






Eco technologies which are useful for agriculture, Fisheries and Livestock



Agriculture 	Fisheries 	Livestock 	Commercialization	Sales performance (Japan/ Overseas)
○	○	○	○	○/ not yet

Hybrid electric heating system "HOTMAN"

~Efficiently select a heating energy
to heat a greenhouse~

<Outline>

HOTMAN is a small hybrid electric heating system which uses the midnight electrical power. Our energy efficient heating system comprises an electric heating system and a heavy fuel-fired boiler. It selects an optimal operation system by monitoring temperature and humidity of a greenhouse.

A heavy oil-fired boiler is used only when it is necessary, leading to reduction of CO2 emissions.

<Eco-friendly features>






- ◆ Large heat generating surface can efficiently heat a greenhouse.
- ◆ While an electric heater is used as the primary heat source, a heavy oil-fired boiler is used only when it is necessary, contributing to reduction of CO2 emissions.

<Company profile>

Amakusa Ikeda Electric Co., Ltd.

Address: Kamiamakusa City, Kumamoto Prefecture

<http://ikeda-aid.jp/>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/ Overseas)
				
○	○	○	○	○/ not yet

Electrodeless lamp "ELI Lamp"

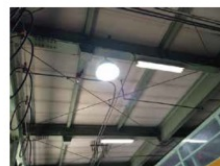
~Long life and energy saving light which has a wide illumination distribution ~

<Outline>

"ELI Lamp" is an electrodeless lamp that is being used in factories and warehouses. Since it's induction lamp has no electrodes it brighter and more economical than conventional one. With such features as longer service life and efficient energy conservation our product has been drawing a lot of attentions. We provide a wide range of product lineup. Among them is our bulb type lamp, BU series. Since the lamp base of BU series is the same as the one which is used for mercury-vapor lamp, you can easily replace them with our product.

*A ballast replacement may be needed to meet optimum operating.

<Eco-friendly features>



- ◆ A 700W mercury-vapor lamp corresponds to a 200W electrodeless lamp.
- ◆ This lamp is not subject to the Treaty on Mercury Reduction. Our product can fit into conventional mercury-vapor lamp bases and it can be easily used as a new alternative to mercury lamps.(as of 2015)
- ◆ GOOD DESIGN AWARD 2014, 2014 Kumamoto City Manufacturing Award Grand Prize

<Company profile>

Amakusa Ikeda Electric Co., Ltd.

Address: Kamiamakusa City, Kumamoto Prefecture

<http://ikeda-aid.jp/>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/ Overseas)
				
○	-	-	○	○/ not yet

Biomass heater for horticultural facilities "SANSANFARM"

~Efficiently burning even wood fuel with a high moisture content ~

<Outline>



SANSANFARM is a biomass heater which uses thinned wood (wooden chips) or waste mushroom beds as biomass fuel. It is not necessary to dry wood fuel since our system is capable of burning wood with a high moisture content such as raw wood chips.

The system can be operated by control board and automatic operation will easily heat a greenhouse.

<Eco-friendly features>






- ◆ Since the system is capable of burning even biomass fuel with a high moisture content such as raw wood chips, it can reduce energy use by eliminating pre-drying process of woodchip.
- ◆ Wood biomass is considered as the carbon neutral therefore the net effect of burning wood fuel add no new CO2 in the atmosphere.
- ◆ With the effective use of thinned wood or waste mushroom beds in the local community it can make contribution to create a recycling-oriented society.

<Company profile>

SANKI Corporation

Address: Nagasaki City, Nagasaki Prefecture

<http://www.sanki-nagasaki.co.jp/>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/Overseas)
				
○	○	○	○	○/ not yet

Fuel reduction system "KATEN X"・ Hot air boiler r "KAISER"

～Environmentally-friendly boiler-related products～

<Outline>

"KATEN X" is an installation type combustion acceleration system which will reduce the amount of harmful substances such as soot and tar by improving combustion efficiency. It can be used not only as a boiler for agricultural purposes but also as a hot air boiler for drying products in promoting sixtiary sector.

"KAIZER" is a kerosene hot air boiler which is integrated with a CO2 controller. Without a chimney it has no heat loss and is capable of using 100% of heat energy.

<Eco-friendly features>



【KATEN X】



【KATEN X】

- ◆ Improved combustion efficiency will reduce both heavy oil fuel consumption and CO2 emission by 10-20%

【KAIZER】

- ◆ Without a chimney, KIZER achieved 20%-30% fuel cost reduction compared to conventional warm air boiler by eliminating wasteful use of heat energy.

- ◆ Encouragement Award at the 10th OITA Business Plan Grand Prix



【KAIZER】



<Company profile>

SHINKA CORPORATION, K.K.

Address: Beppu City, Oita Prefecture

<http://www.shinka-co.com/>

Agriculture 	Fisheries 	Livestock 	Commerciali zation	Sales performance (Japan/ Overseas)
○	-	-	○	○/○

LED lighting for plant factories "WINLIGHT"

~Separation of power supply units achieves power saving
LED module design~

<Outline>

"WINLIGHT" is a LED lighting system for plant factories. By separating energy supply unit and light sources, the system can control brightness of the light and reduce the energy use. We design control systems that include dynamic drives or a brightness control module to set up the lighting environments tailored to the growth conditions of the plant. WIN & WIN provides design and production of modules that can meet various purposes and applications.



<Eco-friendly features>



- ◆ Output can be adjusted in line with growth conditions of the plant that reduces wasteful output and save more energy.
- ◆ With our module mechanism the users can freely design unified brightness and thereby improving energy efficiency.

<Company profile>

WIN & WIN Corporation

Address: Sasebo City, Nagasaki Prefecture

<http://www.winandwin.jp/>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/Overseas)
				
-	○	-	○	○/not yet

Large light amount LED fishing lights “Lightning J Pontos” with single light emitting sources

~Dual energy saving technologies improve management environment of fishing industry~

<Outline>

“Lightning Japan Pontos” is an energy saving fishing lights which apply single light source LED. It features a large light amount and reach to a distant with evenly spread emitting. By designing wavelength output of light relative to spectral luminous efficacy of fish, it can catch same amount or more fish than conventional halogen bulb type fishing lamps. In addition, high energy efficiency will reduce the running cost.

<Eco-friendly features>



- ◆ By eliminating wasteful wavelength, most of energy can be used for luring fish.
- ◆ Application of single light source has an excellent energy-saving performance by overcoming downside of conventional lighting system.
- ◆ 2014 Kyushu New Business Award, 2013 5th Monozukuri Nippon Grand Award (DIRECTOR-GENERAL Kyushu Bureau of Economy, Trade and Industry, METI Prize)

<Company profile>

KOWA ELECTRIC INDUSTRY CO., LTD.

Address: Izumi City, Kagoshima Prefecture

<http://www.emc-kowa.jp/>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/Overseas)
				
-	○	-	not yet	not yet/not yet

Super energy conservation and high brightness module mounted LED fishing lights for squids

~Maintaining same fish gathering performance as conventional fishing lights while reducing electricity consumption~

<Outline>

LED fishing light for squids is an energy-saving and water-cooled fish gathering lights with high emission efficiency. Effective wavelength is designed in consideration of the spectral luminous efficacy for squids.

Aside from same or better effects and usability it can greatly reduce energy consumption that has not been achieved by conventional fishing lights. Verification test by prototypes has been completed and we are now investigating ways to improve our products based on the test results. We are aiming at commercialization of this product through mass production process.

<Eco-friendly features>



- ◆ According to results of test that used the product simulation environment, it is expected to reduce energy consumption by a significant amount compared to conventional metal halide lamps.
- ◆ The small generator-driven system will reduce the use of fissile fuels and CO2 emissions.
- ◆ Certified by the Japanese Government as the project of Exploration of New Business Sectors for Cross-Sectoral Collaboration.

<Company profile>

MIYAMOTO DENKI Co., Ltd.

Address: Sasebo City, Nagasaki Prefecture

<http://www.miyamoto-dennki.co.jp>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/Overseas)
			not yet	not yet/not yet
○	-	-		

Greenhouse automation system

~Contributing to energy conservation by automatically controlling optimal environment in a greenhouse~

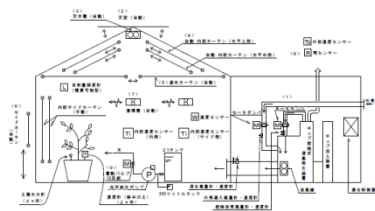
<Outline>

Making use of cultivation know-how this system can control temperature, humidity, and the amount of sunshine in greenhouses in a unified manner. Various devices will work in conjunction with each other, thus reduce wasteful energy use. Control technologies developed to automatically control machines in factories are used for this system. We can design systems such customer's specifications as objects of control devices or operation procedures according to problems and requirements of growers.

<Eco-friendly features>



- ◆ Optimal temperatures and the amount of sunshine are controlled in a unified manner, leading to energy conservation by eliminating wasteful energy use.
- ◆ Contributing to reduce additional energy consumption at heating facilities by using this system with the combination of recommended wood chip fuel heating systems.



<Company profile>

MIYAMOTO DENKI Co., Ltd.

Address: Sasebo City, Nagasaki Prefecture

<http://www.miyamoto-dennki.co.jp>



Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/ Overseas)
				
○	-	-	○	○/○

Establishment optimal environment for plant growth "Fully Artificial Light-type Plant Factory"

~Comprehensive consulting from designing to operation of
environment-friendly plant factory~

<Outline>

"Fully Artificial Light-type Plant Factory" utilizes cultivation techniques with a lower environmental load that can meet diverse needs of users. It can also be designed on the optimum scale for all kinds of locations. Our growing system can be used for various purposes, such as installation in a factory which effectively uses existing space or an interior display for shops and restaurants.



<Eco-friendly features>



- ◆ Agrochemical-Free hydroponic plant growing system.
- ◆ Realizing environmentally friendly plant factory equipped with solar cells and water treatment systems.
- ◆ Since nutrient solution is recycled and used for watering, our system is environmentally and economically friendly.

<Company profile>

Mitsubishi Chemical Corporation Kyushu office

Address: Fukuoka City, Fukuoka Prefecture

http://www.m-kagaku.co.jp/index_en.htm

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/Overseas)
				
○	-	-	○	○/not yet

Solar Light-type Plant Factory "NAE Terrace™ and NAPPERLAND™"

~Energy-saving complex system of "Seedling production" and "Hydroponic"~

<Outline>

NAE Terrace™ is a next generation seedling production system which can be easily grown "seedling production" by anyone, anytime and anywhere without having high cultivation skills that are usually requires to produce seedling. NAPPERLAND™ is a recycling-oriented hydroponic system which uses natural Solar Light to grow vegetables in greenhouses. Combination of NAPPERLAND™ and NAE Terrace™ will minimize impacts by natural environment that enables planned production with the establishment of soilless culture system.



【NAE Terrace™】



【NAPPERLAND™】

<Eco-friendly features>






- ◆ With the use of Solar Light, NAPPERLAND™ can reduce heating and lighting energy.
- ◆ Plants grow in the environment where pest populations is minimized.
- ◆ Circulate hydroponics realizes water saving agriculture.

<Company profile>

Mitsubishi Plastics Agri Dream Co.,Ltd. Kyushu office

Address: Fukuoka City, Fukuoka Prefecture

<http://www.napperland.net/index.html>

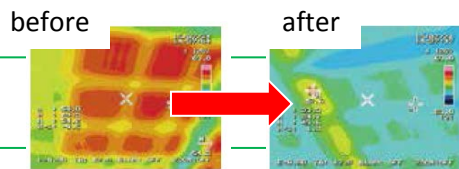
Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/Overseas)
				
-	-	○	○	○/○

Ecological and affordable heat insulation paint "Farm Barrier"

~By just simply painting it on livestock buildings, it performs excellent heat shielding effects~

<Outline>

"Farm Barrier" is the heat insulation paint that effectively reflects and scatters near infrared ray, which has the highest heat effects in the sunlight spectrum. We developed this product to provide solutions for livestock breeders to address mainly heat in summer. As a result of global warming, the temperature in the summer season is rising from year to year. Houses are exposed to high heat, and the temperatures inside and outside of a house rise. "Farm Barrier" suppresses a rise of the surface temperature, therefore, it saves power as well as contributes to mitigate the heat island phenomenon.



<Eco-friendly features>



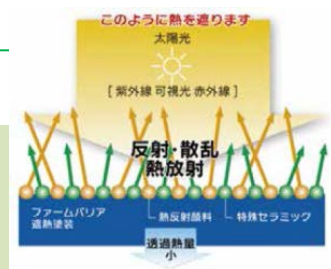
- ◆ Simple on-site paint can shields heat transmission from outside, therefore heat regulated devices are not needed for buildings, leading to reduction of energy consumption.
- ◆ Amid the temperature has been rising due to the global warming, superior heat insulation property prevents or mitigates heat island phenomenon.
- ◆ Excellence Award in the 2013 "New Business Creation Award" under "Company Category", 2012 Grand Prix for Miyazaki Small and Medium-sized Enterprises under "Entry of New Fields & New Technology Category"

<Company profile>

MIYABO Co.,Ltd.

Address: Miyazaki City, Miyazaki Prefecture

<http://www.miyabo.co.jp/en/>



Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/ Overseas)
				
-	○	-	○	○/○

The physical marine-growth-prevention paint “SAFETY PRO”

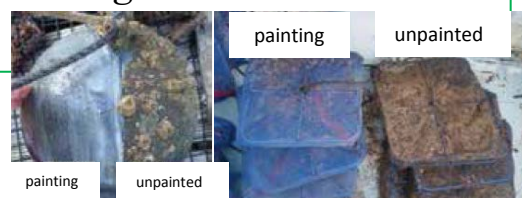
~Safe, secure and environment-friendly paint can prevent fouling by barnacles and other marine creatures for long period of time~

<Outline>

This product is an environmentally-friendly, anti-marine-growth paint based on the physical effect of silicone, with total absence of chemically repellent substance like medicine or heavy metals. Paint and float covers have been commercialized.

An extensive lineup of products tailored to target fishing gear, including net baskets, containers and fish tanks, is available.

Float covers are made from mesh material that applied treatment for preventing build-up of biofouling so that users can easily install or change them on the sea.



<Eco-friendly features>



- ◆ Our eco-friendly product does not use chemically repellent substance like heavy metals that are usually contained in conventional products.
- ◆ Mechanism of this product does not give organic load on environment at once, therefore fishing ground will be able to self-purify even in summer season when environment is likely to degrade.
- ◆ Adhesion is prevented with the mechanism of repetition of adhesion and peeling process, enabling to ensure long-term effect compared to chemical repellent type paint.

<Company profile>

Saikai Laboratory of Aquaculture and Technology Co.,Ltd.

Address:Sasebo City, Nagasaki Prefecture

<http://www.aquasafty.com/productsindex2036.html>

<https://jgoodtech.smrj.go.jp/corporations/5262?locale=en>

Agriculture 	Fisheries 	Livestock 	Commercialization	Sales performance (Japan/Overseas)
○	-	-	○	○/○

Automatic water management system using sheet-pipes (SPIDI Systems) at farmland

~Improving agricultural productivity with saving water and labor force~

<Outline>

“SPIDI Systems” is a shallow subsurface drainage system which serves both subsurface irrigation and drainage. Without damaging farmlands, this system can be installed faster and less costly than that of the conventional drainage systems.

This system enables to make water management in farmland easier and also it can contribute to save water. Furthermore, converting rice paddy to non-rice (upland) paddy or non-rice paddy (upland) to rice paddy can be also easily carried out.

<Eco-friendly features>



- ◆ The amount of irrigation water can be saved by making the best use of rainfall.
- ◆ Air is supplied to soil to accelerate soil cracks and stimulate aerobic microorganism that eventually maximizing efficiency of rhizosphere conditions in farmland.
- ◆ This is less environmental loads for farmland.



<Company profile>




Nishinihon Hojyou Kairyo Co.,Ltd.

Address: Kurume City, Fukuoka Prefecture

Japan Association of Sheet Pipe Promotion (JASPiP)

Address: Fukuoka City, Fukuoka Prefecture

<https://www.facebook.com/%E6%97%A5%E6%9C%AC%E3%82%B7%E3%83%BC%E3%83%88%E3%83%91%E3%82%A4%E3%83%97%E6%99%AE%E5%8F%8A%E5%8D%94%E4%BC%9AJASPiP-434870673257748/timeline/>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/Overseas)
				
-	-	○	○	○/not yet

Comfortable environment for mother pigs and piglet! Automatic heating device for piglet "One Touch Box"

~Creating comfortable environment for mother pigs & piglet with optimal temperatures

~Cost cutting through significant energy savings ~ ~

<Outline>

"One Touch Box" is an energy saving heating device for a tender box of piglet.

It controls optimal temperatures in the box according to number of days of growth of piglet by utilizing heat generated an animal body surface.

Adoption of special ventilation structure maintains temperatures and humidity of box in hygiene manner, enhancing growth performance of piglet.

With the feature of high thermal insulation it allows users to raise mother pigs and piglet in the same chambers without putting unnecessary stress on animals.

<Eco-friendly features>



- ◆ Since electricity is used only when heat is insufficient, the amount of electricity used for keeping temperatures can be significantly reduced.
- ◆ High sealability of the structure can retain generated heat and thereby preventing energy loss.

<Company profile>

Nitimen kogyo Inc.

Address: Miyakonojyo City, Miyazaki Prefecture

<http://www.nichimen.jp/index.html>

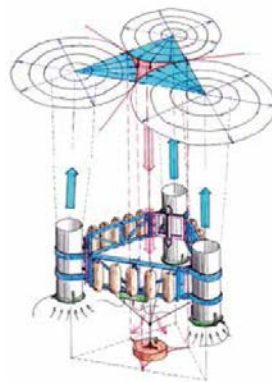
Agriculture 	Fisheries 	Livestock 	Commercialization	Sales performance (Japan/ Overseas)
○	○	-	○	○/not yet

Water quality improvement system "NEREID"

~Improve water quality in aqua farms with fluid conveyor principle ~

<Outline>

"NEREID" is a water quality improvement system installed in closed water areas. By arranging upward flow pipes in polygon shape, the system generates three-dimensional upward and downward flows and the accelerated and intensive downward flow will continuously supply the oxygen-rich surface water to the bottom water. By providing oxygen it is expected to improve oxygen-depleted bottom layer conditions as well as water quality.



<Eco-friendly features>



- ◆ Improving water quality by generating large flow with less energy.
- ◆ Invisible downward ducts quickly supply oxygen to anoxic bottom layer and improve water quality.
- ◆ Facilitating water quality improvement by activating aerobic microorganism.

<Company profile>

ECO PLAN Co.,Ltd.

Address: Nagasaki City, Nagasaki Prefecture

<http://www.ecoplan-water.co.jp/>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/ Overseas)
				
○	○	-	○	○/○

Multi-functional water purification system "Jet Streamer"

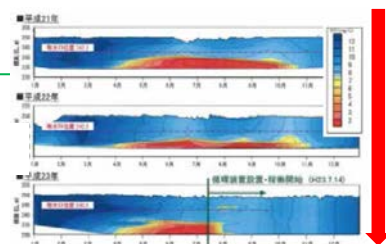
~Improve water and bottom layer quality of aqua farms and other closed water areas~

<Outline>

"Jet Streamer" is the product which improves water and bottom layer quality in stratified* closed water areas. This product forcibly generates water flow and creates the vertical circulation by using jet flows from ejecting pipes. We offer various product line in accordance with the conditions of water areas. In combination with other water pollution prevention systems, it is possible to efficiently improve quality of water in closed water areas.

*Condition where the water forms layers that act as barriers to water mixing because the densities between the water masses are different due to temperature and salinity.

Change of DO



<Eco-friendly features>



- ◆ Since the system can move 20 times more water stream than pump discharge flow rates, it requires less energy.
- ◆ Simultaneously improve quality of water and bottom layer by promoting natural purification ability.
- ◆ 2013 Excellent Environmental Equipment Commendation
- ◆ Received the Japan Society of Industry Machinery Manufacturers Chairman Award

<Company profile>

Ebismarine Co.,Ltd.

Address: Nagasaki City, Nagasaki Prefecture

<http://ebismarine.com/>



Agriculture 	Fisheries 	Livestock 	Commercialization	Sales performance (Japan/ Overseas)
○	-	-	○	○/ not yet

Photocatalytic technology “TiOSKYCOAT”

~Unique photocatalytic technology to efficiently degrade harmful substances~

<Outline>

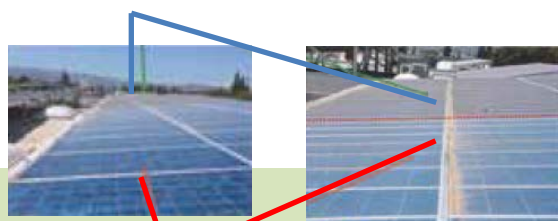
“TiOSKYCOAT” functions use a photocatalytic reaction with antibacterial, deodorizing and toxic gas neutralizing properties to function safely at normal temperatures. It shows optimum results in preventing stains on building walls and disseminating odors and fungi in indoor spaces, but it can also be applied to break down harmful gases to, for instance, help to preserve the freshness of agricultural produce (applications in agriculture are currently in development).

<Eco-friendly features>



- ◆ This product does not contain any organic solvents or toxic raw substances. It utilizes natural light or small amounts of artificial light to ensure both environment and human safety.
- ◆ This project encourages the limitation of waste materials through promoting antibacterial and disinfecting effects.

Before construction






After construction

<Company profile>

Tio Systems Co., Ltd.

Address: Saga city, Saga prefecture

<http://www.tioskycoat.com/>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/Overseas)
				
○	-	○	○	○/not yet

Plant fertilizer and animal feed supplement “Amino e”

~Vegetal amino acid supplement 100% derived from shochu moromi fermentation mash~

<Outline>

“Amino e” is a fertilizer and an additive for animal feed that contains vegetal amino acids extracted through secondary fermentation and heating process from moromi fermentation mash used in shochu production (registration is open for compost and animal husbandry products). This product has been certified as organic by JAS and registered as an environmentally friendly and natural material (Dec. 4th, 2012).

One-ton tanks are available for farming use, but smaller amounts of 1, 10 and 20 litres are also sold for private use.

<Eco-friendly features>



- ◆ Through complete reuse of moromi fermentation mash we have achieved a “no waste” system.
- ◆ By reusing locally produced shochu by-products in agriculture and livestock farming we are creating a recycle-oriented society in our area.
- ◆ This product is environmentally friendly. It uses vegetal amino acids derived from the fermentation of natural ingredients.

<Company profile>

Amino Co., Ltd.

Address: Kagoshima city, Kagoshima prefecture

<http://amino-k.com/>



Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/ Overseas)
				
○	-	-	○	○/ not yet

Electric fence device“Getter Ace 3 Solar” to protect crops from entering of wild animals ;bird proofing equipment“Toriemon”

~Equipment to protect crops from entering of wild animals by combining solar panels and battery~

<Outline>



“Getter Ace 3 Solar”is an electric fence that protects agricultural produce from wild animals such as wild boars and deer.

The power source of this device is a 12V battery, but due to using the solar panel, battery life increases. “Toriemon” is adjustable bird proofing equipment to prevent birds, such as crows from entering the farmland. With a 12V battery powered and a light sensor, this product is highly efficient.

Both devices can be set to operate during the highest activity time of animals so that aim to prevent from entering, to eliminate waste and protect the farmland produce efficiently.

<Eco-friendly features>



- ◆ These devices run by solar batteries, thus minimizing the burden on the environment.
- ◆ Energy is used efficiently by adjusting this device to operate during the high activity time of the specific wild animals or birds.
- ◆ Our outstanding products were presented two awards at the  2012 Honorable mention at Kumamoto prefectural industry awards, and 2013 Yatsushiro city's choice award for most important company growing and developing. 

<Company profile>

Suematsu Electronics,Ltd.

Address: Yatsushiro city, Kumamoto prefecture

http : //www.getter.co.jp



【Getter Ace 3 Solar】



【Toriemon】

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/Overseas)
				
○	-	-	○	○/not yet

“Multi-purpose sprinkling system for agricultural use”,

“Sprinkler system fixed with irrigation timer”

~An environmentally friendly, water conserving sprinkler system~

<Outline>

The “Multi-purpose sprinkling system for agricultural use” is a water saving sprinkler that automatically turns the water flow on and off to protect crops, such as green tea bushes, from frost damage. The sprinkler system fixed with an irrigation timer is an effective tool for pest control to keep away insects that cause white peach scale, if utilized together with insecticides. Owing to the controllable sprinkler feature this product shows better results in pest control than using insecticide, and it is compatible with agricultural IPM principles.

<Eco-friendly features>



- ◆【Multi-purpose sprinkling system】—The amount of water saved by continuously spraying water for 10 days is approximately 20% and by spraying intermittently — approximately 40%.
- ◆【Sprinkler system fixed with irrigation timer】— 70-90% increase in protection against white peach scale without the use of pesticides.
- ◆ 2013 Achievements in research award by Private Financial Institutions in the Agricultural, Forestry and Fisheries Field, 2012 Japanese manufacturing award in the Product and Technology Development field

【Multi-purpose sprinkling system】

【Sprinkler system fixed with timer】






<Company profile>

Nippon Keiki Kagoshima Seisakusho Co., Ltd.

Address: Minamikyushu City, Kagoshima prefecture

<http://www.nkworks.co.jp/>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/ Overseas)
				
○	○	○	○	○/ not yet

A small hydroelectric generator powered by farm water

～Electrification of the local resources～

<Outline>

Eneforest Co., Ltd. provides a hands-on service throughout the entire setup process, from answering inquiries to sending proposals, installation, construction and maintenance of the generators in order to offer the most appropriate tools according to the specifics of each farming area.

Our "small hydroelectric power generation system", taking advantage of the familiar local resources, can get a stable electric power. For example, by using the agricultural irrigation canals and industrial wastewater, we have the technology and know-how to generate electricity up to one thousand kW.



<Eco-friendly features>






- ◆ This product uses clean energy, which does not generate carbon dioxide or other greenhouse gases.
- ◆ The generator can be placed indoors while using the factory's drain water or excess heat to power the system.
- ◆ This product encourages land revitalization through the implementation and PR of the special-made articles, and the beauty of fertile local land.

<Company profile>

Eneforest Co., Ltd.

Address: Oita City, Oita prefecture

<http://www.eneforest.co.jp/>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/ Overseas)
				
○	-	○	○	○/○

The “Green shark” tree shredder series

~For making wood chips, bamboo powder compost, and ground cover~

<Outline>

The “Green shark” is a powerful wood shredder that grinds trees, shrubs, bamboo, pruned branches and similar materials to produce wood chips, biomass compost, materials for livestock ground cover or other desired items. The current series offer various shredding sizes and options, and it is possible to adjust to the wood type and processing levels for achieving the intended outcome and purpose. One prominent practical use is producing materials for agricultural biomass boilers.

At Ohashi Inc. we supply wood shredders as well as offer consultations about the use of biomass chips.

<Eco-friendly features>



- ◆ This product diminishes waste by reusing discarded wood and shrubbery.
- ◆ The energy is produced and consumed locally by supplying wood chips as biomass fuel to be used in greenhouses and similar structures.
- ◆ This item promotes resource circulation by recycling the wood chips previously used as ground cover into material for compost on the farmlands.




<Company profile>

Ohashi Inc.

Address: Kanzaki City, Saga prefecture

<http://www.ohashi-inc.com/en/index.html>



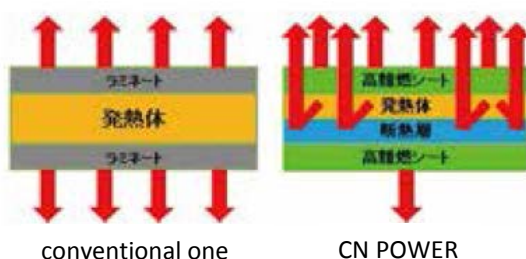
Agriculture 	Fisheries 	Livestock 	Commercialization	Sales performance (Japan/ Overseas)
○	-	○	○	○/ not yet

Sheet type heater "CNPOWER"

~Eco-friendly sheet-type heater applicable for both indoor and outdoor environment~

<Outline>

"CNPOWER" is sheet-type heater made of laminated cloth woven by conductive fiber coated by carbon nano-tubes. It features an excellent water-proof as well as anti-corrosive properties that make it possible to use the product various situations both indoor and outdoor for the purpose of heating or retaining heat. Furthermore, the one-sided heat dissipation technology, which we have developed through in-house technology development, achieved significant energy saving rate compared to conventional one. "CNPOWER" is expected to be used in various fields: snow melting, snow accumulation prevention, road heating, floor heating and agriculture and livestock industries.



<Eco-friendly features>



- ◆ Heat generation property is suitable for heating and heat-retention and structure is capable of making the best use of energy.

<Company profile>

Power Bank System Co.,Ltd.

Address: Yatsushiro City, Kumamoto Prefecture

<http://powerbs.co.jp/>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/ Overseas)
				
-	○	-	○	○/ not yet

The “Ukishima system” floating solar power generator

~A self-scheduled, floating solar panel system with a long battery life~

<Outline>

The “Ukishima system” is a self-scheduled, floating solar power generator that produces energy on the surface of the sea thanks to its sturdy, plastic-based solar panels that are rust-safe and shock-resistant. No carbon dioxide is emitted during power generation, which allows the use of natural, renewable energy. Moreover, various electric devices that previously could not be powered by floating generators can now be supplied and utilized.

Although the most common use of this product at present is in aquafarming for bubble machines, lighting and similar devices, this product is expected to open new possibilities for sea life monitoring devices, communication base stations, ship equipment, and others. This product has been selected by the Japanese Ministry of Economy, Trade and Industry as the next-generation energy production project, and by the Ministry of Foreign Affairs Official Development Assistance services, for both domestic and foreign development.

<Eco-friendly features>

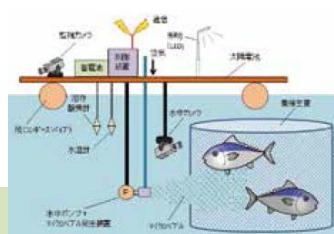
- ◆ Since this product uses solar power instead of fossil fuels, there are no carbon dioxide emissions.
- ◆ By implementing electric devices other than the bubble machine to improve the environment, we are relieving the environmental burden caused by aquaculture.

<Company profile>

Power Bank System Co.,Ltd.

Address: Yatsushiro City, Kumamoto Prefecture

<http://powerbs.co.jp/>



Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/Overseas)
				
○	-	-	○	○/○

Containers made from recycled raw biomass

~Biomass as a practical resource~

<Outline>

At Mitsui R&D, Inc. we develop containers from a variety of unprocessed, recycled raw biomass materials by using inorganic and natural (organic) resin as the binder. The offered items range from biomass-originated containers with heat resistance material equal to conventional tableware, to biodegradable wares such as seed starter pots. The degradation time of these seed starter pots can be controlled by mixing several materials (from one week to one year) and fertilizer may be used for additional nutrition.

<Eco-friendly features>



- ◆ Using these pots leads to reducing waste by serving as an alternative to plastic containers.
- ◆ By substituting fossil fuel-derived materials with raw biomass, we make a contribution toward a sustainability-tended and recycle-favoring society.
- ◆ Social Business Idea Contest (S1 Grand Prix 2013)
- participation prize, Kurume Citizen's Grand Prix 2013 "City Development Paradigm Shift – Ideas changing communities" participation prize.



before



1 month later






<Company profile>

Mitsui R&D

Address: Kurume City, Fukuoka Prefecture

<http://3ird.net/eco/>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/ Overseas)
				
○	-	○	○	○/○

“Pulpmould” – paper-based recycled materials

~Realising eco-friendly packaging to match with design specifics~

<Outline>

“Pulpmould” is a product that reworks used paper from households into paper pulp to make recycled paper moulds. Since the base material is recycled paper, the end product has many applications and is used for boxes to transport goods, as cushioning for fragile items, and many more. Eggs, fruit and vegetables kept in paper-based recycled containers keep fresh longer due to the material’s breathability and moisture absorption, preserving the quality of the produce. When used as flower pots, the product promotes bud forming in a short amount of time.

<Eco-friendly features>



- ◆ The product relates to reducing waste by extending produce shelf life through breathability and moisture absorption properties.
- ◆ After use, mix with soil in the garden or planter and allow to biodegrade.
- ◆ 2009 – Recognition award from the Minister of the Environment as Valuable contributor toward establishing a recycle-oriented society, 1996 – Award for the “Pulpmould” series as Recycling promotion project



<Company profile>

Ooishi Sangyo Co., Ltd.

Address: Kitakyushu City, Fukuoka Prefecture

<http://www.osk.co.jp/en.html>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/ Overseas)
				
○	-	-	○	○/ not yet

“Tanka fresh” to keep fruit and vegetables fresh longer

~Coal powder and catechin from green tea concentrate to retain freshness~

<Outline>

“Tanka fresh” is a freshness retaining agent that uses as its main components bamboo from abandoned groves and green tea catechin from leaves gathered after the third harvest. “Tanka fresh UV” is similar to “Tanka fresh” but has an incorporated photocatalysis apparatus to increase freshness retention. This product made entirely of natural materials represents an efficient and safe method for keeping produce fresh for longer.

<Eco-friendly features>



- ◆ This project is connected to maintaining undeveloped woodlands for sustainable use.
- ◆ After use, mix with soil in the garden or planter to enhance its fertility.
- ◆ 2015 First prize at Kyushu New Business Entrepreneur ,
- ◆ 2015 First prize at The Second Kyushu Future Awards






<Company profile>

Tanka Co.

Address: Saga City, Saga Prefecture

<http://tanka-eco.info/>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/ Overseas)
				
○	○	○	○	○/ not yet

Eco-drive improvement system “Eco-Sam”

～Improved mileage, reduced traffic accidents, environment safety through visualization～

<Outline>

The “Eco-Sam” system supports eco-drive and ensures the driver’s safety by carefully evaluating the driving conditions using our independently developed analysis technology. Eco-drive not only promotes a cleaner environment but also cuts down on costs such as fuel, and vehicle maintenance and insurance, with cost-cutting benefits increasing as the number of vehicles driven increases. The product may be used in farming for agricultural, marine and animal produce.

<Eco-friendly features>

- ◆ By using eco-drive, gas mileage increases and carbon dioxide emissions decrease.
- ◆ By using eco-drive, gas mileage increases and major air pollutant (nitrogen oxide, sulphur oxide, etc.) levels decrease.

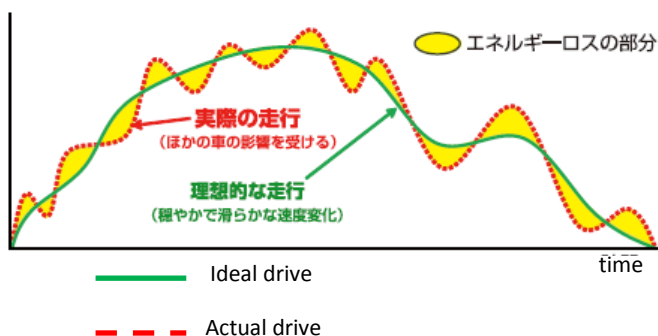


speed

波状運転指数

黄色の部分の面積をすべて足して走行距離で割った値

理想の速度ラインと実際の速度ラインがズレなく重なるような、穏やかで滑らかな運転を実践すると波状運転指数は1.0以下になります。



<Company profile>

Toward Co., Ltd.

Address: Kanzaki City, Saga Prefecture

<http://www.towardls.co.jp/>

Agriculture 	Fisheries 	Livestock 	Commercialization	Sales performance (Japan/ Overseas)
○	-	-	○	○/ not yet

Vegetable freshness retaining bag “Vegefresh®”

~Preserve produce fresh by controlling the gas concentration within the bag~

<Outline>

“Vegefresh®” is a pouch used to retain the freshness of produce by controlling the concentration of gases allowed to reach the inside of the bag. This product is successful in keeping everyday-use produce fresh for longer, and has acquired a special agreement from the Fukuoka prefectural Agriculture and Forestry Inspection for joint product development. Aside from the standard-sized bags, various other sizes are offered, from large (for delivery, storage and distribution purposes) to smaller ones (for household use).

<Eco-friendly features>



- ◆ This product reduces food waste by retaining freshness for longer periods of time.
- ◆ By eliminating the need for Styrofoam delivery boxes, we reduce post-use waste.
- ◆ Carbon dioxide emissions per delivery are reduced by increasing the delivery item count due to replacing boxes with delivery bags.

OPP (open)

OPP (close)

“Vegefresh®”(close)

現行(OPP)【口部開放】

(OPP)【密封】

ベジフレッシュ【密封】



<Company profile>

Horiehonten Co., Ltd.

Address: Fukuoka City, Fukuoka Prefecture

<http://horix.com/index.html>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/Overseas)
				
-	○	-	not yet	not yet/not yet

Live fish long-distance transporting through CO2 induced anaesthesia

~Energy-saving, cost-cutting transportation of live fish long-distance~

<Outline>

By implementing our method, carbonic acid (CO2) anaesthetic induces sleep in live fish for long-distance deliveries without the need for cooling devices, thus saving energy and reducing cost. We have investigated the prescription of anaesthetic for each fish type as well as devised a system to transport the fish by administering the most appropriate route and anaesthesia conditions. We look forward to supplying live fish to places of demand throughout the world in the near future.

<Eco-friendly features>



- ◆ By transporting goods in the average sea waters temperature, the energy used for cooling devices is reduced.
- ◆ Our technique allows to decrease transportation energy costs by increasing the maximum storage capacity.

CO2 anaesthetic induces sleep in live fish






<Company profile>

Marine Biotechnology Co., Ltd.

Address: Munakata City, Fukuoka Prefecture

<http://www.mbtj.co.jp/index.html>

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/Overseas)
				
○	○	○	○	○/ not yet

Turning plastic into oil and carbon – “Merrys system BF series”

~Converting plastic waste generated from agricultural activity into usable resources~

<Outline>

“Merrys system BF series” is a small-sized machine that reworks plastic waste raw materials into useable oil and carbon based resources such as fuel. The end product is an oil comparable in quality to kerosene, light crude and heavy crude oil that can be used as an alternative to fossil fuel.

<Eco-friendly features>



- ◆ This product aids reducing various types of plastic waste used in agriculture.
- ◆ The energy obtained from reused materials is sourced and used locally as fuel for boilers and other utilities.
- ◆ The produced oil's chlorine contents are low, making it environmentally friendly.



<Company profile>

Tanoshii Co., Ltd.




Address: Kitakyushu City, Fukuoka Prefecture

http://nett21.gec.jp/CP_DATA/en_inditech.php?tid=1021

http://nett21.gec.jp/CP_DATA/en_inditech.php?tid=1022

http://nett21.gec.jp/CP_DATA/en_inditech.php?tid=1023

[http://www.fun-c.jp/work/20160128-MerryCorp\(ENG\).pptx](http://www.fun-c.jp/work/20160128-MerryCorp(ENG).pptx)

Agriculture	Fisheries	Livestock	Commercialization	Sales performance (Japan/ Overseas)
				
○	○	○	○	○/○

“Organic compost fermentation plant” – a system to create fulvic acid enriched compost

~Contributing to waste reduction and primary industry revitalization through high quality compost~

<Outline>

The “organic compost fermentation plant” is a system that produces compost from organic waste (food scraps, agricultural and ligneous waste, manure, mud from sewers, etc.). A scoop-shaped mixing device aids the decomposition and fermentation processes by microorganisms, producing high quality compost. This product contributes to reducing organic waste. It also has potential as an alternative for materials used to clean the soil and water, and for fossil fuel.

<Eco-friendly features>



- ◆ By using organic waste to produce high quality compost, organic waste is reduced.
- ◆ This product improves the environment by activating the natural degrading organisms and aiding the breakdown and adsorption of harmful substances.
- ◆ High grade compost may be used as organic fuel for electricity production, heating air or water.



<Company profile>

Ryoko Sangyo Co., Ltd.

Address: Nagasaki City, Nagasaki Prefecture

<http://www.a-ryoko.co.jp/index.html>