



PRODUCT CATALOG



Visit our website for
more details



Contact us for
any inquiries and
feedback

<http://www.fjf.co.jp/en/ecomone/index.html>

 **FUJI FLAVOR CO., LTD.**

3-5-8 Midorigaoka, Hamura-shi,
Tokyo, 205-8503, Japan

TEL: +81 42-555-5186 FAX: +81 42-555-7920

 **FUJI FLAVOR CO., LTD.**

"We are the world's first company to manufacture and sell pheromone traps for monitoring cigarette beetles"

FUJI FLAVOR CO., LTD. was established in 1971 for the purpose of research and development and manufacturing of tobacco flavors as the first subsidiary of Japan Tobacco Inc. (former Japan Tobacco). FUJI FLAVOR has expanded to two divisions; Tobacco Flavor Headquarters and ECOMONE Headquarters.

In the past, damage to tobacco leaves by cigarette beetles was a serious threat faced by the tobacco industry, making it a major issue to eliminate these pests from the tobacco leaf storage stage to the processing stage. The solution was brought by Japan Tobacco, the discovery of serricornin which is the female sex pheromone of cigarette beetles followed by the development of a pheromone trap by FUJI FLAVOR.

ECOMONE is a coined word of "Ecology" and "Pheromone".

With ecological research of insects and advanced organic synthesis technology, in 1981, we created the world's first pheromone trap for cigarette beetles. We are committed to the use of insecticides to the minimum, to diminish its toxic effects, while at the same time, being able to reduce the infestation without any compromises. Therefore, our products ensure eco-friendly use along with high performances.

We developed pheromone trap for food pests and agricultural pests, one after another in the market.

Our Research and Development, the team of entomologists and chemists, succeeded in developing technique to monitor the occurrence of insects with pheromone traps. We proudly offer effective and reliable insect monitoring traps. Our pheromone traps are used in more than 100 countries and they contribute to effective pest management in food industries, tobacco industries and many other industries all over the world.



PRODUCT LINEUP

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ECOMONE Mission Statement

Our products are developed with intelligence, produced with advanced technology and supplied with confidence

Professional researchers using highly advanced technology

Research & Development

We are dedicated to environmental sustainability

IPM (Integrated Pest Management) is the key concept for environment-friendly pest control. We can keep impact of pest control on the ecosystem to a minimum with IPM. Monitoring is essential in practicing IPM. Pheromone traps, one of monitoring tools, have pheromones which insects actually use in nature. Pheromones are like words. Insects communicate with each other by pheromone.

Our R&D team consisting chemists and entomologists pushes toward better use of the pheromones. We synthesize pheromones and check performance of pheromone traps using insects. Our process of product development is based on proper data. We believe that use of pheromones changes monitoring more effective and it leads to the first step to consider the global environment.

Delivering proven technology for over 35 years

Production/Production Engineering

- High reputation for production technology excellence
- Most advanced technology in sourcing and providing quality and safety products



Worldwide reputation for high quality

Quality Management

- Ensure the quality of products and services to deliver the highest level of excellence and satisfaction to exceed customer expectations



First-class customer service provided by professionals

Planning & Sales

- Focus on customer satisfaction and always value meeting customers' needs
- Knowledgeable customer service professionals will provide excellent services throughout the world.

ECOMONE

ECOLOGY & PHEROMONE

ECOLOGY & PHEROMONE

We aim to protect the ecology by continuing research about living organism and incorporating the knowledge in developing monitoring traps. We adopted pheromones as an attractant of traps. Our pheromone traps have been providing safe and efficient pest management and at the same time, supporting the environment by minimizing insecticide usage.



What is Pheromone?

Pheromones are natural chemical substances that insects use to communicate and to find each other. Insects communicate with their peers by releasing pheromones from their body just as human beings communicate with each other by languages.



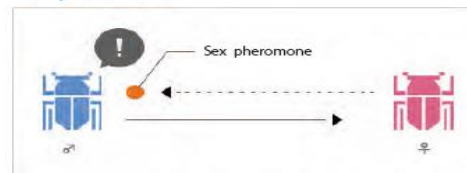
Insects communicate using pheromones



Human communicates using languages

There are many classifications of pheromones and their functional characteristics from ecological and physiological changes. Those that attract insects are sex pheromone and aggregation pheromones. For this reason, these two pheromones are used for monitoring. Even though both kinds of pheromones attract insects, the functions are different.

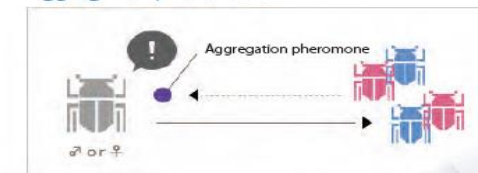
Sex pheromone



Language used between male and female for mating

Sex pheromones have strong attraction. Short-lived insects often use sex pheromones to find their partner so that they can produce offspring within their short life span.

Aggregation pheromone



Language used among adults or larvae to form a group

Aggregation pheromones, in comparison with sex pheromones, they attract both sexes but have weaker attraction.

PRODUCT LINEUP

To support effective and environmentally friendly pest management worldwide, we have created an extensive lineup of products designed for a wide variety of flying and crawling insect pests to be used in various industries. All products have been developed to meet the characteristics of target insects.



TARGET INSECTS

■ For stored product insects

NEW SERRICO

Target Insects: Cigarette beetle

GACHON

Target Insects: Indian meal moth, Tobacco moth, Rice moth

HIRESIS

Target Insects: Drugstore beetle, Carpet beetle

TORIOS

Target Insects: Red flour beetle, Confused flour beetle, Lesser grain borer, Saw-toothed grain beetle, Flat grain beetle, Khapra beetle, Maize weevil

■ For multiple stored product insects

SERRICO W+

Target Insects: Cigarette beetle, Indian meal moth, Tobacco moth

■ For agricultural insects

FIELD CATCH

Target Insects: Bean bug, Rice bug, Unibanded stink bug, Citrus leafminer, Oriental fruit fly, Japanese mealybug, Comstock mealybug, Southern green stink bug, Bluegrass webworm

NEW WINDSPACK

Target Insects: Japanese beetle, Soybean beetle, Cupreous chafer, Anomala schoenfeldti, Anomala octiescostata, Oriental beetle, Hoplia communis, Anomala osakana, Green chafer, Yellowish elongate chafer, Lineate chafer, Shiny chafer, Oriental flower beetle

Other products

Target Insects: Migdolus, Bicho furao, Coffee leafminer, Soybean looper moth, Andean potato tuber moth

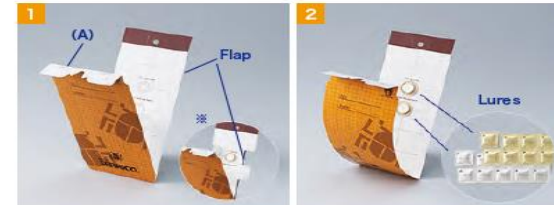
PRODUCT LINEUP

FOR STORED PRODUCT INSECTS

Product
No. 1

NEW SERRICO

World first pheromone trap for Cigarette beetles "NEW SERRICO" is global de facto standard in the tobacco industry.



1 Fold the trap along with the crease (A) and peel off the protective paper from the glue surface. For the use in dusty areas, fold up side flaps.

2 Take out one of each lure from silver and gold packages and set them on the glue surface.

FEATURES OF NEW SERRICO

- Useful for early detection of cigarette beetles, determining their source, and investigating seasonal variation in their emergence
- A highly safe product containing no insecticide
- User friendly with easy assembly and disposal
- Dust proof features by folding up the flaps for the use in dusty environment

PRODUCT INFORMATION

- Minimum order quantity: 100 pcs
- Shelf life: 1 year
- Replacement: Monthly

Packaging

10 traps, 10 sex lures (1 sheet), 10 food lures (1 sheet)/small box
100/cardboard box (10 small boxes/cardboard box)

- Total Weight: 2.5kg for 100 pcs
- Dimension: L10cm x W36cm x H22cm

200/cardboard box (20 small boxes/cardboard box)

- Total Weight: 4.8kg for 200 pcs
- Dimensions: L20cm x W36cm x H22cm



Placement

- Location: Place traps on the wall 1.5 m above the floor.
- Intervals: 5 to 10 m interval recommended
- Avoid placing traps near machinery or production lines as they may attract insects to these places.
- Placing traps near entrance may attract insects inside. Place them 10 to 20 m away from the entrance or exit.



Insects habitat & food

- **Habitat:** food factories, tobacco factories, warehouses, pharmaceutical plants
- **Food:** Grains, spices, dry pet food, confectionery, Chinese medicines, dried bonito products, forage, tobacco, etc. Extremely wide-range of host food



*Manufactured by FUJII FLAVOR CO., LTD./ MADE IN JAPAN

*Contact customer service professionals for inquiries and feedback about our products.

*We welcome inquiries about pest management.

PRODUCT LINEUP

FOR STORED PRODUCT INSECTS

Product
No. 2

GACHON

Strong attraction, tough on scale, easy to use

Insects habitat & food

- Habitat: food factories, tobacco factories, warehouses, rice milling plants
- Food: wheat, rice, corn and their processed food products, beans, oil seeds, sesame and nuts, dried fruits, cocoa, chocolate etc.



Target insects

FEATURES OF GACHON

- Target three moth species well known as food pests
- Different lures are used for each species
- Useful for early detection of moths, determining their source, and investigating seasonal variation in their emergence

PRODUCT INFORMATION

- Minimum order quantity: 100 pcs
- Shelf life: 1 year
- Replacement: Monthly

Packaging

- 10 traps, 10 sex lures (1 sheet)/small box
- 100/cardboard box (10 small boxes/cardboard box)
- Total Weight: 2.6kg for 100 pcs
- Dimensions: L15cm x W28cm x H22cm



Placement

- Location: Place traps on the wall 1.5 m above the floor.
- Intervals: 5 to 10 m interval recommended



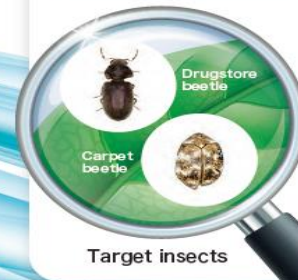
Product
No. 4

HIRESIS

Effectively capture cautious insects with our unique custom slide

Insects habitat & food

- Habitat: food factories, warehouses
- Food: dried vegetable based food, mushroom, dried noodles & fruits, Chinese medicine, confectionaries, spices, brown rice, wheat, and other grains, dried fish, carcasses of insects and small animals, clothing, carpets, wool fabrics, etc.



Target insects

FEATURES OF HIRESIS

- Precisely matched to the behavior patterns of the target insects
- Traps for drugstore beetles are only available at FUJI FLAVOR.
- *Pheromone mimic is used for the lure of drugstore beetles.

PRODUCT INFORMATION

- Minimum order quantity: 100 pcs
- Shelf life: 1 year
- Replacement: Monthly

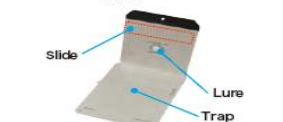
Packaging

- 10 traps, 10 sex lures (1 sheet)/small box
- 100/cardboard box (10 small boxes/cardboard box)
- Total Weight: 2.6kg for 100 pcs
- Dimensions: L15cm x W28cm x H22cm



Placement

- Location: Place traps on the wall 1.5 m above the floor.
- Intervals: 5 to 10 m interval recommended



Product
No. 3

SERRICO W+

Catching two insects with one lure

Insects habitat & food

- Habitat: food factories, warehouses, tobacco factories, pharmaceutical plants, rice milling plants
- Food: wheat, rice, corn, and their processed food products, spices, dry pet food, confectionary, Chinese medicines, dried bonito products, beans, oil seeds, dried fruits, cocoa, chocolate, etc.



Target insects

FEATURES OF SERRICO W+

- Special feature to target three insects with one lure
- Reducing the installation time and labor into half
- Printed calendar on trap for easy recording

PRODUCT INFORMATION

- Minimum order quantity: 100 pcs
- Shelf life: 1 year
- Replacement: Monthly

Packaging

- 10 traps, 10 lures (1 sheet)/small box
- 100/cardboard box (10 small boxes/cardboard box)
- Total Weight: 2.6 kg for 100 pcs
- Dimensions: L15cm x W28cm x H22cm



Placement

- Location: Place traps on the wall 1.5 m above the floor.
- Intervals: 5 to 10 m interval recommended



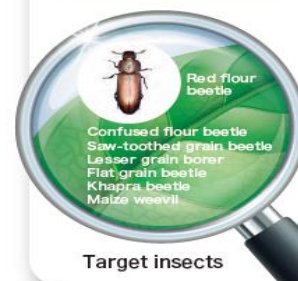
Product
No. 5

TORIOS

FUJI FLAVOR's DROP-N-CATCH technology is the secret of awesomeness

Insects habitat & food

- Habitat: food factories, warehouses, rice, barley and flour milling plants
- Food: wheat, rice, corn, barley, rice bran, dried noodles, nuts, dried fruits, vegetables, yeast, milk powder, oil seeds, coconut, cocoa, rice cakes, cassava, etc.



Target insects

FEATURES OF TORIOS

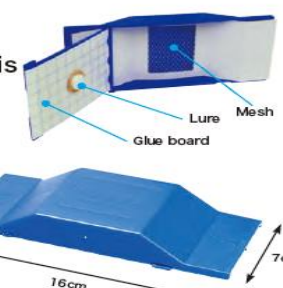
- Targeting seven species of crawling stored product insects, TORIOS allows users to monitor a variety of insects by changing lures.
- TORIOS is reusable, supporting cost-efficient and environmentally friendly pest management.
- An aggregation pheromone lures attract both male and female adults.

PRODUCT INFORMATION

- Minimum order quantity: 50 kits/sets
- Shelf life: 1 year
- Replacement: Monthly

Packaging

- Trap Kit
 - 50 traps, 50 lures (5 sheets) and 50 glue boards/cardboard box
 - Total Weight (including outer package): 3.2kg for 50 kits
 - Dimensions: L42cm x W25cm x H18cm
- Lure Set
 - 50 lures (5 sheets) and 50 glue board/cardboard box
 - Total Weight (including cardboard box): 0.6kg /50 sets
 - Dimensions: L15cm x W28cm x H22cm
- *Two types of lures are used for Saw-toothed grain beetles.



- Location: Place traps on the floor.
- Intervals: 5 to 10 m interval recommended



Product
No. 6

FIELDCATCH

Three types of traps to meet the ecology of the target insect

Insects habitat & food

- Habitat: rice paddies, vegetable fields and orchards.
- Food: soy bean, rice, legume plants, citrus and some related ornamental plants, green pepper, banana, papaya, mango, guava, pear, apple, persimmon, etc.

FEATURES OF FIELDCATCH

- Three types of reusable trap with tough glue boards to endure outdoor environments
- Precisely matched to the behavior patterns of the target insects
- Targeting nine species of stink bugs, moths and scale insects: Bean bug, Unibanded stink bug, Rice bug, Citrus leafminer, Oriental fruit fly, Japanese mealybug, Comstock mealybug, Southern green stink bug, Bluegrass webworm

PRODUCT INFORMATION

- Minimum order quantity: Contact customer service professionals for details.
- Shelf life: 6 to 12 months • Replacement: Monthly
- *Rice bug lure needs to be replaced every two weeks.

Packaging

- Traps, lures and glue boards are all sold separately for this product. Contact customer service professionals for details.



Target insects



Trap types



Recommended placement



Product
No. 7

NEW WINDSPACK

Designed to meet beetles' habits and characteristics for effective monitoring

Insects habitat & food

- Habitat: golf courses, orchards, vegetable fields, gardens
- Food: grass, weeds, garden shrubs, sweet cherries, roses, flower nectar, soybeans, sweet potatoes, pineapple, taro, grapes, strawberries, peanuts, chestnut trees, other fruit trees, leaves of legume plants, sugarcane, etc.

FEATURES OF NEW WINDSPACK

- Traps can be reused by replacing the lures
- Easy to assemble and use
- The capacity of the container can be adjusted in two stages based on the situation
- Targeting 13 species of beetles: Japanese beetle, Soybean beetle, Cucumber chafer, Oriental beetle, Anomala octoscostata, Anomala schoenfeldti, Hoplia communi, Anomala osakana, Green chafer, Yellowish elongate chafer, Lineate chafer, Shiry chafer, Oriental flower beetle

PRODUCT INFORMATION

- Minimum order quantity: 1 pcs
- Shelf life: 1 year • Replacement: Monthly

Packaging

- Trap Set: Trap, lure (different for each insect species) and holder/box
- Lure Set: Lure (different for each insect species) and holder/box



Target insects



Lures (disk/bottle)

38cm

14cm

Hang from a pole

Hang from a tree

INTEGRATED PEST MANAGEMENT

INTEGRATED PEST MANAGEMENT (IPM) is a system of pest population management utilizing a combination of suitable techniques to reduce pest population below the economic injury level and minimize risks to human health, non-target organisms and the environment.

Monitoring is one of the keep components in IPM because it is essential to obtain the site information to implement IPM practice. Assessing insect species, population, timing and location through monitoring will help decision-making about pest control measures. The results of monitoring also serve as an indicator of how well the measures are functioning.

In a long journey since our establishment, FUJI FLAVOR has been contributing to environmentally friendly and sustainable pest management by supplying monitoring traps to the world.

SERRICO SEMINAR

FUJI FLAVOR annually hosts SERRICO seminar in Tokyo where many of our clients from various industries gather from all over Japan. In this seminar, highly qualified specialists from several companies give a lecture to share beneficial information about pest management.



SERRICO SEMINAR 2016

EVENTS

SEMINARS/EXHIBITIONS/CONVENTIONS

EXHIBITION OVERSEAS

FUJI FLAVOR has a presence at many of the major exhibitions and events. We display our products to introduce customers our monitoring traps and effective pest management in person. Additionally, our entomologist gives a presentation in several topics related to IPM in those events and share our ideas about IPM. We truly enjoy the opportunity meeting with our well-recognized clients and new customers.



FAOPMA - Pest Summit 2017

WHAT IS MONITORING?

Pheromone traps made by FUJI FLAVOR are exclusively designed for monitoring purposes. Monitoring insect pests is a fundamental step in a proper IPM. It is not the solution to eliminate insects but it supports a good pest management routine by providing solid data for making a pest control strategy and checking the success or failure of a control measures. We divided pest management processes into the four sequential categories to propose effective pest management with our monitoring traps.

IPM FLOW CHART BASED ON THE PDCA CYCLE

STEP 4: Continuous improvement of alternative control measures

ACT!

- ☒ Adopt better site and timing selection for pest control
- ☒ Choose the better control measures
- ☒ Repeat the cycle again!

STEP 3: Review data

CHECK!

- ☒ Evaluate the efficiency of pest control measures by using our monitoring traps



Even if the pest control efforts are taken non-stop day after day, the actual effectiveness cannot be known without evaluating the data. It is important to visualize the pest control status through monitoring.

STEP 1: Research the current situation of infested area

PLAN!

- ☒ Identify the pest insects and find out severity of infestation by using our monitoring traps
- ☒ Make a pest management plan



STEP 2: Apply pest control measures

DO!

(Mechanical controls)

- ☒ fences, caulking, barriers or electronic wires, etc.
- ☒ weeding, cleaning the surroundings, changing the temperature of environment, etc.

(Chemical controls)

- ☒ Insecticide, fumigation, etc.

HOW TO UTILIZE MONITORING DATA

01 Forecasting timing of occurrences & discovering early outbreaks

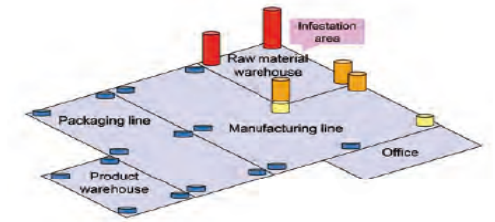


Prevalence of insects in food processing plant for installation of pheromone traps



Enable to detect outbreaks and take a control strategy prior to expansion of damage

02 Understanding distribution of target pests



Distribution of insects trapped with pheromone traps in food processing plant
Each bar indicates the number of insects trapped per trap



Enable to identify source of occurrence

03 Comparing data before and after control

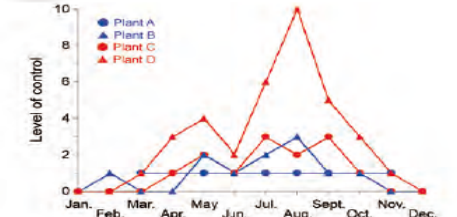
Location	Number captured/trap		Effectiveness
	Before control	After control	
No. 1	19	0	100.0
No. 2	30	1	96.7
No. 3	77	3	96.1
No. 4	13	0	100
No. 5	20	10	50
All	141	14	88.6

Comparison data of before and after control
*The higher the effectiveness, the better the control



Enable to assess effectiveness of pest control numerically

04 Comparing data between plants



Comparison data of control level of insects between plants of a major manufacture
*The higher the number of pests captured, the worse the level of the pest control in the plant



Enable to measure level of control

All charts are created with data simulator under occurrences of insects at food factories.

OUR CONTRIBUTIONS TO SOCIETY

As a member of JT group, we have made fulfillment of corporate social responsibility (CSR) a major pillar of group management policy. We believe in importance of being a good corporate citizen. To demonstrate our commitment, we've been involved in various activities to enrich our community. We will make ongoing contributions to our community as a member of society.



Cleanup campaign



Raising public awareness of anti-littering campaign



"Flower blooming" campaign



Tulip festival



Fire-fighting drill review sessions



Baseball team

CORPORATE
SOCIAL
RESPONSIBILITY

Hamura-shi,
Tokyo

Company History

- 1971 Established for the purpose of R&D and manufacturing of tobacco flavors
- 1972 Started production and sale of tobacco flavors
- 1975 Started production and sale of food flavors
- 1980 Successfully synthesized the cigarette beetle sex pheromone serricornin
- 1981 Started production and sale of pheromone traps for insect monitoring
- 1985 Started production and sale of flavor ingredients extracted by supercritical CO₂ extraction
- 1992 Became a wholly-owned subsidiary of Japan Tobacco, Inc.
- 2001 Awarded ISO 9001 certification
- 2005 Awarded ISO 14001 certification
- 2006 Started the rebuilding phase of production and warehouse facilities
- 2010 Completed work on new production and warehouse facilities
- 2012 Completed work on new effluent treatment facility and drum cleaning facility
- 2015 Acquired license for additive production and sales business
- 2016 Completed construction of first Ecomone building
- 2017 Awarded FSSC 22000 certification
- 2017 Awarded "ERUBOSHI" certification

Management Systems

FUJI FLAVOR has acquired and continues to maintain international standards certification for its quality management system, environmental management system, and food safety management system.

ISO 9001 Quality Management System

Certificate No. : 01885-2001-AQ-KOB-UKAS/JAB

ISO 14001 Environmental Management System

Certificate No. : 01317-2005-AK-KOB-UKAS/JAB

FSSC 22000 Food Safety System

Certificate No. : 215626-2017-FSMS-JPN-RvA



FSSC 22000

Company Name: FUJI FLAVOR CO., LTD.

Address : 3-5-8, Midorigaoka, Hamura-shi,
Tokyo, 205-8503, Japan

Established : May 26, 1971

Capital : 196 million yen

