patent and Trademark Office

Patent No. US 11,985,970 B2

US 11,985,970 B2

Patent No. US 11,985,970 B2

US 11,985,970 B2



USA Patent : US-11,985,970B2  
ECO-FRIENDLY HERBICIDES CONTAINING PELARGONIC ACID FOR FOLIAR FERTILIZATION AND FOR BACTERICIDAL AND HARMFUL BIRD AND ANIMAL REPELLENT FUNCTIONS.



Korean Patent No. 10-2317561: Method for manufacturing an eco-friendly herbicide. Korean Patent No. 10-2453553: Eco-friendly herbicide containing pelargonic acid.



Korean government procurement registered products. ISO9001

# RPW Red Palm Weevil Elimination Program.

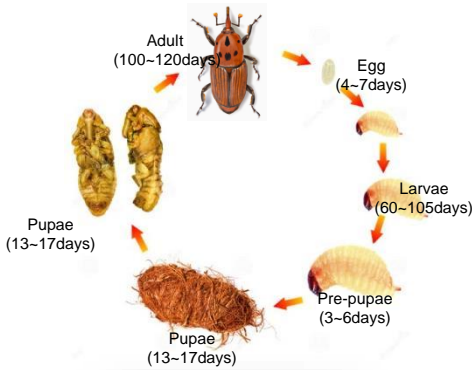


RPW (Red Palm Weevil) is the most invasive and serious Class 1 pest designated by UN-FAO, causing damage to about 40 types of palm trees, especially to date palm trees, which are major crops. Up to now, research on control using pheromone traps, damage removal, development of resistant varieties, spraying and canopy injection of synthetic pesticides, and entomopathogenic nematodes has been conducted, but the control efficiency has been very low. However, KOREA FERTILIZER has developed three types of products and programs through many years of research by weevil specialists to remove RPW in an eco-friendly and efficient manner.



RPW is a red palm weevil that takes up to 120 days from egg to adult. And because it survives in the center of the tree, it is difficult to remove it with one treatment. Therefore, it should be regularly treated through a program.

PRODUCT-1 : MAEMIJABA WEEVIL-X1 Organic No 3-5-098



500g

Clove extract 20%  
Pulsatilla koreana 10%  
wild sunflower 30%  
Others 25%

## MAEMIJABA WEEVIL-X1

1. RED PALMTREE WEEVIL takes up to 120 days from egg to adult. WEEVIL-X products must be in contact with RPW's body to be effective. It can be used regardless of the growing season or harvesting season, but use WEEVIL-X1 in the first week and then use WEEVIL-X2 in the second week. And use the same method in weeks 5 and 6. AND Use WEEVIL-X1 once in the fourth month from the first week and use WEEVIL-X2 in the sixth month.

2. First, dilute 500 liters of water + 1Kg of WEEVIL-X1, stir well, and spray it from the top to the bottom of the tree with a high-pressure sprayer (20 liters for mature trees). And at the same time inject 1 liter at a depth of 20 to 30 cm near the roots using a soil injector. At the same time, drill 3 to 5 holes about 20 cm deep at the base of the tree and use a high-pressure sprayer to inject about 300 mL into each hole. Then, use a trunk syringe to inject about 1 to 2 liters over 48 hours. It would be even better if you could put it inside.

3. Trees adjacent to trees affected by RPW should be treated simultaneously. It is likely that the adult insect has already migrated to a nearby tree.

4. Various viruses and bacteria infect trees through holes and wounds made by adults and larvae, and eventually the tree withers and dies. Therefore, with KFC's VIRUS ZERO, viruses and bacteria can be removed.

1. Spores of entomopathogenic fungi attach to the epidermis of pests.

2. Germinated hyphae - secrete chitinase - epidermal perforation.

3. Penetration into the body - action of hydrolase and toxin protein.

4. Insecticides individuals in the pest metamorphosis process.

5. It works on adults and larvae, but not on beneficial insects.

**Cautions :** ● Shake well before use and mix with water. ● Do not drink, and store out of reach of children in a dark and cool place (below 1~25°C). ● When mixing with other products, test a small amount first before use. ● This product does not have any particularly sensitive crops, and only apply to pests indicated on the label. Also, there is no special toxicity for non-pest targets. ● Wash the empty bottle thoroughly with water, use it on crop pests, and dispose of it according to established regulations. ● After using it on pests, leave at least 3 days between harvesting. ● If you accidentally drink it, vomit immediately and seek medical attention.



POWDER	•NET WEIGHT 500g •Eco-friendly "Organic Agricultural Material" •Type of material: Pest control material
TECHNOLOGY	KOREA FERTILIZER
PRODUCER	KOREA FERTILIZER
ORGANIC DISCLOSURE No.	3-5-098
RAW MATERIAL (ACTIVE INGREDIENTS)	Clove extract 20%(Eugenol), Pulsatilla koreana 10%(chioric acid, hederacoside C, and pulsatilla saponin D), wild sunflower 30%(alkaloids, flavonoids, glycosides, saponins, and tannins)
INACTIVE INGREDIENTS	Paraffin oil 25%, Others supplements 15%(pozoran minerals)
APPLICATION CROPS	Applies to all crops.
MIX WITH OTHER PRODUCTS	No special problems.

# MAEMISSAK WEEVIL-X2



It has been reported in academic circles that neem oil is effective against approximately 400 types of pests, including weevils, thrips, mites, armyworms, grasshoppers, stem-boring insects, root-eating caterpillars, mites, termites, diamondback moths, aphids, bollworms, horseflies, pinworms, nematodes, and powdery mildew fungi.

Sophora extract contains alkaloids matrine, oxymatrine, and cytisine, which have the effect of paralyzing respiratory and muscle motor nerves.

Neem Oil extract 31.6%  
Sophora Extract 34.9%  
Wood vinegar 33.3%



LIQUID	*NET WEIGHT 500mL(g), *Eco-friendly *Organic Agricultural Material *Type of material : Pest control material
TECHNOLOGY	KOREA FERTILIZER
PRODUCER	KOREA FERTILIZER
ORGANIC DISCLOSURE No.	3-6-084
RAW MATERIAL (ACTIVE INGREDIENTS)	Neem Oil extract 31.6%(Azadirachtin), Sophora Extract 34.9%(alkaloids, Acetic acid), Wood vinegar 33.3%(triterpenoids, limonoids, steroids, flavonoids)
INACTIVE INGREDIENTS	Other 0.2%(Purified water)
APPLICATION CROPS	Applies to all crops.
MIX WITH OTHER PRODUCTS	No special problems.



Applicable pests with the red palm tree weevil.



Grasshoppers



Slugs



Cicadas



Beetles



Thrips, .

Division	Product-1 MAEMIJABA, WEEVIL-X1	Product-2 MAEMISSAK, WEEVIL-X2
Purpose of the product	The red palm weevil (RPW) is a pest that causes significant damage to date palm, Phoenix canariensis, Cocos nucifera, Areca catechu, and Arenga pinnata trees. Currently, it is expanding to the Middle East, Africa, Southeast Asia, Southwest Asia, and North America. RPW mainly lays eggs in the stem crevices of the upper part of the ground surface, and the eggs hatch as larvae, penetrate the body of the plant, enter the inside, survive, and then make a cocoon and change into an adult insect. ●The symptoms of damage caused by RPW are mostly unknown in advance, and the moment you see it, you have already been completely damaged. Therefore, you should always look carefully, especially for small holes in the crevices of the stems. Also, the most important thing is prevention.	
Type	WATER SOLUBLE POWDER	LIQUID
Packing weight	500g	500mL
Validity	2Years	2Years
When to start control	Climate varies from country to country, but generally start your program in early spring if you have winter. Also, RPW has no set spawning or breeding period. In countries with cold winters, eggs are usually laid in early spring, but in most countries, RPWs live deep in trees, making winter meaningless. They continue to lay eggs and plow the tree, and when the tree no longer produces sap, the adult moves to another tree. They target the next tree is a tree that has been wounded or pruned. In order to solve RPW, it is recommended to use it regularly once a month after treatment. This is for prevention. RPW has no visible symptoms at all. You can only tell when the top leaves are dying.	

**Cautions :** ●Shake well before use and mix with water ●Do not drink, and store out of reach of children in a dark and cool place (below 1~25°C) ●When mixing with other products, test a small amount first before use.●This product does not have any particularly sensitive crops, and only apply to pests indicated on the label. Also, there is no special toxicity for non-pest targets. ●Wash the empty bottle thoroughly with water, use it on crop pests, and dispose of it according to established regulations.●After using it on pests, leave at least 3 days between harvesting.●If you accidentally drink it, vomit immediately and seek medical attention.

# PRODUCTS APPLICATION PROGRAM FOR CULTIVATION DATE PALMS ONE YEAR PROGRAM

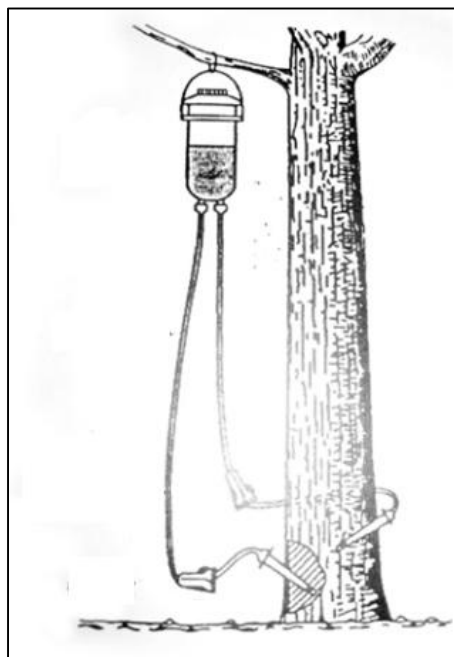
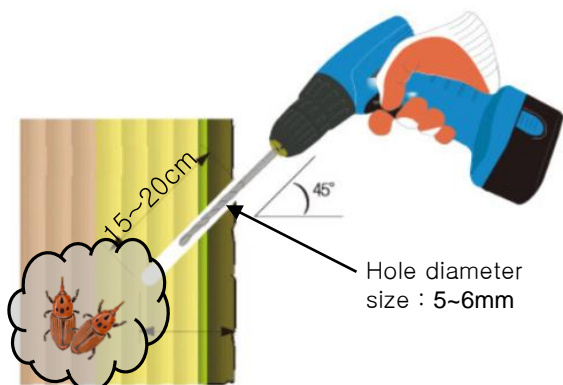
(1Ha Basic = Date palm tree 220 Tree)

RED PALMTREE WEEVIL REMOVE PROGRAM		
ORDER		RPW APPLICATION
		WEEWIL-X 1, 2
1 <sup>st</sup> M	1 <sup>st</sup> week	WEEWIL-X1 / 18L/Tree Add 2L of tree trunk injection
	2 <sup>nd</sup> week	WEEWIL-X2 / 20L/Tree
	3 <sup>th</sup> week	X
	4 <sup>th</sup> week	X
2 <sup>nd</sup> M	5 <sup>th</sup> week	WEEWIL-X1 / 18L/Tree Add 2L of tree trunk injection
	6 <sup>th</sup> week	WEEWIL-X2 / 20L/Tree
	7 <sup>th</sup> week	X
	8 <sup>th</sup> week	X
3 <sup>th</sup> M		X
4 <sup>th</sup> M	13~14 <sup>th</sup> week	WEEWIL-X1 / 18L/Tree Add 2L of tree trunk injection
5 <sup>th</sup> M		X
6 <sup>th</sup> M	22~23 <sup>th</sup> week	WEEWIL-X2 / 20L/Tree
PROGRAM FINISHED		
Per 1Time	220Trees x 1times x 20L = Diluted 4,400L	
1Ha x 6Times	220Trees x 6Times x 20L = Diluted 26,400L	
Product Amount	WEEWIL-X1 : 26.4Kg WEEWIL-X2 : 26.4L	

Nutritional program for growth, increased immunity and increased yield. Organic sterilization program to eliminate viruses, bacteria, and mold					
SEASON	M	PRODUCTS APPLICATION			
		BS-GRANUL E	VIRUSZE RO-AGRI	BSGREEN-O	BS SUPER-CUPE
After harvest, rest period	OCT	X	X	X	X
	NOV	X	10L/Tree	X	X
	DEC	X	X	X	X
	JAN	200~250g /Tree	X	X	X
	Before flowering	FEB	X	10L/Tree	10L/Tree
flowering period	MAR	X	X	X	X
Fruiting Period	APR	X	10L/Tree	X	10L/Tree
After the fruit has settled	MAY	X	X	10L/Tree	X
	JUN	X	10L/Tree	10L/Tree	10L/Tree
Growth period	JUL	X	10L/Tree	10L/Tree	X
Harvest season	AUG~SEP	X	10L/Tree	X	X
Per Ha	220 Trees	55Kg	13,200L	8,800L	4,400L
Amount of product required (prices estimated for end user)	Product Amount	55Kg	66L	17.6L	8.8L

## WEEWIL-X1 Tree Trunk Injection Method

Spray WW-X1 over the entire tree as specified above (average 18 to 20 liters), drill about 3 holes between 30cm and 1m from the bottom of the tree and inject WW-X1 into the tree trunk. Inject about 500 to 700r





300mL 10.1OZ

ORGANIC PEST REMOVAL  
**PANGSARI** 가든키퍼  
**GARDEN KEEPER**

- Eco-friendly "Organic Agricultural Material"
- Type of material : Disease and pest control material
- Korea Organic Registration No.: 3-6-086 PANGSARI

Neem extract 10%  
 Clove extract 30 %  
 Cinnamon Oil 30%  
 Other supplements 30%



Premium organic pest control for people and gardens



**Product Feature and Effects**

It is a product that combines crop protection function extracted from plants with insecticide materials. This eco-friendly functional insecticide causes no residual concerns and effect as well as quality is guaranteed according to the relevant law. It causes damage to larva and imago through contact poison and anti feedant activity.

**What is a quality certification product?**

It refers to an agricultural material where "the effect and quality are guaranteed" and that can be used to produce eco-friendly organic agricultural products.

Mite, peach pyralid Moth, pearl-moth, Small Brown Planthoppers, Grass leaf roller, chestnut Curculio, Aphid , Mythimna separata , Latoia Consocia, Panonychus ulmi, Tetranychus urticae, Magnaporthe grisea, cockroach	200 times	<ul style="list-style-type: none"> <li>●After using it once, check the situation and use it once more after 5 or 7 days.</li> <li>●When the number of individuals is large: every 2-3 days</li> </ul>
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**Cautions**

- Shake well before use and immediately after thoroughly diluting
- Do not drink, and keep out of reach of children.
- In case mixed-use with other product, use after you confirm with small amount of test if there is no- hemical harm





# ARTZENA 101

## FOR CHICKEN INCREASE IMMUNITY & HEALTH PROMOTION

More than 30 comprehensive nutritional ingredients

- INCREASE IMMUNITY
- HEALTH PROMOTION
- ENVIRONMENTAL IMPROVEMENT

### HOW TO USE

- Mix with feed 1000kg + ARTZENA 101 1Kg (1000:1)
- How to Mix : Mix 1Kg evenly with 10kg feed, and Mix the 10kg feed to 990kg of feed.

### EFFECT

● Between 25 ~ 27 days will reach 1.8 kg or more. (It can vary slightly depending on the breeding environment and the breed of chicken.) ● From the beginning, the bones become strong. ● Mega Chicken grows up to 4kg in 50-60 days. ● There is no mortality, the ammonia gas disappears and the chicken becomes healthy. ● The meat is very soft and odorless. ● Survival rate of 98%, general survival rate of 85% (increase of 13%) ● The digestion absorption power is increased, and the feed demand rate is reduced to 85~90% ● Absolute savings in antibiotics and other drug costs ● Certainly reduces fungal toxins, fructose, and also gellanone, and removes humicin and bomitoxin, ocratoxin, and T-2 toxin. ● It is a complex feed additive that combines mycotoxin bind function, immune enhancement function, and growth promoting function. ● Reduces harmful gases such as ammonia in the house.



**ARTZENA 101**

POWDER	500g/ 1Kg
TECHNO, MANUFA, SUPPLIER	
KOREA FERTILIZER	

lingredient	%		lingredient	%	
Vitamin A	1 over	26000 IU	Phosphorus	2	8900mg/kg
Vitamin D3		6000IU	Sodium	Purified salt3%	
Vitamin E	0.5 over	1.5IU	Chlorine		
Vitamin K	0.5 over	6000mg/kg	Magnesium	2	
Riboflavin	0.5 over	4500mg/kg	Manganese	1.5	
Niacin	0.5 over	8500mg/kg	Zinc	1.5	
Pantothenic acid	0.3 over	3500mg/kg	Selenium	0.015	
Biotin	0.1 over	50mg/kg	Ge-lite	15	
Cobalamin	0.1 over	10mg/kg	Brewer's yeast	10	
Folic acid	0.05 over	1000mg/kg	Fulvic Acid	10	
Choline	5		Glucose	10	
Glycin+serine	2		ETC	10.435	
Methionine	2		TOTAL	100.0	
Threonine	2				

# ARTZENA 102



**ARTZENA 102**

POWDER	500g/ 1Kg
TECHNO, MANUFA, SUPPLIER	
KOREA FERTILIZER	

## BETAINE - Solver of heat related disease

Cholinergic metabolism, strengthening of the heart and blood vessels, treatment of fatty liver, control of inflammation level, stress reduction

### Components of ARTZENA 102

- Betaine.....50.0%
- Taurine.....12.0%
- Glucose.....38.0%

### HOW TO USE

● ARTZENA102 is 100% water soluble. ● Dissolve enough ARTZENA102-1KG in 20 liters of water. And put it in 1 ton of water. (1000:1) ● When the stress is severe due to sudden changes in the breeding environment due to extreme cold or long-distance travel, feed 3 times at intervals of 3 days. ● If you follow Korea fertilizer's animal breeding program, it's even better.

### EXPECTED EFFECT

#### ● Function of Betaine

75% of the energy (ME) of chicken and animals are consumed is converted to body heat, to be dissipate body heat around. Thus, when the temperature inside the house increases, the stress increases and the feed intake decreases. Growth also stops sharply. At the same time, egg production, egg weight loss and egg quality deteriorate. If this condition persists, the chicken will fall to the ground and die if it gets worse with dyspnea and circulatory disorders.

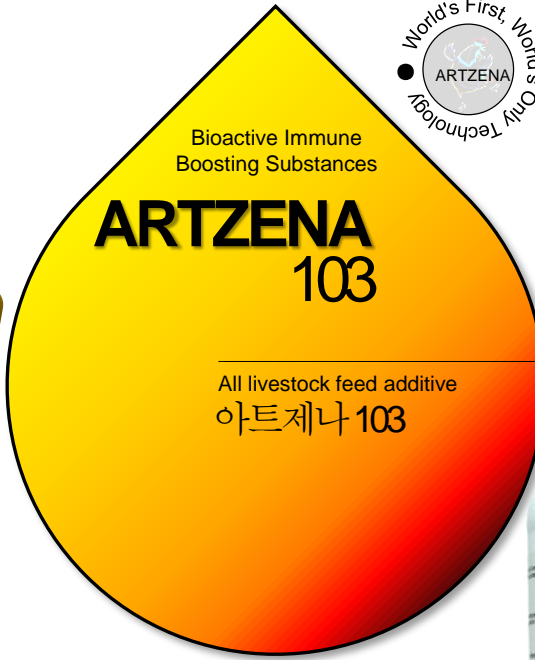
Betaine is a well - known methyl donor, which is effective in controlling osmotic pressure in dehydrated animals. It is also effective in the side effects of excessive salt intake because it regulates the water content in the cells and alleviates the effects of inorganic ions which destabilize cell enzymes and other proteins.

#### ● Function of Taurine

Maintain proper hydration and electrolyte balance in the cells.  
Mineral regulation such as intracellular calcium.  
It is essential for bile salt formation and requires digestion.  
Overall central nervous system function and macular health support.  
Controlling the health and antioxidant function of the immune system.



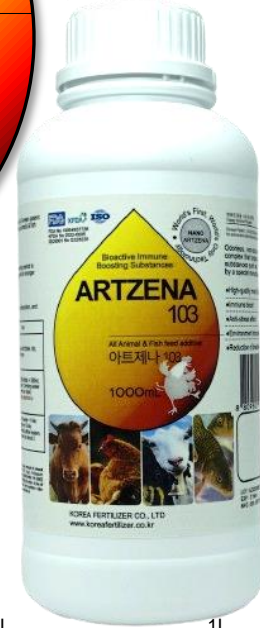
## Reduced average breeding period by 20-25%



Odorless, non-toxic alkali ion mineral complex that ionizes natural inorganic substances such as Zn, Se, Na, Si, K by a special manufacturing method

- High-quality livestock production
- Immune boost
- Anti-stress effect
- Environment improvement
- Reduction of breeding period

Silica 4471.8mg/L  
Sodium 6511.1mg/L  
Potassium 7288.6mg/L  
Calcium 12.03mg/L  
Magnesium 3.86mg/L



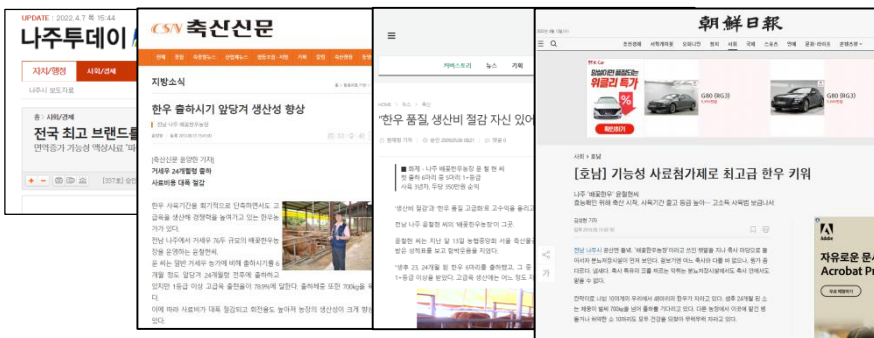
10L	1L
LIQUID	1L/20L/200L
TECHNO. MANUFA. SUPPLIER	
KOREA FERTILIZER	

**FEATURES OF ARTZENA 103 :** ARTZENA 103 is a new substance registered in a Korean patent and manufactured to increase the physiological activation and strong immunity of animals & fish

- Reduce the average growth period of animals and fish by 20-25% (Korea standard - shortened from 24 months to 18 months for beef cattle).
- Grow strong and healthy right from the start.
- Improved digestion and absorption reduces feed requirements by 20%.
- For laying hens, the start date of laying is up to two weeks earlier and the spawning period is significantly extended. In addition, the quality of the eggs is improved, the eggshell is stronger and the shelf life is longer.
- No mortality, no ammonia gas and all animals are healthy.
- The meat is very tender and has no smell.
- Absolute savings on antibiotics and other drugs.
- In the case of fish, it is strong against various viruses, has better digestion and absorption, and grows faster.

Feeding target and effect	Volume	How
Beef cattle, dairy cows, pigs, goats, camels, sheep, etc.	200:1 mix with drinking water	Feeding with ARTZENA 103 once every days
Fish	Feed efficiency improvement, growth rate, Immune boost / anti-stress	<ul style="list-style-type: none"> <li>• Supply 1000:1 by volume of water. 1 ton of water + 1 liter.</li> <li>• Continue the program with a 3-day supply and 2-day break. • In the case of a continuous inflow and outflow system, stop the flow of water or keep it flowing slowly for about 2 hours after inputting ARTZENA103.</li> </ul>

한국농정 **CSN** 축신신문 朝鮮日報  
남도일보 **시민의소리**



[Reporter of Livestock Newspaper]

### Improving productivity by earlier shipping Korean beef

Jeollanam-do Naju beef Farm Shipped from 24 months old Significantly reduce feed cost

There are Korean beef farms that are increasing their competitiveness by producing high-quality meat while dramatically shortening the breeding period of Korean beef. Chul-hyeon Yoon runs a Korean beef farm in Naju, Jeollanam-do. Mr. Yun has delivered shipments around 24 months of age, six months earlier than normal farm households, but the appearance rate of high-quality meat of grade 1 or higher reaches 78.9%. His shipping weight is also close to 700 kg. As a result, feed cost is greatly reduced and the turnover rate is increased, and thus the productivity of the farm is greatly improved. In particular, only rice straw is fed, not high-quality forage, but the appearance rate of first grade is not inferior to that of general farms, so it is more noteworthy.

## You can produce super eggs with twice the nutritional value.



An alkaline ionic mineral composite poultry feed additive that combines fulvic acid and amino acids with natural inorganic substances such as Zn, Se, Na, Si, and K, ionized through a special manufacturing method.



- High-quality meat production
- Immune boost
- Anti-stress effect
- Environment improvement
- Reduction of breeding period

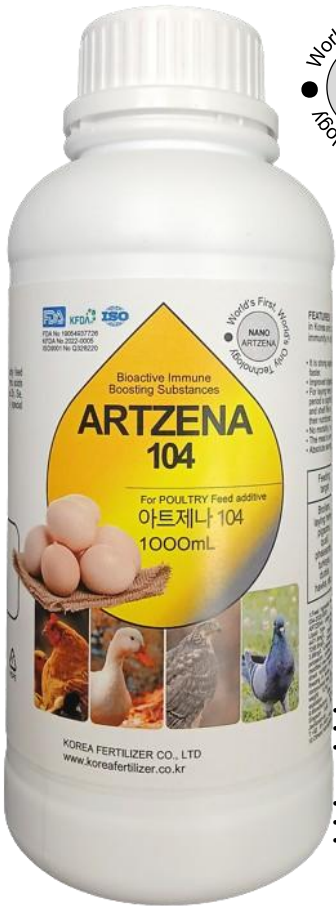
LIQUID	1L/20L/200L
TECHNO. MANUFA. SUPPLIER	
KOREA FERTILIZER	



**FEATURES :** ARTZENA104 is a highly functional feed additive registered in Korea and manufactured to enhance physiological activity and immunity in all poultry, including chickens.

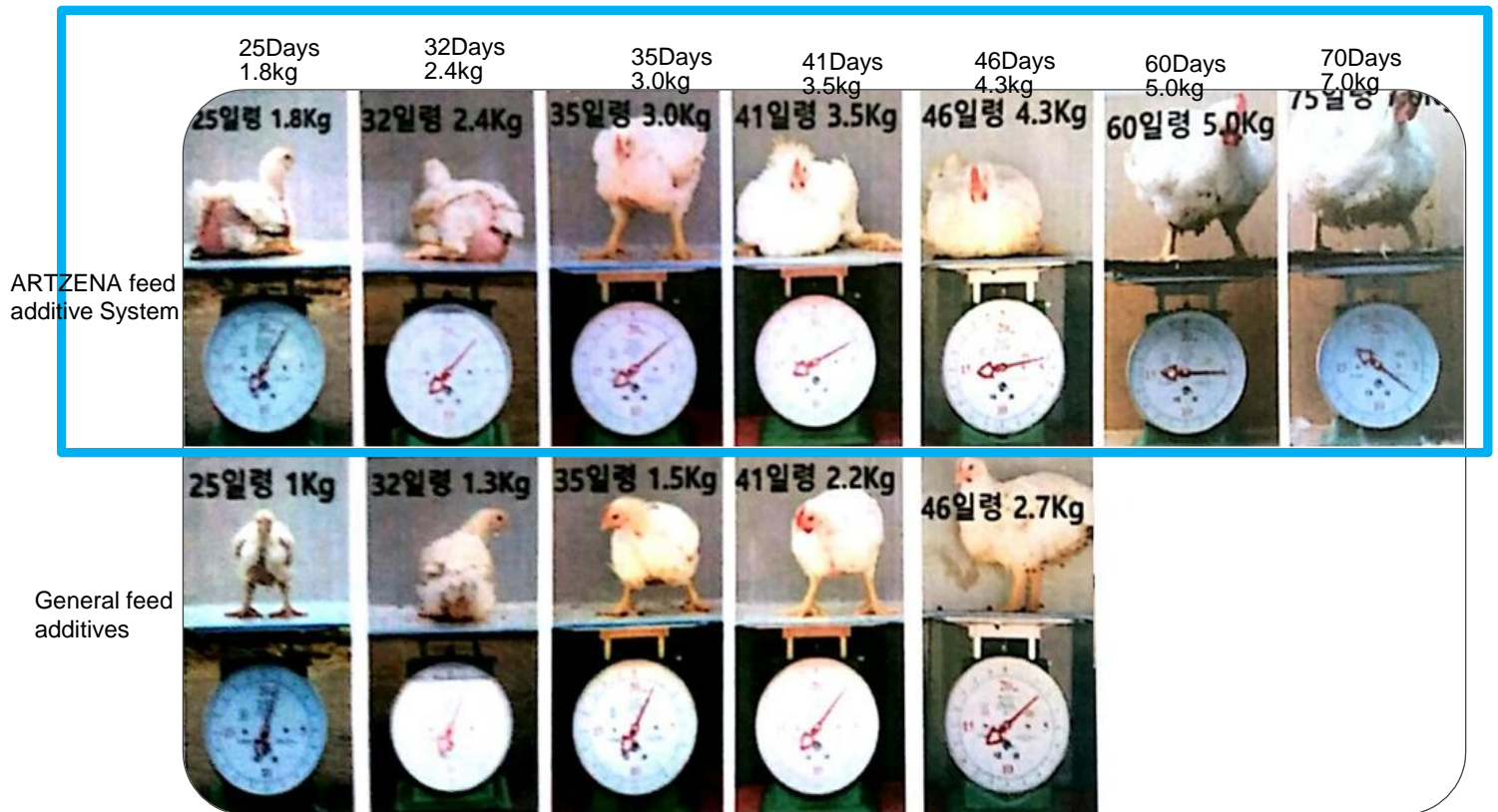
- It is strong against various viruses, has better digestion and absorption, and grows faster.
- Improved digestion and absorption reduces feed requirements by 20%.
- For laying hens: The start date of laying is up to two weeks earlier, and the laying period is significantly extended. Egg quality is also improved, eggshells are firmer, and shelf life is extended. At the same time, eggs become significantly larger, and their nutritional value more than doubles.
- No mortality, no ammonia gas and all poultry are healthy.
- The meat is very tender and has no smell.
- Absolute savings on antibiotics and other drugs..

Feeding target	How to Use
Broilers, laying hens, pigeons, quail, pheasants, turkeys, ducks, hawks, etc.	<ul style="list-style-type: none"> <li>● Dilute the solution 1000:1 in the drinking water of all poultry and feed.</li> <li>● For chicks: Feed chicks only once every two days for the first week. From the second week onward, feed them daily.</li> </ul> <p>★ Laying chickens are very sensitive, so pay attention to nozzle clogging.</p>

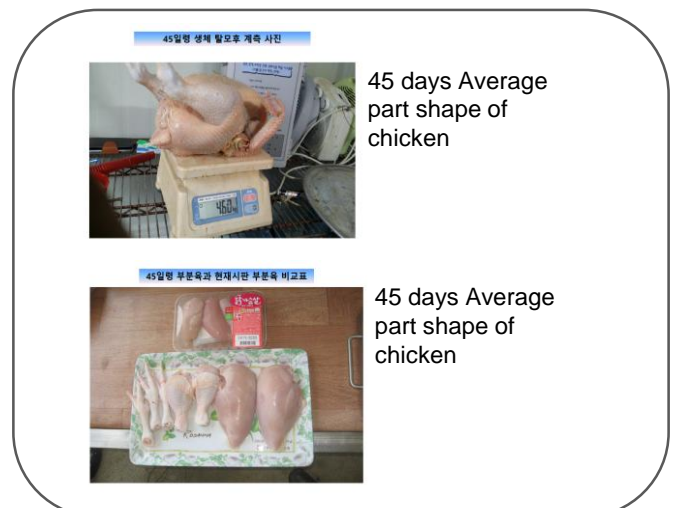




Evidence from the experiment - Growth of chicken for meat



35 days Average part shape of chicken



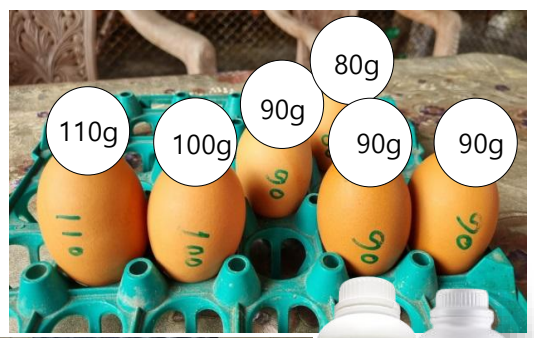


Size is **50% UP**  
**3 times** the nutrition.  
 Bad smell **Zero**

KFCo's revolutionary product, which aims to be antibiotic-free, produces super eggs. All eggs weigh EXTRA LARGE and contain 3 to 5 times more nutrients. No unpleasant smell characteristic of eggs.

Analysis of ingredients and specifications of eggs supplied with feed additives

Products supplied	① VIRUS ZERO-POULTRY : Pure nano chlorine dioxide 6000PPM
	② ARTZENA 103: Liquid type feed additive containing high concentration of silicon, calcium, magnesium, etc.
How to use the product	① VIRUSZERO – POULTRY : Supply 2ppm to drinking water for laying hens (3000:1), spray 200ppm spatially every 3-5 days (30:1)
	② ARTZENA 103 : Supplied diluted 1000:1 in drinking water



Division	Detail	KFCO egg	Korean standard (Korea Laying Hen Association)	American standard (US Department of Agriculture)	Notes
Size by weight	Small	x	44g below	42.5g below	
	Medium	x	44-52g	50g below	
	Large	x	52-60g	56.6g below	
	Extra Large	<b>66.8 ~ 110g</b>	60-68g	63.7g below	
	Jimbo		68g 이상	70g over	
LEVEL		A Grade	U.S. Grade A. (1) U.S. Consumer Grade A (at origin) shall consist of eggs which are at least 87 percent A quality or better. Within the maximum tolerance of 13 percent which may be below A quality, not more than 1 percent may be B quality due to air cells over 3/8 inch, blood spots (aggregating not more than 1/8 inch in diameter), or serious yolk defects. Not more than 5 percent (7 percent for Jumbo size) Checks are permitted and not more than 0.50 percent Leakers, Dirties, or Loss (due to meat or blood spots) in any combination, except that such Loss may not exceed 0.30 percent. Other types of Loss are not permitted.		
Crude protein		<b>53.7% (53.7g)</b>	11.8% (11.8g)	15.86% (15.86g)	Per 100g
Total Crude fat (Includes all fatty acids, including unsaturated fats)		<b>32.14% (32.14g)</b>	8.2% (8.2g)	9.51%, (9.51g)	Whole eggs 100g
Chromium content		0.16ppm, <b>0.016(mg)</b>	Tr	Tr	Whole eggs 100g
Selenium		200.97ppb, 0.02(mg)	31.7(mcg), 0.03(mg)	30.07(mcg), 0.03(mg)	Whole eggs 100g
Calcium		0.07%, 70.0(mg)	43.0(mg), 0.04%	129(mg), 0.12%	Whole eggs 100g
Magnesium		119.96ppm, <b>11.9(mg)</b>	1.2(mg)	12.0(mg)	Whole eggs 100g
Zinc		24.34ppm, <b>2.43(mg)</b>	1.3(mg)	1.3(mg)	Whole eggs 100g
Iron		85.24ppm, <b>8.52(mg)</b>	1.4(mg)	1.75(mg)	Whole eggs 100g
Vitamin-A (Yolk)		445(IU) /100g, 0.134(mg)	454.0(mcgRE), 0.453(mg)	1440(IU), 0.432(mg)	Yolk 100g
Vitamin-D (Yolk)		383(IU) /100g, <b>0.0095(mg)</b>	3.0(mcg), 0.003(mg)	5.4(mcg), 0.0054(mg)	Yolk 100g
Vitamin-E (Yolk)		<b>5.10mg / 100g</b>	0.7(mg)	2.58(mg)	Yolk 100g
Vitamin-B12 (Yolk)		<b>3.54mcg / 100g</b>	1.29(mcg)	1.95(mcg)	Yolk 100g
Others		<b>No unpleasant smell typical of eggs</b>			

# WOW~ My poop doesn't Smell~!



**Notice :** To all pet owners in the world

Our body is made up of many cells, and a mitochondria in the center of the cell creates energy to keep the cells alive. However, mitochondria are made of a material called silicon.

If there is a lack of silicon, the heartbeat becomes weaker, exercise capacity is lowered, and the immune system is also weakened. Falling easily and getting sick, in particular, the digestive and absorption capacity is poor, which causes anorexia and Serious health problems.

**[NON Smell poop]** is an amazing product that especially silicon is the key and improves the living environment and disease prevention by enhancing the immune system~!!!



# PET POOP NON Smell

K-105 Happy Pet Projects

Simply Put

[Nyang-I & Dang-i] means that **"We eat well, poop well, and don't get sick!"**.

In particular, since the rate of digestion and absorption is strong, there is almost no odor from the poop and urine.

If your poop has a foul odor, it means that it is not digested properly.

- All Kitty & Puppy in the world -

Enhancing immune-system  
Improves the living environment & disease prevention.  
Help to digest the poop properly so it doesn't make poop smell



300mL 10.0 OZ

### Management of companion animals

● Various beneficial effects such as sterilization and purifying power of silicon also work on all animals such as dogs, cats, and birds. ● If you dilute it with your pet's drinking water and feed it, the animal's unique odor disappears and the immunity to various diseases is strengthened, making it stronger against diseases. ● If pets have a skin disease that does not heal well, spray it on itchy or hairy areas or dilute it in bath water and wash it to improve symptoms.

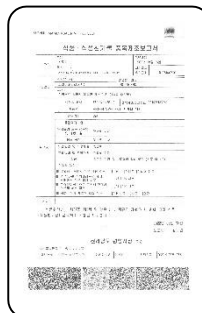
### Stable Nutrient Supply

● Silicon provides a stable supply of nutrients by penetrating deeply into all foods with excellent penetrating power, extracting all nutrients as much as possible and allowing them to be consumed. ● In addition, it allows the nutrients you eat to penetrate deep into the intestinal cells and absorb them, allowing you to maintain the best possible health. ● Silicon is the main component of cells that make up blood vessels, which are passageways for blood supplying nutrients. If nutrients are not supplied properly, it leads to aging of blood vessels due to malnutrition, and aging of blood vessels impairs the supply of nutrients, thus making the metabolism difficult and harming health. Therefore, the stable supply of nutrients is directly related to the health of the human body as well as the health of blood vessels.

LIQUID	300mL
TECHNO. MANUFA. SUPPLIER	
KOREA FERTILIZER	

### Quality control labeling

- \*Product Name: **NON SMELL POOP**
- \*Manufacturing permission: Feed additive 98939402
- \*Main ingredients: silicic acid (SiO<sub>2</sub>) 2.0%, potassium (K) 0.9%, sodium (Na) 1.0%, calcium, magnesium, etc.
- \*How to use: Dilute 1/2 the cap of this product in 1L of water that your pet drinks. (5CC in 1L of drinking water, the lid of this product is 10CC).
- \*Storage in a cool and dark place is required, and refrigeration is absolutely prohibited. Please note that the quality and efficacy are reduced when frozen.
- \*Volume: 300mL(10.0OZ)
- \*Manufacture: Korea Fertilizer Co., Ltd.
- \*Customer call: 1833-7786 7, Singeum 2-gil, Okgok-myeon, Gwangyang-si, Jeollanam-do
- \*If an animal or human directly drinks the undiluted solution, it may cause damage, so be careful when storing it.



Korean Patent : 10-0812382Alkaline aqueous solution for animal and plant physiological activity



**1. Freshness-maintaining products & Special products for beekeeping diseases**

- GREEN FROG [Freshness preservation agent for food, fruit, grains, etc.] GF5, GF510, GF15, GF30, GF30S
- BEE FRIEND POWER KILL [For removing viruses and bacteria from bees]

**2. SPECIAL DRINKING WATER FOR HUMAN HEALTH**

- ARTZENA WATER – SILICON WATER FOR HEALTH



products are supplied to 30 countries around the world.

# We do not want your Food Spoilage

# GREEN FROG

Revolutionary highly functional food freshness maintainer

A complete solution to keep fresh food delivery or storage fresh & safe!  
 식품, 채소, 과일 등의 택배와 보관시 완벽하게 살균하는 선도유지 보존제

Freshness lasts 3 times longer!



Eco-sterile disinfectants  
 Preservative-free  
 Alcohol free



**GREEN FROG-5**  
 For short-term delivery and food storage



**GREEN FROG-10**  
 For general consumer use - 10PCS



**GREEN FROG-15**  
 Takes 1-2 weeks. For delivery & medium-term storage.



**GREEN FROG-30/30S**  
 Containers for export longer than 30 days, For long-term food storage. & Sterilization of multiple entry and exit areas



**GREEN FROG-PS**  
 Place this pad at the bottom of the delivery box of frozen meat, fish, and other products. This functional pad absorbs blood while simultaneously eliminating bacteria and viruses.

●Pure chlorine dioxide is approved as a drinking water disinfectant according to Ministry of Environment Notice 1999-173. ●Food and Drug Administration Notice No. 2005-33, designated for use as a sterilizing disinfectant for instruments, etc. ●Food and Drug Administration Notice No. 2007-74, approved for the purpose of sterilizing foods such as fruits and vegetables ●Ministry of Agriculture, Food and Rural Affairs, Food Industry Promotion Act No. 9759, designated and approved for use as a processing aid for organic products ●Ministry of Agriculture, Food and Rural Affairs, Article 20 of the Enforcement Rules of the Animal Contagious Disease Prevention Act, permission for use on equipment and meat in disinfection methods ●Food and Drug Administration Notice No. 2009-66, approved as a hygiene control material for raw fish restaurants and aquariums ●National Veterinary Research and Quarantine Service, Livestock Product Specification Division-1600, approved for use in meat processing surface treatment



●Raw materials: FDA No 3017180767 / EU No N-92265 / 2015/830 / KFDA No 20160513307 ISO9001 No Q326220 ●FDA food and feed disinfectant additive: 19054937726 MINISTER OF ENVIRONMENT MAQB24111501

●Product Name: VIRUSZERO GREEN FROG-5, 15, 30  
 ●Raw material [active ingredient]: pure chlorine dioxide  
 ●Manufacturer: KOREA FERTILIZER CO.,LTD  
 T.+82 1833-7786, master@koreafertilizer.co.kr  
 ●Supplier : GREEN FROG PARTNERS.CO.,LTD  
 www.greenfrogpartners.com greenfrogpartners@naver.com  
 TEL +82 1551 0135

LIQUID	15g/500ML
TECHNO	KOREA FERTILIZER
MANUFA	KOREA FERTILIZER
SUPPLIER	GREEN FROG PARTNERS,INC





- Prevention of spoilage of agricultural products during long-distance transportation
- Compliance with delivery standards such as departmental stores and marts
- Preventing claims in advance when exporting agricultural products
- Prevention of spoilage during long-term storage in warehouses, etc.

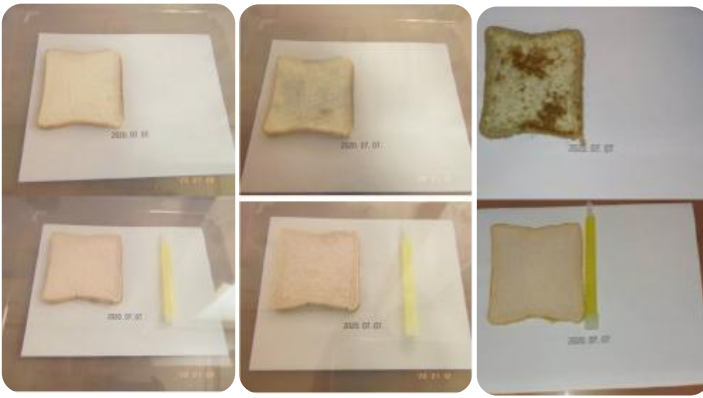


**Background technology :** In general, in the case of processed foods, agricultural and marine products such as fruits, vegetables, and fish, spoilage frequently occurs due to contamination of viruses, bacteria, or mold during processing, distribution, and storage. Furthermore, after harvesting, agricultural products have the characteristic of softening and softening the tissues due to the activity of cell wall decomposition enzymes caused by ethylene.

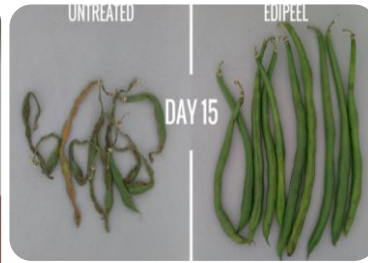
**[GREEN FROG] is an innovative product using eco-friendly pure chlorine dioxide to remove bacteria and mold without any side effects and maintain freshness for a long time.**

Manufactured with WHO A-1 grade certified eco-friendly sterilization/disinfection/deodorization

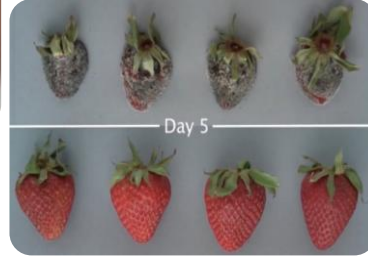
- Excellent effect on sterilization, disinfection and deodorization
- It is an environmentally friendly safe material that is easily decomposed by light and does not produce by- products.
- Excellent sterilizing power against pathogenic germs such as viruses and bacteria (very effective in preventing and blocking infectious diseases)
- Removal of heavy metal hazardous substances such as iron, manganese, cyanide, phenol, etc.
- Can be used in a variety of ways, such as drinking water, food, and equipment (Approved as a food additive by the U.S. FDA)
- Elimination of odor at its source
- Unlike chlorine-based disinfectants (chlorox, chlorocalcium, etc.) or ozone, no carcinogens are generated.
- Very effective in removing food poisoning bacteria from fish, fruits, and vegetables, maintaining freshness, and extending shelf life
- Removal of pesticide residues
- Excellent disinfection durability and no resistance.



Bread spoilage experiment: KFC laboratory (From left) 2020, 07,07 → 07, 09 → 07, 13. The upper untreated bread developed mold within 2 days and spread rapidly thereafter. The lower treatment port does not produce any mold or bacteria.



Lentil spoilage experiment: (Left) Unprocessed, (Right) Processed



Strawberry spoilage experiment: (Top) Untreated, (Bottom) Treated – The untreated section completely decayed after 5 days at room temperature.



Apple rot experiment: (Left) Processed, (Right) Unprocessed



Mini tomato decay experiment: (Left) Processed, (Right) Unprocessed



It should be used to prevent spoilage of agricultural and marine products that are stored for long periods of time or exported or imported overseas.



Chestnut storage decay experiment: (Left) Unprocessed, (Right) Processed



Citrus Rot Experiment: (Left) Processed, (Right) Unprocessed



Apple rot experiment: (Left) Unprocessed, (Right) Processed

**It must be used in the following businesses or locations.**

- Put just one into every delivery box, including agricultural and marine product production farms and distribution companies. Freshness is doubled.
- Use when exporting fruits or vegetables such as strawberries, dried persimmons, grapes, pears, and flowers, and when claims occur before arrival due to bacterial or fungal infection.
- When importing fruits or vegetables such as mangoes, bananas, and cash nuts, sterilization is required locally or they are stored after arrival.
- Use when long-term storage and transportation are difficult due to the nature of agricultural products, where the tissue softens easily.
- A company that stores and distributes garlic, sweet potatoes, and onions through long-term storage warehouses.
- Sterilization of food or agricultural products that cannot be sterilized using water treatment or wet methods.
- Sterilization of marine products such as shrimp, shellfish, lobster, abalone, and oysters.
- When sterilizing livestock products and transporting them over long distances
- Sterilizing fruits and vegetables during the growing season in the facility house
- Others



**Is it natural for fish to smell fishy??**

The fishy smell of fish is a process of spoilage.

**TVN [Total Volatile Nitrogen value]** : Most people do not know that the unique odor (fishy smell) of marine products such as fish and shrimp is a product of the decay process of marine products. One of the methods to measure rating downgrade due to corruption is TVN (Total Volatile Nitrogen value).

Volatile nitrogen is caused by ammonia gas generated during protein decomposition. The TVN concentration of freshly caught fish or shrimp is 4 to 7, and in Europe, chemical treatment is required to lower the concentration to TVN 50 or lower. When the concentration of TVN exceeds 100, it is treated as animal feed.

If you put [GREEN FROG] as a virus agent in the box, the TVN will be less than 17 and there will be almost no odor.



**GREEN FROG-5**

For short-term delivery and food storage

**PRODUCT : GREEN FROG-5**

(MODEL: KFCO24GF-5)

● **CAPACITY** : 8 grams of pure chlorine dioxide ● **Packing unit**: 100PCS (1BOX), 1000PCS packaging (10BOX) ● **EXP DATE** : 2 years, valid for 5 to 7 days at room temperature from the date of operation. ● **HOW TO USE** : Tear the product or Do not cut it, press it with both thumbs so that the contents burst inside, and it will start working. (See manual.) Maximum application space - 1m width x 1m length x 1m height. ● **EFFICACY** : Prevents spoilage and deodorizes agricultural and marine products, processed foods, and flowers in boxes. ● **DISPOSAL METHOD** : After the expiration date, dispose of it like regular household waste. ● **Others** : Do not open the product packaging and allow it to come into direct contact with the object. ● **Precautions** : Do not eat. Keep out of reach of children and animals, and store remaining product in a refrigerator or cold storage before use. This product operates above 10°C.



**GREEN FROG-5-10**

For general consumers : GF-5-10PCS

**PRODUCT : GREEN FROG-5-10**

(MODEL:KFCO24GF-5-10)

● **CAPACITY** : 8 grams of pure chlorine dioxide ● **Packaging unit**: 10PCS (1BOX), for use in convenience stores and other household goods stores ● **EXP DATE** : 2 years, valid for 5 to 7 days at room temperature from the date of operation. ● **HOW TO USE** : Tear the product or Do not cut it, press it with both thumbs so that the contents burst inside, and it will start working. (See manual.) Maximum application space - 1m width x 1m length x 1m height. ● **EFFICACY** : Prevents spoilage and deodorizes agricultural and marine products, processed foods, and flowers in boxes. ● **DISPOSAL METHOD** : After the expiration date, dispose of it like regular household waste. ● **Others** : Do not open the product packaging and allow it to come into direct contact with the object. ● **Precautions** : Do not eat. Keep out of reach of children and animals, and store remaining product in a refrigerator or cold storage before use. This product operates above 10°C.



**GREEN FROG-15**

Takes 1-2 weeks. For delivery and medium-term storage.

**PRODUCT : GREEN FROG-15**

(MODEL: KFCO24GF-15)

● **CAPACITY**: 30 grams of pure chlorine dioxide ● **Packing unit**: 100PCS (1BOX). ● **EXP DATE**: 2 years, valid for 15 to 20 days at room temperature from the date of operation. One GF-15 product can be applied to a box of approximately 1~3m³. ● **HOW TO USE**: Place one each in a medium-sized delivery box, food box, or long-distance transport box. ● **EFFICACY** : Prevents corruption and deodorizes agricultural and marine products, processed foods, and flowers. ● **DISPOSAL METHOD** : After the expiration date, dispose of it like regular household waste. ● **Others**: Do not open the product packaging and allow it to come into direct contact with the object. ● **Precautions**: Do not eat. Keep out of reach of children and animals, and store remaining product in a refrigerator or low-temperature warehouse before use. This product operates above 10°C.



**GREEN FROG-30/30S**

Containers for export longer than 30 days, For long-term food storage and storage Sterilization of multiple entry and exit areas

**PRODUCT: GREEN FROG-30**

(MODEL: KFCO24GF-30)

● **CAPACITY** : 200 grams of pure chlorine dioxide ● **Packing unit**: 10PCS (1BOX). ● **EXP DATE** : 2 years, valid for 30 to 50 days at room temperature from the date of operation. ● **HOW TO USE**: Put one unit into a large food, fruit, vegetable, flower warehouse or export container (based on 20FT). ● **Efficacy**: Used for preventing and deodorizing agricultural and marine products, processed foods, flowers, etc., for import and export volumes, small storage warehouses, agricultural and marine product warehouses, etc. ● **Disposal method**: After the expiration date, dispose of it like regular household waste. ● **Others**: Do not open the product packaging and allow direct contact with the object. ● **Precautions**: Do not eat. Keep out of reach of children and animals, and store remaining product in a refrigerator or cold storage before use. This product operates above 10°C.

You put in your sincerity. We will keep it fresh for you.



(Left) Bread and apples in containers with and without GF-5. Day 5.

(Right) Bread, peaches, tomatoes, lettuce, and shiitake mushrooms in containers with and without GF-5. Day 4.





The ultimate solution for solving pests such as weevils in grain storage and transportation

# GREEN FROG GS

Stored Grain pest and mold remover

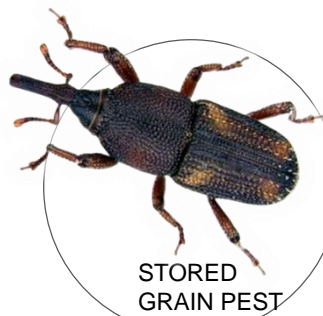


15% of the world's grain is lost due to pests and fungi!! Amount that would save 2 billion people from starvation!!

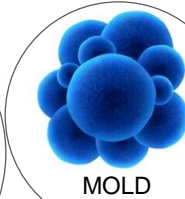
**UNEP (United Nations Environment Programme, 2021):** ● Every year, one-third of the world's total food production is lost and wasted. ● Approximately US\$1 trillion (\$750 billion in agriculture, \$250 billion in fish and aquatic products). ● Sustaining 2 billion people.- In developing countries: 40% of food waste occurs during post harvest storage and processing. ● In developed countries: 40% occurs during retail distribution and consumer consumption.

**WFP (World Food Programme, 2024): 'Zero Post-Harvest Loss' project in progress** ● Reducing food waste by 50% by 2030 is one of the UN's top priorities.

1. Not a synthetic pesticide that causes toxicity and resistance.
2. Eliminates not only weevils but also bacteria, fungi, viruses, odors and ethylene.
3. No harm to humans or animals and no side effects.
4. Korean and FDA approved materials.
5. Very reasonable price.



STORED GRAIN PEST



MOLD



BACTERIA



VIRUS



ODOR



$C_2H_4$   
ETHYLENE



**GREEN FROG-GS**  
15g, 50Kg standard  
Put in one grain bag.  
18000PPM  
(6cm wide X 14cm high X T 0.5cm)



**1 stone 6 birds  
in grain storage.**



- PEST Kill
- MOLD Removal
- BACTERIA Kill
- VIRUS Kill
- ODOR Removal
- ETHYLENE Dissolution



● Red flour beetle, Rust-red flour beetle



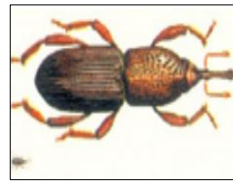
● Confused flour beetle



● Maize Weevil



● Rice Weevil



● Grain weevil



● Bread beetle



● Tobacco beetle



● Lesser grain borer



● Saw-toothed grain beetle



● Khapra beetle



● Indian meal moth



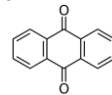
● Angoumois grain moth

Stored Grain Mold Toxins	
Aflatoxin	Rice, barley, corn, peanuts, sorghum, cotton, etc.
Ochratoxin	Grains such as rice and barley, beans, spices, cocoa, coffee, beer, wine, dried fruits, etc.
Patulin	Apple products, etc.
citrinin	Less dried stored grains, such as wheat, barley, rye, oats, corn, and rice.
Fumonisin	Corn and corn-based foods and feeds, beer
Deoxynivalenol	Wheat, corn, barley, bran, malt, coffee, beer, etc.
Zearalenone	Corn, barley, oats, wheat, rice, sugarcane, beer, meat, milk, eggs, etc.

The grain weevil is a pest that causes enormous damage to stored grains worldwide every year, with the female generally laying more than 200 eggs and a male and female pair being able to reproduce up to 6,000 per year. In particular, the quinone released by the rice weevil is a carcinogen and reduces the taste of grains. [GREEN FROG-GS], manufactured using pure chlorine dioxide developed by GREEN FROG PARTNERS.INC, is not a method of eliminating pests using toxic pesticides, simple attractants, traps, or sticky substances. [GREEN FROG-GS] will replace pesticides and


pesticides that have been used to eradicate grain weevils, and will bring about economic effects by reducing purchase costs. It is also an eco-friendly method that does not use pesticides or pesticides that are harmful to the human body.

In particular, GREEN FROG-GS is an amazing substance that eliminates not only grain pests but also mold, bacteria, viruses, odors, and even ethylene.



**QUINONE** : A chemical compound released by low-level pests, one of the carcinogens.



 Pure chlorine dioxide is the safest and most complete means of eliminating pests and molds from stored grains.

<Published in the Journal of Storage Grain Research>




Journal of Stored Products Research

Volume 72, May 2017, Pages 21-27



## Responses of phosphine susceptible and resistant strains of five stored-product insect species to chlorine dioxide

Xinyi E, Bhadriraju Subramanyam , Beibei Li

Responses of phosphine susceptible and resistant strains of five stored-product insect species to chlorine dioxide. (5종의 저장 제품 곤충 종의 포스핀 감수성 및 내성 균주의 이산화염소에 대한 반응)

Products are supplied  
to 30 countries around the world.



꿀벌의 바이러스와 세균, 곰팡이 제거의 솔루션

Solution to remove viruses, bacteria, and mold from bees

순수 이산화염소

**VIRUS  
ZERO** BEE  
FRIEND

New scientific technology for  
eliminating viruses and bacteria



Eco-sterile disinfectants  
Preservative-free  
Alcohol free

Sacbrood 낭충봉아부패병  
Foulbrood 부저병  
Stone brood 석고병  
Bee paralysis 꿀벌마비병  
Bee mite repellent effect  
꿀벌응애 기피효과

High-functional bee sterilization  
**BEE FRIEND SERIES**  
We are 100% confident.

WHO, grade A1  
environmentally  
safe

2 to 10 Ph  
widely applied  
strong bactericidal  
action

Eliminates all  
odors and  
decomposes  
causative  
substances

5 times more  
sterilizing power  
than existing  
synthetic  
disinfectants

It has no side  
effects such as  
carcinogens and is  
safe for  
humans and  
bees.







VIRUS ZERO BEEFRIEND SERIES :  
BEE FRIEND-S / BEE FRIEND-AM / BEE FRIEND-L

- Product Name: VIRUSZERO BEEFRIEND
- Raw material [active ingredient]: pure chlorine dioxide 6000PPM
- Expiration date: 18 months from the date of manufacture
- Manufacturer: Korea Fertilizer Co., Ltd.



FDA Registration No 3017180767 EU Registration No N-92265, / 2015/830  
KFDA Registration No 20160513307 ISO9001 Registration No Q328220  
MINISTER OF ENVIRONMENT GB20-21-0368



IMAGE	PRODUCT NAME	SPECIFICATION
	<p style="text-align: center;"><b>LIQUID</b></p> <p style="text-align: center;"><b>BEE-FRIEND-L</b> <b>BEE-FRIEND-AM</b> (LIQUID TYPE)</p>	<ul style="list-style-type: none"> <li>● 500mL concentrated liquid product.</li> <li>● Spray inside and outside of the hive using a spray bottle.</li> <li>● Dilute with 20L water + 25mL and spray periodically around the beehives, harvesting tools, etc. at least once a week.</li> <li>● Dilute 20mL in 20L of water that bees drink.</li> </ul> 
	<p style="text-align: center;"><b>MINI PLASTIC BAG</b></p> <p style="text-align: center;"><b>BEE-FRIEND-S</b></p>	<ul style="list-style-type: none"> <li>● The medicine is injected into a plastic tube with a diameter of 6 Cm and a length of 13.5 cm. (15g)</li> <li>● Depending on how to use, insert one stick into one beehive.</li> <li>● The operating period is approximately 7 to 10 days.</li> </ul>  <p style="text-align: center;">Press the convex part.</p> <ul style="list-style-type: none"> <li>● How to use: It starts working by pressing and popping the stick-shaped liquid bag inside the product. Gently press them with your hand to pop them And then put it in the Beehive. Do not open or tear the packaging. ● Expiration date: 2 years after manufacturing date (approximately good for 50 days after use. Put 1 PCS into one hive every month) ● Disposal : treat it as general waste</li> </ul> <p>Caution: Do not eat or use for other purposes. Also, do not tear or cut the outer packaging and put the contents directly into food or agricultural products. Even if the contents leak, there is no harm to the human body.</p>

**Sterilization power**

It has more than 250% oxidizing power and 500% more disinfecting power (CT value) than chlorine-based products.

**Stability**

No disinfection by-products from ozone and sodium hypochlorite (THMs, HAAs, HANs, etc.)

**Deodorizing power**

Fundamental removal of odor sources such as fishy odor and odor-generating fungi and fermenting bacteria

**Environment friendliness**

It is easily and quickly decomposed by light, so it is harmless to the human body and does not cause environmental damage.

**[Caution]**

- 1) Keep out of reach of children and block access of animals.
- 2) Observe the prescribed storage method and store in a cool place as possible as it may cause changes in effectiveness and stability.
- 3) Dispose of containers or packaging according to the general municipal waste regulations.

사람들은 상상 하고  
우리는 그것을 만든다.  
People only imagine, but we make it.

전세계 30개 국가에  
수출되는 우리 기술, 우리 제품

KOREA Patent 10-0812382  
K-FDA 201605133072  
K-FDA Mixed Beverage License 20140216506-32  
High-performance Zeolite Silicon water



SUPER  
L-ARGININE &  
SILICON WATER



The Source of Life -  
Cellular Generators -  
Mitochondria

Dr. **ARTZENA WATER** <sup>®</sup>

닥터 아트제나 워터



Nitric Oxide / Horsetail / Sasa borealis Extract

**Nitric oxide(L-arginine) and Silicon are guardians of cells and blood vessels.**

Nitric oxide (L-arginine) is a representative physiologically active substance that helps improve blood flow, blood circulation, body temperature, and inflammation reduction. Silicon is a core substance of mitochondria, the power plants of all cells. Silicon is extracted from horsetail and Jeju bamboo. Silicon is reported to be effective in bone growth, wound healing, blocking the activation of viruses that infect inflammation and disease, and treating arteriosclerosis, liver cirrhosis, and nephritis. It is the plant richest in protein, vitamin C, potassium, calcium, magnesium, manganese, zinc, copper, sulfur, and tannin.

300 million years of horse tail and Jeju Island Sasa borealis, the mineral of life - a treasure trove of silicon, Silicon is the core material of mitochondria, the generator of cells.

The strongest plant on Earth, whose roots are joked to have spread from the west coast to Shandong, China, and a treasure trove of silicon and minerals recorded in the ancient Greek pharmacopoeia - Hose tail, Hose tail is a plant that reproduces both sexually and asexually, so it is long-lived and can survive as a seed for decades even in the worst environments.

Jeju Sasa quelpae rtensis Nakai is a grass plant with strong vitality that grows only on Mt. Halla. From ancient times, folk remedies, oriental medicine, Donguibogam, and pharmacological studies have known anticancer effects, antiulcer effects, anti-inflammatory effects, sedative effects, analgesic effects, arteriosclerosis prevention effects, blood pressure lowering effects, tonic effects, antibacterial effects, diabetes, chronic hepatitis, cough suppressant effects, diabetes, pneumonia, stroke, thirst relieving effects, cancer cell suppression effects, etc.



Report : 코리아인터내셔널트레이딩  
KOREA INTERNATIONAL TRADING

아트제나워터 오리지널 /진생, 300mL 70mL 30ml



PAEAN Natural Surfactant Product Guide

파이안 천연계면활성 제품별 안내

# PAEAN



PAEAN HAIR SHAMPOO / PAEAN PATRASCHÉ / PAEAN ANTI-TOX / PAEAN LAUNDRY / PAEAN KITCHEN

H  
HISKIYA



Natural Detoxifying  
Surfactant

Do you know about Healing Bubbles?

MEDI SHAMPOO 파이안 파트라슈®  
PAEAN Patrasche

Pet shampoo registered as an animal medicine

Most detergents, including pet shampoos, contain synthetic surfactants and pH regulators. However, these ingredients can actually cause itching and inflammation, as well as hair loss, discoloration, and swelling. Now, switch to Hezekiah Shampoo, the world's first and only natural surfactant derived from fig tree, mulberry, and green tea trees. You don't have to rinse off all the foam. You'll be amazed by the foam's healing properties.



HAPPY  
ANIMAL PROGRAM

Veterinary Quasi-Drug Registration Shampoo  
Officially registered as a supplier to the Korea Racing Authority. Achieve first place in the 2025 World New Technology and New Materials Olympiad.

This is a shampoo, but we don't call it a shampoo.

1. Won first place in the International New Materials Competition (STR-020).
  2. Prevents hair loss, eliminates odor, heals skin conditions, and has insecticidal effects.
  3. Contains 83% natural plant extracts.
  4. Excellent cleansing power and rich foam. Use like regular shampoo, especially on wounds.
- Apply directly or lather. It is non-irritating to the eyes, making it safe for use on the hair.



Fig Tree



Mulberry Tree



Green Tea Tree

Brand Story - King Hezekiah of BC, who was on the verge of death from a severe skin disease, lived 15 years longer after immersing himself in fig tree sap.

Paeon : The Greek god of healing, the physician of the gods.



Paeon Patrasche 300g & 500g

## Common diseases in pets



### Common Diseases in Dogs

●Gastritis and Enteritis : Can be caused by eating food too quickly or ingesting foreign substances. Vomiting and diarrhea are the main symptoms. ●Otitis Externa (Ear Infection) : This disease causes inflammation in the ear, which is often accompanied by frequent scratching, a foul odor, and discharge. ●Kennel Cough (Infectious Canine Bronchitis): Characterized by dry coughing and a honking sound. ●Canine Coronavirus: A viral disease that causes intestinal inflammation and can be fatal in dogs. ●Heartworm: A parasitic worm that lives in the heart and lungs. It can be prevented with preventative medication. ●Skin Problems: Allergies and external parasites can cause skin abnormalities and itching.

### Common Cat Diseases

●Panleukopenia: This enteritis caused by feline parvovirus is a highly contagious and dangerous viral disease with a high mortality rate. It is dangerous for kittens and unvaccinated cats, and symptoms include lethargy, loss of appetite, vomiting, and diarrhea. ●Feline Immunodeficiency Virus (FIV): Also known as feline AIDS, it weakens the immune system. ●Feline Infectious Peritonitis (FIP): This is a contagious viral disease in cats. It can worsen rapidly, so early intervention is crucial. ●Cat Flu: This is an upper respiratory infection caused by Bordetella bronchiseptica, Chlamydomphila felis, and feline calicivirus. ●Feline Diabetes: Like humans, cats can develop diabetes. ●Idiopathic Cystitis and Urolithiasis: Cystitis and urinary stones of unknown etiology are common in cats.

## Features and ingredients of **HISKIYA Medi-Shampoo material**, a registered veterinary drug product

Ranked #1 among 100,000 companies in the International New Technology and New Materials Olympiad -11, SEP.

The world's first veterinary shampoo made with natural ingredients that not only breaks down waste but also treats skin wounds and diseases.

An amazing, multi-functional detox shampoo that simultaneously eliminates hair loss, skin conditions, dandruff, and odor.

Zero problem even if it gets into eyes, harmless, 0.00% skin irritation, shampoo for wounds, insecticidal effect such as ticks, no worries about dopping.

Eliminates odors and breaks down feces and various secretions when cleaning livestock sheds

### The beginning of all problems is the danger of **synthetic surfactants** and **pH regulators**.

Synthetic surfactants are chemicals that mix water and oil to increase the cleansing effect, and representative examples include sodium lauryl sulfate (SLS) and sodium laureth sulfate (SLES). Because of their excellent cleansing power, they are used in all types of cleaning and cleansing products, such as shampoos, dishwashing detergents, laundry detergents, body washes, toothpastes, and mouthwashes. However, they damage the skin barrier, dry out the skin, promote aging, and penetrate deep into the skin. Long-term use accumulates in the body, and dioxin residues cause cancer and cause sensitive skin, atopic dermatitis, and allergic skin problems.



### Natural ingredient content of **HISKIYA material**

Detox Shampoo  
99% Natural Ingredients  
70% Natural Plant Extracts  
0.0% Skin Irritation Tested

Green tea tree extract 40.0
-----------------------------

Fig tree extract 30.0
-----------------------

Mulberry bark tree extract 30.0
---------------------------------



The world's first. The world's first only natural extraction science from Korea

PÆEAN

파이안  
안티톡

# PÆEAN ANTI-TOX

A natural antidote to hair dye, finally out in the world.

Use any dye, any color you want, and dye your hair as much as you want.



다시 염색을 생각하다

염색제 천연 해독제

파이안  
안티톡

PÆEAN ANTI-TOX  
GREEN TEA TREE  
MULBERRY TREE  
FIG TREE

85ML 2.99 OZ  
파이안천연해독제

세계유일  
면/해/독/제

계없이 1제, 2제의 본 제품을  
잘 저어주세요. 끈적이는  
냄새를 완벽하게 제거하고  
면서도 기온염색약의 기능을

% 무회과추출물 30.0%, 향나  
00%

어린이의 손이 닿지 않는 곳  
및 유아 유통상의 한자가 발상  
비자분정해결 기준에 의거하  
다

213-38 (우)54325



8 809501 15014 9

# PAEAN

## ■Dye – What You Need to Know

All commercially available hair dyes consist of an oxidizing agent (first ingredient) and a dye (second ingredient). The oxidizing agent and dye penetrate the multilayer structure of the cuticle, the outermost layer of the hair, and then penetrate the hair shaft to create color.

The cuticle layer, composed of wax and lipid derivatives, forms a barrier on the outer walls of living cells, preventing moisture loss from the hair shaft and controlling the infiltration of external substances.

However, oxidizing agents and dyes, which are comprised of ammonia, hydrogen peroxide, dye precursors, and other additives, open and penetrate the cuticle, causing hair damage, protein denaturation, moisture loss, skin irritation, and, in severe cases, serious health problems such as eye damage and hair loss.

**If you've always wanted to dye your hair but are too scared to try it, now you can dye it to your desired color with confidence.**

### How to use PAEAN Anti-Tok

1. Any commercial synthetic hair dye will do.
2. Mix the first and second components of the commercial hair dye with PAEAN Anti-Tox in a 1:1:1 ratio and mix thoroughly for at least 3 minutes.
3. This thorough mixing process for at least 3 minutes will remove any toxicity and odors found in conventional hair dyes.
4. Apply a generous amount to the hair, comb through thoroughly, and leave on for about 30 minutes.
5. After coloring, rinse thoroughly with shampoo. (For even better results, use our PAEAN hair shampoo.)

#### Effects

1. Ensures only the beneficial properties of the original hair dye are effectively applied, without causing any unpleasant odor, skin side effects, or hair loss.
2. Does not irritate the eyes and soothes the skin.
3. If it gets on the skin during use, it can be easily wiped off with a wet tissue.

# 파이안 안티톡

PAEAN ANTI-TOX

*Now, with any hair dye,  
you can dye your hair the  
color you want!*



H  
HISKIYA

동물의약품등록 제481호  
한국마사회공식 납품등록  
2025년 세계 신기술 신소재  
올림픽아드 1위.



MEDI  
SHAMPOO

다시 샴푸를 생각하다  
PAEAN HAIR SHAMPOO

PAEAN  
SHAMPOO

99.99% Natural Shampoo of Korea

# PAEAN SHAMPOO

이것은 샴푸이지만, 우리는 샴푸라고 부르지 않습니다.  
This is a shampoo, but we don't call it a shampoo.

**All dangers begin with synthetic surfactants and pH regulators.**

Synthetic surfactants are petroleum-based chemicals that enhance cleansing power by mixing water and oil. Representative examples include sodium lauryl sulfate (SLS) and sodium laureth sulfate (SLES). They are used in all types of cleaning products, including shampoo, dishwashing detergent, laundry detergent, body wash, toothpaste, mouthwash, and cosmetics, for their cleansing power. However, they penetrate deep into the skin, damaging the skin barrier, drying out the skin, and accelerating aging. Furthermore, long-term use accumulates in the body, and dioxin residues can cause cancer and contribute to sensitive skin, atopic dermatitis, and allergic skin problems.

1. Winner of the International New Material Competition (STR-020) 2. Effective in preventing hair loss, eliminating odor, and healing skin conditions. 3. Natural ingredients containing 83% natural plant extracts. 4. Excellent cleansing power and rich foam. Unlike regular shampoos, apply the foam directly to wounds or use it. Experience its remarkable healing properties. It also has a 0.00% eye irritation rate, making it safe for both adults and children

99.99% Natural Ingredients / Green Tea Tree Extract 40.0%, Fig Tree Extract 30.0%, Mulberry Tree Extract 30.0% Skin Irritation Rate 0.00%

1. Store out of direct sunlight and out of reach of children. 2. If a problem occurs with the product due to a defect in its manufacturing or distribution, we will compensate or exchange it in accordance with the Consumer Dispute Resolution Standards of the Korea Fair Trade Commission.

GREEN TEA TREE  
MULBERRY TREE  
FIG TREE



Paean Hair Shampoo 300g & 500g



For the brave ones who open their pores with hot water and push in **Synthetic Surfactants**, here it is.

# PAEAN

HISKIYA  
Winner of the 2025 New  
Technology and New  
Materials World Olympiad



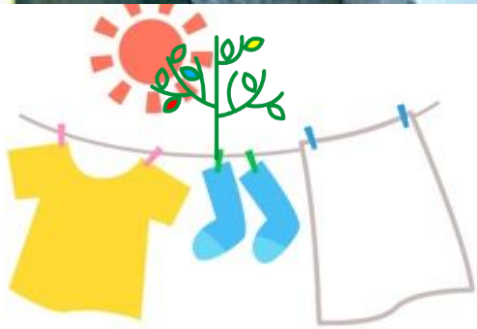
# PAEAN LAUNDRY

다시 세제를 생각하다  
Again, think about detergent.

# PAEAN LAUNDRY

Korean natural detergents

PAEAN LAUNDRY DETERGENT  
GREEN TEA TREE  
MULBETTY TREE  
FIG TREE



# PAEAN LAUNDRY DETERGENT

World's first, world's only  
Natural surfactant detoxifier

The beginning of all problems is the danger of  
**synthetic surfactants** and **pH regulators**.

Synthetic surfactants are chemicals that mix water and oil to increase the cleansing effect, and representative examples include sodium lauryl sulfate (SLS) and sodium laureth sulfate (SLES). Because of their excellent cleansing power, they are used in all types of cleaning and cleansing products, such as shampoos, dishwashing detergents, laundry detergents, body washes, toothpastes, and mouthwashes. However, they damage the skin barrier, dry out the skin, promote aging, and penetrate deep into the skin. Long-term use accumulates in the body, and dioxin residues cause cancer and cause sensitive skin, atopic dermatitis, and allergic skin problems.

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**89% Natural Ingredients / Green Tea Tree Extract 40.0%, Fig Tree Extract 30.0%, Mulberry Tree Extract 30.0%/Skin Irritation Rate 0.00%**

1. Store out of direct sunlight and out of reach of children. 2. If a problem occurs with the product due to a defect in its manufacturing or distribution, we will compensate or exchange it in accordance with the Consumer Dispute Resolution Standards of the Korea Fair Trade Commission.

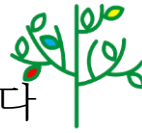


500ML 17.6 OZ

# PAEAN



다시 세제를 생각하다  
Again, think about detergent.



Korean natural detergents

## PAEAN DISHWASHING

PAEAN DISHWASHING DETERGENT  
GREEN TEA TREE  
MULBETTY TREE  
FIG TREE



500ML 17.6 OZ

PAEAN  
DISHWASHING  
DETERGENT

World's first, world's only  
Natural surfactant detoxifier

The beginning of all problems is the danger of  
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Synthetic surfactants are chemicals that mix water and oil to increase the cleansing effect, and representative examples include sodium lauryl sulfate (SLS) and sodium laureth sulfate (SLES). Because of their excellent cleansing power, they are used in all types of cleaning and cleansing products, such as shampoos, dishwashing detergents, laundry detergents, body washes, toothpastes, and mouthwashes. However, they damage the skin barrier, dry out the skin, promote aging, and penetrate deep into the skin. Long-term use accumulates in the body, and dioxin residues cause cancer and cause sensitive skin, atopic dermatitis, and allergic skin problems.

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1. Store out of direct sunlight and out of reach of children. 2. If a problem occurs with the product due to a defect in its manufacturing or distribution, we will compensate or exchange it in accordance with the Consumer Dispute Resolution Standards of the Korea Fair Trade Commission.



It's okay to leave the foam as is.  
It's the world's first new technology—a natural surfactant that heals. It will heal animal wounds and your heart, too.

PAEAN  
**BUCEPhalus**

파이안 부케팔로스

Veterinary Quasi-Drug Registration Shampoo



All humans, horses, camels, and other animals sweat, and their skin cells are constantly replaced. During this process, dead skin cells and sweat cause itching and inflammation, so they tend to rub against trees and other objects. This leads to hair loss and discoloration, and the skin becomes swollen and red. Furthermore, petroleum-based synthetic surfactants and pH regulators, key ingredients in shampoos, may remove skin impurities, but their strong oxidizing properties can further aggravate skin problems. Horses, especially professional racehorses, require daily maintenance of optimal condition. Therefore, the shampoo they use should be a specialized, pharmaceutical-grade product. BUCEPhalus shampoo is a wonderful gift from God that controls wounds and various skin troubles with surfactants extracted from natural plants.

This is a shampoo, but we don't call it a shampoo.



Medi SHAMPOO for HORSE & CAMEL



Fig Tree  
Mulberry Tree  
Green Tea Tree

**Brand Story** • King Hezekiah of BC, who was on the verge of death from a severe skin disease, lived 15 years longer after immersing himself in fig tree sap.  
• Paean : The Greek god of healing, the physician of the gods. • Bucephalus: A famous horse that won numerous battles with Alexander the Great.



## PROJECTS SYSTEM

KFCO's diverse and unique technologies in agriculture, livestock, environment, water treatment, etc. and the best related technologies in Korea owned by partners and subsidiaries are connected through a network. Accordingly, KFCO is fully prepared to carry out the projects desired by each company as well as the policy tasks of each country. In particular, Korea's digital technology will cooperate with you to further upgrade your business.

- LONG-TERM FOOD FRESHNESS PRESERVATION SYSTEM
- Innovative mobile drinking water generation system
- KFCO FOOD PROCESSING SYSTEM
- PMT GS-BIO MINI TUBE POTATO SEED SYSTEM
- KFCO AQUACULTURE SUPPORT SYSTEM
- SMART FARM / KFCO GREEN HOUSE & HYDROPONIC SYSTEM
- KFCO SEED SUPPLY SYSTEM
- LIVESTOCK MANURE & FOOD WASTE COMPOSTING SYSTEM
- WATER PURIFICATION AND ODOR REMOVAL SYSTEM
- EGG STERILIZATION PROCESSING & SUPER EGG PRODUCTION & SUPER EGG SYSTEM.
- DRINKING WATER AND WASTEWATER STERILIZATION TREATMENT SYSTEM.

# SYSTEM-1

Long-term food freshness preservation system



채소 과일 신선 장기 보관 시스템

## superfreshman 슈퍼프레쉬맨

Vegetable fresh long-term storage system  
SUPER FRESH MAN

National R&D project of the Agricultural Promotion Agency:  
Development of vegetable APC operation model to  
reduce loss rate



We ensure that your  
valuable agricultural  
products comply with  
international regulations.

PATENT 10-2-21-0073397

KEEP FRESH

STRONG STERILIZATION

- Prevention of spoilage of agricultural products during long-distance transportation
- Compliance with delivery standards such as department stores and marts
- Preventing claims in advance when exporting agricultural products
- Prevention of corruption during long-term storage in warehouses, etc.



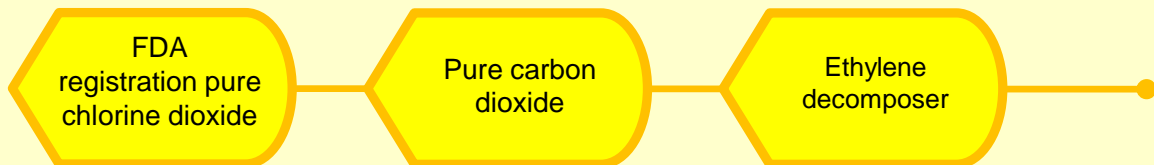
# Realization of national research project for prevention of corruption and softening of agricultural products!! Commercialization of RDA patents!!

National R&D project patent registration by Rural Development Administration 10-2021-0073397.  
Freshness maintenance device for agricultural products and gas processing device for agricultural products

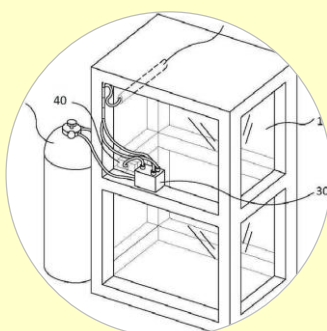
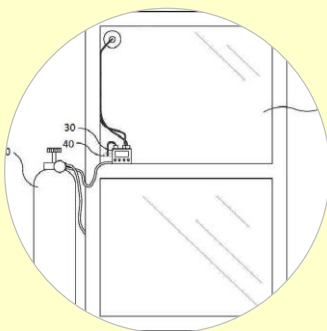
● **BACKGROUND TECHNOLOGY of SUPER FRESHMAN** : In general, in the case of fruits and vegetables, they are distributed as unprocessed organisms, so there is a problem in that distribution and storage are difficult. In particular, in agricultural products, spoilage generally occurs due to microorganisms or mold during storage and distribution after harvest. Furthermore, agricultural products have the characteristic of softening and brittle tissue due to the activity of cell wall decomposing enzymes by ethylene after harvest. <In the patent text>

The SUPER FRESHMAN system facility is a facility that freely selects and injects pure chlorine dioxide, carbon dioxide, and ethylene decomposing agent to remove bacteria and mold and maintain freshness for a long time.

**The raw materials used by SUPER FRESHMAN are registered with FDA, EU, Ministry of Food and Drug Safety, and Ministry of Environment.**



FDA No 3017180767 I EU N-92265, 92266, 92016, 2015/830 I 식약처 No 20160513307 I ISO9001 Registration No Q328220 I 환경부 GB20-21-0368



## ● SUPER FRESHMAN FEATURES

1. It is possible to select and control the type of gas and the supply method according to the characteristics of agricultural products.
2. Easy and simple operation with digital display module.
3. Simple operation by entering the usage method for each major crop into the information storage module.
4. Agricultural product decay, tissue softening, and ethylene decomposition are performed simultaneously.
5. Automatic shut-off of excessive gas use.
6. No damage to agricultural products due to intermittent and continuous supply control..



## ● Characteristics and weaknesses of each agricultural product

ITEM	CHARACTERISTICS	WEAKNESSES	NOTES
<b>Leafy vegetables</b>			
Chinese cabbage	Affected by the way it is built	great weight loss	
Cabbage	Weak to carbon dioxide accumulation	Freezing occurs easily	
Green onion	Immediately after harvest, pre-cooling → storage is required	Respiratory volume and respiratory heat	
Spinach	Pre-cooling immediately after harvest due to excessive respiratory heat	Easily take damage from pressure	
Lettuce	Lifespan varies depending on packaging type	Fragile when temperature rises	
Perilla leaf	Very sensitive to low temperature (less than 4°C)	Avoidance of low-temperature disturbances is key	
Broccoli	Pre-cooling immediately after harvest → Low-temperature distribution is required	Very sensitive to ethylene	
Cauliflower	Weak to pressure and abrasions	Skin browning occurs easily	
Asparagus	Respiratory volume and respiratory heat very high	great weight loss	
Celery	Weak to carbon dioxide accumulation	Easily fades when condensation occurs	
Chicory	Sensitive to temperature changes	great weight loss	
Endive	Sensitive to temperature changes	Easy to damage the incised area	
Kale	Mesophyll becomes tough when overcooked	Easy to crumble when packed large	
<b>Fruits vegetables</b>			
Strawberry	Effective for carbon dioxide treatment	Severe weakness of the epidermis	
Cucumber	Very sensitive to low temperature (less than 3°C)	Weak to low temperature and ethylene	
Egg plant	Very weak to low temperature (below 11°C)	Easy to suffer from low temperature	
Melon			
Cantaloupes-Net	Very sensitive to low temperature (less than 3°C)	There are many symptoms of flesh softening	
Honeydew-Melon	Very sensitive to low temperature (less than 3°C)	Easily contaminated in fresh facilities	
Oriental melon	Very sensitive to low temperature (less than 4°C)	Bone browning symptoms are frequent	
Pepper			
Bell pepper	Very sensitive to low temperature (less than 6°C)	Short freshness holding period	
Hot pepper, chiles	Very sensitive to low temperature (less than 5°C)	Immature fruits are sensitive to low temperatures	
Zucchini	Very sensitive to low temperature (less than 4°C)	The skin is weak against pressure	
Tomato	Very sensitive to low temperature (less than 6°C)	The skin is weak against pressure	
Water melon	Good shelf life at the right temperature	Severe tenderness of the flesh when overripe	
<b>Root vegetables</b>			
Carrot	Germination occurs well above the appropriate temperature.	The skin dries well when dry	
Radish	Sensitive to carbon dioxide build-up	Easily Takes Low Moisture Damage	
Onion	Pre-drying after harvest → Low-humidity storage required	Vulnerable to microbial growth	
Garlic	Pre-drying after harvest → Low-humidity storage required	Weak to sprouts	
Ginger	Pre-drying after harvest → storage required	Severe damage from low humidity	
Potato	Storage at the right temperature is very important	Easily susceptible to low temperature disturbances	
Seed potato	Storage at the right temperature is very important	Maintaining high humidity is essential	
Sweet potato	Storage at the right temperature is very important	Maintaining proper humidity is essential	
Kohlrabi	Sensitive to carbon dioxide build-up	Easily Takes Low Moisture Damage	
<b>Mushroom</b>			
Mushroom	Very effective for MA treatment	Severe odor	
<b>Fruits</b>			
Apple	Effective in treating ethylene inhibitors	Severe carbon dioxide accumulation	
Asian pear	Storage is required after pre-drying treatment	Severe carbon dioxide accumulation	
Grape	Appropriate temperature required to prevent grain separation	Frequent peeling due to ethylene	
Mandarin	Proper temperature storage is required	The skin is weak against pressure	
Peach	Proper temperature storage is required	Sensitive to low temperature disturbances	
Nectarin	Proper ripening, harvesting, and storage at the right temperature are essential	The skin is weak against pressure	
Plum	Proper ripening, harvesting, and storage at the right temperature are essential	The skin is weak against pressure	
Sweet persimmon	Very effective for MA treatment	Severe skin browning	
Kiwi	Adjust the ripening time with ethylene	Sensitive to ethylene during storage	
Japanese apricot	Sensitive to ethylene during storage	To yellow easily	
Cherry	Very effective for MA treatment	blister easily at high temperatures	
Chinese JuJube	Very effective for MA treatment	Severe damage from low humidity	
Chest nut	Post-harvest fumigation is required	Potentially severe pest damage	
Banana	Adjust the ripening time with ethylene	severe pest damage	
Orange	Adjust the ripening time with ethylene	Severe damage from low humidity	
Pineapple	Proper temperature storage is required	Flesh fragility severe	

TEST ITEM	Corruption rate(%)		Hardness(N)		ethyleneOccur (nl/g/hr)	
	Treatment	Non Treatment	Treatment	Non Treatment	Treatment	Non Treatment
Strawberry(seolhyang)	12	32	7	4	0	2.1
Tomato (Defness)	3	18	15	9	1.9	3.1
Oriental melon (geumssalagi)	9	22	17	12	0	0

**The popular fruit grape “Shine Musket”. The cause of rotting during storage has been identified.**

[Today Korea] The Gyeongsangbuk-do Agricultural Research and Extension Services has revealed the cause of rotting during storage of 'Shine Musket', a popular grape known for its high sugar content and good peeling.

As a result of analyzing the rot symptoms during the storage and distribution process of grape shine musket, the Crop Protection Team of the Agricultural Environment Research Department at the Institute of Agricultural Technology announced on the 14th that Botrytis cinerea and Cladosporium spp were pathogens causing great damage.

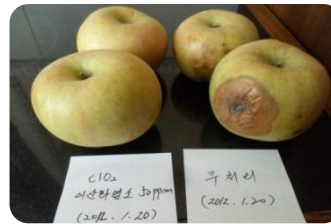
Botrytis cinerea and Penicillium sclerotiorum have been known to cause disease during storage in grape Campbell-early varieties, but this is the first time to identify the cause of rot that occurs during storage of Shine Muscat.

The symptoms of Shine Muscat fruit are symptoms of gray mold disease. Round brown spots are formed on the surface of the fruit, and the tissue is damaged as the fruit surface cracks. Brown spots As a sign of disease caused by rot, blackish-brown circular lesions are formed and gray mold is formed on the rotten areas.

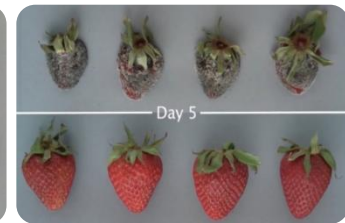
Disease outbreak conditions occur when fruit is harvested through wounds and when the temperature and humidity are right during storage and distribution. In particular, if the disease occurs during storage, even healthy fruits can be infected. Source: Today Korea (<http://www.todaykorea.co.kr>)



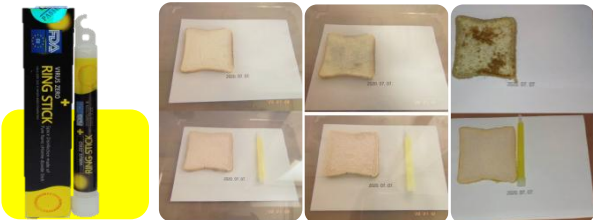
▲ Shine Muscat is a result of brown spot rot caused by brown circles on the fruit. (provided by the Agricultural Research and Extension Services)



**Chlorine Dioxide Storage Test**



TIP: Sterilization sticks for long-term transport of agricultural products<Storage warehouse, export container, delivery box>

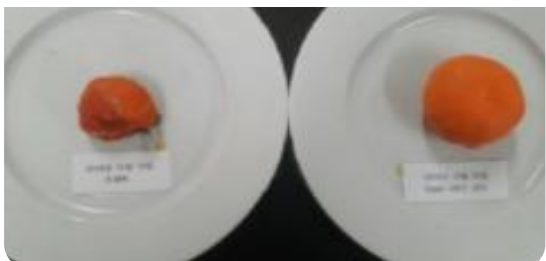


A new concept sterilization stick manufactured with pure chlorine dioxide. bread decay test(From left) 2020, 07, 07 → 07, 09 → 07, 13. KFC Lab

It is very good to use pure chlorine dioxide instead of pesticides even during the growing season of all crops..



Untreated and treated storage conditions of chestnuts and citrus fruits



# SYSTEM-2

Innovative mobile drinking water generation system



PURE NANO CHLORINE DIOXIDE  
바이러스제로 VIRUS ZERO WATER



## Innovative mobile drinking water generation system

혁신적인 이동식 음용수 생성 시스템

1. KFCo Mobile Drinking Water Generation System [KFCo-MDW15]
2. Technical Proposal / KFCo-MDW15 : Commercial CLO2-R/O System with Chlorine Dioxide
3. Technical file for the final sterilizing agent pure nano chlorine dioxide
4. Operating for eight hours a day, it produces approximately 15 tons of drinking water.



### Purpose

Supply of drinking water to areas without running water / Supply of drinking water to groups such as schools and the military / Supply of sterilized drinking water to large animal farms / Supply of drinking water on a large scale such as food processing plants

## 2. Technical Proposal / KFCo-MDW15 : Commercial CLO2-R/O System with Chlorine Dioxide

### 1. INTRODUCTION

This proposal is intended to provide a reverse osmosis water treatment system (CLO2-RO system) for a mobile drinking water production project utilizing pure nano chlorine dioxide.

The CLO2-RO system can produce treated water from groundwater, river water, and stream water. This proposal covers the system specifications and scope of supply. This proposal discusses only the technical specifications. All requests from the end users will be determined after sufficient discussion.

### 2. PRODUCT FEATURES

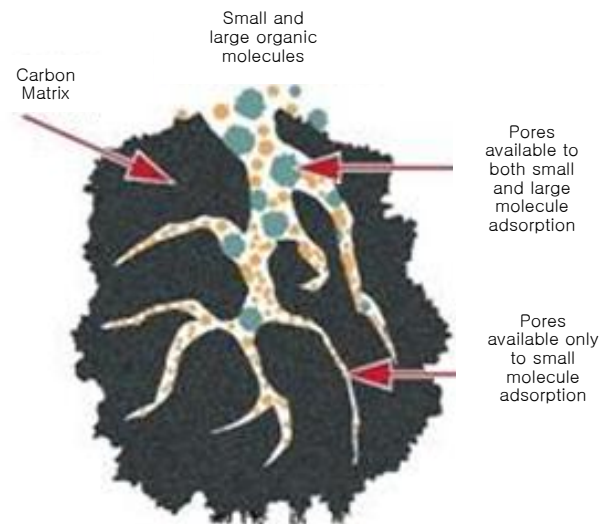
\* CLO2-RO membrane filtration removes waterborne pathogens and heavy metals.

\* CLO2-RO system with pore size of 0.001~ 0.0001  $\mu\text{m}$  can reject substances up to 95 ~ 99%.

\* CLO2-RO is a water purification process that uses a partially permeable membrane to remove ions, molecules from drinking water. In reverse osmosis, an applied pressure is used to overcome osmotic pressure, which is driven by chemical potential differences of the solvent, a thermodynamic parameter. RO can remove many types of dissolved and suspended chemical species as well as bacteria, viruses from water.

\* Pre-filtration stages with carbon and softener protecting RO membrane

\* Activated carbon contains tiny pores with 500 ~ 1000 nm size and a surface area of about 1000 m<sup>2</sup>/g. The surface adsorbs organic impurities and free chlorine from the water.

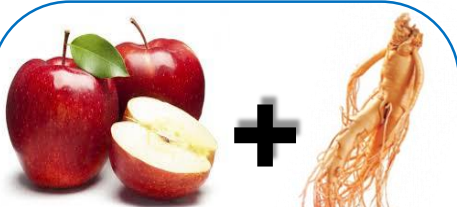


# SYSTEM-3

## KFC FOOD PROCESSING SYSTEM

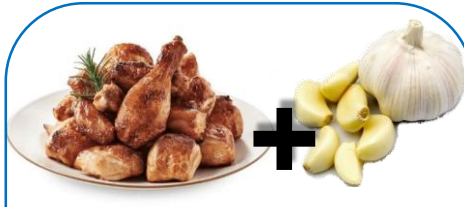
Another secret for the KFC technology family exclusively

# KFC FOOD PROCESSING TECHNOLOGY



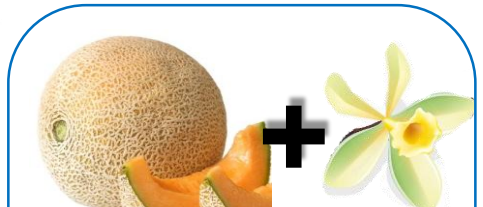
### GINSENG APPLES

Ginseng is the world's best healthy plant. Ginseng prevents aging and disease. We can extract saponin from ginseng and put it into apples. Consumers can eat ginseng and apple taste and influence together. It is very sweet due to the antioxidant activity of ginseng, and its sugar content increases and does not cause browning.



### GARLIC CHICKEN

Garlic is a healthy plant that everyone loves. We can extract the ingredients of allicin and germanium from garlic and put it deep into chicken meat. Consumers can eat chicken and garlic flavor and influence together. With this technology, you can take the market by producing chicken meat that has been upgraded to the next level.



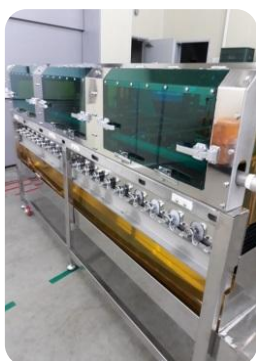
### VANILLA MELON

Our technology can inject the flavor and flavor of natural vanilla while maintaining the unique taste and nutrition of melon. Consumers will have a fantastic experience and they will continue to buy.

- Can you imagine beef full of the nutrition and aroma of mushrooms?
- Can you imagine lamb with no bad smell and full of the nutritious and laurel aroma of tomatoes?
- Can you imagine an egg full of the nutrition and aroma of sweet butter?

### Tech Tips!!!

This technology is not genetically engineered.  
This technology only extracts natural taste and nutrients and puts them into nanotechnology.  
Our proprietary technology will make your imagination into reality.



100%  
30kinds  
Technical  
Nature

# SYSTEM-4

## PMT GS-BIO MINI TUBE POTATO SEED SYSTEM

This is a potato revolution.

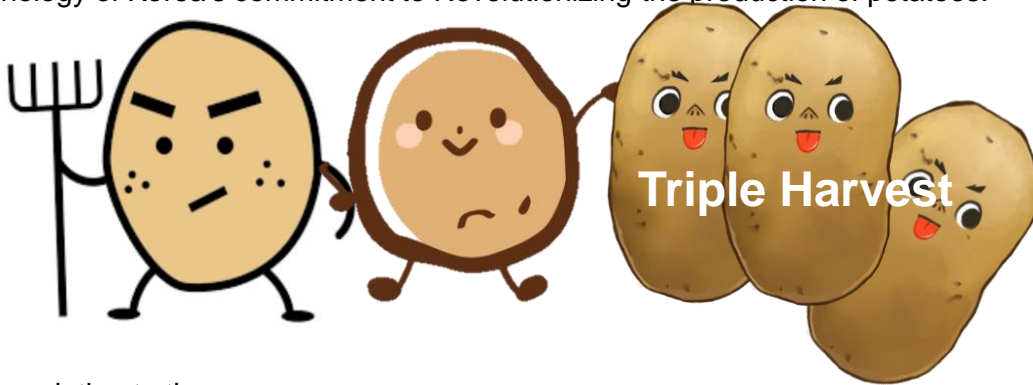


# POTATO REVOLUTION

PMT(Potato Micro Tuber) Business Proposal.

PMT is a disease-free seed potatoes.

The technology of Korea's commitment to Revolutionizing the production of potatoes.



Complete solution to the fatal problem of existing potato seeds!

1. Virus (bacteria, fungi) infection 2. Decreased production and harvesting occurs impossible. 3. Farm profits decrease 4. Reduced yield and next year seed supply problem



## GS-BIO technology, disease-free seed potatoes PROCESS

● 1 Step PMT production: production of disease-free GS-BIO potato stem



PMT



MINI TUBER PACKING (EXPORT)



MINI TUBER



● 2 Step: PMT PLANTING



● 3 Step MINI TUBER PLANTING BY EACH COUNTRIES PARTNER



G1 Harvest



G2 Harvest



G3 Harvest

Sales of seed potatoes to farmers



FARMERS

# SYSTEM-5

## KFCO AQUACULTURE SUPPORT SYSTEM

# KOREA AQUACULTURE SUPPORT SYSTEM

Korea is the world's best fishery technology powerhouse. We have a very good support system in all areas, including consulting and research and development on aquaculture of all aquatic organisms, construction of aquaculture farms and supply of aquaculture technology, disease analysis and treatment, and vaccine development.



National challenges in the aquaculture sector and requests from fisheries fishermen

**KFC,  
Technical  
Support  
Task Force**

**HARD WARE and SOFT WARE construction**



Ph Dr Kyoungjin, An

### PATENTS

- AUTOMATIC DIVIDING SYSTEM IN A RAPID KIT FOR DIAGNOSING ANTIBIOTIC-RESISTANCE, CAPABLE OF ACCURATELY DIVIDING MEDIUM TO THE KIT (10-2011-0027088)
- AUTOMATIC DIVIDING SYSTEM IN A RAPID KIT FOR DIAGNOSING ANTIBIOTIC-RESISTANCE, CAPABLE OF ACCURATELY DIVIDING MEDIUM TO THE KIT (10-2011-0027027)
- RAINBOW TROUT FEED COMPOSITION CONTAINING BACILLUS POLYFERMENTICUS (10-2012-0080345)
- COMPOSITION FOR SEA CUCUMBER FEED INCLUDING JADE, MINERALS, SEAWEED, NEATUS VENTRALIS, AND BACILLUS BACTERIA AS ACTIVE INGREDIENT AND METHOD FOR MANUFACTURING SAME (10-2013-0151536)
- FUNCTIONAL BOX MANUFACTURED USING COMPOSITION FOR MAINTAINING FRESHNESS AND MANUFACTURING METHOD THEREOF (10-2014-0000652)
- COMPOSITION FOR MAINTAINING FRESHNESS OF FRUIT AND VEGETABLES(10-2014-0070558)
- SEAWEED EXTRACT HAVING ANTI-VIRAL ACTIVITY AGAINST VIRAL HEMORRHAGIC SEPTICEMIA VIRUS AND USE THEREOF(10-2014-0187774)
- SYSTEM FOR TREATING WASTEWATER AND MANAGING DISCHARGE WATER WITH IMPROVED PERFORMANCE (10-2016-0100221)
- MANUFACTURING METHOD OF ORAL PREPARATION COATED WITH CALCIUM CHLORIDE AND LEVAN (10-2017-0051707)

**Consulting** : Productivity improvement, disease management, quarantine management

**R&D** : Aquatic products disease rapid diagnosis kit, vaccine development (GMP), virus treatment, functional feed, functional feed additive, farm improvement device development

**Establishment of research facilities** :  
(Establishment of diagnosis lab) (QC lab)  
Overall specification management (quarantine management lab)

**Building an export system** :  
Designated as a quarantine agency, export agency, and national quarantine company

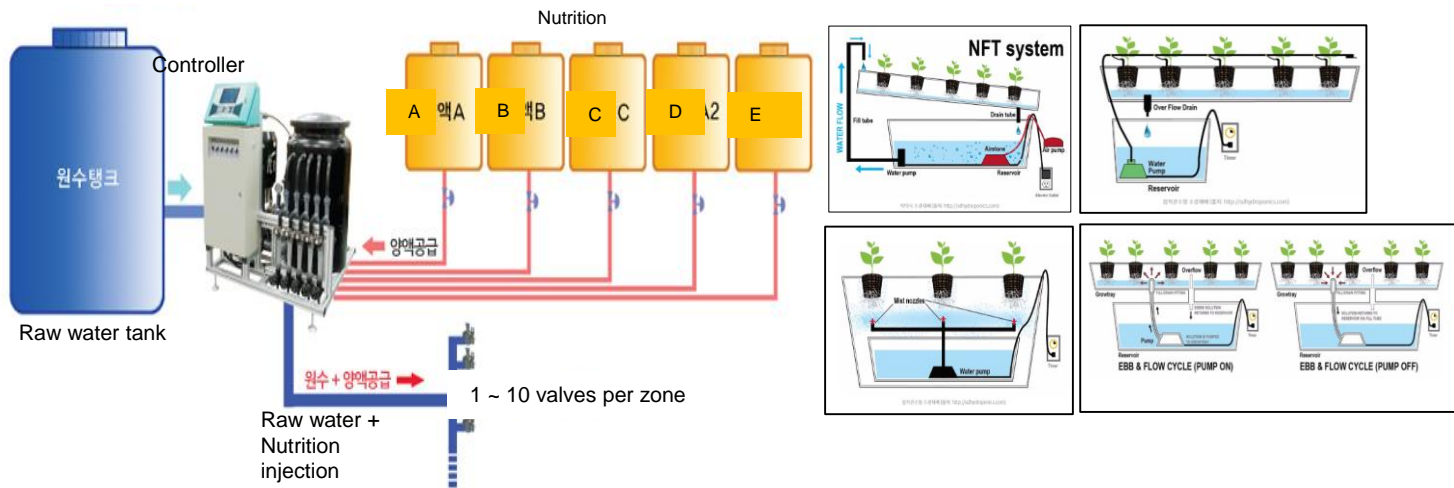
# SYSTEM-6 / SMART FARM

## KFCO GREEN HOUSE & HYDROPONIC SYSTEM

# GREEN HOUSE & HYDROPONICS SYSTEM

In principle, all materials and technologies are made from Korean products. Send us basic information such as crop type, year-round climate, soil size, etc. We will send you a proposal.

The overall nutrition system-1 of hydroponics



"WATER CULTURE" is a way to soak roots completely in water without a badge. "WATER CULTURE" is divided into DWC-deep water culture, NFT-nutrient film technique, arroponic, capillary culture according to cultivation method. The medium culture is a method in which nutrients are supplied to roots and cultivated in the presence of a solid support supporting the roots. There are various kinds of supports. Perlite, rocky surface, sand, gravel, polyurethane, vermiculite, peat moss, chaff.



# SYSTEM-7

## KFCO SEED SUPPLY SYSTEM

# SEED SUPPLY SYSTEM

We are most grateful for your continuous support of our varieties.

All the members of Asia Seed Co., Ltd. are putting our utmost effort to provide improving high quality seeds of your needs. Asia Seed Co., Ltd. has been allocating great amount of 20% of its sales revenue for research and development, while investing more than 5% of sales revenue into quality control program to ensure the seeds we supply has excellent quality to satisfy every growers.

In the breeding program of all the various crops, our target is to develop functional hybrids with extra health benefits. We breed hybrids that help maintain your health by consuming those vegetables. Moreover, recent abnormal climate changes are leading to more difficulties in vegetable growing all around the globe. We plan to develop varieties with tolerance to harsh weather, resistance to various diseases and ability to show high yield for the benefit of growers.

All the staffs of Asia Seed Co., Ltd. are working with responsibility to keep everyone's health by providing varieties which are easy to grow. We strive to be a company that shares the seeds of life by providing varieties for your needs through harmonious cooperation among research station, seed multiplication department, production department, and quality assurance center.

We ask for your continuous trust with Asia Seed Co., Ltd. and endeavor for the improvement of people's health and income of vegetable growers. We will stand by your side and grow together as always.

If there is any unsatisfactory issue occurs with our business, please contact us as we will do our best to solve immediately.



ASIA SEED CO., LTD is supplying seeds overseas through network connection with KFC.



# SYSTEM-8

## LIVESTOCK MANURE & FOOD WASTE COMPOSTING SYSTEM



### Purpose of producing organic manure

It is aimed at eco-friendly organic farming by spraying livestock manure on fermenter or mixing fertilizer with livestock manure and stirring it in one direction to prevent environmental pollution and produce high quality compost and supply it to farms.

### Characteristics of Livestock Manure and Food Composting Facility

This facility is intended to compost livestock manure and food to prevent environmental pollution and to regenerate it as a resource. Animal manure (more than 80% water content) and moisture control agent mixture are put in a linear fermentation apparatus, stirred with an escalator type stirrer and fed with oxygen to produce fermentation and good compost.

- 1) The construction cost and site are relatively small.
- 2) No pollution due to no discharge treatment.
- 3) Recyclable resources because it can be operated for compost production as needed.
- 4) The demand for moisture regulators is greatly reduced.
- 5) The stirrer can move the shaft and water regulator mixture in the straight fermentation device in both directions, and then move it in both directions. By shortening the moving distance, the length of fermenter can be reduced, so that 1) can be satisfied and the moving distance can be adjusted to 3).
- 6) When spraying livestock manure, adjust the mixture in the fermentation system and the water content after stirring to not exceed 65%, so that the leaching water is completely fermented and dried without discharge to satisfy the second condition.



### Compost Resource Plant Business

- Food Waste Composting System
- Livestock Manure Composting System
- Sewage Sludge Fermentation Drying Compost System

### Odor Reduction System Plant Business

- Odor Reduction System (KFC Chlorine Dioxide Mist Spray System)

### Eco-friendly organic material production business

Production of high quality organic byproduct compost



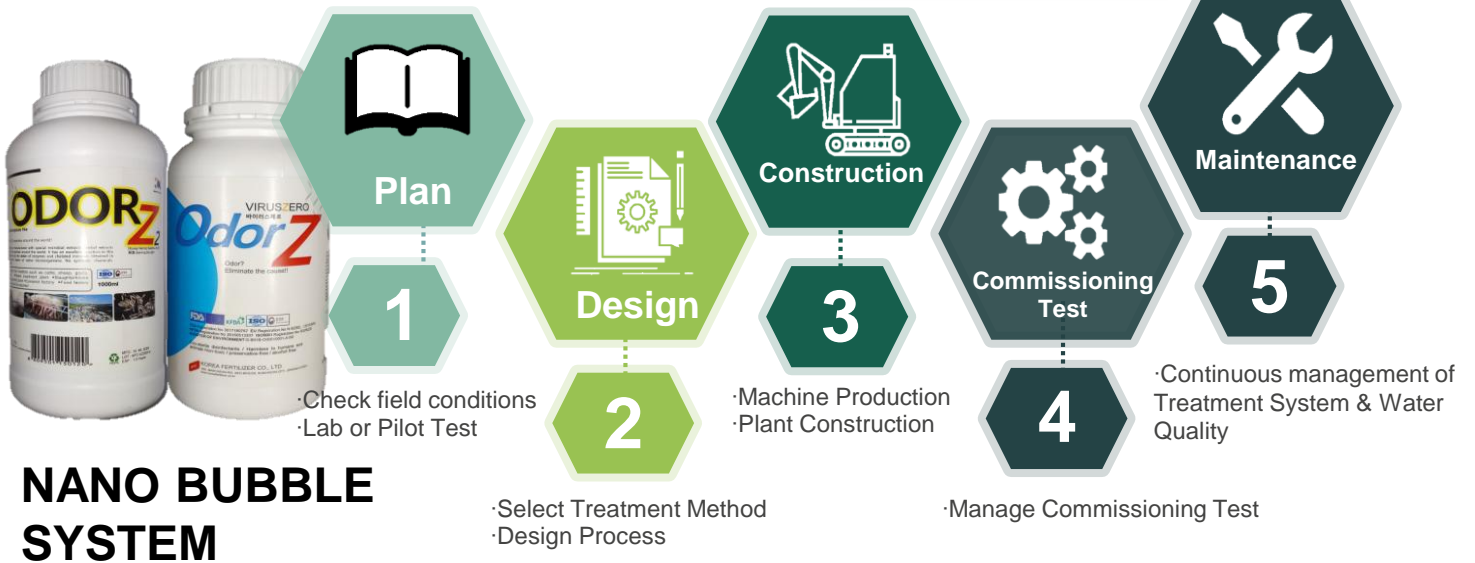
# SYSTEM-9

## WATER PURIFICATION AND ODOR REMOVAL SYSTEM

# Water purification and odor removal program

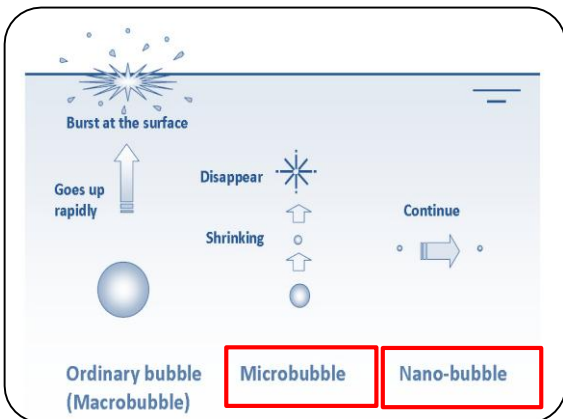


It doesn't matter to us what kind of worries you have about the odor. We are the most advanced technology and products, no matter what odor, we can solve it. In addition, it does not simply remove odors, but fundamentally purifies water.



## NANO BUBBLE SYSTEM

- Solution of odors and wastes from feedlots such as cattle, sheep, goats, chickens, pigs, and ducks
- Waste treatment plant
- Slaughterhouse
- Hospital waste
- Water treatment plant
- Compost factory
- Food factory
- Lake
- Other places odor removal is required



- The latest nano bubble system removes waste and odors accumulated on the floor.
- It is restored to a clean lake by spraying products (ODORZERO, VIRUSZERO) that remove odor and sterilize using a drone or long-distance spray device.
- The photos show a scene using a stream nano-bubble device, a long-distance spray device, and a drone

# SYSTEM-10

Egg sterilization processing system and drug supply system

KFC 순수 나노 이산화염소 발생기  
Pure Nano Chlorine Dioxide Generator

## EGG STERILIZATION PROCESSING & SUPER EGG PRODUCTION SYSTEM. & Super egg

Are the eggs we eat every day safe?

KFC's egg sterilization system is the most powerful and safest way to handle it.



There are more than 200 types of salmonella, various microorganisms, and viruses in the eggs we eat at our table every day. Now use the pure nano chlorine dioxide generator of Korea Fertilizer Co., Ltd., which can completely and safely remove all bacteria and viruses.

우리가 매일 식탁에서 먹는 계란에는 200여종의 살모넬라와 각종 미생물, 그리고 바이러스가 존재합니다. 이제 모든 세균과 바이러스를 완전하고 안전하게 제거할 수 있는 코리아퍼틸라이저(주)의 순수 나노 이산화염소 발생기를 사용하십시오.



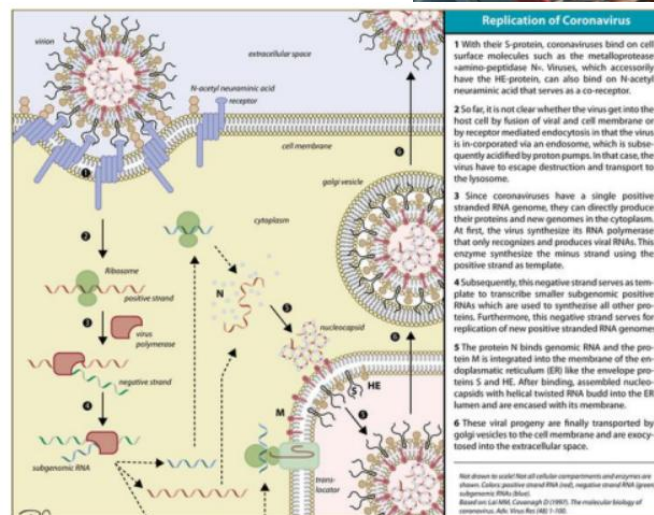
Effect of Chlorine Dioxide Gas Application to Egg Surface: Microbial Reduction Effect, Quality of Eggs, and Hatchability

Hansung Chung, Hyobi Kim, Donghoon Myeong, Seongjoon Kim, Nong-Hoon Choe

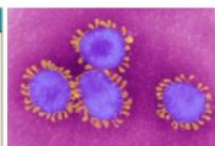


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ISSN: 1225-8565  
eISSN: 2234-2468  
This Article | Aims and Scope | Instruction to Authors | e-Submission

PMCID: PMC6048379  
PMID: 30018493



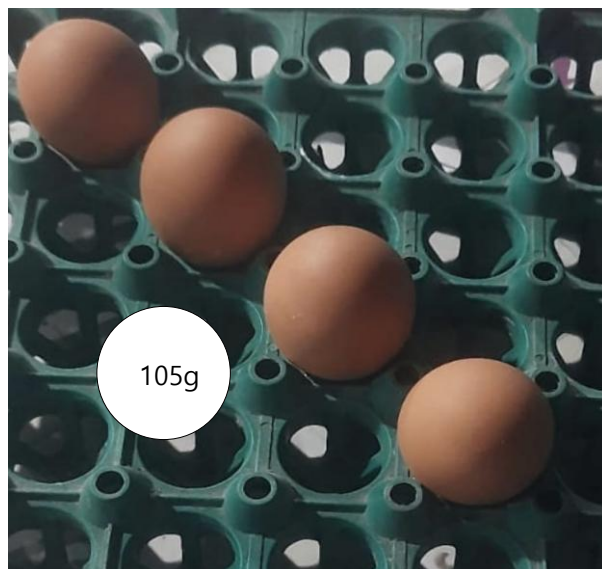
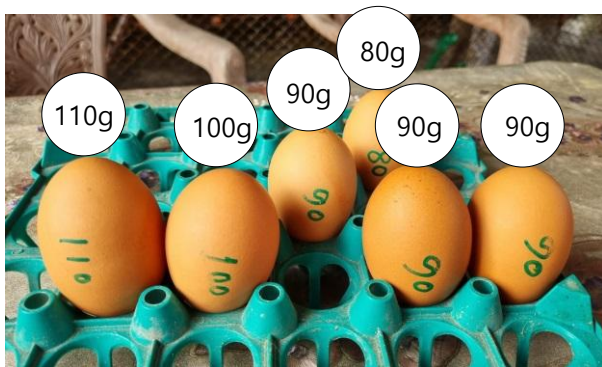
Replication of Corona virus



Chlorine Dioxide is registered with the United States Environmental Protection Agency (EPA) as a disinfectant, sanitizer and sterilizer which is defined as the ability "to destroy or eliminate all forms of microbial life including fungi, viruses, and all forms of

bacteria and their spores". Below are some of the more commonly seen organisms that Chlorine Dioxide has been proven to eliminate. To date, no organism tested against Chlorine Dioxide has proven to be resistant.

■ Photos



■ Egg ingredient comparison analysis table (100g)

Division	Detail	KFCO egg	Korean standard (Korea Laying Hen Association)	American standard (US Department of Agriculture)	Notes
Size by weight	Small	x	44g 이하	42.5g below	
	Medium	x	44~52g	50g below	
	Large	x	52~60g	56.6g below	
	Extra Large	66.8 ~ 110g	60~68g	63.7g below	
	Jimbo		68g 이상	70g over	

**U.S. SHELL EGG SIZES**

Eggs are a product of nature and vary in size. U.S. shell eggs are weighted to determine their size. Egg weight equipment in the U.S. is programmed to fill cartons with eggs of similar weight. A carton of eggs must meet the minimum average weight of their size classification

STANDARD SIZE FOR RECIPES AND COOKING

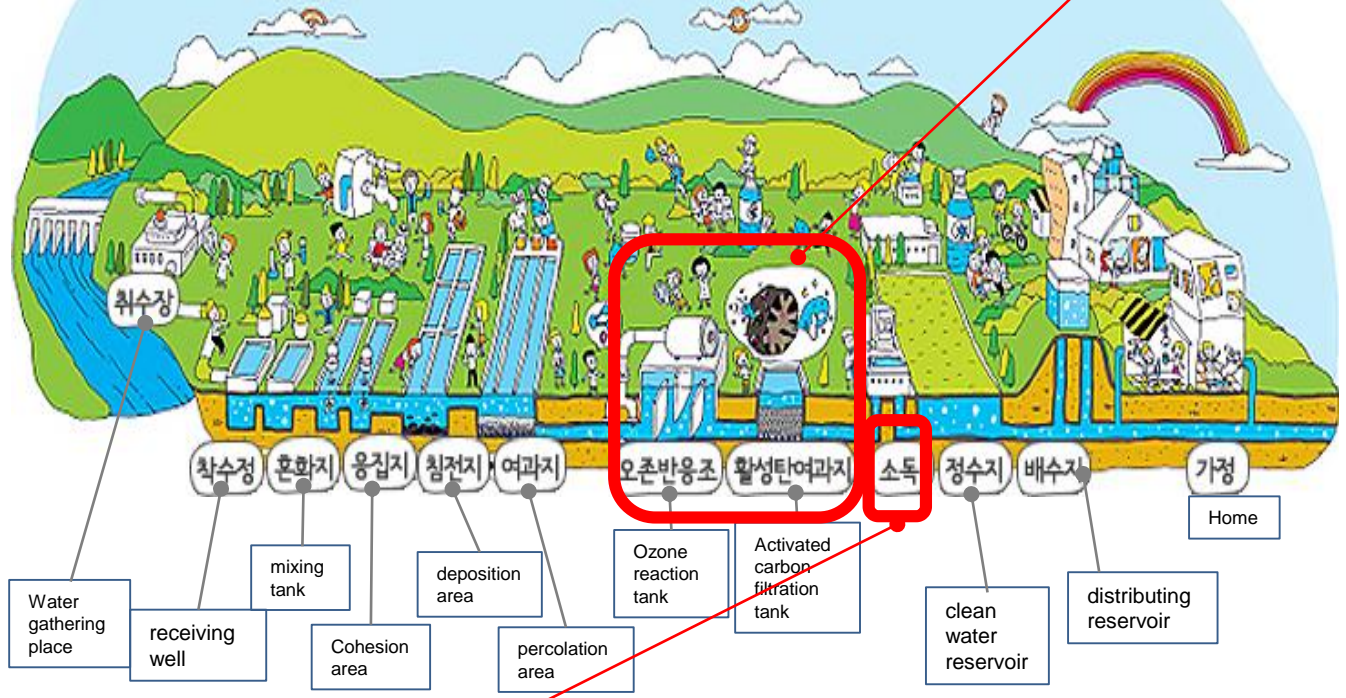
등급	A Grade	U.S. Grade A. (1) U.S. Consumer Grade A (at origin) shall consist of eggs which are at least 87 percent A quality or better. Within the maximum tolerance of 13 percent which may be below A quality, not more than 1 percent may be B quality due to air cells over 3/8 inch, blood spots (aggregating not more than 1/8 inch in diameter), or serious yolk defects. Not more than 5 percent (7 percent for Jumbo size) Checks are permitted and not more than 0.50 percent Leakers, Dirties, or Loss (due to meat or blood spots) in any combination, except that such Loss may not exceed 0.30 percent. Other types of Loss are not permitted.			
Crude protein	53.7% (53.7g)	11.8% (11.8g)	15.86% (15.86g)	Per 100g	
Total Crude fat (Includes all fatty acids, including unsaturated fats)	32.14% (32.14g)	8.2% (8.2g)	9.51% (9.51g)	Whole eggs 100g	
Chromium content	0.16ppm, 0.016(mg)	Tr	Tr	Whole eggs 100g	
Selenium	200.97ppb, 0.02(mg)	31.7(mcg), 0.03(mg)	30.07(mcg), 0.03(mg)	Whole eggs 100g	
Calcium	0.07%, 70.0(mg)	43.0(mg), 0.04%	129(mg), 0.12%	Whole eggs 100g	
Magnesium	119.96ppm, 11.9(mg)	1.2(mg)	12.0(mg)	Whole eggs 100g	
Zinc	24.34ppm, 2.43(mg)	1.3(mg)	1.3(mg)	Whole eggs 100g	
Iron	85.24ppm, 8.52(mg)	1.4(mg)	1.75(mg)	Whole eggs 100g	
Vitamin-A (Yolk)	445(IU) /100g, 0.134(mg)	454.0(mcgRE), 0.453(mg)	1440(IU), 0.432(mg)	Yolk 100g	
Vitamin-D (Yolk)	383(IU) /100g, 0.0095(mg)	3.0(mcg), 0.003(mg)	5.4(mcg), 0.0054(mg)	Yolk 100g	
Vitamin-E (Yolk)	5.10mg / 100g	0.7(mg)	2.58(mg)	Yolk 100g	
Vitamin-B12 (Yolk)	3.54mcg / 100g	1.29(mcg)	1.95(mcg)	Yolk 100g	
Others	No unpleasant smell typical of eggs				

# SYSTEM-11

Drinking water and wastewater sterilization treatment system

Advanced water treatment, advanced water purification

Sterilization system for all water treatment systems, including tap water, sewage, and agricultural water.



- Chlorine dioxide disinfection**
- Install chlorine dioxide CAS generator
  - Removal of all viruses, germs and protozoa
  - VirusZero 1 ppm chlorine dioxide input

Overview of the construction of a 1 million ppm pure nano chlorine dioxide gas generation facility.

Image of a generator for generating and capturing 1 million ppm of pure chlorine dioxide gas. (Subject to change depending on field conditions.)



Chlorine dioxide gas collection and injection equipment



Chlorine Dioxide Generator (SP)  
1800 X 600 X 2000, Parallel X 10 sets



Raw material storage and supply line



Controller control room



# GROUP INFORMATION

GROUP	KHC HOLDINGS GROUP				
Subsidiary	KOREA FERTILIZER.CO.,LTD / GREEN FROG PARTNERS.INC / KOREA INTERNATIONAL TRADING KOREA CHLORINE DIOXIDE.INC / K-FOOD PARTNERS.INC / PAEAN NATURAL DETERGENT.INC				
CEO	Chairman DOWON KIM				
Business History	2008	Company History	<ul style="list-style-type: none"> <li>• 2008. Started production of BSGREEN fertilizer</li> <li>• 2012. Established BBA (BENIN &amp; BSGREEN ASSOSIATION)</li> <li>• 2013. Developed EXCELLENT7</li> <li>• 2015. BS-GRANULE Development</li> <li>• 2016. Developed PESTKILL1, 2</li> <li>• 2016. Started production of chlorine dioxide VIRUS ZERO</li> <li>• 2019. Started production of feed additive ARTZENA 101, 102</li> <li>• 2020. US FDA VIRUS ZERO, VIRUSZERO RINGSTICK registration EU VIRUS ZERO, VIRUSZERO RINGSTICK, VIRUSZERO DS 500 registration FDA Registration No 3017180767 EU Registration No N-92265, 92266, 92016, 2015/830 KFDA Registration No 20160513307 ISO9001 Registration No Q328220 KOREA PATENT NO 10-1919332, 10-1502503 MINISTER OF ENVIRONMENT GB20-21-0368</li> <li>• 2021. Developed BS SUPER CURE</li> <li>• 2022. Developed SALT KILLER, BSGREEN-M Developed TerMite-X BANGLADESG FACTORY construction completed Developed ARTZENA 103 Developed WEED KILLER</li> <li>• 2023. Developed WEEWIL-X1, 2 Developed BEE FRIEND-L, STICK, AMPOULE</li> <li>• 2024. US FDA ARTZENA FEED ADDITIVE registration</li> <li>• 2024. VIRUS ZERO GREEN FROG [High functional food freshness maintainer] ALL FERTILIZER REGISTERED EU</li> <li>• 2025. VIRUS ZERO GREEN FROG [High functional food freshness maintainer] ALL FERTILIZER REGISTERED EU Launch of BEE-FRIEND POWER KILL. Launch of GREEN FROG GS. Establishment of PAEAN NATURAL DETERGENT.INC subsidiary</li> </ul>		
BUSINESS LICENSE	563-86-00198 Etc	Company type	Manufacturing	Sectors	Fertilizer, fungicide, insecticide, agricultural consulting, overseas agricultural development, agricultural machinery, agricultural project, Feed additive system. Chlorine Dioxide Generator Manufacturing
Headquarters	Office & Factory	FACTORY-1 : 7, Singeum 2-gil, Okgok-myeon, Gwangyang-si, junnam, SOUTH KOREA FACTORY-2 : 56-1 Sugok-gil, Changpyeong-myeon, Damyang-gun, Jeollanam-do GREEN FROG PARTNERS.INC : 284 Cheomdanyeonsin-ro, Buk-gu, Gwangju			
	Company Representative Tel	+82 1833 7786	Fax	+82 502 722 9905	
Web Site	www. koreafertilizer.co.kr www.greenfrogpartners.com E-Mail : master@koreafertilizer.co.kr				
Producing Ability	<ul style="list-style-type: none"> <li>• FERTILIZER FIELD : BSGREEN 50T / 1Day, EXCELLENT7 20T / 1Day, BS-GRANULE 30T / 1Day</li> <li>• DISINFECTANT FIELD (Chlorine Dioxide) : VIRUS ZERO 50T / 1Day</li> <li>• INSECTICIDE FIELD : PESTKILL1,2 10T / 1Day, T-KILL1,2 5T / 1Day, WEEWIL-X1,2 5T/1Day</li> <li>• FEED ADDITIVES FIELD : ARTZENA101 10T / 1Day, ARTZENA102 10T / 1Day, ARTZENA103 5T/DAY</li> <li>• HERBICIDE FIELD : WEED KILLER 10T/1 Day</li> </ul>				



# Thanks

NANO HIVE

[www.nanohivekwt.com](http://www.nanohivekwt.com)

[issa@nanohivekwt.com](mailto:issa@nanohivekwt.com)

TEL. +965 99156222

