# CSR Report **TSUMURA Corporate Social Responsibility Report**

Corporate Social Responsibility Report

2011



# What Tsumura places importance on

Tsumura's Corporate Philosophy is "The Best of Nature and Science".
It is the fundamental standpoint for our corporate activities to be appreciated by the society and continue business.
We desire to relieve as much pain of patients as possible through producing Kampo, and contribute to people's health.
Tsumura will fulfill social responsibilities through Kampo, as a life science company.



Quality control of pharmaceutical products

Botanical

residues

Quality control of botanical raw materials for Kampo preparation

Processing

and preparation

of botanical raw

materials

# Manufacturing

As our business is based on nature's bounty, we believe that we should be responsible for building a cyclical process that can coexist with nature.

#### **Editorial Policy**

Beginning in FY2005, Tsumura has issued a "Corporate Social Responsibility Report" to disclose information to our stakeholders. This report fully covers topics of high interest and concern amongst employees based on results of a survey about CSR. "Things that Kampo Can Do" and "Quality Control and Supply of Safe and Secure Kampo Products" appear every year as basic information on the Group's business activities. Activities on which we especially focused are featured in the 'Close-up' sections. We also referred to "Environmental Report Guidelines FY2007" published by the Ministry of the Environment and GRI's "Sustainability Reporting Guidelines version 3.0".

In the Report, "the Company" refers to TSUMURA & CO., and "Tsumura Group" refers to TSUMURA & CO. and its consolidated subsidiaries.

**WCO** is attached to data which has been verified and confirmed by third parties.

Environmental data over the past five years are posted on the Website.



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# Reporting period

This report contains the performance data obtained in fiscal year 2010.

- TSUMURA & CÓ., LOGITEM TSUMURA CO., LTD., CREATIVE SERVICE INC.: From April 1, 2010 to March 31, 2011
- SHANGHAI TSUMURA PHARMACEUTICALS CO., LTD AND SHENZHEN TSUMURA MEDICINE CO., LTD: From January 1, 2010 to December 31, 2010
- YUBARI TSUMURA CO., LTD.: From November 1, 2010 to March 31, 2011

Some qualitative reports are based on activities performed in fiscal 2011 and its scope is stated in each case.

# Scope of this report

The performance data in this report was provided by TSUMURA & CO., LOGITEM TSUMURA CO., LTD., CREATIVE SERVICE INC., YUBARI TSUMURA CO., LTD., SHANGHAI TSUMURA PHARMACEUTICALS CO., LTD, and SHENZHEN TSUMURA MEDICINE CO., LTD. The scope is stated in each case where it differs from the above mentioned.

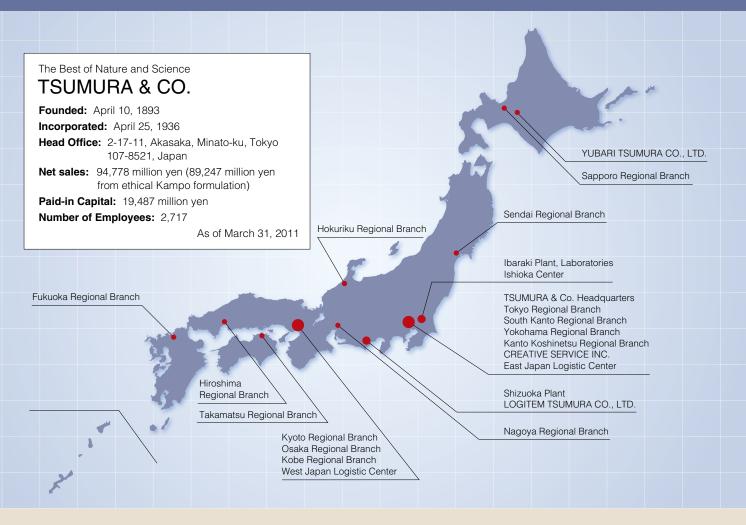
#### Index of Contents Corresponding to GRI's Guidelines

We declare that this Report complies with the standard of level C in GRI's "Sustainability Reporting Guidelines version 3.0 (G3)". The index of contents corresponding to GRI's Guidelines is listed at the website.

Issue Date: August 2011 Previous Issue: August 2010 Next Issue: August 2012



# **TSUMURA GROUP NETWORK**



# **Our Products**



# **Prescription medicines**

TSUMURA & Co. provides prescription products centering on 129 ethical Kampo formulations, as well as new prescription drugs and chopped medicinal raw materials for subsequent formulation. Among the company's new prescription drugs is Metalite 250 Capsules, an agent for treating Wilson's disease which is a rare disease. These products all contribute to medical care.

The Company's share of the domestic market for ethical Kampo Formulations was 84.0% as of fiscal year 2010. ©2011 IMS Japan K.K.

Reference: IMS pharmaceutical market statistics, Period: March 2010 MAT, Authorized duplication only



# **OTC Medicines**

In the field of OTC pharmaceuticals, Tsumura provides the superb benefits of Kampo to a broader customer base by offering a product lineup based on 42 Kampo formulas. In addition to cold medicines, women's health supplements, and digestive medicines, our Company markets tonics with nutritional and invigorative effects, Kampo troches, and various other distinctive products based on our Company's extensive research in botanical raw materials for Kampo preparations and Kampo medicines. These products are familiar and widely used in everyday life.

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Base in China for procuring, processing, and storing botanical raw materials SHENZHEN TSUMURA MEDICINE CO., LTD.



Shenzhen Tsumura Medicine Co., Ltd. was established in 1991 for the procurement, selection, initial processing, quality control, and storage of botanical raw materials made in China. It conducts quality tests of botanical raw materials, as well as inspections for residual pesticides and harmful materials such as heavy metals to provide quality-guaranteed materials to Shanghai Tsumura and the Japan-based plants. Shenzhen Tsumura, which also fulfills a role as the base of a traceability system of botanical raw materials produced in China, collects data from and supervises production sites.

Base for production, processing, and storage of botanical raw materials in Hokkaido YUBARI TSUMURA CO., LTD.



Yubari Tsumura Co., Ltd. was established in July 2009 for the purpose of expanding the domestic production volume and storage capacity of botanical raw materials in response to increasing demands. The company conducts research and technology studies to improve cultivation efficiency of botanical raw materials grown on its own farm, produces seeds and seedlings, procures botanical raw materials from across Hokkaido, as well as processes and conducts the primary sorting and storage of botanical raw materials. In November 2010, the construction of processing facilities and warehouses for botanical raw materials was completed. Yubari Tsumura is regarded as a base for the production, processing, and storage of botanical raw materials in Hokkaido, making use of large-scale automatic cultivation, convenience in transportation, as well as a cool climate suitable for storage of botanical raw materials. Production plant in China with facilities equivalent to those in Japan SHANGHAI TSUMURA PHARMACEUTICALS CO., LTD.



The China joint venture was established in 2001 to enable Tsumura to produce powder extracts which are the intermediary products of Kampo preparations. Procuring botanical raw materials from Shenzhen Tsumura, Shanghai Tsumura processes and exports powder extracts to plants in Japan. In this way, Shanghai Tsumura is fulfilling a role in stabilizing the supply of our Company's products.

Logistic Centers of Tsumura for stable supply of products LOGITEM TSUMURA CO., LTD



Logitem Tsumura Co., Ltd. has two distribution centers located at Gyoda in Saitama Prefecture and Kasai in Hyogo Prefecture. These wholesalers, licensed based on the Pharmaceutical Affairs Act, manage the operations of the distribution bases centering on the storage and distribution of our Company's products. They also function as the Tsumura general logistic center by transporting products and botanical raw materials from the production plants to each base. Furthermore, with the motto, "changing customers' requests to their satisfaction", Logitem Tsumura Co., Ltd. has contributed to a more efficient distribution and a reduction in distribution costs through proposals to TSUMURA & Co. regarding optimum logistics.

TSUMURA USA, INC

SHANGHAI TSUMURA PHARMACEUTICALS CO., LTD.

SHENZHEN TSUMURA MEDICINE CO., LTD.

# **Top Commitment**



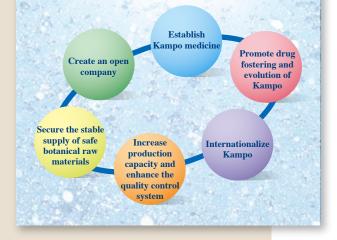
# Corporate philosophy The best of Nature and Science

# **Basic Direction**

To become a people-friendly company that contributes to society and humanity

## **Goals and Action Plan**

Contribute to the availability of medicines of unprecedented quality by combining Kampo and Western medicine



We at Tsumura express our heartfelt sympathy to the people who were affected by the Great East Japan Earthquake on March 11, 2011, and pray for the swift recovery of the devastated areas.

The Ibaraki Plant, our main plant for ethical Kampo preparations, had to temporarily stop operations due to the earthquake. However, as a result of the company-wide efforts for early restoration, the plant was able to resume operations for all production processes on May 10, before which we worked towards ensuring the production and supply systems of Kampo preparations with increased production at the Shizuoka Plant and other means. We are deeply grateful for the understanding and cooperation of our patients and concerned parties.

We donated 100 million yen to Japan Red Cross in order to express our sympathy to victims and support relief activities.

#### Fulfilling social responsibilities through the Kampo business

Under the corporate philosophy, "The Best of Nature and Science", Tsumura is aiming for sustainable growth with the goal of "contributing to the availability of medicines of unprecedented quality by combining Kampo and Western medicine". While being a pharmaceutical company, our Company is deeply involved in agriculture, a primary industry, through the cultivation of botanical raw materials. I hope that Tsumura remains a "people-friendly company that can contribute to society and humanity" through our business.

In 2010, a local company was established in Laos and cultivation at this farm was started in order to ensure

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traceability. Our businesses in Laos are planned in the primary industry in accordance with the 2+3 policy\* promoted by the Lao government which have high hopes regarding this local company as it will contribute to job creation and the development of economic and social infrastructure. At the request of the Laongam district of Saravanh Province where botanical raw materials will be cultivated, the local company cooperated in building a junior high school as part of its social contribution through its businesses. In Japan, we have involved people with disabilities in the cultivation of botanical raw materials through a contract with "Temiru Farm", a agricultural production company established by "Harunire no Sato", a social welfare corporation in Ishikari City, Hokkaido.

\*2+3 policy: See P.23

## Stable procurement of safe botanical raw materials and stable supply of Kampo preparations

Importing about 80% of botanical raw materials from China, we are making efforts for identifying a production area and thorough quality control for each region in order to procure safe botanical raw materials. Meanwhile, since last autumn, some patients and medical experts have been concerned that botanical raw materials might not be able to be imported from China in the same way that the import of rare earths from China has faced related issues. Based on long-time cooperation and trust in a relationship with farmers and companies in production areas in China, we have been able to procure botanical raw materials from China without problems. After the Great East Japan Earthquake, over 90 companies including business partners in production areas in China, as well as their officers and employees donated relief money totaling about 12 million yen to the Japan Red Cross through our Company.

Furthermore, as a result of joint research with Chinese companies and universities, we have successfully established the cultivation technology of "licorice", an important botanical raw material which relies on wild species.

Through cultivation studies, we will continuously strive to ensure safe botanical raw materials in a stable manner in order to consistently provide Kampo preparations.

#### • Aiming to be a green company

In our initiatives for the environment, we are presently considering technologies to convert botanical drug residues to bio-ethanol, and are developing production technologies for the efficient use of water and energy. Botanical drug residues are completely recycled as fertilizer including at factories in China.

We believe that companies should tackle environmental issues and that each employee should be aware of his or her responsibilities to consider significant problems. Precisely because our business is based on the cultivation of botanical raw materials, i.e. nature's bounty, we are aiming to be an eco-friendly "green company".

August 2011

Tunichi Yashii

President, Representative Director

Action Targets in Mid-term Management Plans from 2009 to 2011	Progress in Fiscal 2010
Establish Kampo medicine: We will continue to support the enhancement of Kampo education at 80 medical schools in Japan and establish outpatient Kampo clinics at medical school hospitals.	Among 80 medical schools in Japan, 78 require students to take at least 8 Kampo courses. 79 have implemented a system to train lecturers for Kampo medicine (FD: Faculty Development), and 79 have established Kampo outpatient clinics. → P.12
Promote drug fostering and evolution of Kampo: We will continue to promote drug fostering and evolution of Kampo to establish evidence by examining the components of modern diseases and focusing on disorders that are difficult to treat with modern drugs but for which Kampo preparations have shown specific results in areas where medical needs are high. We will also seek new drug fostering and evolution of Kampo prescriptions.	Evidence for "TJ-100 (Daikenchuto)", "TJ-43 (Rikkunshito)", "TJ-54 (Yokukansan)", "TJ-107 (Goshajinkigan)", and "TJ-14 (Hangeshashinto)" has been accumulated through basic and clinical tests. → P.13
Internationalize Kampo: In relation to the promotion of drug fostering and evolution of Kampo, we will develop a system to link the latest basic and clinical data in Japan to clinical trial procedures in the United States. Moreover, we will encourage information exchange between leading doctors in Japan and the United States and will create a more efficient system for the development of TJ-100 (Daikenchuto).	With the aim of marketing "TJ-100 (Daikenchuto)" in the United States, clinical trials for patients were started in the United States. $\rightarrow$ P.14
Increase production capacity and enhance the quality control system: We will respond to increasing demand for prescription Kampo preparations by updating facilities, including expanding our extract powder production building, constructing a granulating building, introducing additional packaging equipment, and encouraging efficient personnel assignment. For quality control, we will seek to standardize and improve efficiency in inspections centering on the Analytical Technology Center.	We have responded to a growth in volume of prescription Kampo preparations by introducing new facilities, enhancing routine maintenance, and building additional warehouses for botanical raw materials. In terms of quality control, we have implemented tests for residual pesticides, heavy metals, and microbes at the Analytical Technology Center, and have enhanced the existing control system by studying to improve all quality control tests. → P.20-21
Secure the stable supply of safe botanical raw materials: We will continue to take steps to secure a stable supply of safe botanical raw materials by developing a traceability system and standardizing cultivation methods and cultivation management at production areas in Japan and overseas.	In cooperation with the China Meheco Corporation and Beijing University of Chinese Medicine, we have established the cultivation technology of licorice, a botanical raw material. At the Yubari Tsumura, Co., Ltd., construction works for processing facilities and warehouses for botanical raw materials were completed. In-house cultivation was developed at LAO TSUMURA CO., LTD., and a traceability system for botanical raw materials procured from other areas than China and Japan was established. → P.17-19
Create an open company: We will continue efforts to build a management system that will improve corporate value and that will clearly disclose our position through communication with our various stakeholders.	Hoping to be a "people-friendly company that will contribute to society and humanity" through our business, we have been making efforts regarding employment of people with disabilities, as well as environmental efforts aiming to be a recycling-oriented company. $\rightarrow$ P.7

# **CSR at TSUMURA**

We aim to become a human-friendly and truly strong company which can inspire people while fulfilling social responsibilities through our Kampo business.

# Management and CSR

Under the corporate philosophy, "The Best of Nature and Science", Tsumura is aiming to be a "people-friendly company that contributes to society and humanity", and fulfill our social responsibilities by "contributing to the availability of medicines of unprecedented quality by combining Kampo and Western medicine" through our main business.

We believe it is most important to win the trust of society, and we thus steadily conduct the best practices of CSR activities, such as compliance with laws and regulations and enhancement of corporate governance systems, on a daily basis throughout the entire Group.

All officers and employees of Tsumura will act under the Tsumura Action Charter with the strong awareness that the Company is a member of society, enhance trust relationships with various stakeholders, and aim to further grow as a company.



# **Tsumura Action Charter**

Putting the dignity of lives first, Tsumura will contribute to people's health and medical care with a scientifically supported fusion of Kampo medicine cultivated in the Japanese tradition as well as Western medicine, under the corporate philosophy "the Best of Nature and Science".

To this end, our officers and employees will act in accordance with a higher standard of ethics by respecting human rights and complying with all laws and regulations, codes of conduct and its spirit both in Japan and overseas, based on the following action principles.

- 1. Contributing to medical care by supplying high quality Kampo medicines
- 2. Providing appropriate R & D activities and accurate product information
- 3. Appropriate trade and distribution through fair and free competition
- 4. Appropriate protection and strict management of information
- 5. Creating an open company by disclosing information proactively and fairly
- 6. Actively making efforts for social contribution as a good corporate citizen while harmonizing with the environment
- 7. Realizing a secure and rewarding work environment by respecting the diversity of employees
- 8. Confronting antisocial forces with a resolute attitude
- 9. Contribution to the development of overseas countries while respecting their culture and complying with relevant laws
- 10. Top management leadership for realizing the spirit of this Charter in order to thoroughly ensure corporate ethics

Revised in April 2009

# ■ CSR Efforts in FY2010

	Area	Item	Objective	Result	Reference
			Creation of employment,	Establishment of LAO TSUMURA CO.,LTD.	P.23
			Contribution to local economies	Establishment of Yubari Tsumura Co., Ltd.	P.24
			Environmental conservation of botanical raw materials production areas, Exchange with the local community	Participation in the "Tosa Tsumura's Forest" Project, Signing of the second stage of "Tosa Tsumura's Forest" Project	P.25
1	Society Contribution to society		Support during times of disaster	Relief money for restoration after the Great East Japan Earthquake, Support for action against foot-and-mouth disease in Miyazaki Prefecture, Relief money for victims of the mudflow disaster in Gansu, Relief money for victims of the Qinghai Earthquake	P.26
			Donations	Donation of wheelchairs, etc. to Fujieda City, Monetary donation to Ami-cho	P.27
			Cooperation with and support for NPO/NGOs	Support for WWF activities, Participation in the Asaza project, Ecocap Movement, etc.	P.27
			Exchange with the local community, Beautification of local environments	Local beautification activities, Communication with the local community	P.28
			Fostering a trust relationship	Communication with shareholders and investors	P.47-48
2	Shareholders/ Investors	IR	Improvement of corporate value	Stable payment of dividends on the increase basis IR activities	P.48 P.47-48
	Customers (Patients/Medical c personnel)	atients/Medical customer satisfaction	Education of Kampo medicine	Education activities of Kampo medicine for the general public and medical personnel	P.12, P.28
3			Provision of information on Kampo medicine	Provision of information on Kampo medicine to the general public, Customer Information Service Center	P.12, P.29, P.30
			Establishment of Kampo medicine	Educational support for Kampo medicine	P.11, P.12
			Product improvement including for packaging	Customer Satisfaction Meetings	P.30
	Business partners Procurement/Supply		Stable supply, Ensuring quality	Establishment of traceability system for botanical raw materials	P.17-22
4			Fair and transparent trade	Purchase based on "Purchase dealings action agenda"	P.49
			Promotion of appropriate use	Education of Kampo medicines to agencies	P.30
		Compliance	Compliance with laws and regulations	Education for all employees	P.49-50
		Risk	Risk management	Publicity and measures	P.52
5	Employees		Stable employment	Utilization of diverse human resources (Promotion of employment of people with disabilities, etc.)	P.32-P.33
		Improvement in employee	Improvement in work environment	Promotion of work-life balance	P.33
		satisfaction (ES)	for a more comfortable workplace	Labor safety and health system	P.34
			Support for career development	Improvement in education and training systems	P.33
			Enhancement of environmental	Revision of environmental philosophy and policy	P.37
G	Environment	Reduction of	management	Environmental education and awareness	P.38
6	Environment	environmental impact	Reduction of greenhouse gases	Energy saving activities	P.39
			Building a recycling society	Promotion of 3 Rs	P.41-42

# Things that Kampo Medicine Can Do

Kampo medicine comprehensively captures an individual clinical condition from both physical and mental viewpoints, and has roots in ancient China, with further independent development in Japan.

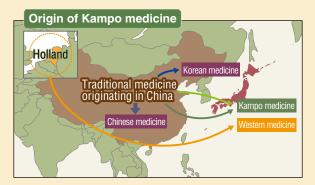
We believe that continuously and scientifically unraveling the traditionally rooted power of Kampo medicine will widely lead to contribution to medical services in today's society.

# What is Kampo?

The basic approach of Kampo is to promote the natural ability of an individual to heal. Kampo refers to medications used in Kampo medicine, which are basically prepared as a combination of more than two different materials of botanical, animal and mineral origins. The botanical materials are mainly the dried parts of the leaf, stem and roots with medicinal properties. Drug forms of Kampo come in a variety of infusions, powders, pills and extracts. After ethical Kampo extract formulation were eligible to be covered by national health insurance (NHI) reimbursements, portable and fuss-free Kampo extracts with consistent quality have become widely used nationwide at many medical institutions, especially at university hospitals. The efficacy of ethical Kampo extracts is now being scientifically proven through basic and clinical research.

# Kampo is a unique medicine in Japan

Traditional medicine which has its roots in China was introduced to Japan by way of the Korean Peninsula in the 5th to 6th century. Kampo thereby evolved independently being adapted to the climate of Japan and the constitution of the Japanese people, undergoing a period of major development in the 17th century in particular. This is period of medicine is called Kampo medicine. The name "Kampo" was given to this form of medicine to distinguish it from "Rampo" which was used for Western medicine introduced to Japan by the Dutch in the middle of the Edo period; however, Kampo also differs from traditional Chinese medicine and Korean medicine in many respects, hence Kampo is certainly a field of medicine that evolved uniquely in Japan.



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# The First Step of Kampo Treatment: Knowing your "Sho" (Kampo diagnosis)

"Sho" is a diagnostic result in which the patient's constitution and symptoms are comprehensively determined with a methodology unique to Kampo medicine. Amongst a variety of measures to determine "Sho", "Kyojitsu" (hypo- or hyper-function) and "Vital Power, Blood, and Water" are explained below.

#### "Kyojitsu (hypo- or hyper-function)":

"Kyojitsu" represents a patient's constitution, physical strength, and resistance to disease. Each patient should use a different Kampo preparation depending on his or her "Kyojitsu" even if symptoms are similar to those of somebody else. Careful "Sho" diagnosis is required, as the patient cannot benefit from, but on the contrary, have adverse effects from Kampo preparations intended for a different "Sho"

#### "Vital Power, Blood, and Water":

In Kampo medicine, disease states are recognized with the observation of the three factors of vital power, blood, and water. "Vital power" is a kind of mental energy referring to a healthy or ill state of mind, and "Blood" primarily refers to the circulation of blood. "Water" refers to the metabolism of fluid other than blood, and relates to swelling and dizziness. Diseases are considered to be caused by influences from these three factors. A condition in which blood flow is stagnant is called "Oketsu". Since women tend to have congestion inside the pelvis due to menses, it is considered that many women's diseases are caused by "Oketsu" in Kampo medicine.

Are you a hypo-functioning type, a hyper-functioning type, or normal?

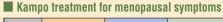
Question	Checks	Score
(1) I have relatively good strength.		2
(2) I often have night sweats.		-2
(3) I am ambitious, energetic and active.		2
(4) I have a strong stomach.		2
(5) I often suffer from the summer heat, and get cold in winter.		-2
(6) I have a healthy color and complexion.		2
(7) I often suffer from diarrhea after eating something cold.		-2
(8) My stomach is elastic, and I have a strong bone structure.		2
(9) I cannot eat quickly and robustly.		-2
(10) I have pain on the early stage of menses with a large		2
amount of menstrual bleeding containing blood clots.		
Total Score		

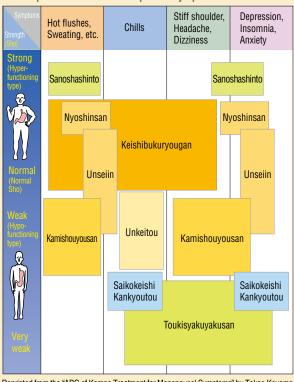
Source: "Low-Impact Medicine, Women's Health and Kampo"

If your total score is 0 or less, you are a hypo-functioning type. For a score of 2-6 points, you are normal. For 8 points or more, you are a hyper-functioning type.

Please note that this is an approximate indication to help you understand your "Sho" and not an accurate diagnosis. See a specialist for a precise diagnosis of your "Sho".

How about seeking a medical doctor who can prescribe Kampo medicine?





Reprinted from the "ABC of Kampo Treatment for Menopausal Symptoms" by Takao Koyama

# Distinctive aspects of Kampo

Kampo refers to medicines made by combining multiple botanical raw materials in prescribed proportions on the basis of theories of Kampo medicine and many years of clinical experience.

The efficacy of Kampo largely varies depending on the combinations of the botanical raw materials. As the efficacy is not equal to the sum of botanical raw materials composing the Kampo, a prescription is regarded as an independent unit of medicine in Kampo medicine.

# Side effects of Kampo medicines

Despite popular misconceptions, Kampo medicines can have side effects.

Strong medication used against one's symptom or constitution, or over-dosage may induce unexpected symptoms. It is important therefore to follow your doctor's or pharmacist's advice on dosage administration.

# Difference between Kampo and native medicine and herbs

Native medicine has been handed down as wisdom of living

Native medicines are medical plant products, the knowledge of which has been handed down and used throughout the ages. Generally, only one kind of plant is used for a certain symptom.

As the use of native medicines is a sort of wisdom of living derived from old lore of experiences, medical doctors don't use them as prescription drugs. Furthermore, herbs which have been popular in recent years are native medicines rooted in European culture since olden times. These are used for cooking and health promotion.

# Kampo medicine is based on systematic theories.

A theoretical system unique to Kampo medicine has been established based on experience concerning efficacy and safety over thousands of years. According to the theory and patient's symptoms, multiple botanical raw materials are combined.

# Difference between Kampo and Western medicine

Western medicine is sharp and fast-acting As Western medicines are made from chemicallysynthesized active ingredients, they are sharp and fastacting. On the other hand, incorrect use may increase the risk of side effects.

Kampo medicine treats diverse symptoms

Modern Kampo medicine uses multiple botanical raw materials, mainly from plants (including 118 kinds of botanical raw materials for Kampo preparation for Tsumura Kampo formulations). By having multiple ingredients work together, the Kampo formulations act on a wide variety of symptoms.

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# New Choices in Modern Medicine

A number of medical doctors have already recognized new ideas and effects for which Kampo medicine can be used for issues facing modern medicine. A survey conducted in 2010 showed that 80% or more of doctors are presently using ethical Kampo preparations for treatment. It was also found that an increasing number of doctors choose Kampo as the first medical choice for specific diseases and symptoms. Having achieved a variety of favorable results, Kampo medicine has attracted attention from research institutes and academic societies in Western countries. Research papers with a scientific approach to the efficacy of treatment using ethical Kampo preparations continue to be published.



# Over 80% of doctors prescribe ethical Kampo preparations.\*1

\*1 Source: "Survey on actual situation of and attitude to Kampo usage in 2010" (Nikkei Medical Custom Publishing, Inc./Conducted in March 2010)

# **Ethical Kampo Preparations supported** by the general public

In November 2009, a working group of a government revitalization unit suggested in a budget screening that medicines similar to over-the-counter drugs be excluded from insurance coverage. Accordingly, ethical Kampo preparations became a controversial topic. In response to this, the "Iryou Shimin no Kai" (a citizen's medical group), the NPO "Kenko Iryo Kaihatsu Kiko", the Japan Society for Oriental Medicine, and the "Nihon Rinsho Kampo Ikai" collected a total of 924,808 signatures in just three weeks for a petition to continue the coverage of ethical Kampo preparations by insurance, and submitted this to the Ministry of Health, Labor and Welfare. As a result, it was decided that ethical Kampo preparations will continue to be covered.

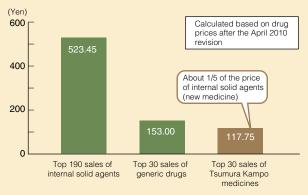
The above-mentioned proved that ethical Kampo preparations have been supported by people in public healthcare.

# Ethical Kampo preparations are effective and economical medicines

According to a report from Keio University Hospital, as Daikenchuto administered after a surgical operation for colon cancer improved symptoms associated with paralyzed bowels, hospitalization period was shortened about 3.5 days and medical expense was reduced 140,000 yen. Additionally, when comparing the simple average of drug prices per day of Kampo preparations with internal solid agents which sell well, the average price of Kampo medicine is about one fifth or less of the price of internal solid agents, and also cheaper than the price of the generic version of these drugs.

From the two viewpoints of quick recovery after surgical operations and a reduction in medical expenses, expectations for ethical Kampo preparations are further increasing.

High sales of internal solid agents, Generic drugs, High sales of Tsumura Kampo medicines Comparison of drug prices per day (simple average)



※ Average of 190 items excluding anticancer drugs from among top 200 sales of internal solid agents

Among the generic drugs, Vancomycin was excluded from the calculation as it was included in the injectable drugs.

(Surveyed by Tsumura)

# Toward the establishment of Kampo medicine

In recent years, disease components have been drastically changing in Japan. In medical institutes, it is often difficult to treat these with only Western medicine. Therefore, the expectation of Kampo medicine is increasing. We are making every effort to popularize and educate people about Kampo medicine through the provision of data on Kampo medicine to medical students, implementation of seminars for medical doctors and pharmacists, and the provision of information on Kampo to the general public.



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# Expansion of Kampo Medicine Education at Medical Universities

In March 2001, "Medical Education Model/Core Curriculum - Guideline for Education Contents" was publicized at the "Meeting of research and study regarding the concept of medical and dental education" of the Ministry of Education, Culture, Sports, Science and Technology. Referring to education of Kampo medicine for the first time, the guideline requires students to be able to give an outline of Kampo medicine as a goal to attain before graduation. In the revised version which was publicized in 2010 for the first time in ten years, the guideline regarding education of Kampo medicine was also amended, further concretely requiring the ability to outline features and usage of Kampo medicine. In response to the revised guideline, the enhancement of educational contents of Kampo medicine at medical schools of universities can be expected.

# Kampo education and clinics

Tsumura has proactively implemented activities to provide information for enhancing Kampo education at medical colleges and universities. Kampo courses have been introduced at 80 medical colleges and universities in Japan as of FY2004. Among them, 78 medical schools presently provide over eight credits<sup>\*2</sup> of compulsory Kampo courses. Moreover, Kampo outpatient clinics have been established 79 university hospitals, and activities to train instructors for Kampo medicine education (FD<sup>\*3</sup>) have been implemented at 79 medical schools, thus helping to rapidly expand the understanding of Kampo medicine.

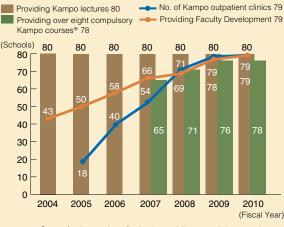
We will continuously promote activities to provide information in order to establish Kampo medicine as a part of Japanese medicine, so that medical practitioners will have as much knowledge and skills about Kampo medicine as Western medicine, and will be able to select and execute either or both Western and Kampo medicine for better treatment for each patient. As a part of these information provision activities, we hold the Kampo Medical Symposium once a year on the subject of Kampo medicine education, and invite those involved in university education.

\*2 The minimum number of credits required to understand Kampo medicine \*3 FD: Faculty Development



Kampo Medical Symposium

Trend of introduction of Kampo education and outpatient clinics in medical schools in Japan



Survey for the number of schools providing over eight compulsory courses started from 2007

(As of the end of March 2011)

# Popularization and education activities for Kampo medicine

We offer various seminars for healthcare professionals to systematically study Kampo medicine. The seminars are held for small groups of about 20 people according to the needs and levels of participants to ensure the lectures are understandable.

These seminars consist of introductory programs to acquire basic knowledge and techniques for physicians who have not had an opportunity to systematically study diagnosis and treatments peculiar to Kampo medicine, as well as a step-up program for learning practical Kampo medicines including diagnosis methods. Moreover, we offer various specialized seminars for doctors who teach residents and for gynecologists in outpatient clinics.

Through continuously providing such seminars in diverse programs, our Company supports the achievement of providing the best and unique medicines in the world by fusing Kampo and Western medicines.

# Seminars and Lectures held in FY2010 MCO

Cata		Results	
Gale	egory	No. of seminars	No. of participants
	Introductory seminar	118	2,234
Postgraduate seminars	Introductory seminar-II	27	507
for Kampo	Step-up seminar	71	1,517
	Subtotal	216	4,258
Seminars for doctor attending	33	841	
Seminars for gynaecologists in outpatient clinics		6	145
Seminars for pharmacists		18	2,177

# **Drug fostering of Kampo**

While we have been implementing drug fostering, the most frequent reason for doctors not to prescribe ethical Kampo preparations was that they have "no scientific basis". In recent years, disease components have drastically changed in Japan. In medical institutes, the number of cases that are difficult to treat with only Western medicine has been increasing. Therefore, we have continuously developed activities to promote drug fostering to establish scientific evidence\*1, focusing on diseases on which ethical Kampo preparations have shown special effects. From among total 129 preparations, we selected the following five drugs to be the focus of our drug fostering: TJ-100 (Daikenchuto), TJ-43 (Rikkunshito), TJ-54 (Yokukansan), TJ-107 (Goshajinkigan), and TJ-14 (Hangeshashinto). Currently, we have accumulated research data about TJ-54 (Yokukansan), for behavioral and psychological symptoms of dementia (excitement, irritation, sleep disorder, etc.); TJ-43 (Rikkunshito), for anorexia associated with FD (functional dyspepsia) and GERD (gastro esophageal reflux disease); and TJ-100 (Daikenchuto), for the improvement of intestinal movement and blood flow.

In FY2009, TJ-107 (Goshajinkigan) and TJ-14 (Hangeshashinto) were newly included in drugs to be the focus of our drug fostering. Both drugs can be used to reduce side effects of chemotherapy. Presently, various new Western drugs have been developed for cancer treatment. While they are effective to cure cancer, there are all too frequent cases in which treatment must be discontinued due to the strong side effects caused by the drugs.

We have been conducted various studies to reduce the side effects of anticancer drugs. TJ-107 (Goshajinkigan) is expected in particular to lessen a sense of numbness due to neural toxicity, and TJ-14 (Hangeshashinto) to ease mucosal damage such as diarrhea and stomatitis.

\*1 Evidence: Scientific basis. Basis and results of examination showing the efficacy of a specific treatment approach on diseases and symptoms

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# **Ethical Kampo** preparations effective for cancer treatment

- 8 Dr. Yoshiaki Shindo
- 8 Head of Department of Digestive Surgery. Digestive Center Meiwakai Nakadori 8 General Hospital

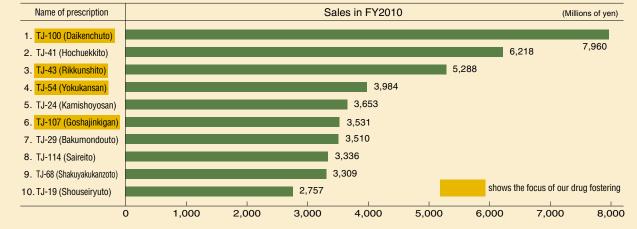


S As is well known, while anticancer drugs effectively 8 attack their target, i.e. the tumor cell, various symptoms 8 have been also reported as side effects caused by the 8 drugs. Those side effects often hinder the cancer 8 treatment. Accordingly, reducing the side effects leads to further effective treatment without cessation or 8 8 discontinuation. In recent academic societies, it has been presented that 5 some Kampo preparations would lessen the side effects 8 of anticancer drugs and improve the completion rate of 5 cancer treatment. 8 Regarding the standard treatments FOLFOX\*2 and 8 FOLFIRI\*3 which our hospital has conducted for recurrent 8 advanced colorectal cancer, patients suffer side effects 8 such as paresthesia (numbness and/or pain at the limb 8 extremities or around lips) or diarrhea. If such symptoms 8 are too severe to bear, the treatment may have to be 8 discontinued. Patients who were given Kampo 8 preparations TJ-107 (Goshajinkigan) or TJ-14 8 (Hangeshashinto) often felt relief from the side effects 8 and were able to continue their anticancer drug 8 treatment. The Kampo preparations are necessary for 8 these patients who would have otherwise had to give up 8 their anticancer drug treatment mid-course. 8 The scientific explanation of Kampo is yet insufficient. 5 However, we have high expectations for Kampo to

- contribute to patients who have difficulty continuing their 5
- cancer treatments by developing new applications for 8 Kampo. 5

\*2 FOL FOX: Abbreviated name of the first letters of Folinic acid Fluorouracil and Oxaliplatin, three agents concurrently used as chemotherapy against colon cancer.

\*3 FOLFIRI: Abbreviated name of the first letters of Folinic acid. Fluorouracil and Irinotecan, three agents concurrently used as chemotherapy against colon cancer



Top 10 sales of Tsumura ethical Kampo preparations

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# **Internationalization of Kampo**

Contents of clinical trials in the United States We are presently planning and conducting clinical trials towards the objective of gaining authorization of TU-100 (Daikenchuto) as an ethical drug in the U.S. In FY2005, we started development of TU-100 (Daikenchuto) according to the Guidance for Industry on Botanical Drug Products issued by FDA (U.S. Food and Drug Administration) in 2004. In FY2008, we completed the tolerability evaluation as well as confirmed the safety and drug compliance of TU-100 (Daikenchuto) for post-operative patients suffering from intestinal ileus\*4. In FY2009, a randomized double blind placebo\*5controlled intergroup trial\*6 for healthy subjects was conducted in the U.S. Upon a comparative examination of the effects, it was suggested that the movement of the intestinal tract was significantly increased for the group given TU-100 (Daikenchuto) compared to the group given the placebo. The results of this clinical trial was presented in the American journal of Physiology issued in June 2010, and at the Digestive Disease Week (DDW\*7) held in May 2010 in New Orleans. Since August 2010, we have conducted a clinical trial for patients with constipation due to lower movement capacity of the digestive tract.

\*4 Ileus: Blockage of the intestine that prevents the contents of the intestine from passing to the lower bowel. It is also called intestinal obstruction or twisted bowel

\*5 Placebo: Non-medicine-containing drug used to examine effects of medicines

\*6 Randomized double blind placebo-controlled intergroup trial: Evaluation method in which a group given the placebo and a group given the drug are determined at random to reduce biases of data.

\*7 DDW: Digestive Disease Week

# Japan-U.S. Cooperation

Through the drug fostering alliance, we have developed a structure to utilize the latest data of basic and clinical studies in Japan for clinical trials in the U.S. for a more efficient R&D process of TU-100 (Daikenchuto). In order to disclose objective safety information regarding TU-100 (Daikenchuto), we conducted a survey in Japan of the results of administration (investigation on frequency of side effects) in FY2010. Clinical development in U.S. is steadily advancing, and we are aiming at marketing TU-100 (Daikenchuto) in 2017. We are promoting the internationalization of Kampo medicine by marketing TU-100 (Daikenchuto) in the U.S. so as to help treatment of patients in the country. We will also make efforts for providing medical doctors in Japan with information on evidence established through R&D in the U.S.

# **Presentation at international academic** societies

In international academic societies, Kampo preparations have been increasingly adopted as study subjects. In FY2011, 21 papers on Kampo preparations presented at the DDW, and 2 papers at the APA\*8.

## U.S. Digestive Disease Week (DDW)

FY	Venue	Number of Papers	Contents (Number of Papers)
2011	Chicago	21	Rikkenshito: 16 papers (Basic 16) Daikenchuto: 5 papers (Basic 5)
2010	New Orleans	21	Rikkenshito: 14 papers (Basic 8, Clinical 6) Daikenchuto: 6 papers (Basic 3, Clinical 3) Shakuyakukanzoto: 1 paper (Clinical 1)
2009	Chicago	13	Rikkenshito: 10 papers (Basic 7, Clinical 3) Daikenchuto: 3 papers (Basic 3)
2008	San Diego	8	Rikkenshito: 8 papers (Basic 5, Clinical 3)

# American Society of Colon and Rectal Surgeons (ASCRS\*9)

FY	Venue	Number of Papers	Contents (Number of Papers)
2010	Minneapolis	3	Daikenchuto: 3 papers (Basic 3)

# American Psychiatric Association (APA)

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FY	Venue	Number of Papers	Contents (Number of Papers)
2011	Honolulu	2	Yokukansan: 2 papers (Clinical 2)

\*8 APA: American Psychiatric Association

\*9 ASCRS: American Society of Colon & Rectal Surgeons



U.S. Digestive Disease Week (DDW)



Surgeons (ASCRS)



American Society of Colon and Rectal American Psychiatric Association (APA)

TSUMURA Corporate Social Responsibility Report



# Support for dementia patients



Dementia Forum

# What is dementia?

Dementia is a condition in which a sufferer cannot perceive what normal people can naturally perceive, for example, not remembering eating meals and/or being unsure of where he or she is. Impaired abilities to perceive, memorize, and judge would interfere with social and daily life.

The word "dementia" is not a name of disease, but an inclusive term of conditions showing peculiar symptoms. As a matter of fact, if minutely classified, dementia is caused by many diseases. However, the two most common forms of dementia are Alzheimer's disease and cerebral vascular dementia. In some cases, those two forms are mixed. Dementia is also caused by Lewy body disease (abnormal aggregates of protein that develop inside nerve cells of brain) and Pick disease (severe shrinkage of frontal and temporal lobes).

[Partly excerpted from Ninchisho Forum.com]

# Treatment of dementia and Kampo

In recent years, Kampo medicines have been used to improve the peripheral symptoms of dementia. Mainly, Yokukansan is prescribed, which has efficacy for improving symptoms such as getting easily excited, irritated, offended, as well as sleeplessness. In Kampo medicine, it is considered that a hyper-functioning liver causes mental and nervous symptoms such as getting angered and excited. Suppressing such symptoms, the medicine was named "Yokukansan" to control the liver. Although originally being a Kampo medicine to treat children's unexplained crying at night, Yokukansan is presently used for various kinds of mental and nervous symptoms regardless of age.

It was reported that Yokukansan has treatment benefits whereby peripheral symptoms of dementia improve without reducing daily activities. It may be possible to reduce the dosage of Western medicines to prevent the patient from falling due to side effects. It can be said that Yokukansan is very suitable for dementia patients who must continue to take medicines for long time.

[Partial excerpt from 'Kampo view' by Dr. Kenji Kosaka]

# Contribution to the society through supporting patients suffering from dementia

In 2008, the Ministry of Health, Labour and Welfare launched the "Urgent project for enhancement of medical treatment of dementia and improvement of life quality", and started to take measures for the swift building of a society in which dementia patients can lead secure lives. Meanwhile, the interest by the general public regarding dementia is quickly increasing. The reasons that dementia has become a social issue include a rapid expansion in the number of dementia patients, anxiety about the burdens of nursing care, and a lack of correct knowledge.

Tsumura is working on educational activities for dementia and supporting local environments to face to dementia.

# Dementia Forum/ninchisho-forum.com

Since 2007, Tsumura has supported the "Dementia Forum", a programme hosted by NHK, the NHK Public Welfare Organization, and the Yomiuri Shimbun. In this forum, the basic knowledge of dementia, latest medical information, and efforts for nursing care in communities are presented by symposiasts including local medical doctors, representatives of nursing personnel, and a representative of a patient association.

In FY2010, over 4,800 participants visited seven venues in total. Featured in newspapers and TV programs, the contents of this forum were broadly publicized to the general public.

Furthermore, a website which we have supported called "ninchisho-forum.com" provides a high-quality video of the "Dementia Forum" as well as a wealth of information on dementia. The average hit count is about 27,000 per month, and the total number of pages browsed is about 200,000. (As of March 2011)

# **BPSD Support Area Project**

Since 2008, Tsumura has held workshops to foster medical practitioners and care staff who can appropriately diagnose and treat BPSD (Behavioral and Psychological Symptoms of Dementia) in cooperation with "NPO Local Dementia Support Bridge" (represented by Mr. Toru Kinoshita). This project is presently being developed in twelve areas (Hokkaido, Aomori, Gunma, Chiba, West Tokyo, Fukui, Gifu, Wakayama, Hyogo, Yamaguchi, Ehime, and Miyazaki), and further new development is scheduled for another five areas in 2011. We have conducted these activities with an eye to spreading the project held at each community through training for family doctors and team training including care staff, as well as followup training continuously held by the participants. We are aiming to create as many communities in which dementia patients and their families can lead secure lives as possible. In total, about 1,900 medical doctors and care staff have so far participated in the workshops of this project.



Team Training

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Dr. Makoto Osawa Director of Oido Clinic Azuma-kai

Achieving initiatives for supporting the peripheral symptoms of dementia in the community

Dementia patients often have BPSD (Behavioral and Psychological Symptoms of Dementia) in addition to the core symptoms such as disorder of memory. It is necessary to take care of dementia patients, whilst fully understanding and appropriately approaching BPSD. According to the survey of medical doctors about the present status of dementia treatment, it was reported that, while having had a family doctor, about 60% of dementia patients had to visit a specialized medical institution. This fact clearly represents how insufficient treatment of dementia is in Japan.

In 2008, the BPSD Support Area Project was launched for the purpose of fostering medical and nursing teams which can diagnose and take care of BPSD so as to support dementia patients who have not yet been able to receive sufficient care.

In Gunma Prefecture where I run a clinic, I began the project in 2009. Participants of team workshops hold small group discussions about what they are currently annoyed with, the importance of team care, and are shown cases on DVD. They incorporate information exchanged at these workshops in their nursing care methodology afterwards. In 2010, training regarding BPSD was implemented in cooperation with an

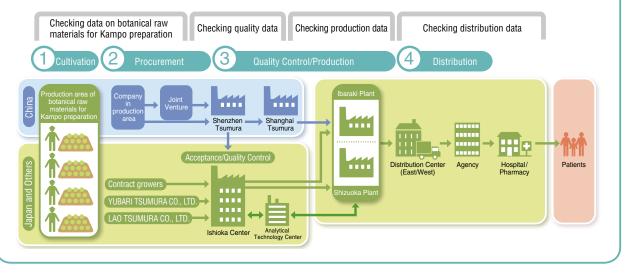
organization of care managers. Furthermore, workshops are scheduled to be held in 2011 in co-operation with an organization of care workers, and with an organization of nurses in 2012. Such steady project activities are essential, as a team medicine approach involving medical doctors, care managers, care workers, nurses, etc. is necessary for treatment of dementia and BPSD. We will continue the activities in hopes to establish a comprehensive care system for dementia patients.

> 16 TSUMURA Corporate Social Responsibility Report

# **Traceability System from Cultivation of Botanical Raw Materials to Distribution**

# **Traceability System**

In order to maintain quality of the Kampo preparations, a consistent traceability system has been realized from "the most upstream stage", i.e. from the cultivation of botanical raw materials for Kampo preparation, to production, shipment and distribution. Information of appropriate application and safety of ethical Kampo preparations from the viewpoint of patients are collected and provided "downstream", i.e. such as at hospitals, clinics, and pharmacies throughout the nation.



Cultivation

# For stability in quality and improvement in crop yield

We have long been cultivating plantations for the stable procurement and quality assurance with the cultivation of botanical raw materials for Kampo preparations by contract cultivation, a system which has been established to provide instruction for the producers based on the production standards for botanical raw materials for Kampo preparation. In the standards, the method of cultivation, agrichemicals



Educating employees of LAO TSUMURA CO., LTD. about cultivation (domestic)

used, and the method of drying and preparation are described. The system of contract cultivation is also assisted by the management of a database on cultivation conditions, such as the use of fertilizers and agrichemicals.

# For preservation of biodiversity and sustainable use of resources

The global natural resources of medicinal plants are generally decreasing, and many plant species are under threat. In order to preserve the biodiversity in the production areas of botanical raw materials and realize a sustainable harvest of botanical raw materials, Tsumura has been working on the cultivation and protection of wild medicinal plants for botanical raw materials in an effort to avoid the destruction of the natural environment due to over-harvesting. In China, Tsumura has facilitated cultivation in cooperation with the China Meheco Corporation and other research institutions, and has also implemented our unique research for cultivation. Tsumura will proactively protect resources of botanical raw materials and tackle environmental issues by promoting the cultivation of wild medicinal plants.



Establishment of Licorice **Cultivation Technology** 

# Results of joint research with a Chinese company and university

We established a cultivation technology of licorice used as botanical raw materials for various Kampo preparations with a joint research collaboration amongst the China Meheco Corporation, Beijing University of Chinese Medicine, and Tsumura.

Licorice is required to contain 2.5% or more of glycyrrhizinic acid, a main ingredient, as a botanical raw material for ethical Kampo preparation in accordance with the standard of Japanese Pharmacopoeia\*. In the existing cultivation technology, it was difficult to fulfill the requirement hence 3-5 years was required to cultivate licorice and efficient cultivation methods had been an issue.

As a result of the joint study which started in 2001, we strived to meet the standard by attempting a variety of cultivation conditions, and we succeeded in cultivating licorice containing glycyrrhizinic acid exceeding 3.5% on average at a farm in north-western China. While it takes much time for wild licorice to grow, we successfully shortened the period



from seeding to harvest to one year and three months. It was confirmed that compositions of ingredients other than glycyrrhizinic acid are also equal to those found in wild licorice.

\*Japanese Pharmacopoeia: standards of medicines provided by the

Ministry of Health, Labour and Welfare based on suggestions of Pharmaceutical Affairs and Food Sanitation Council to ensure appropriate forms and quality of medicines



# Licorice

Contained in about 70% of Tsumura's ethical Kampo preparations, licorice is an important botanical raw material used for not only medicines but also food and cosmetics. However, most of this raw material is dependent on wild plants growing in dry regions in Northern China. In recent years, there is a concern about desertification and depletion due to overharvesting amid increasing demand, and since 1995 China has started to restrict its collection and export. Therefore, it had been a very important challenge

to realize the cultivation of licorice which can be used as raw materials for medicines.



# Obtaining patents

A patent on the cultivation method of licorice was granted to Tsumura by the Chinese Patent Office (No.: CN101617597B). In order to expand the cultivation of licorice in China, upon consultation with co-applicants China Meheco Corporation and Beijing University of Chinese Medicine, Tsumura intends to grant requests

for patent licenses with no charge. Consequently, we are expecting that the cultivation of licorice in China would expand enough to meet increasing demand.

# Large scale cultivation

In the cultivation research, it was proved that the introduction of large cultivation method machinery would make seeding

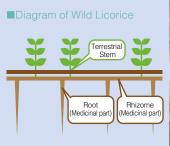


and harvesting operations far more efficient compared to manual operations. Accordingly, we decided to introduce large machinery for future cultivation.

# Contribution to the prevention of desertification

Licorice roots and rhizomes which extend transversely and connect the plant with each other are used as botanical raw materials. After all, roots and underground steams are plowed up to collect wild licorice, the land needs a long period of time to recover. Therefore, we are facing the problem that collecting of wild licorice may lead to desertification. Furthermore, there is concern about the desertification resulting from overharvesting of wild licorice responding to increasing demand. With the successful cultivation study, it has become possible to produce harvest several times more than one of wild licorice. Consequently, the establishment of licorice cultivation technology is considered significantly effective for protection of wild licorice.

Developing the cultivation, Tsumura will also contribute to the prevention of desertification of a vast area of land.







Sub-terrestrial parts of wild licorice



# Procurement

# Efforts for the stable procurement of safe botanical raw materials for Kampo preparation

In April 2010, we established the standards for management of botanical raw materials production, call the Tsumura GACP\*, for the purpose of guaranteeing the safety and guality of botanical raw materials for Kampo preparations. In addition to existing approaches such as the construction of the traceability system and standardization of production. the standards include management and audit rules in order to produce botanical raw materials in a safe and appropriate manner.

\*GACP: Good Agricultural and Collection Practices

# Enhancement of storage capacity for botanical raw materials at Shenzhen Tsumura

Shenzhen Tsumura is a base with the four important functions of procurement, processing, quality test and storage of botanical raw materials. In response to the increasing demand for Kampo preparations in Japan, we will build additional storage warehouses for botanical raw materials. The storage capacity is planned to be increased from 8,250 to 14,150 tonnes in May 2011, with a further addition of 3,900 tonnes in November 2011 and 2,000 tonnes in May 2012.

# **Tsumura Cooperation Meeting in China**

About 80% of botanical raw materials for our Kampo preparations are imported from China. The botanical raw materials for Kampo preparation produced by farms in China are collected by a company in each production area, and delivered to Shenzhen Tsumura directly or through joint ventures in China.

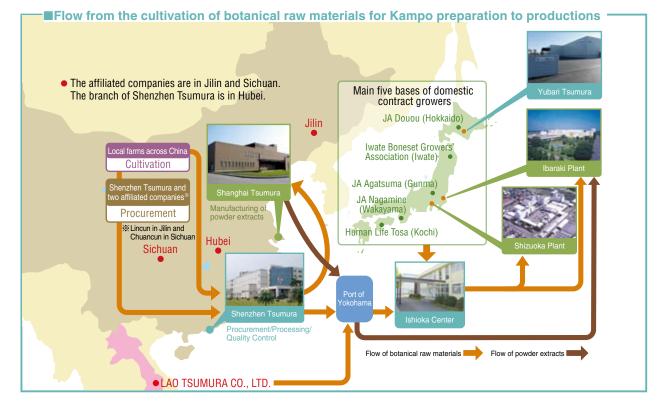
The companies in each production area fulfill an important role to provide cultivation guidance to producers, in addition to the role of procuring botanical raw materials for Kampo preparations. In order to help the employees of companies in production areas understand Tsumura policies to procure safe and secure botanical raw materials for Kampo preparation in a stable manner, the "Tsumura Cooperation Meeting in China" has been held since 2008

In December 2010, we held a Meeting, inviting 109 executives in total from 90 firms in production areas. Shenzhen Tsumura, and seven affiliated companies. and explained the progress of our activities conducted over the last year in China to ensure safe and secure botanical raw materials in a stable manner as well as future policies.

Since FY2009, a system has been introduced, in which Tsumura presents an award to companies which have distinguished achievements regarding the provision of botanical raw materials to the Company, which also serves as a role model for others. In FY2010, three companies in production areas are honored for their contributions to stable supply and improvement in quality of botanical raw materials. At the Tsumura Cooperation Meeting in China, participants have increasingly deepened trust relationships with each other. Details of honored achievements are introduced to all participants for the purpose of improving cultivation and processing skills of companies in production areas.



Tsumura Cooperation Meeting in China



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# **Quality Control/Production**

# To supply Kampo preparations with consistent quality

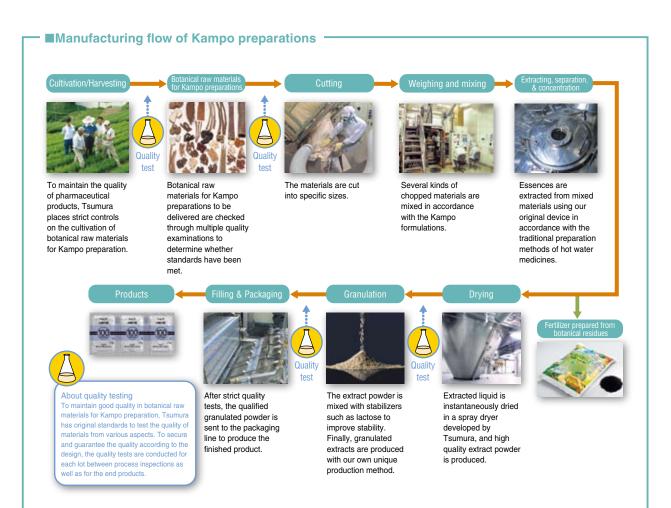
In order to manufacture products with constant quality in a stable manner by precisely reproducing to quality specifications in factory productions, we have built a computer system for the integrated information management of manufacturing, tests, and distribution of each process from the acceptance of botanical raw materials, production of extract powder, preparation, and filling and packaging to the finished products.

# Quality and safety management of products

The present quality standards of Kampo preparations were formulated in accordance with notification from the Ministry of Health and Welfare in 1980 (Notification No. 804) and 1985 (Notification 2 No.120). Among them, the primary quality control items include some quantitative tests and a test to confirm that the product is made from prescribed botanical raw materials. In addition, as our own standard, quality tests are conducted by the Analytical Technology Center in terms of safety against residual agrichemicals and microbes.

# Quality and safety control of botanical raw materials for Kampo preparations

Kampo preparations are made from natural raw materials. Quality control of the materials to be used is very important for producing more stable quality products. In addition to examination based on the Japanese Pharmacopoeia standards, our quality control is conducted in accordance with our own quality control standards including tests for component quantification and residual pesticides. The quality of Chinese botanical raw materials delivered via Shenzhen Tsumura and Japanese botanical raw materials delivered to the Ishioka Center is examined by Ishioka Center Quality Control Department, and only materials which pass inspection are provided to our production plants. As with products' quality, tests of residual agrichemicals are conducted by Analytical Technology Center (Shenzhen Tsumura for Chinese materials). In this way, we are building a system to provide safe and secure botanical raw materials for Kampo preparation through an organic connection of Ishioka Center Quality Control Department and Analytical Technology Center under speedy and stable quality control.



# Role of the Analytical Technology Center

The Analytical Technology Center was established in October 2008 for the purpose of guaranteeing higher product quality by unifying tests of residual agrichemicals and microbes which had been conducted separately in each plant and integrating such quality test functions with the development function. In terms of development of test methods, we continue to make efforts to improve and unify test methods to obtain same results with a same method so that our customers can take our products with confidence, considering the introduction of new technologies in various physical and chemical tests. As the core of the quality control function of Tsumura Group, Analytical Technology Center is aiming to be a test research center with Tsumura's unique assessment technology for botanical raw materials for Kampo preparations by technical data exchange with not only Shizuoka Plant and Ibaraki Plant, but also Shanghai Tsumura and Shenzhen Tsumura.

# Management of residual agrichemicals on botanical raw materials for Kampo

For securing high-quality botanical raw materials for Kampo preparation, it is necessary to use the minimum amount of agrichemicals in order to reduce losses caused by pests and weeds in cultivating medicinal plants. However, strict control is considered important to prevent impact to human health due to residual agrichemicals. Apart from the Japanese Pharmacopoeia which restricts the quantity of residual agrichemicals on botanical raw materials for Kampo preparation, we have voluntarily established a test system for a total of 73 agrichemicals, including those listed in overseas standards for medicines such as the European Pharmacopoeia and the Pharmacopoeia of the United States of America. We have also started examination of all lots of botanical raw materials for Kampo preparation since 2006. Beginning from FY2010, we have examined 191 agrichemicals used in cultivation of medicinal plants.

#### Standards for residual agrichemicals on botanical raw materials for Kampo preparations and Tsumura in-house standard

Standard	Targeted botanical raw materials for Kampo preparation	Targeted agrichemical	
The Japanese Pharmacopoeia Sixteenth Edition*1	14 kinds of botanical raw materials for Kampo preparations including 20 items such as ginseng, red ginseng, and senna (including 6 items of botanical powder)	2 kinds of agrichemicals of total BHC and total DDT	
Tsumura in-house standard	All botanical raw materials for Kampo preparations handled	2006- 73 kinds of agrichemicals including total BHC and total DDT	
		2010- In addition to the above, 191 kinds of agrichemicals used in cultivation of botanical raw materials* <sup>2</sup>	

\*1 Enacted from April 2011

\*2 The number of targeted agrichemicals is different according to each botanical raw material

# Management of microbes and heavy metals

The storage of botanical raw materials for Kampo preparations under inappropriate conditions may lead to growth of mold and development of microbes. Therefore, it is necessary to store them at a temperature which is resistant to microbe growth. We also confirm the safety of powder extracts and preparations with the microbial test. As for contamination of heavy metals and hazardous elements such as arsenic, we supply safer products, complying with the standards of Japanese Pharmacopoeia. We also conduct analyses using the latest technology (ICP-MS)\*<sup>3</sup>.

\*3 ICP-MS: inductive coupled plasma - mass spectrometer



Microbes test (Analytical Technology Center)

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# To Provide Secure Botanical Raw Materials

– Quality control of botanical raw materials in China –



Masanao

Medicine Co., Ltd.

Takahashi

Director of Quality Control

Center Shenzhen Tsumura

Guang Dong adjacent to Hong Kong in 1991, Shenzhen Tsumura Medicine Co., Ltd. will mark its 20th anniversary in 2011. As a result of efforts of previous Japanese employees and Chinese staff, the quality control level is kept equal to the one in Japan, and about 80% of botanical raw materials to be used by Tsumura are tested at

Established in Shenzhen City,

Shenzhen Tsumura. The quality tests are conducted with the quality control system equivalent to the one in Japan, including Tsumura' s unique residual agrichemicals test, in addition to test items stipulated in the Japanese Pharmacopoeia such as an appearance and property test and a physical and chemical test. In order to enable provision of safe, secure, and high-quality botanical raw materials for ethical Kampo preparations, all employees will be dedicated to quality control operations of botanical raw materials for ethical Kampo preparations.

# Distribution

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# Initiatives at distribution centers

Presently, two distribution centers are in operation in the eastern and western areas of Japan, at Saitama Prefecture and Hyogo Prefecture in order to improve customer service and to manage risks in the event of a disaster. In order to handle an increase in shipping volume and a stable supply of ethical Kampo preparations, the East Japan Logistic Center completed an expansion project of warehouses in May 2009, and the West Japan Logistic Center built new warehouses in August 2010. We will expand our storage capacity step by step in response to an increase in distribution.

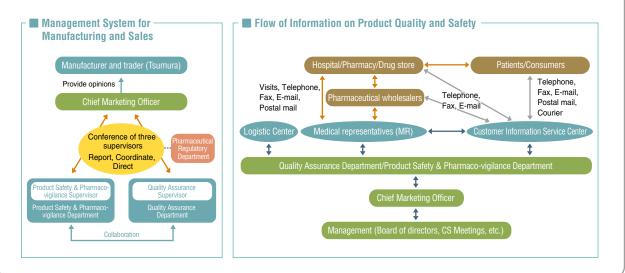
Visual inspections and inspections using a handy terminal<sup>¥4</sup> are implemented at each process from the factory storage of products to the delivery to freight companies so as to improve quality in storage and prevent errors in shipment. At the same time, we have implemented internal training for practices such as GMP (Good Manufacturing Practice) and JGSP (Japanese Good Supplying Practice). Furthermore, both the eastern and western distribution centers are providing better services to customers by using highquality freight companies specializing in the stable supply of medicines.

\*4 Handy terminal: a small portable unit to collect data

## Management System for Manufacturing and Sales

# **Quality Assurance and Safety Control of Medicines**

As a manufacturer and trader of medicines, Tsumura has constructed and smoothly operated a corporate structure to promote a stable supply of high-quality medicines and their proper use to ensure safety in compliance with the Pharmaceutical Affairs law and relevant laws. In specific terms, centering on the Marketing Supervisor-General who has the general responsibility for the product quality and safety control, our Quality Assurance Department and Product Safety & Pharmaco-vigilance Department in charge of businesses relating to Good Quality Practice (GQP) and Good Vigilance Practice (GVP) respectively have constantly and closely worked together through a conference of three supervisors. In addition, our Pharmaceutical Regulatory Department has supported the legal aspects. With this system, we are able to assure quality of our products, collect and assess usage data of products, and take the appropriate necessary measures to fulfill our responsibilities as a manufacturer and trader.



# Expansion of the West Japan Logistic Center

The first stage of expansion was completed, and the new facility started operations in August 2010. As sales volume of ethical Kampo preparations is increasing, it has been required to early expand storage and shipping capacity of the West Japan Logistic Center. Having acquired the land (7,428m<sup>2</sup>) next to the logistic center which is currently in operation, we will be able to expand facilities in response to changes in distribution.



West Japan Logistic Center



Scene of people working in a cultivation area in Laos

With Nature and Human Beings

# Contribution to Society through Cultivation of Botanical Raw Materials

# LAO TSUMURA CO., LTD Establishment of local company in

Laos People's Democratic Republic

In February 2010, subsidiary LAO TSUMURA CO., LTD. (hereinafter referred to as Lao Tsumura) was established. Tsumura is further enhancing the traceability system with large-scale cultivation of botanical raw materials at this farm. Businesses of Lao Tsumura are planned in the

primary industry in accordance with the 2+3 policy\* promoted by the Lao government, thus contributing to the development of local economy, leading to

job creation and improvement in the social and economic infrastructure.

\*2+3 policy: Laos provides land and manpower, and overseas companies provide capital, technologies, and markets.



Lao Tsumura

# **Contribution to local communities**

Having presently adopted 23 local regular employees, Lao Tsumura plans to employ more local staff. In a harvest season of botanical raw materials, Lao Tsumura contributed to local economy by adopting a maximum of 650 people a day, and 30,000 in total in FY2010. With expansion of plantations for botanical raw materials, it is expected that more people can be employed. In farm land reclamation, we try to conserve trees over 40cm in chest-height diameter in consideration of natural conservation. The local company is supporting local people's lives by improving infrastructures such as bridges, roads, wells, and irrigation equipment, together with the cultivation areas.

# Construction of a School building of Phokhem-Tsumura Friendship Lower-Secondary School (Laos)

In Laos, as the number of students who go to junior high school after elementary school which is compulsory education has increased, the number of school buildings has been insufficient. Upon the request of the Laongam district of Saravanh Province, the local company cooperated in constructing a building of Phokhem-Tsumura Friendship Lower-Secondary School, and presented soccer goals, sporting goods, and a water utility to wash hands. As this junior high school is near Lao Tsumura's own farm, we consider that the local company's activities contribute to the improvement in the local educational system and lead to the understanding of the cultivation business for botanical raw materials. At the completion ceremony in March 2011, the

president of Tsumura confirmed the sizes of each student, and presented uniforms and shoes to 150 students who will enter the school in October.



Phokhem-Tsumura Friendship Lower-Secondary School

# Future plans

We plan to increase the area of Lao Tsumura's own farm from about 156ha at the present time to 1,000ha in the future. In FY2011, a processing facility for botanical raw materials will be built to respond to increases in the production scale. Lao Tsumura will contribute to community by provide know-how on progressive agricultural technology and broadly spreading cyclical agriculture, breaking away from existing slash-and-burn agriculture.

# Yubari Tsumura Co., Ltd.

# Yubari Tsumura Co., Ltd. Completion of construction of a processing facility for botanical raw materials

Subsidiary Yubari Tsumura Co., Ltd was established in July 2009 for the purpose of expanding domestic production volume of botanical raw materials and capacity of storage warehouse. Taking advantage of large-scale automated cultivation, convenience in transportation, and cool climate suitable for storage of botanical raw materials, Yubari Tsumura is regarded as a base for production, processing, and storage of botanical raw materials in Hokkaido. The first stage of construction works for botanical raw material processing facilities was completed in November 2010. Consisting of a processing area to dry botanical raw materials and warehouse which can store 1,000t of botanical raw materials, the facilities are conducting primary processing of and store botanical raw materials harvested in Hokkaido.



Yubari Tsumura Co., Ltd.

Drying and processing equipment

# Protection and support of agriculture

Yubari Tsumura's own farm is making efforts for activating use of lands by making a contract to use lands where cultivation has been abandoned due to the ageing population and the depopulation of production areas of botanical raw materials. As there is a time lag between the period of cultivating and processing botanical raw materials and the one of cultivating

melons, the main agricultural product of Yubari, farmers would be able to earn a stable income. In FY2010, 70-80 people were employed per day in the harvest season.



#### Sc

# VOICE

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Tadao Mitsuya Yubari Tsumura Co., Ltd. Section Manager of Administration Department

# Commissioned cultivation at the Temiru Farm

Entrusting the Temiru Farm with the cultivation of botanical raw materials, Yubari Tsumura started the cultivation of senkyu and perillae folium. Temiru Farm, an agricultural production company established by "Harunire no Sato", a social welfare corporation, has conducted businesses with an eye to support the independence of persons with developmental disabilities including severe autism and/or intellectual disabilities. In order to enable persons with disabilities to continue cultivation and quality control, Yubari Tsumura will gradually increase the varieties of botanical raw materials for cultivation.



Seeding

# **Future plans**

The area of Yubari Tsumura's farm was 6 ha in FY2010 when it was established, which has increased to 13 ha in FY2011 to cultivate botanical raw materials such as senkyu. We plan to expand the entire cultivation area in Hokkaido to 1,000ha, and production volume to 2,000t, including commissioned cultivation within 10 years. We will also aim at a more efficient production and stable supply with cultivation research and preservation of seeds in order for improved crop yields and consistent quality. With the goal of being a beneficial company for the local people, Yubari Tsumura will more proactively develop activities leading to local revitalization as a production base for botanical raw materials in Hokkaido.

# sumura's Business

# ird Party Verification

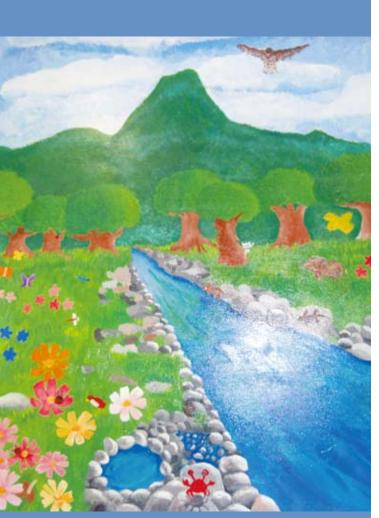
# From "Service" to "Contribution"

In April 2010, I joined Yubari Tsumura. As Yubari City has been undergoing financial restoration, I resigned as a public employee who is a "servant of all" to decrease the number of public employees, hoping to support the local community in a different way. At that time, I learned about job offers from Yubari Tsumura, and as they say 'the rest is history'. Although I am now unable to directly provide services to residents as a public employee, I would like to contribute to indirect services for citizens of our community through each corporate activity.

I will make the best efforts for developing Yubari Tsumura, to aiming at the revitalization of Yubari City.

# With Society

As a good corporate citizen, we actively implement various kinds of social contribution activities with an eye to coexisting with society.



Wall painting by students of Ochi Junior High Schoo "Shiny nature in Ochi ~ Future ~"

# **Tosa Tsumura's Forest**

For the purpose of facilitating natural environmental conservation in cultivation areas of botanical raw materials for Kampo preparation as well as social exchange with local citizens, we have participated in Kochi Prefecture's corporative project to grow forests since June 2008. In this project, the companies and local communities aim to jointly facilitate revitalization of forests as well as local exchange. We concluded a partnership agreement with Kochi Prefecture, Ochi Town, and Human Life Tosa which is an organization to cultivate medicinal plants to support environmental conservation activities in the 58.6ha forest called "Tosa Tsumura's Forest" in Ochi Town. Having a good relationship with Human Life Tosa through the cultivation of botanical raw materials for Kampo preparation for over 25 years, Tsumura started initiatives to conserve local environments as a token of our thanks. We believe that the environment for cultivation of botanical raw materials for Kampo preparation will be better with the improvement in conditions of the surrounding forests that leads to ensuring good quality water resources for the cultivation areas.

In March 2011, we concluded the second stage of partnership agreement. On the same day, an unveiling ceremony of wall painting powered by the second grade students of Ochi Junior High School was held. We intend to support natural environmental conservation in the cultivation areas of botanical raw materials for Kampo preparation, and develop various activities such as guided tours to experience the natural environment of forests and fields of medicinal plants, so as to build a trust relationship with the local citizens in the future.



Visiting lecture



Tree thinning experience



Unveiling ceremony of wall painting

# Efforts to overcome the disaster caused by the Great East Japan Earthquake

#### **Disaster countermeasures headquarters**

Our disaster countermeasures headquarters was set up immediately after the occurrence of the earthquake at 14:46 on March 11. Since then, meetings of the disaster countermeasures office were held every day, in order to review the impact to the entire Company, the restoration schedule of production divisions, and to arrange relief goods. In the meeting, we also decided to donate relief money through Japan Red Cross.

# Efforts for the supply of products after the earthquake

Although the earthquake affected our production bases and had to stop some operations, we overcame the difficulties, giving our first priority to ensuring of the continuous supply of Tsumura's preparations to patients.

#### Ibaraki Plant

Even with countermeasures against earthquakes with an expected maximum seismic intensity of 6, the Ibaraki Plant had to cease operations due to occurrence of the largerthan-expected earthquake, with the seismic intensity meter in the plant registering an intensity of 7. However, because of the emergency drills regularly conducted, all staff evacuated safely. The production of Daikenchuto, our best selling product, was promptly transferred to the Shizuoka Plant. In the restoration works, each employee quickly judged the situation and acted by sharing information with the central command structure. Supported by 43 business partners, the Plant resumed operations on May 10 as scheduled, as a result of all employees' concerted efforts.

#### Shizuoka Plant

In order to start the production of Daikenchuto, a product which is usually manufactured at the Ibaraki Plant, the Shizuoka Plant procured botanical raw materials and equipment, and transferred intermediary products such as powder extracts from the Ibaraki Plant. Supported by 30 employees from the Ibaraki Plant, the Shizuoka Plant operated the production processes 24 hours a day including Saturdays and Sundays so as to respond to an increase in production. We believe that confusion in the medical front was minimized as all employees were dedicated to increasing production, keeping in mind the motto "Stable Supply".

#### Analytical Technology Center (Ibaraki Research District)

As sufficient countermeasures against earthquakes had been taken at the research district for devices and equipment essential for quality inspections, there was no significant damage. Tests of powder extracts and preparations were therefore resumed on March 17, and tests of botanical raw materials on March 28.

#### Ishioka Center

At the Ishioka Center, botanical raw materials are sorted, processed, and stored in a low-temperature warehouse. However, due to strong shaking of the earthquake, storage piles of botanical raw materials were overturned and there were problems with facilities of production processes. The Center was cutting and shipping botanical raw materials for Daikenchuto of which production was transferred to the Shizuoka Plant, on a parallel with the recovery works. The Center was completely restored on April 11.

## Support from medical personnel

Due to the shutdown of Ibaraki Plant, the production volume was expected to decrease. Although we had the equivalent of one month's worth of stock for each kind of ethical Kampo preparation, it was not enough to secure a stable supply. Consequently, some products became in short supply for a while. However, confusion was minimized thanks to personnel of medical institutes who showed understanding of our MRs' explanation on the production status and offered their cooperation.

## **Relief money and Support activities**

Tsumura offered donations for people affected by the earthquake inside and outside the Company. Over 90 companies including Chinese Group companies and farms in production areas in China, and their officers and employees offered relief money, and offered donations totaling about 12 million yen to the Japan Red Cross. Having fostered a longterm trust relationship with Chinese affiliated companies, we believe that we felt a further connected with each other across the border based on the spirit of mutual aid at the time of disaster. The Tsumura Labor Union independently offered a donation for victims of the earthquake. Logitem Tsumura Co., Ltd. cooperated in transporting to Kurihara City in Miyagi Prefecture relief goods, such as sanitary goods, underwear, and winter clothes (49,615 items packed in 266 cardboard boxes) which were gathered by Fujieda City in Shizuoka Prefecture from the citizens to support the devastated areas.

Relief money for victims of the Great East Japan Earthquake	
	0

Tsumura		100 million yen	Japan Red Cross
	Officers and employees	4,637,921 yen	Tsumura Employees who are Victims
Employees at the Shizuoka Plant 198,		198,938 yen	Japan Red Cross
Log	item Tsumura	300,000 yen	Japan Red Cross
	Officers and employees	249,000 yen	Japan neu ciuss
	nese business partners and up companies*	851,400 yuan (about 10,640,000 yen)	Jonan Dad Crass
	Officers and employees	10,984 yuan (about 1,370,000 yen)	Japan Red Cross
Tsumura Labor Union		5,000,000 yen	Japan Red Cross
		5,000,000 yen	Ashinaga Scholarship Society
	Union members	1,249,764 yen	Central Community Chest of Japan

\*\*Chinese group companies: Shanghai Tsumura, Shenzhen Tsumura, Sichuan Chuancun Traditional Chinese Medicines Co., Ltd., and Jilin Lincun Traditional Chinese Medicines Development Co., Ltd.

## Measures to conserve electricity

As a part of measures to balance supply and demand of electricity in summer, the Ministry of Economy, Trade and Industry invoked power usage restrictions to require commercial-scale utility customers (500kw or over) to save 15% of electricity at peak hours of power needs from July to September, based on Article 27 of Electricity Business Act. For the Ibaraki district (plant and laboratories) and the Ishioka Center with facilities in which electricity is constantly used for manufacturing and storing ethical drugs accounts, the usage restrictions have been eased to the peak level of usage in the previous year. However, in the laboratories in charge of other operations, measures to save electricity have been conducted, for example, a decrease in the number of freezers and refrigerators. In offices, employees are strictly adhering to preset temperature of air conditioners at 28°C, and unnecessary lights are turned off.

In the head office and sales offices, we are making efforts to conserve 15% or more of electricity at peak hours of power needs by strictly adhering to preset temperature of air conditioners at 28°C, turning off unnecessary lights and setting the energy saving mode of PC.

#### **Environmental impacts**

Because of countermeasures against earthquakes in place at the Ibaraki Plant & Laboratory and the Ishioka Center which were both hit by the earthquake, containers of chemicals and hazardous substances such as acid and alkali were not broken and their contents did not leak, hence there was no environmental impact.

# Cooperation and support of NPO/NGOs

We support the activities of the World Wide Fund for Nature Japan (WWF Japan), Youth Friendship Association, and OISCA International (The Organization for Industrial, Spiritual and Cultural Advancement-International).

Our head office, the Shizuoka and Ibaraki Plants, the research districts, and some regional branches and sales offices have participated in the "Ecocap Movement" to provide vaccines such as polio vaccines to children in developing countries through the NPO Ecocap Movement and the NPO Ecocap Movement Network. In FY2010, we collected about 209,000 PET bottle caps, enough to buy polio vaccines for 260 children.

As an environmental conservation activity around Kasumigaura which is a primary water resource for production, the Ibaraki Plant and the Laboratory have participated in the Asaza Project\*1 since FY2004. So far, a total of over 352 employees have participated in this project, including 86 employees who participated in FY2010.

\*1 Asaza Project: An environmental conservation activity around Kasumigaura conducted by NPO Asaza Foundation





Asaza Project (Ibaraki Plant & Laboratories)

# Donation for the mudflow disaster in Gansu, China

The Tsumura President visited the China Red Cross in Beijing and donated 200,000 yuan (about 2,520,000 yen), expressing sympathy to people affected by the mudflow disaster in Gansu and hopes for the recovery of devastated areas as soon as possible.



Presenting the donation for the mudflow disaster in Gansu

#### Other donations and contributions in FY2010 Marco

То	umura	Donation for victims of the Qinghai Earthquake in China	3 million yer
13	unnund		,
		Donation for the FMD epidemic in Miyazaki prefecture	1 million ye
		NPO, Action with Lao Children (collection of postcards with written mistakes)	63 Laotian pictur book
1	Shizuoka Plant	Fujieda City Mottainai Campaign	133,649 yei
	SIIIZUUKA MIAIIL	Red Feather Community Chest	133,649 ye
		Green Fund	100.740 ve
		Fund-raising for supporting volunteers through vending machines	90,115 ye
		Donation of newspaper by Harmonia	820.8 k
	Ibaraki Plant	Fund-raising for drug abuse prevention activity of UN	35,826 ye
	iburuni i luni	Red Feather Community Chest	10,000 ye
		Japanese Red Cross, Ibaraki branch	30,000 ye
		Sponsored for "Mai Ami Matsuri"	50,000 ye
		Community chest for Ami-cho Social Welfare Council (such as "collection box of love")	36,451 ye
		Presented 10 picture books to Ami-cho Social Welfare Council	10 picture book
	Research Center	Fund-raising for drug abuse prevention activity of UN	26,030 ye
	Ishioka Center	Fund-raising for drug abuse prevention activity of UN	2,157 ye
		Donation to Ishioka City Social Welfare Council (used stamps)	used stam
Lc	ogitem Tsumura	Fujieda City Mottainai Campaign	68,530 ye
		Presented yellow bags for traffic safety to the first-grade elementary school pupils	10,000 ye
		Donation to Fujieda City Council of Social Welfare (used stamps)	used starr
Shanghai Tsumura		Donation for the Qinghai earthquake in China	59,000 yua (about 740,000 yer
		(donation from officers and employees included)	9,000 yua (about 110,000 yer
		Donation for the mudflow disaster in Gansu	50,000 yua (about 630,000 yer
Sł	nenzhen Tsumura	Donation for the Qinghai earthquake in China	76,000 yua (about 950,000 yer
		(donation from officers and employees included)	26,000 yua (about 330,000 yer

\* Details of the Great East Japan Earthquake are stated on P.26.

# Column

## Donation of the extra prize of the Company Award

In the Company Award 2010, both the Shizuoka and Ibaraki Plants won prizes for excellent performance in the continuous promotion of 5S activities. The Plants donated a portion of the extra prize to be used for social welfare projects.

#### Shizuoka Plant

The Shizuoka Plant presented five wheelchairs and two

stretchers to Fujieda City. This contribution was triggered by thinking what to do concretely to be a "people-friendly company that will contribute to society and humanity".



Presenting wheelchairs and stretchers

#### Ibaraki Plant

The Ibaraki Plant donated 100,000 yen together with

money collected from voluntary employees to Zeni Bank\*<sup>2</sup> operated by Ami-cho Social Welfare Council. This donation was a result of penetration of doing ordinary things on a routine basis, full participation and taking leadership into work places.



Monetary donation

\*2 Zeni Bank: Serving as an intermediary to present money and goods in good faith to people and institutions needing welfare







Medical herb garder

Tsumura Kampo Museum

In the Tsumura Kampo Museum: Open ceiling space taking natural lights at the center of museum

# **Communication with neighborhood**

# residents

The Tsumura Group has participated in beautification campaigns in the vicinities of our business sites. The Shizuoka Plant registered with Fujieda City Beautification and Adoption Campaign for the first time as a corporation, and has participated in an environmental beautification campaign around the entire area of a nearby park since February 2005. The Shizuoka Plant, Ibaraki Plant, and the Laboratory hold a summer festival every year, inviting the families of employees, neighborhood residents, and staff of related companies.





Fujieda City Beautification and Adoption Campaign (Shizuoka Plant)

Summer Festival (Ibaraki Plant/Laboratories)

#### Major Cleanup Activities in FY2010 MacO

Site	Number of times	Number of participants			
Shizuoka Plant	15	206			
Ibaraki Plant/Laboratories	5	182			
Ishioka Center	12	53			
Shenzhen Tsumura	1	68			

# Kampo education activities for the general public

In FY2010, a "Kampo Seminar for Women" was held at seven venues in Japan, and the number of participants was 17,661 in total. Contents of the seminar were featured on TV and newspapers. As women are especially interested in Kampo, the number of members of and the traffic to "Kampo View", a website for women which exhibits a variety of contents and is sponsored by Tsumura, have been increasing year by year. In the "NHK Educational Health Support Festa" which is sponsored by Tsumura, 1,078 people participated in the symposium entitled "Roles of Kampo in Cancer Treatment." Furthermore, seminars for medical journalists and workshops for editors and writers of women's magazines are implemented every year. These seminars and workshops are fulfilling an important role to create opportunities to communicate to the general public through media such as newspapers

and magazines how ethical Kampo preparations are used for treatment in medical practice.



Kampo Seminar for Women

# **Tsumura Kampo Museum**

The Tsumura Kampo Museum with a medical herb garden is aiming to be a place to communicate information on "Kampo" to our stakeholders in an easy and friendly manner.

In FY2010, the number of guests was 3,100 for a year, the highest since its reopening in April 2008. With questionnaires after a tour, we could confirm various opinions and impressions, as well as guests' satisfaction over 90%.

In FY 2010, Tsumura Kampo Museum won a prize of "the first interior planning award" as an excellent educational cultural facility.

#### Tsumura Kampo Museum

Yoshihara 3586 Ami-cho, Inashiki-gun, Ibaraki, 300-1192 Please contact us for reservations prior to your visit

# Acceptance of Facility Tours and **Internships**

We accepted students on our internship\*3 programs and conducted tours of Tsumura Kampo Museum and other facilities to facilitate understanding of the Company and Kampo and to provide students working experience.

\*3 Internship: A learning system to obtain working experience, in which students work at a company related to their own specialty on a probationary basis, Work-study program

#### Number of Acceptance of Facility Tours and Internship in FY2010

Site	Facilit	y Tour	Internship	
Sile	No. of acceptance	Visitors	No. of acceptance	Visitors
Headquarters	7	30	0	0
Shizuoka Plant	15	134	6	9
Tsumura Kampo Museum, Ibaraki Plant, Laboratories	223	3,100	2	5
Ishioka Center	7	27	1	1
Logitem Tsumura	1	21	1	2
Shanghai Tsumura	17	89	2	4
Shenzhen Tsumura	25	95	1	13



students



Early on-site training pharmacy

Internship (Ibaraki Plant)

# With Customers and Business Partners

We value our customer opinions and proactively offer information on Kampo and our products, so that our customers can use our products with confidence.



Kampo seminars

# **Consumer Information Service Center**

The policy of our Customer Information Service Center is to provide information with integrity based on objective facts and the latest data in order to promote proper use of medicines. Established in 1995, the Center has received over 290,000 consultations in sixteen years. We have made efforts to actively communicate with our customers while continuously improving our systems for consultation service. For example, we introduced a web-based e-mail service in FY2004 and a toll free number in FY2007 so as to make effective use of the abundant information provided by our customers through consultations.

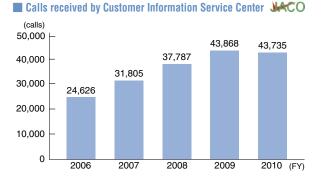
# **Customer Information Service Center**

Call 0120-329-930

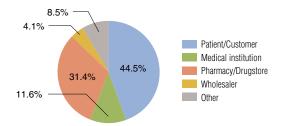
(Telephone number for medical personnel: 0120-329-970)

9:00 to 17:30 on weekdays, except company holidays

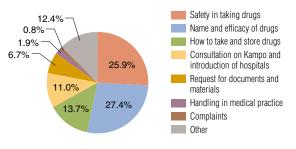
e-mail (accessed from our company's website)



# FY2010 Breakdown of Consulters MCO



#### FY2010 Breakdown of Consultation Issues



# **Consumer Satisfaction (CS) Conference**

Since FY2006, in order to proactively utilize the inquiries received from customers in our corporate activities, we have established the "Customer Satisfaction (CS) Conference" consisting of related directors and chaired by the president, and regularly reviewed various issues aiming at an improvement in customer satisfaction. In FY2010, we strived to make internal communication speedier.

Apart from holding CS conferences, documents such as proposals from customers are delivered to the board members every month, and the presidents, other officers, and managers in relevant divisions also go through them one by one. The Company intends to meet customer expectations through CS conference as a whole by listening to our customers.

# Seminars for gynaecologists

As the awareness of gender of female and male has been increasing in the society, "gender medical care" has been attracting attention in the medical world. There is a tendency to open out-patient clinic exclusively for women to respond especially to diseases and symptoms peculiar to women in medical institutions. Currently there are over 300 outpatient clinics for women.

Kampo preparations are highly expected as drugs which can provide detailed response to indefinite complaints and other female-specific symptoms. For the purpose of reducing pain of as many patients as possible with Kampo preparations, we have held the Kampo Seminar on female-specific disorders for gynaecologists according to the level of knowledge



(introductory, followup, and advanced courses) in major cities in Japan since 2004.

#### Seminars for gynaecologists

# specially Activities of MRs omen in (Medical Representatives) ver 300 out-

MRs visit medical institutions in order to provide, collect, and communicate the latest information on the quality, efficacy, safety, and appropriate use of ethical drugs.

**Cooperation with agencies** 

to spread Kampo medicine.

materials.

Every year, we gather managers of agencies which

we have entrusted with sales of our ethical Kampo

preparations, and inform them of our policies and the

progress of our activities. Thankfully, they have tried

At request of marketing specialists (MS) of agencies

website, using Kampo handbook for MS as learning

MS福用酒方教育支援サイト

ツムラ漢方スクエア ログインフォーム

CHERY-JECKERCENDFF2とできくを使べています。 ありまですが自然ロシベムソードもことが出来、ログメンボタンをきりょうからます

第1275つすりにからしくは自分のの意思、正常にはクインにたられらま あたいかくン検索があためでしまうためが見ますものかができった。 このような話がは、フラウザが10-ドボタンをサリックし

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Supporting site for MS of an agency to study Kampo

COMPANYATION.

(TREASTING)

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who desire to study Kampo medicine, we are

developing the self-study environment on our

Tsumura's ideal MRs are required to be able to suggest optimal treatment combining Kampo and Western medicine from the patient's standpoint. As members of leading maker of ethical Kampo preparations, our MRs are conducting information provision activities consistently with a sense of purpose to contribute to society and humanity, considering it is the greatest satisfaction to mitigate the pain of patients suffering from disease.

VOICE

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Masayuki Yokokawa The third Hospital Division, The second Hospital Department, Tokyo Regional Branch

# Working for as many patients as possible

Feeling that I could be of help to a patient, I am most satisfied with my job in MR activities. Last year, one of my family members got colon cancer and was prescribed Goshajinkigan, a Kampo preparation, at time of chemical treatment. As the Kampo preparation reduced side effects of chemical treatment, he could continue cancer treatment and was very happy with the effects of treatment. I have hardly had opportunities to listen directly to patients' opinions in my usual business activities. This time, listening to patients' opinions and witnessing the effects of treatment using Kampo preparation, I could actually feel that Kampo preparation was surely playing an important role in medical care. I also realized a new that a Tsumura MR is a challenging career. I would like to continue activities to provide information on ethical Kampo preparations so as to be of help to as many patients as possible in the future.

# With Employees

We will cultivate human resources who can personally improve corporate value, and create a work environment in which employees can actively work with pride.



TOSS Activities

# **Personnel Philosophy**

Under our Personnel Philosophy, we promote the improvement to our personnel system and its operation, and the creation of a corporate culture and working climate.

# **Personnel Philosophy**

Under our management philosophy, we foster independent organizational persons, improve the environment in which employees can challenge their goals by using their strengths to develop a vital corporate culture

# **Respect for human rights**

In the Tsumura Action Charter, we have declared our intent to act in accordance with a higher standard of ethics by respecting human rights and complying with all laws and regulations, code of conduct and its spirit both in Japan and overseas. Tsumura respects the spirit of The Universal Declaration of Human Rights and complies with ILO (International Labor Organization) decreed International Labor Standards for indicating basic labor criteria. In this way, we have been making efforts for the prevention of humanrights abuse, prohibition of discrimination at the workplace, and prohibition of child labor.

# **Recruitment**

Tsumura implements people-oriented recruitment activity by respecting individual personalities. As recruitment activities, we mainly participate in events for recruitment, hold briefing sessions in universities, and explain our corporate activities and job contents on our website in a way that is easy to understand. We also developed recruitment activities by holding an "Open Seminar" where employees working in the frontline explain the various job outlines in Tokyo, Osaka, and Fukuoka so that students can better understand TSUMURA & Co. and our business. We applied to Hello Work (Japan's quasigovernmental unemployment benefits and job introduction agency) for recruiting 20 workers who were affected by or whose job offers were rescinded due to the Great East Japan Earthquake. We will make efforts for supporting the recovery from the disaster to the extent possible.

# MACO

0.7

# Evaluation and Employee Compensation Package

Tsumura has adopted two evaluation methods, the "PAT Evaluation" to assess the process and achievement to a semi-annually decided objective and the "Performance Review" to clarify the rank of employees with an analysis of their vocational abilities. Also, to facilitate appropriate understanding of our personnel system, the "Personnel System Guide Book (TAPS)" is delivered to all employees.

# Employees' consultation service counter

We strive to manage the mental and physical health of our employees by setting up internal and outside consultation service counters so that employees can freely discuss their concerns in order to continue to work actively.

# Employees Consultation Service Counters and Their Functions

Service Counter	Primary item of consultations	
Tsumura Group hotline	Internal/ Outside	Compliance violation
Consultations on crimes and public nuisances	Internal	Crimes and public nuisances
Personnel and labor consultation	Internal	Harassment
KSS Line	Internal	Consultations regarding health, nursing care, and concerns
Angel Line	Internal	Pregnancy, childbirth, and childcare
Mental health consultation	Industrial physicians	Mental health
Health consultation	Industrial physicians	Health
Health support program	Outside	Health, nursing care, mental health, etc
Mental health consultation by Health Insurance Association,	Outside	Mental health

# **Employment Track Record**

We wish to respect the diversity of our employees and realize an ideal working environment. To this end, we have introduced re-employment systems such as for retired workers and the Comeback Program to provide opportunities to work at Tsumura again for employees who left the Company for reasons including child and family care, or due to a job transfer of a spouse.

As of the end of March 2010, 34 employees have been employed with the re-employment system for retired workers, and two employees with the Comeback Program.

Number of employees (unit: perso						
	FY2006	FY2009	FY2010			
TSUMURA & Co.	2,156	2,172	2,205	2,265	2,263	
Consolidated	Consolidated 2,750		2,631	2,702	2,717	

Number of union members and non-union members (TSUMURA & Co.) (unit: persons)								
FY2006 FY2007 FY2008 FY2009 FY								
Union member	1,478	1,458	1,460	1,483	1,461			
Non-union member	678	714	745	782	802			

Number of new graduates (TSUMURA & Co.) (unit: persons)							
	April 2006 April 2007 April 2008 April 2009 April 2						
New graduate	23	30	56	67	28		
(Female)	6	14	29	24	10		

Average years in service (TSUMURA & Co.)							
	FY2006 FY2007 FY2008 FY2009						
Average years in service	17.4	17.9	18.4	18.2	18.9		

Number of employees by employment status (TSUMURA & Co.) (unit: persons)								
	FY2006 FY2007 FY2008 FY2009 FY2							
Permanent Employees (including non-regular staff)	2,156	2,172	2,205	2,265	2,263			
Contract employees	278	286	329	369	450			
Temporary staff	89	117	113	89	35			
Turnover Ratio (TSUMURA & Co., excluding those who retired at the age limit) (unit: %)								
FY2006 FY2007 FY2008 FY2009 FY20								

 Turnover Ratio
 9.3\*
 1.9
 0.8
 1.1

\*Due to company split-up of Tsumura Lifescience, Co., Ltd.

# **Cooperation among group companies**

Local senior staff of Shanghai Tsumura received training at the head office and the Ibaraki Plant. We try to deepen mutual understanding of and trusting relationship with group companies.



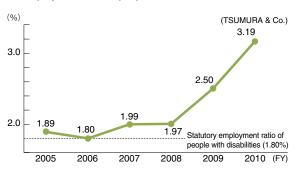
Training for Shanghai Tsumura employees (Head office)

# **Employment of people with disabilities**

The recruitment of people with disabilities is continuously implemented throughout the year. We have made efforts for providing them with better working environment in which they can exercise their individuality and abilities through hearings and interviews.

The headquarters building which is qualified in accordance with the new barrier-free law is equipped with an elevator for people with disabilities, barrierfree toilets and spaces which are easy to use and move with a wheelchair.

While Tsumura's employment ratio of people with disabilities is 3.19% (as of the end of March 2011), we are conducting proactive recruitment activities aiming at 4%. We hope to be a people-friendly company in which all employees can actively work with a sense of satisfaction.



#### Employment ratio of people with disabilities

# Human resource development

We seek personnel who personally decide and take action to achieve high level results while responding flexibly to changes in social environments. With an educational mission of "fostering independent organizational personnel", we have systematically educated personnel to build their careers at their early stage on the basis of independence and self-awareness. We have implemented a detailed education by building the curriculum considered necessary for age, vocational ability and position. Education concerning the provision of information on pharmaceutical products, a mission as a pharmaceutical company, has been conducted centering on education of Kampo medicine by the Marketing Training Department as designated by MR Education Center.

# Work-life balance

To promote our employees' health and an affluent lifestyle based on a work-life balance, the months of June, July, November, and February are promoted annually for taking leave. In addition, we recommend our employees to take designated long-term paid leave over three consecutive days as refreshment leave. We also facilitate a reduction of overtime work with no overtime work day twice a week and rules for entering and leaving our head office. Since 2010, the requirement for taking expired paid leave has been eased, so that employees can use them for childcare and nursing care, in addition to sick leave.

Off-the-job Training (OFF-JT)								
				Humar	Resource Developm	ent Center		Headquarters/Division
Ability-ba grading sy				Personnel	education			
3 3			Ability-base ec	lucation	Education by ago	Assistance for		
			Mandatory	Applied-basis	Education by age personal development			
M*5		(TLO				5		
M4	post	On-the-job training (OJT)		Y*3		Providing information		
M3	Managerial	) trair		Y2		g info		Education by
M2	lanaç	le-jot		12	4257	ovidin	Basic education	Education by vocational ability
M1	2	On-th	M1 Evaluator		32.4			
S*E*5				SE5		and videos,		
SE4	post		Third year	SE4	Career design Life planning	is and		
SE3	Clerical p		General training for	SE3	Care6	pood		
SE2	Cler		new recruits			Lending books		
SE1								
					Personal developm	ent		

\* M: Aiming to develop career at managerial post

\*S: Aiming at managerial post (M course) through development of career at clerical post

\*E: Aiming at development of career at clerical post

Chart of educational system

\* Y: Division of roles

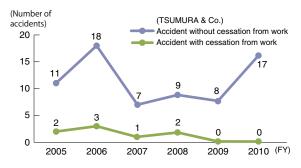
# Health and safety at work

With the basic stance that safety is our first priority to eradicate accidents at work, we have conducted health and safety management by enacting rules of the Health and Safety Management and enforcing the Health and Safety Management standards. By implementing the Health and Safety mutual auditing, each department has been improved. While a business establishment with 50 employees or more is obligated by Law to establish a health committee, we have set our health committees and selected industrial physicians and health administrators in all regional branches, beyond the legal provision. Aiming to improve the management level of health and safety committees and health committees all over the nation, the "Health Promotion Conference" is held four times a year by a gathering of representatives.

# Efforts to prevent accidents at work

The Shizuoka and Ibaraki Plants, the Laboratory and Ishioka Center are improving Health and Safety at work, aiming to completely eliminate labor and traffic accidents and build mental and physical health.

#### Number of accidents at work



# **Thanks Card**

As one of approaches to become "a people-friendly company that will contribute to society and humanity" based on our basic direction, "thanks card" is used as a communication tool.

We have been fostering kindness and warmth by expressing a feeling of gratitude in daily jobs and having more communication regardless of positions and departments through the card.

# **5S activities**

In accordance with the basic policy, "providing products that our customers can use with confidence based on the 5S\* activities", the Production Division has conducted the activities, and obtained numerous results since 2007.

In 2010, the activities were started in R&D Division, the head office, Ishioka Center, Shanghai Tsumura, and Shenzhen Tsumura. In the small group activities in which all members participate voluntarily, we are striving to create a pleasant workplace by fostering a feeling of trust mutually through conversation and caring for each other.

\*5S: acronym stands for five Japanese words that start with the letter 'S': Seiri (organization), Seiton (arrangement), Seiso (clean-up), Seiketsu (cleanliness), and Shitsuke (discipline).

WW

VOICE



(Tsumura Office 5S) Activity



TOSS Kick Off Bally

# Kicking off TOSS (Tsumura Office 5S) Activity

In divisions at the head office, we decided to introduce 5S activities appropriate to administrative divisions with an eye to achieving the goal to cultivate right human resources and corporate culture as a member of a "people-friendly company that will contribute to society and humanity" through our Kampo business.

This activity is nicknamed "TOSS" standing for Tsumura Office 5S Activities. It also means that, in volleyball, it is necessary to toss a ball easy to hit, thinking of and communicating with each member.

As the first step of the activity, we strive to change the way of thinking. It is said that if the way of thinking is changed, behaviors will change, and then practices will change. We begin the activity with improving communication ability at workplace by greeting. We would like to help create more comfortable working environment in which people cheerfully greet each other.

# Environment and Tsumura

Under our corporate philosophy of "The Best of Nature and Science", Tsumura has established its environmental principle and basic policy. The Company has also set midterm and annual environmental objectives to achieve continuous improvements.

# Tsumura Environmental Principle

As a corporate group pursuing "The Best of Nature and Science", Tsumura promotes corporate activities that consider harmony with nature for global environmental conservation and healthy living.

(Revised October 2009)



# **Tsumura Environmental Policy**

- 1. Efforts for environmental conservation Promote corporate activities in consideration of harmony with nature by recognizing as an important issue the protection of our precious planet earth.
- Construction and improvement of the environmental management system Construct an environmental management system and conduct voluntary audits while setting, implementing, and assessing those environmental objectives that are to be addressed in order to make efforts to continuously improve the system.
- 3. Reduction in environmental impact and development of technologies for this purpose Make practical efforts and develop new technologies for conserving the environment through the reduction of environmental impact, such as resource and energy saving, recycling, and reducing waste in various aspects of our corporate activities.

# 4. Consideration for biodiversity

Conduct appropriate procurement of raw materials with regard to biological diversity, in order to enjoy nature's bounty in the future years.

5. Compliance with environmental regulatory controls

Comply with requirements in laws, agreements, and industrial voluntary standards concerning the environment while promoting improvements in our environmental conservation activities.

# 6. Promotion of environmental education and enlightenment

Promote environmental education and enlightenment activities to enable all executives and employees to continuously work on environmental conservation through self-reliance based on the environmental principle and policy.

# 7. Efforts for information disclosure

Disclose as much information on our environmental efforts as possible.

8. Participation in social contribution activities

We will address environmental conservation voluntarily and participate in social contribution activities through our work of Kampo and botanicals business.

(Revised October 2009)

Licorice

Targets and Ach	ievements of FY2010 🕊 CO	Evaluation criteria 💋:100% of target or higher 🧃	:80% of target or higher :Less than 8	30% of target
	The Mid-term Environmental Objectives (FY2009-2011) Reduction in greenhouse gas emissions	Targets of FY2010 Reduction in greenhouse gas emissions	Achievements of FY2010 Reduction in greenhouse gas emissions	Evaluation
The entire Company	Reduce average of greenhouse gas emissions for three years by 19% compared with the performance figures in FY1990 (Total emission: 140,257t-CO <sub>2</sub> or less)	Reduce greenhouse gas emissions by 21% compared with the performance figures in FY1990 (Emission: 45,648t-CO <sub>2</sub> or less)	Reduce greenhouse gas emissions by 24% compared with the performance figures in FY1990 (Emission: 43,919t-CO <sub>2</sub> )	<i>,</i>
Production Sectors	Reduce average of greenhouse gas emissions for three years by 15% compared with the performance figures in FY1990 (Total emission: 129,894t-CO <sub>2</sub> or less) • Promote further energy saving with introducing and renewing facilities with higher efficiency	Reduce greenhouse gas emissions by 17% compared with the performance figures in FY1990 (Emission: 42,068t-CO <sub>2</sub> or less) Shizuoka Plant: 16,833t-CO <sub>2</sub> or less Ibaraki Plant: 19,833t-CO <sub>2</sub> or less Ishioka Center: 1,234t-CO <sub>2</sub> or less The Laboratory: 4,168t-CO <sub>2</sub> or less	Reduce greenhouse gas emissions by 21% compared with the performance figures in FY1990 (Emission: 39,992t-CO <sub>2</sub> ) Shizuoka Plant: 17,039t-CO <sub>2</sub> Ibaraki Plant: 18,350t-CO <sub>2</sub> Ishioka Center: 1,201t-CO <sub>2</sub> The Laboratory: 3,402t-CO <sub>2</sub>	/
Sales vehicles	<ul> <li>Reduce average of greenhouse gas emissions for three years by 2% compared with the performance figures in FY2008 (Total emission: 7,405t- CO<sub>2</sub> or less)</li> <li>Gradually introduce hybrid cars.</li> <li>Practice eco-friendly driving and regularly organize the inside of vehicles</li> </ul>	Decrease greenhouse gas emissions by 2% compared with the performance figures in FY2008 (Emission: 2,594t-CO <sub>2</sub> or less)	<ul> <li>Increase greenhouse gas emissions by 6% compared with the performance figures in FY2008 (Emission: 3,104t-CO<sub>2</sub>)</li> <li>Because usage of gasoline increased due to an increase of sales activities</li> </ul>	
Nonproduction sectors	<ul> <li>Reduce average of greenhouse gas emissions for three years by 2% compared with the performance figures in FY2008 (Total emission: 2,958t-CO<sub>2</sub> or less)</li> <li>Turn off unnecessary lights and keep room temperature around 28°C in summer and 20°C in winter.</li> <li>Unplug the PCs when leaving office.</li> <li>Make thorough efforts for reducing paper materials with two-sided printing, N-up printing, and monochrome copying.</li> <li>Don't use elevators when moving to the floor right below or above.</li> </ul>	Decrease greenhouse gas emissions by 2% compared with the performance figures in FY2008 (Emission: 986t-CO <sub>2</sub> or less) Head office: 484t-CO <sub>2</sub> or less Regional branches/Sales offices: 502t-CO <sub>2</sub> or less	Decrease greenhouse gas emissions by 29% compared with the performance figures in FY2008 (Emission: 824t-CO <sub>2</sub> ) Head office: 411t-CO <sub>2</sub> Regional branches/Sales offices: 413 t-CO <sub>2</sub>	_

Calculation of greenhouse gas emissions

· Six kinds of gases designated as greenhouse gases in the Kyoto Protocol.

• Calculated based on the manual for "Calculations, reports, and announcement of GHG emissions" in the "Law concerning promotion of measures for controlling global warming".

• Emissions derived from purchased electricity are calculated with emission factors that are provided by each electric power company and publicized by the Ministry of Environment.

• For Shanghai Tsumura and Shenzhen Tsumura, the electric emission factor of the latest GHG Protocol (0.788 kg-CO<sub>2</sub>/kWh) is used.

• For Shanghai Tsumura, the steam emission factor in the "Laws concerning the promotion of measures for controlling global warming" (0.060 kg-C0<sub>2</sub>/MJ) is used.

• From FY2009, the factor in the "Ordinance of Enforcement of the Laws concerning the promotion of measures for controlling global warming" which came into force in FY2010 is used.

## Efforts in FY2010

In FY2009, the "Environmental Management Rule" to which all group companies are subject was established to clarify the environmental management system. The environmental management activities have been implemented, clarifying roles of a division chief as an environmental manager of each division by adding an environmental objective of each division to evaluate items as commitment of a division chief. According to the revision of Act of the Rational Use of Energy in FY2010, an operating officer in charge of CSR Department was appointed as a general manager of energy management. We also addressed a reduction in the emission of greenhouse gases through energy saving activities in not only plants but also offices.

In FY2011, as countermeasures against demandsupply gap of electricity in summer due to influences from the Great East Japan Earthquake, we have further enhanced the energy management system and measures to save electricity.

# **Environmental Management**

Tsumura enhances its environmental management system based on our "Environmental Principle" and "Environmental Policy" in order to continuously promote environmental conservation activities.

# Environmental Management Policy/ System

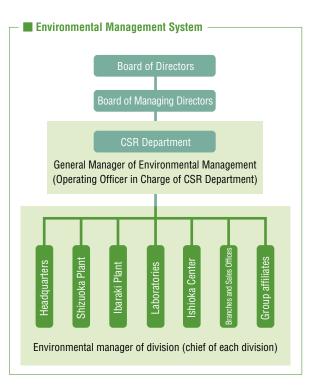
In order to respond to changes in business conditions and increasing expectation for corporate efforts for conserving biodiversity, Tsumura revised the "Environmental Principle" which is an action principle for environmental conservation activities, and the "Environmental Policy" which is an action policy to realize the principle in October 2009. "Environmental code of behavior" is also being prepared so as to further understand the "Environmental Policy". In August 2009, the "Tsumura Environmental Management Rules" was established, which clarifies the environmental management system of Tsumura Group, and provides for fundamental matters concerning environmental management. We are executing environmental management activities with the environmental system in which a specialized department is CSR Promotion Department, and the Operating officer in charge of CSR Promotion Department is General Manager of environmental management, while clarifying roles of a division chief as an environmental manager of each division. According to the partial revision of "Environmental Management Rules" in November 2010, an operating officer in charge of CSR Department was appointed as a general manager of energy management in order to comply with the revised Act of the Rational Use of Energy.

# **Environmental Management System**

Ten years have passed since the domestic production bases, the Shizuoka and Ibaraki Plants acquired ISO14001, an international standard of environmental management in 2001. During the period, they went through the renewal assessments for ISO14001 by its certification body every three years. In the both plants, audit is implemented by internal environmental auditors, including confirmation of evidence regarding consistency of documents, practices, and records. In branches and sales offices, their environmental activities are reviewed at the time of business audit by the audit department. Like this, the company-wide environmental management system has been constructed.

# Activities of overseas bases

In 2010, Shenzhen Tsumura started the environmental management activities, establishing "Environmental Management Rules" which provides for fundamental matters concerning environmental management. It conducts environmental conservation activities with the environmental management system in which the chairperson is a top environmental manager, the president is an environmental manager of each division, and a main division is a general accounting office, while clarifying each role. Shanghai Tsumura also constructed the environmental management system with "Environmental Management Rules" established in 2011.



# **Emergency response**

In the production departments, the following emergency drills were conducted:

- CFC leakage
- Hazardous substance leakage
- Chemical (caustic soda, hydrochloric acid, organic solvents, and ferric chloride) leakage
- Industrial smoke disasters
- Effluent treatment facility disasters
- Operation of steam safety valves
- Noxious emissions
- Decolorization treatment equipment disasters
- Photochemical oxidant hazard warnings



Emergency drill to be prepared for hazardous substance leakage (Ibaraki Plant)

# **Environmental Education and Awareness**

Tsumura promotes environmental education and awareness activities to raise awareness of the global environmental issues leading to environmental conservation practices.

# Policy of environmental education and

#### awareness

We have conducted environmental education since FY2001, aiming to promote continuous engagement in environmental conservation activities according to the Tsumura Environmental Principle and Policy. It is considered important to have all employees understand that as our business is deeply related to nature, coexistence with nature is required for business continuity.

# **Activities in FY2010**

#### Environmental education

In the general training for new recruits, education about the relation between natural environment and Tsumura's business was provided with an eye to raising employees' environmental awareness and promoting activities. Also in each division of the head office, production sectors, and the laboratory, as well as group companies, general as well as specialist education about environmental laws and cases regarding energy & resources saving and company tours were conducted in order to improve employees' knowledge and deepen understanding.

#### Environmental awareness

We raised employees' environmental awareness by issuing "Environmental News" every month and holding "Tsumura green photo contest". With officers' and employees' higher environmental awareness in Chinese group companies, there were a lot of applicants from Shenzhen Tsumura and Shanghai Tsumura for the photo contest.

The Ibaraki Plant and Ishioka Center invited environmental slogans, and the Laboratory held the energy saving contest, in order to promote environmental awareness and employees' proactive participation in environmental activities.

#### Achievements of Environmental Education in FY2010

Category	Frequency	No. of Participants
General education	151	3,533
Special education	54	1,032
Education of internal auditors	2	4
Guidance on environmental policy for contractors	49	55
Collection of environmental slogan	2	425
Emergency drills	26	1,118



General training for new recruits



Gold prize of Tsumura Green Photo Contest "Tunnel and yellow autumn leaves" Naoko Kagaya, Akita Sales Office

# Column

# Ibaraki Plant won the chairman's prize of Japan Greenery Research and Development Center

In the 29th national convention for promotion of greening plants hosted by Japan Greenery Research and Development Center, the Ibaraki Plant won the Chairman's prize for excellent green plant in 2010.

The Ibaraki Plant is making efforts for environmental conservation, aiming to be an "eco-friendly green plant". On a premise of 178,000m<sup>2</sup>, over 2,500 trees, a medical herb garden, ponds, fountains, lawn, and fields have been arranged, maintaining rich natural environment. The Plant won the prize, appreciated for proactive promotion of greening plant and its comprehensive activities with an eye to prevention of the global warming, consideration of biodiversity, and coexistence with nature.







Green area of Ibaraki Plant

# Contribution to a Low Carbon Society - Prevention of Global Warming -

Expecting an increase in production volume, Tsumura Group is making efforts for energy saving and a reduction in greenhouse gas emissions in unison.

## **Mid-term Environmental Objectives**

With the Mid-term Environmental Objectives set corresponding to the period of the mid-term management plan, we are striving to reduce our greenhouse gas emission for three years from 2009 to 2011 by 19% on average in comparison with the level of FY1990. In FY2011, the upper limit of greenhouse gas emission is 48,259t-CO<sub>2</sub>. Making efforts for energy saving in not only production sections, but also sales vehicles and branches and sales offices, we are promoting "the reduction in greenhouse gas emission" as the company-wide activity.

# Engagements for global warming prevention in FY2010

While the production volume of medical extracted granules increased by 3.5% from the previous year, the emission of greenhouse gases decreased by 2.6% from the previous year, and by 23.9% in comparison with the level in FY1990.

Production sections<sup>\*1</sup> have introduced and renewed facilities such as freezers and air conditioners basically taking into account high energy efficiency and energy saving.

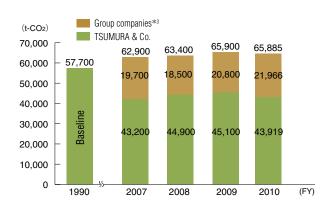
The Shizuoka Plant reduced the emission of CO<sub>2</sub> by about 49t over the year with centralization of air supply facilities, change in operations of the effluent treatment facility, and introduction of inverter processing water pump. Ibaraki Plant reduced CO<sub>2</sub> by about 350t per year by introducing Japan's first steam generator using heat pump technology of which heat source is waste warm water from a cogeneration system\*<sup>2</sup> (Steam Link). Branches and sales offices are also promoting energy saving activities and eco-friendly driving by disclosing the monthly greenhouse gas emissions of each business establishment to check progress. The full-scale introduction of hybrid cars, five of which were already introduced, as a sales vehicle has

been under consideration. In order to ensure safety, existing sales vehicles have been gradually switched to compact cars.

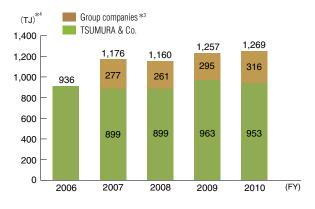
Shanghai Tsumura and Shenzhen Tsumura are striving to reduce greenhouse gas emissions with efficient production plans and energy-saving activities.

- \*1 Production sections: Including Shizuoka and Ibaraki Plants, Ishioka Center, and the Laboratory
- \*2 Cogeneration system: As seen in its name, it is a system to obtain multiple energies such as electric and thermal energies from only one energy.

Performance of Greenhouse gas emissions JACO



#### Energy Consumption



\*3 Group companies: Logitem Tsumura, Creative Service, Yubari Tsumura, Shanghai Tsumura, and Shenzhen Tsumura

\*4 TJ=1,000GJ J (joule): The unit of power in International System of Units, One joule is the work done, or energy expended, by a force of one Newton moving one meter along the direction of the force

# Future development and target

In FY2011, we will continue to effectively promote energy-saving activities such as introduction of new technologies by setting discernible reduction targets of energy use.

The Ibaraki Plant is introducing a facility to reuse steam with a hybrid method in the concentration process of Kampo extracted liquid. It is scheduled to start operation in FY2011, expected to reduce CO<sub>2</sub> by approximately 2,000t per year.

Based on the result in FY2010, we will conduct new energy saving activities, and increase their awareness by expressing the commitment of each section. In this way, the Company will strive to achieve the mid-term environmental objectives as a whole.

# Contribution to a Sustainable Society - Preservation of Biodiversity -

In consideration for biodiversity stipulated in the Tsumura Environmental Policy, we will strive to reproduce an ecosystem with nature's bounty in the next generation through various activities such as "preservation and cultivation of rare species" and "protection of gene resources".

## Tsumura's efforts for biodiversity

We believe it is precisely because our business is the production and trade of Kampo preparations made from botanical raw materials, the natural bounty, that it is necessary to build a cyclical process necessary for coexisting with nature and pay attention to biodiversity in a responsible manner. Furthermore, we amended the Tsumura Environmental Policy in October 2009 in order to clearly state our policy to pay attention to biodiversity, saying "we will make efforts for preservation of biodiversity so as to enjoy nature's bounty in future". In order to maintain biodiversity in the production areas of botanical raw materials and realize the sustainable harvest of botanical raw materials, Tsumura is working on the cultivation and protection of wild medicinal plants for botanical raw materials.

# Biodiversity of fields of botanical raw materials

It is said that modern agriculture which depends on agrichemicals such as weed killer and pesticide puts an excessive impact to the environment. We are paying attention to use of agrichemicals in the cultivation of botanical raw materials for ethical Kampo preparations. For example, in an attempt to reduce the environmental impact, we instruct producers to minimize use of agrichemicals, and carefully spray them preventing from scattering so as not to have adverse effects on nearby living natural habitats. In this way, we manage agrichemicals by regulating their kinds and methods of use, considering the environmental impact. We believe such approaches would lead to protection and fostering of local abundant ecological systems.

# Towards the protection of gene resources

Wild plants consist of groups with individual variations in diverse characteristics, such as external form, contained ingredients, resistance to disease and pest. Such individual variations reflect the diversity at the genetic level.

To obtain medicinal plants which become raw materials of crude drugs, we must depend on the harvest of wild plants. For Tsumura's continuous development, it is a critical issue to preserve the genetic diversity for sustainable use of those plants.

## **Cultivation research and practice**

As botanical raw materials depend on the harvest of wild plants, Tsumura is careful not to deplete these resources. As concrete countermeasures, we have systematically harvested them within their natural resilience, and have studied the cultivation method of wild plants in cooperation with the China Meheco Corporation, a research institution in China. Accordingly, with advances in the cultivation of various botanical raw materials, we are less dependent on only wild plants for botanical raw materials. In this way, these advances contribute to the preservation of rare species of plants. Furthermore, for over 80 years Tsumura has contributed to the protection of gene resources and the diffusion of botany and pharmacognosy with publications in international academic magazines concerning the research and study of wild plants including endangered species.

# Towards the conservation of grasslands

Some botanical raw materials grow in grasslands in China. Among them the cultivation of rhubarb and licorice has been studied in corporation with the China Meheco Corporation. The spread of cultivation will prevent overharvest of wild plants, and thus lead to the conservation of grasslands.

Furthermore, we have conducted activities to invite botanist instructors of our production areas in China to Japan, and educate them about production methods.

Through such practical studies and education, we are contributing to the preservation of natural environments and biodiversity. (See P.18)



Wild rhubarb (China)



Cultivated rhubarb (China)

# Aiming to be a Recycling Society - Promotion of the 3 Rs -

We are building systems for cyclical use of resources, for example, converting botanical drug residues into fertilizers and bio-ethanol, and recycling water resources.

# Policies of waste reduction and recycling

While it is inevitable for wastes to increase due to the expansion in production volume, we will make efforts for reducing final disposal volumes of waste with proactive reduction and reuse. As for industrial waste (including ones under special management), we are striving to continuously achieve zero emission (a 100% recycling rate of industrial waste\*1) by selecting appropriate waste treatment contractors.

\*1 Recycling rate of industrial wastes (%) = Volume of industrial waste recycled / Volume of industrial waste emissions x 100

# Approach to waste reduction and recycling in FY2010

Although waste generation is increasing as production increases, we are striving to reduce emission by converting waste plastic and packaging materials such as plastic bags, cardboards, and wrapping paper into valuable resources. As for industrial waste, the Shizuoka and Ibaraki Plants, the Laboratory, and the Ishioka Center have continuously achieved zero emissions. In FY2010, Shanghai Tsumura also achieved zero emission. As the result of these efforts, the recycle rate reached 98.6% in 22,540t of the Group-wide total waste emissions (including general wastes) in FY2010.

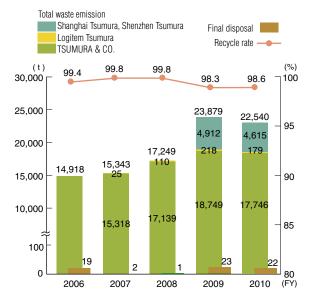
# **Recycling of botanical drug residues**

In FY2010, the volume of botanical drug residues generated through the manufacturing process of Kampo extracts was 20,081t, accounting for about 90% of total industrial wastes. All of those botanical drug residues have been recycled as fertilizers, etc. in not only the Shizuoka and Ibaraki Plants, but also Shanghai Tsumura.

Considering a recycling method to covert botanical drug residues to bio-ethanol\*<sup>2</sup> over some years, we have continuously studied about how to increase the yield of bio-ethanol and the way to effectively use residues after production of bio-ethanol as bio-based fuels. As for recycling botanical drug residues, we have also sought and considered new processing methods with less impact on environment, apart from conversion to bio-ethanol.

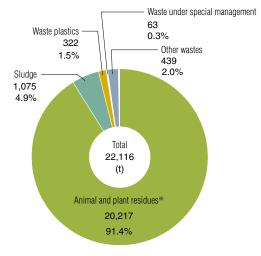
\*2 Bio-ethanol: Ethanol made from fermented plants such as sugarcane.

#### Total waste emission, Final disposal, and Recycle rate MCO



Shanghai Tsumura and Shenzhen Tsumura are included from FY2009. Final disposal and recycle rate are values of the group total.

#### Breakdown of industrial waste emission JMCO



\* Animal and plant residues include residues of botanical raw materials.

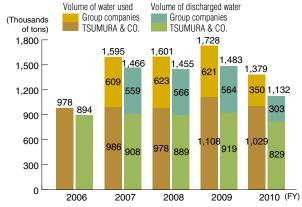
## Water Resource Protection

Since we are using a large volume of water, nature's bounty, the reduction and cyclical use of water are our policies of water resource protection for the sustainable use of water.

At the Shizuoka and Ibaraki Plants, cooling water used in the process to concentrate extracted liquid for Kampo preparation is continuously collected and reused. Shanghai Tsumura has also started reuse of cooling water from FY2010. The collection ratios\*3 of water in FY2010 of the Shizuoka Plant, the Ibaraki Plant, and Shanghai Tsumura were 53.1%, 55.5%, and 52.2%, respectively. The wastewater after effluent treatment is reused for water scrubbers\*4 and other miscellaneous purposes.

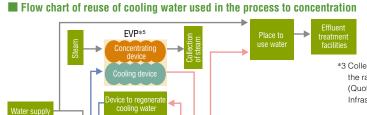
The Ibaraki Plant reduced usage of water by reviewing washing time of demisters (separator) in the drying process to make operations more efficient. In the production of water designated by Japanese Pharmacopoeia, water for manufacturing, the Plant has used well water from the well succeeded from Ami-cho, of which temperature is more stable than industrial water from Kasumigaura. The use of well water has led to appropriate water use and a reduction in energy usage.



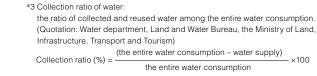


#### Future developments and targets

The production process of extracted powder was additionally built to increase production capacity, based on a long-term forecast of demand for ethical Kampo preparations. Accordingly, an increase in wastes resulting from the expansion in production volume is expected in the future. We will make efforts for realizing the recycling society by promoting the 3 Rs (Reduce, Reuse, and Recycle), for example, the conversion of wastes to valuable resources, continuous achievement of zero emission, reduction in water consumption and cyclical use of water resources.



Water tank



\*4 Water scrubber: Facility to eliminate hazardous substances emitted to the atmosphere by cleaning exhaust gas emissions with water

\*5 EVP: Evaporation (concentration step)



VOICE

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Tank of cooling wate

Kawamoto The production division, the Ibaraki plant Section Chief of Production Section 1 Production Department

#### The reduction in water usage at the Ibaraki Plant

At the Ibaraki Plant, we have conducted various activities for water resource protection stipulated in the Environmental Policy. Especially in the manufacturing process of extracted powder, the most water is used in the Plant. In FY2010, we successfully reduced water usage about 4,800t per year with more efficient operations, for example, reviewing washing time necessary for cleaning demisters in the drying process at the time of changing production items and resetting washing timer; and reducing the amount of blow-off water for protection of pipes. As a result, we could save energy comprehensively, also reducing usage of electricity and steam. The headquarters of production sectors and the Ibaraki Plant will tackle recycling of water and water-saving measures in the processes for effective use of precious water resource.

# **Chemicals Management/Prevention of Air and Water Pollution**

As a company to support human health, we are making efforts for creating a healthy environment with chemicals management and a reduction in pollutant release.

### **Chemicals management**

We promote the monitoring of chemical consumption and substitution in compliance with the "Tsumura Management Standard for Chemical Substances" enacted in FY2002, which is a voluntary standard for the purchase, reduction, and prohibition of chemicals according to their hazardous properties. As a result, among chemicals we use, ones subject to the PRTR (Pollutant Release and Transfer Register) System have been only acetonitrile and ferric chloride. Acetonitrile is used as a solvent in constituent inspections from botanical raw materials through products. Ferric chloride which has become subject to the PRTR system due to the revision of the law is used as flocculating agent at the effluent treatment facility.

As for chloroform of which substitution had been continuously considered, we successfully completed verification tests for extracts, granulated powder, tablets in Shizuoka Plant, and the test for extracts and granulated powder in Ibaraki Plant with a substitution in FY2010.

Chemicals are purchased through the "Cyber Regent Mall" on the corporate intranet, so that the stockpile of chemical substances is recorded. Furthermore, we have made efforts for improving the operation management, for example, the periodical renewal of the MSDS\*, education concerning the laws and regulations related to chemicals, and implementation of patrols and emergency drills. We have also managed deleterious substances such as acid and alkali in an appropriate manner.

\*MSDS (Material Safety Data Sheet): A safety data sheet for chemicals in which

## Air and water pollution control

#### Activities of production bases

In an attempt to conserve water quality and prevent air pollution, domestic and overseas production bases have complied with relevant local laws and regulations, set strict voluntary standards, and implemented management based on them. Water pollutant release of each base is regularly measured internally and by an outside certificate authority of measurement to confirm that the pollutant level is below the limit. Smoke is also measured by an outside certificate authority on a regular basis to confirm that the level of air pollutant emission is lower than the limit.

#### Logitem Tsumura's approach

For Logitem Tsumura Co., Ltd. engaged mainly in haulage business, a reduction in environmental impact is a critical issue. In FY2010, they achieved a year-on-year reduction of 0.7% in light oil consumption with thorough implementation of stopping the practice of idling, driving without sudden starting and acceleration. It leads to not only energy saving and a reduction in greenhouse gas emissions, but also prevention of air pollution. They have also conducted activities from various angles, for example, promotion of modal shift.

Amount of pollutant release and transfer according to PRTR System	MACO

information on nature of chemicals and how to handle them is stated.

					•	-					(unit. t)
	Chemicals	Annual an	nsumption		Release		On-site landfill			Transfer	
	Chemicals	Annual Co	isumption	Air	Public water	Soil	On-site fandini	V	Vaste	Public sewer	Outside facilities
Ibaraki Plant,	Acetonitrile	2.1	(2.5)	0(0)	0(0)	0(0)	0(0)	2.1	(2.5)	0(0)	0(0)
Laboratory	Ferric chloride	171.4	(-)	0(-)	0(-)	0(-)	0(-)	0.0	(-)	0(-)	0(-)
Shizuoka Plant	Acetonitrile	0.7	(0.8)	0(0)	0(0)	0(0)	0(0)	0.7	(0.8)	0(0)	0(0)

\*Performance in FY2009 is shown in parentheses.

\*Ferric chloride has become subject to the PRTR system from FY2010.

\*\* As it would be necessary for Shizuoka Plant to report pollutant release and transfer in a case of increasing production volume, the Plant is managed.

#### Emission of air pollution substances Image: Ima

	NOx	SOx	Dust
TSUMURA & Co.	29.62	-	0.06
Logitem Tsumura	4.78	-	-
Shenzhen Tsumura	2.46	-	0.00
Yubari Tsumura	0.02	-	0.00
Total	36.89	-	0.06
			(unit: t)

#### 

				_		
		BOD	COD	SS	Nitrogen	Phosphate
TSUMURA & Co.	Shizuoka Plant	1.15	1.79	1.50	0.58	0.031
	Ibaraki Plant	0.34	1.59	0.23	0.73	0.011
Shanghai Tsu	mura	3.58	8.57	7.07	0.04	-
Total		5.07	11.95	8.80	1.35	0.042

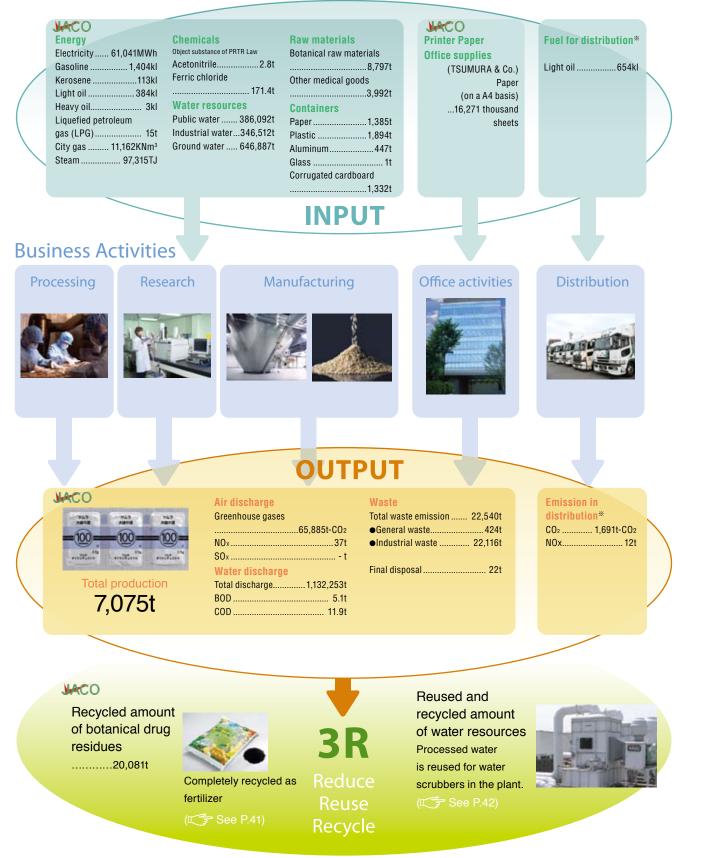
(unit-t)

# **Energy and Material Flow**

[Reporting organization] TSUMURA & Co., Logitem Tsumura Co., Ltd., Creative Service, Inc., Yubari Tsumura Co., Ltd., Shanghai Tsumura Pharmaceuticals Co., Ltd., and Shenzhen Tsumura Medicine Co., Ltd.

[Period covered] April 1, 2010 to March 31, 2011

January 1, 2010 to December 31, 2010 (Shanghai Tsumura and Shenzhen Tsumura) November 1, 2010 to March 31, 2011 (Yubari Tsumura)



\*Fuel for distribution and Emission in distribution at Logitem Tsumura and other contract carriers were calculated according to the amended tonkilometer method defined by Energy Saving Act.

Transport within China or from China to Japan is not included.

# **Environmental Performance Data**

## Trend of Major Environmental Performance Indices from FY2006 to FY2010

Reporting	J Period	FY2006	FY2007	FY2008	FY2009	FY2010	Scope	Corresponding pages in this report
Total Ene	rgy Input [GJ]	936,031	898,730	899,451	962,506	953,152		P.39/44
Material	Botanical raw materials [t]	5,880	6,221	6,365	7,408	6,923	*3	P.44
Input	Containers and packaging [t]	3,464	3,899	4,439	4,911	4,844		P.44
Water Re	source Input [t]	977,732	985,739	978,140	1,107,550	1,029,063	*4	P.42/44
Chemical	Acetonitrile [t]	3.6	3.8	4.2	3.3	2.8		P.43/44
Input	Ferric chloride [t]	_	_	_	_	171.4	*5	P.43/44
Green Pu	rchase Rate [%]	81	80	84	80	79	*6	_
Productio	on of ethical Kampo extract granules [t]	5,052	5,521	6,353	6,839	7,075	*7	P.44
Emission	of greenhouse gases [t-CO2]	46,600	43,200	44,900	45,100	43,919	*8	P.36/39/44
	Waste emission [t]	14,918	15,318	17,139	18,749	17,746	*9	P.41/44
Waste	Final disposal [t]	19	2	1	1	6		P.41/44
	Percentage of waste recycled [%]	99.4	99.8	99.8	99.9	99.8		P.41
Effluent d	lischarge [t]	894,140	907,732	889,108	919,406	829,453	*4	P.42/44
Eco-efficie	ency for GHG reduction*1 [t-CO2/million yen]	0.51	0.46	0.50	0.50	0.46		_
Eco-effici	ency for waste reduction*2 [t/million yen]	0.16	0.16	0.19	0.21	0.19		-
Net sales	[million yen]	91,227	94,799	90,016	90,933	94,778		P.53
Total asse	ets [million yen]	143,378	135,146	126,824	134,697	141,549		P.53

The calculation above consists of only the performance data of TSUMURA & Co., though the gathering of data of the following Tsumura Group companies began in FY2007: Logitem Tsumura Co., Ltd., Creative Service Co., Ltd., Shanghai Tsumura Pharmaceuticals Co., Ltd., and Shenzhen Tsumura Medicine Co., Ltd.

\*1 Eco-efficiency for GHG reduction: [Emission of GHG] / [Net sales]

\*2 Eco-efficiency for waste reduction: [Waste emission] / [Net sales]

\*3 Volume of botanical raw materials used for the process of extraction in the Shizuoka Plant and Ibaraki Plant

\*4 Excluding headquarters, domestic regional branches, and sales offices.

\*5 Ferric chloride has become subject to the PRTR system since FY2010.

\*6 Data of general office supplies is covered.

\*7 Kampo extract granules for prescription and OTC

\*8 With the revision of the Law concerning promotion of measures for controlling global warming, significant figures are not processed but rounded down to whole number.

\*9 Excluding regional branches, sales offices, West Japan Logistic Center and recreation facilities.

#### Reporting Organization

TSUMURA & Co. and its group companies

#### Important Notice about Environmental Performance

- Shizuoka Plant, Ibaraki Plant, the Laboratory, and Ishioka Center have continuously achieved zero emission.
- In FY2010, Shanghai Tsumura achieved zero emission.
- The gathering of data of Yubari Tsumura began from November 2010.

#### Compliance of Environmental Regulations McCO

- There was no violation of the environmental regulatory controls that accompany the guidance, recommendations, instructions, and penalties by the regulator in FY2010.
- Shizuoka Plant, Ibaraki Plant, the Laboratory, Ishioka Center, Logitem Tsumura, and Yubari Tsumura have complied with the criterion values and reporting obligations of Air pollution control act, Water quality pollution control act, Wastes disposal and public cleansing act (including wastes subject to special control), and the PRTR system. The head office has appropriately reported according to Rationalization in energy use law.

# Environmental Accounting

#### Environmental Conservation Cost [thousands of yen]

Scope: Domestic plants and offices of TSUMURA & Co. Period covered: April 1st, 2010 to May 31st, 2011 Reference: MOE Environmental Accounting Guidelines (2005)

Category of environmental	Major activities	FY2	009	FY2	010
conservation cost		Investment	Expenses	Investment	Expenses
(1) Business area costs		339,994	677,130	256,591	713,855
Pollution prevention	Prevention of air and water pollution, odor, etc.	82,291	199,710	21,552	174,430
Global environmental conservation	Prevention of global warming, energy saving, and prevention of ozone layer depletion	252,779	111,087	231,003	144,820
Resource circulation	Efficient use of resources, waste recycling, treatment, and disposal, etc.	4,924	366,333	4,036	394,606
(2) Upstream/downstream	Reduction of negative environmental impact of container wrapping, recovery, recycling,				
costs	and proper processing of waste products, etc.	0	16,505	0	37,679
(3) Administration costs	Development and operation, information disclosure, environmental advertising and				
	environmental education of environmental management	723	205,057	0	200,557
(4) R&D costs	Research and development of products that contribute to environmental protection	0	11,524	0	33,380
(5) Social activity costs	Contribution and support to environmental protection groups, etc.	0	2,372	3,436	2,642
(6) Environmental damage costs	Restoration of natural environment, provision of reserves, and insurance costs, etc.	0	525	0	517
(7) Other costs	Prevention of radiation injuries	0	0	0	0
	Total	340,717	913,113	260,027	988,631

#### **Environmental Conservation Benefit**

Category	Environmental Performance (Unit)	FY2009	FY2010	Conservation benefit
Benefit concerning resource input	Total energy input [GJ]	962,506	953,152	-9,354
to the business operation	Total water resource input [t]	1,107,550	1,029,063	-78,487
Benefit concerning the emission	Discharge of greenhouse gas emission [t-CO2]	45,100	43,919	-1,181
of waste and other environmental	Total water discharge [t]	919,406	829,453	-89,953
loads from the business	Total waste emission [t]	18,749	17,746	-1,003

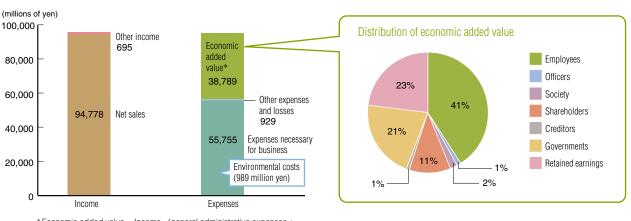
\*Total production of ethical Kampo formulation increased 236t from 6,839t in FY2009 to 7,075t in FY2010.

#### Economic Benefit of Environmental Conservation [thousands of yen]

	Detail of benefits	FY2009	FY2010
Direct economic benefits	Sales of valuable resources	6,593	7,727
Cost saving benefits	Waste disposal cost saving from conversion of packaging materials into valuable resources (excluding metal)	43,223	15,036
	Total	49,816	22,763

## Distribution of economic added value

"Distribution of economic added value" represents how to allocate profit earned in business activities targeting patients and customers to business partners, shareholders, governments, and a society (communication, social action programs) as economic relation between stakeholders and the Tsumura Group.



\* Economic added value = Income - (general administrative expenses + other cost and deficit)

# With Shareholders and Investors

We aim to be a company that is trusted by shareholders and investors by promoting proactive IR activities at home and overseas and fair and timely disclosure of corporate information.



IR briefing sessior

## **IR activities**

As a part of our IR activities, Tsumura holds IR information meetings for investors and analysts twice a year regarding our business results. A number of visitors attend these meetings consistently. At these meetings, the President and directors explain the management strategy and reviews the financial results, inviting active discussions with the participants. In addition, small group discussions with the corporate directors are conducted for fostering better communications with our investors. We have conducted IR activities for institutional investors through IR staff's direct visit to their offices to have meetings. The individual meetings enable us to provide information according to each investor's interest and needs. We believe the more we have meetings with investors, the better they would understand Tsumura and Kampo. Investors' opinions are fed back to directors and relevant divisions so as to reflect outside voices in management. Furthermore, we invite institutional investors and securities analysts to Tsumura Kampo Museum and the plant facility tour to provide them opportunities to touch botanical raw materials and observe production processes. We have carefully planned the tour of our facilities so that visitors can understand differences between our unique production processes for Kampo preparations and competitors' ones.



Institutional investors on the facility tour at Tsumura Kampo Museum

# General meeting of shareholders

We strived to further enhance the contents of "the Notice of Convocation" of the Ordinary General Meeting of Shareholders held in June 2011. Especially, the business report was composed chiefly of the development of business efforts, details of activities for the fiscal year under review, and future business targets such as the mid-term management plan so as to easily understand a series of business flow.

With the introduction of electronic voting system in FY2010, shareholders have been able to exercise voting rights via Internet.

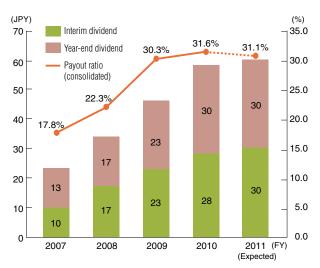


The notice of convocation of the ordinary general meeting

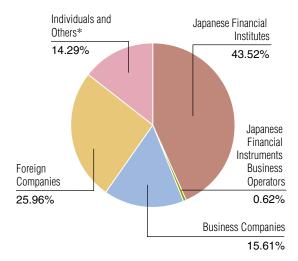
# **Dividend policy**

The amount of annual dividend per share for FY2010 was 58 yen, increasing by 12 yen from the previous year. In FY2011, the annual dividend is expected to be 60 yen, a year-on-year increase of 2 yen. In principle, we consider returning profits to shareholders as a corporate important policy. Therefore, we intend to pay dividends in a stable manner on the premise of increase, generally taking into account capital investment, business performance for each term, dividend payout ratio, and other factors, with an eye to continuous growth in business in the future.

#### Dividend Trend



#### Distribution of shares by owner MacO



(As of March 31, 2011)

\* "Individuals and Others" include treasury stock of 244,497 shares

# Various IR Tools

We regard an annual report as a significant IR tool for investors overseas. The Tsumura Annual Report 2010 won the 13th Annual Nikkei Report Awards continuously from the previous year.

Financial data in which shareholders and investors are especially interested, presentation materials for IR briefing sessions, and other information are provided on our website. The video of IR briefing sessions are delivered through the Internet in both Japanese and English. On the page for private investors, information for private investors is intensively posted.





We won the 13th Nikkei Annual Report Award 2010.



Compliance/Corporate Governance

# Compliance

Tsumura board members and employees will act in accordance with a higher standard of ethics by respecting human rights, complying with laws and regulations, code of conduct and its spirit, both in Japan and overseas.

# **Compliance System**

For the purpose of further enhancement of compliance promotion systems, the Compliance Department was newly established in May 2011. The "Tsumura Compliance Program" has been enacted to promote observance of the law and to foster a company sense of ethics. The content is summarized in the compliance guidebook and is distributed to all directors and employees, who must adhere to the principles in the "Tsumura Action Charter" (revised on April 1, 2009). The status of our compliance activities is reported to the Board of Directors on a regular basis.



# **Compliance education**

In addition to awareness seminars and education for officers and employees, new recruits and newly appointed managerial staff receive compliance training according to their position. In FY2010, we implemented 58 compliance seminars in total for domestic and overseas group companies. As a part of our ongoing efforts to improve awareness of our employees, problems related to compliance are included in the in-house promotion examinations, and employees set their compliance action targets in addition to their business targets.

# **Observance of the Promotion Code** and the Fair Competition Rule

We established the Promotion Code Committee and the Liaison Committee of personnel in charge of fair competition rule as an internal system to thoroughly observe the "Tsumura ethical drug promotion code" (ethical drug code) and "Regulations for the fair competition of ethical drug manufacturers and distributors" (fair competition rule). In order to promote proper activities of medical representatives (MSs), persons in charge are appointed at headquarters and each regional branch office to examine all promotion materials (6,053 in FY2010), and to verify the observance situation of "Inhouse guidelines concerning acts related to business entertainment" and "Guidelines for congratulatory or condolence payments." Moreover, company-wide training such as introductory and continued training, e-learning concerning the ethical drug code and fair competition rules are regularly implemented. In conjunction with the "Ethical Drug Code Awareness Month" in November, an awareness seminar for employees and a presentation seminar for all directors are held by a chairman of ethical drug code committee so as to keep them informed about these issues.

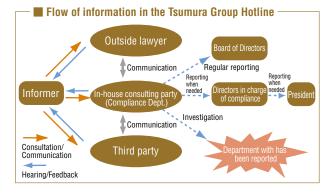
# Fair and transparent trade

In procurement, we believe that it is important to establish a trust relationship with clients and enhance the partnership through fair and transparent trade. The Purchasing Department is conducting faithful purchase activities in accordance with the "Purchase management rules" and "Purchase dealings action agenda", aiming to build better relationship with clients.

# **Tsumura Group Hotline**

The "Tsumura Group Hotline" is set up as a consultation service for problems concerning compliance that cannot be resolved in the work place. In order to improve accessibility to the Hotline, a consultation service via third parties has been started since April 1, 2009. There are three contact points inside and outside the company (Compliance Department, lawyers, and third parties) through which the directors and employees of the domestic group companies can use this service. Moreover, so that a caller can use the Hotline without fear of repercussion, his or her privacy is protected with measures such as the acceptance of anonymous calls, and unfair treatment toward the caller is prohibited. The contact points for consultation service have also been set up respectively in Shanghai Tsumura and Shenzhen Tsumura.

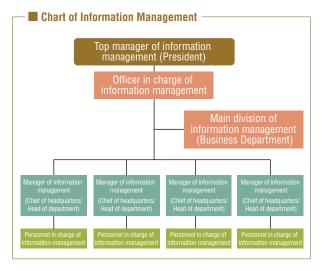
In FY2010, the Hotline received 15 inquiries.



# Information management

"Basic Rule of Information Management" has been established for the purpose of appropriate management of "information", a corporate business resource. Management rules have been decided at each process from creation to disposal of information, classifying information according to its significance. Promoting effective use of information, we have specified and operated proper storage and management systems in which information would be hardly leaked or lost.

We have also determined the information management system in which the president is the top manager of information management to promote information management.



# **Information Security**

"Information Security Management Rules" and "Criteria of Information Security Measures" have been established for the purpose of preventing diverse problems which may happen in using information devices and systems, and properly managing information systems such as computers and networks.

For information devices and systems, confidentiality, integrity, and availability in terms of information security have been ensured with "personal authentication using IC cards", "access restriction by person", "password setting", "countermeasures against virus with antivirus software", and "preventive measures against information leakage". We are striving to maintain continuous information security by building systems to prevent illegal access and information leakage.

# **Personal Information Protection**

We have enacted "Personal Information Protection Policy" of which main purpose is to appropriately protect personal information of customers, business partners, medical personnel, shareholders, and employees which may be used in business, complying with the Personal Information Protection Law and related laws and regulations. According to "Personal Information Protection Rule" which provides for basic matters to be observed at the time of handling personal information, we have tackled the improvement in internal systems and thoroughly secure handling of personal information. This rule is applied to persons engaged in business of the Company, such as officers (directors, auditors, and operating officers), advisors/consultants, employees (including non-regular or contingent workers), parttimers, and temporary staff. Regardless of digitized or analogue information, we have strived to properly manage internal and outside personal information handled by the Company.

# Avoidance of conflict of interest problems

In cases of, for example, co-signing for officer's debts or officer's trading with the Company for the sake of himself/herself or a third party, transactions with officers and their close relatives, or companies of which voting rights are owned by the close relatives are verified in writing to avoid transactions contradicting the Company's interest. Like this, we prevent conflict of interest risks.

# **Animal testing policy**

In order to assure the safety and efficacy of medicines, animal testing is necessary. The Company has established the internal rules concerning animal testing based on the Act on welfare and management of animals, the basic policy of the Ministry of Health, Labour and Welfare, and the guideline of Science Council of Japan. Animal testing is implemented in accordance with the internal rules in an appropriate manner with approval by a head of authority after deliberation at the Animal Care and Ethical Committee on scientific necessity and animal welfare (3Rs: replacement, reduction in the number of animals to use, refinement to ease pain). Moreover, educational programs about animal welfare and ethics have been implemented on a regular basis for all persons engaged in animal testing. We also conduct self-inspections for the conditions of animal testing and facility operations once a year. A memorial service ceremony is held in front of a "Laboratory Animal Memorial Cenotaph" every year, so that each researcher will continue to feel gratitude for and offer sincere condolences to the contribution of laboratory animals.

# **Corporate Governance**

Having a strong sense of mission in achieving sustained growth and development and in fulfilling our social responsibility, we have enhanced our corporate governance system as one of our primary management priorities.

# **Corporate Governance**

Under our corporate philosophy of "The Best of Nature and Science", TSUMURA & Co. is aware of the necessity to enhance our corporate governance systems to achieve sustained growth and development, and fulfill our social responsibilities in the future. Tsumura considers this as one of our primary management priorities.

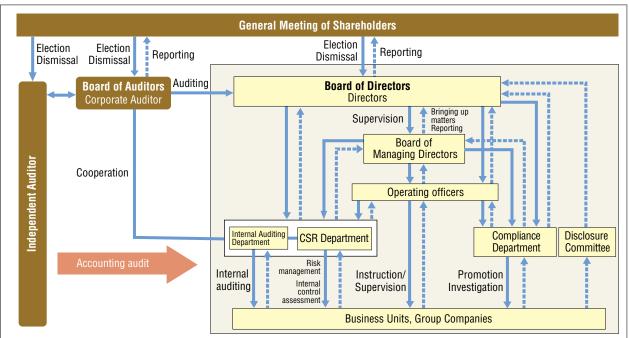
The management system that can flexibly respond to changes in business environment has been established by introducing the operating officer system to clarify the supervising functions of directors and business executing functions of operating officers. We will also further improve the transparency, efficiency, and soundness of management under the current system. Management judgment is made by the Board of directors consisting of directors familiar with internal situations in order to make business decisions flexibly and rationally. Though there are no outside directors currently appointed, outside lawyers and certified public accountants have been appointed as outside directors, as we consider that objectivity and neutrality of functions to supervise management is ensured by seeking opinions and advice from these outside consultants whenever needed.

We believe that our corporate governance is working satisfactorily thanks to those efforts, and that it is

possible to establish a system that responds to social confidence in the Company.

# **Internal Control**

Aiming at "pursuing effective and efficient business" and "being beneficial for observing relevant laws", in addition to responding to the Financial Instrument and Exchange Law, we are flexibly promoting internal control activities, putting emphasis on areas which are judged to be highly risky by the assessment of business bases and processes, for example, a complicated business structure, management of affiliated companies, and prevention of misconduct. In the assessment, we should proactively be aware of ideal situation without being bound by formal standards providing full of detailed rules. To this end, we are focusing on patiently fostering personnel who can surely execute internal control activities until the processes are taken for granted, while having people at site understand what the activities are conducted for. That is consequently a short way to reach our goal. We have been striving to have business processes visible, standardized and integrated, pursuing more effective and efficient operations by promoting human resource development. We have also been building and practicing strong systems to eliminate errors and misconducts.



#### Chart of Corporate Governance System

# **Risk management**

#### Establishment of risk management rules

Risk management rules have been established as a corporate rule that all directors and employees shall comply with, in order to improve and manage the assessment of and responses to risks in the Tsumura Group. In the rule, fundamental matters of risk management are stipulated, for example, objectives of risk management, management policies, a system to promote management, and dealing with risks, so as to put into practices the risk management in the Tsumura Group.

#### Practice of risk management

We have continued to take measures against critical risks which were identified, assessed and prioritized in the Risk Management Project implemented in 2008. In FY2010, we took necessary actions against risks that should be dealt with directly by the business manager among ones identified by each division, in order to solve problems, holding monthly "management risk meetings". Each division identified and quickly dealt with matters which needed urgent responses within the prescribed period.

# Emergency responses to disasters, etc.

#### Formulation of a disaster control manual

The disaster control manual for domestic business establishments has been prepared for the purpose of preventing chaos caused by earthquakes and other disasters, and reducing damages after the disaster. The manual contained various matters like the following: preventive measures including regular inspections/maintenance; ensuring of rescue tools and stockpiles; the first responses at the time of disaster; and roles of officers and employees in firefighting operations.



Emergency supplies

#### Website for crisis management

On the intranet, the website for crisis management is operating, in which information on various predictable disasters and accidents is available. In preparation for H1N1 virus, earthquakes, fires, weather disasters, and crises overseas, the ways to handle such accidents and disasters and a relevant manual are posted. At the time of disaster, officers and employees staying at home can access to the website via Internet to know the situation of damages and instructions from the Company.



Website for crisis management

#### Taking anti-disaster measures

As a countermeasure against earthquakes, buildings of our business establishments have had seismic resistance reinforcement works done to prevent customers, officers or employees from being injured by falling equipment, fixtures and fittings, or broken glass. We have also had equipment in place at six bases including the head office, and both the Shizuoka and Ibaraki Plants, which receives the earthquake early warnings for advanced users delivered by the Japan Meteorological Agency. Audio and text warnings are also delivered to our people before a big earthquake occurs.

In preparation of unavailability of phone lines in the event of a disaster, the head office, and both the Shizuoka and Ibaraki Plants have satellite cell-phones in place.

Furthermore, the safety confirmation system for officers, employees, and their families has been introduced for emergencies. With this system, safety confirmation e-mails are sent simultaneously to pre-registered cell-phones, and a system manager can completely know their status of safety. We have conducted drills in a regular basis so as to master the system and accurately confirm safety.

As stockpiles for disaster prevention, a set of goods for emergency evacuation (food and drink for three days) and a hard hat have been delivered to each officer and employee, and portable toilets for people who cannot go home are stored in each business establishment. For sales vehicles, a hammer for evacuation is in place.

# **Financial Report**

## **Business Results**

In FY2010, the consolidated net sales increased 4.2% year-on-year to ¥94,778 million. Sales of ethical Kampo preparations, our mainstay, continued to steadily increase 6.5% year-on-year to ¥89,247 million.

In FY2010, cost of sales ratio decreased 0.3 points year-on-year thanks to a growth in sales volume of ethical Kampo preparations, as well as efforts for more efficient operations.

As for Selling, general and administrative expense, SGA ratio showed an improvement of 1.6 points in comparison to the previous fiscal year, as a result of efforts towards further efficient costs.

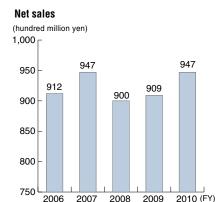
Consequently, Operating profit increased 13.8% yearon-year to ¥21,553 million.

Operating profit ratio was 22.7%, increasing 1.9

points from 20.8% in the previous consolidated fiscal year.

Ordinary income increased 13.9% year-on-year to ¥21,725 million. Net income increased 20.9% yearon-year to ¥12,945 million even with ¥529 million of extraordinary loss resulting from the Great East Japan Earthquake on March 11, 2011. Both Operating profit and Ordinary income hit a record high in FY2010.

In the fiscal year ending March 2012, net sales, Operating profits, Ordinary profit, and net income are expected respectively to be ¥100.4 billion, ¥23.4 billion, ¥23.6 billion, and ¥13.6 billion, with an increase in sales volume of ethical Kampo preparations and efforts for further efficient costs.



Total assets

12.6

1,268

2008

2009

ROA (Return on Asset)

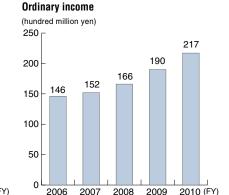
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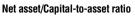
1,346

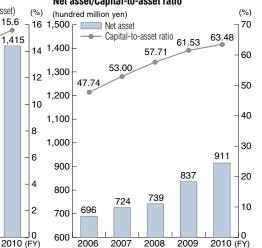
15.6

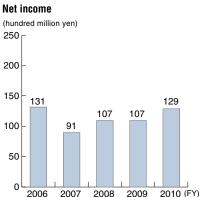
1.415

## Financial Indicators Mc0



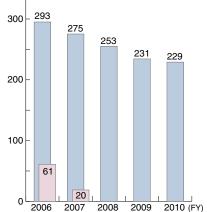








Short-term borrowings Long-term borrowings



2006

Asset efficiency

(hundred million ven)

1.433

1,351

11.4

2007

1,500

1,400

1,300

1.200

1,100

1.000

900

800

700

600

As corporate non-financial information has an increasing impact on the decision making of investors and other stakeholders, the reliability of reports is further important. In order to increase credibility, information provided by Tsumura & Co., Ltd. has been verified by a third party.

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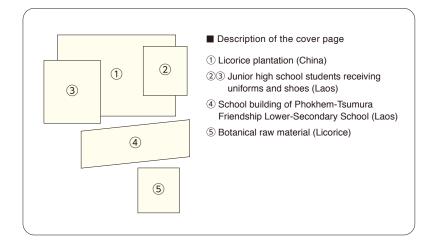
Result of verification on "TSUMURA Corporate Social Responsibility Report 2011" by a third party

This is the third time we asked Japan Audit and Certification Organization for Environment and Quality (JACO) to verify our Corporate Social Responsibility Report. In the fiscal year under review, JACO conducted verifications of domestic plants in Shizuoka and Ibaraki, Ishioka Center in the Laboratory, Shanghai Tsumura, Shenzhen Tsumura, and Yubari Tsumura on sites. We have sometimes received compliments in relation to year-by-year improvement, sometimes honest advice on points which we have to

Yasunori Fuji Director corporate officer Chief of CSR Department

# compliments in relation to year-by-year improvement, sometimes honest advice on points which we have to make more efforts at for improving from JACO staff in charge of verification. We would like to aim to become a human-friendly and truly strong company which can contribute to society

and humanity, as well as inspire people. However, as there are no short cuts to achieving these goals, we ultimately regard the practice of steady human resource development through routine corporate activities as the most important issue of CSR management. It is our pleasure that all stakeholders actually feel the benefit of our efforts through this Report and would welcome your useful advice.



# TSUMURA & CO.

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