



SHODA SHOYU CO., LTD.  
Environmental Report 2017

## About Us

### Corporate Profile

Business started	: December 25, 1873
Company established	: December 25, 1917
Head	: Takashi Shoda, President
Capital	: 100 million yen
No. of employees	: 410 (281 male, 129 female)
Business activities	: Brewing of soy sauce; production and distribution of sauce products

### Business Establishments

Head Office	3-1 Sakae-cho, Tatebayashi City, Gunma Pref. 374-8510, Japan
Tatebayashi Factory	14-1 Sakae-cho, Tatebayashi City, Gunma Pref. 374-8520, Japan
Tatebayashi East Factory	6013 Tobu Kogyo Danchi, Oshima-cho, Tatebayashi City, Gunma Pref. 374-0001, Japan
Logistics Center	6013 Tobu Kogyo Danchi, Oshima-cho, Tatebayashi City, Gunma Pref. 374-0001, Japan
Tokyo Office	2-17-7 Minami-Otsuka, Toshima-ku, Tokyo 170-0005, Japan
Tokyo Metropolitan Sales Office	3-1 Sakae-cho, Tatebayashi City, Gunma Pref. 374-8510, Japan
Tohoku Sales Office	Higashi-Nihon Fudosan Sendai First Bldg. 11F, 6-1 Shimizu-Koji, Wakabayashi-ku, Sendai City, Miyagi Pref. 984-0075, Japan
Chubu Sales Office	Plandoll 4F, 1-13-31 Shinmichi, Nishi-ku, Nagoya City, Aichi Pref. 451-0043, Japan
Seibu Sales Office	Shin-Osaka Prime Tower 20F, 6-1-1 Nishi-Nakajima, Yodogawa-ku, Osaka City, Osaka Pref. 532-0011, Japan

### Editorial Policy of this Environmental Report

This Environmental Report is intended to serve the following:

- Residents in neighboring areas of Shoda Shoyu facilities, so that they may feel comfortable living near us.
- Our customers, so that they may feel confident about using our products
- Our employees, so that every one of them may care about the environment and participate actively in environmental conservation activities.

We plan to continue publishing future issues, and welcome any input from our readers.

Guideline used as reference: Environmental Reporting Guidelines (Fiscal Year 2007 Version), Ministry of the Environment

Scope: This Environmental Report applies to all of Shoda Shoyu Co., Ltd.'s business operations within Japan.

Period covered: April, 2016- March 2017

Issued: August 2017, Quality Assurance Department

## Message from the CEO

Shoda Shoyu's food production business is dependent upon the abundant blessings of nature. Meanwhile, global warming is considered a contributing factor in the abnormal weather conditions and natural disasters of recent years, which forces us to acknowledge once again how crucial it is for us to coexist peacefully with our natural environment. In this age, Shoda Shoyu acknowledges that our social responsibility to address environmental conservation issues with integrity is just as important as our duty to produce foods that are safe and secure.

As a means to consolidate our environmental management system, Shoda Shoyu has obtained ISO14001 certification in its Head Office and Research Department, as well as each of its production bases (Tatebayashi Factory, Tatebayashi East Factory, Shoda Foods Main Factory, Shoda Foods Tatebayashi Factory, and Shoda Shokuhin Matsuzaka Factory) in an effort to minimize environmental load. We also recognize that environmental action is an issue to be addressed seriously in business management. In the Eighth Medium-Term Management Plan, we designate "Reduction of environmental load" and "Increased awareness of environmental activities" as our company-wide environmental action policies, which are unfolded throughout the Company in the business plan established at the beginning of each fiscal year.

The following are some recent examples where we have incorporated these policies into our business operations:

- We are working to minimize the generation of waste (Reduce).
- We are committed to the recycling of food wastes such as the cake remaining after squeezing out the soy sauce (Reuse).
- Facilities are being renewed to adopt energy-saving equipment.
- Packaging materials such as PET bottles undergo constant modifications to minimize weight.
- More than 40% of all vehicles used for business are hybrid models.
- Company employees and their families hold cleanup rallies in the streets of Tatebayashi.
- Environmental seminars are held for employees to boost in-house awareness.

Of the many social responsibilities that Shoda Shoyu is committed to fulfill, our priority on environmental measures is rising every year. We will continue listening to the voices of our stakeholders, including customers, the local community, and employees, to offer safety and security, as well as to implement across-the-board, persistent environmental actions. Thank you for your understanding.

August, 2017



Takashi Shoda, President  
Shoda Shoyu Co., Ltd.

## Environmental Management

### ISO14001 Certification

Shoda Shoyu, designating “Realization of an environmentally friendly company” as its goal from FY 1998, has since been working for environmental conservation. To further consolidate these efforts, we have established environmental management systems based upon the international standard, ISO14001. Our Head Office and Research Center obtained certification in 2004. Since then, the number of Shoda Shoyu’s certified facilities has been increasing every year. The movement has spread to our subsidiaries as well, starting with the 2007 acquisition by Shoda Foods Tatebayashi Factory, and others to follow.



#### Certified:

May, 2004 Head Office and Research Center (Tatebayashi City)

July, 2005 Tatebayashi Factory (Tatebayashi)

June, 2006 Tatebayashi East Factory and Logistics Center (Tatebayashi)

December, 2007 Shoda Foods Co., Ltd. Tatebayashi Factory (Tatebayashi City)

January, 2009 Shoda Shokuhin Ise Factory Co., Ltd. (Matsuzaka City, Mie Pref.)

January, 2010 2010 Shoda Foods Co., Ltd. Main Factory (Sano City, Tochigi Pref.)

### Environmental Policy

#### Shoda Shoyu’s Environmental Policy

##### Environmental Philosophy

Shoda Shoyu contributes to the realization of a safe and sound society through environmentally conscious business operations.

##### Action Guidelines

1. Work for environmental conservation and protection in all activities related to product development, production and distribution.
2. Respect all relevant environmental laws; set and enforce voluntary standards.
3. Set environmental targets and work to continually improve the environmental management system and alleviate environmental load.
4. Work to increase employee awareness of environmental activities, so that environmental reform efforts are undertaken by all.

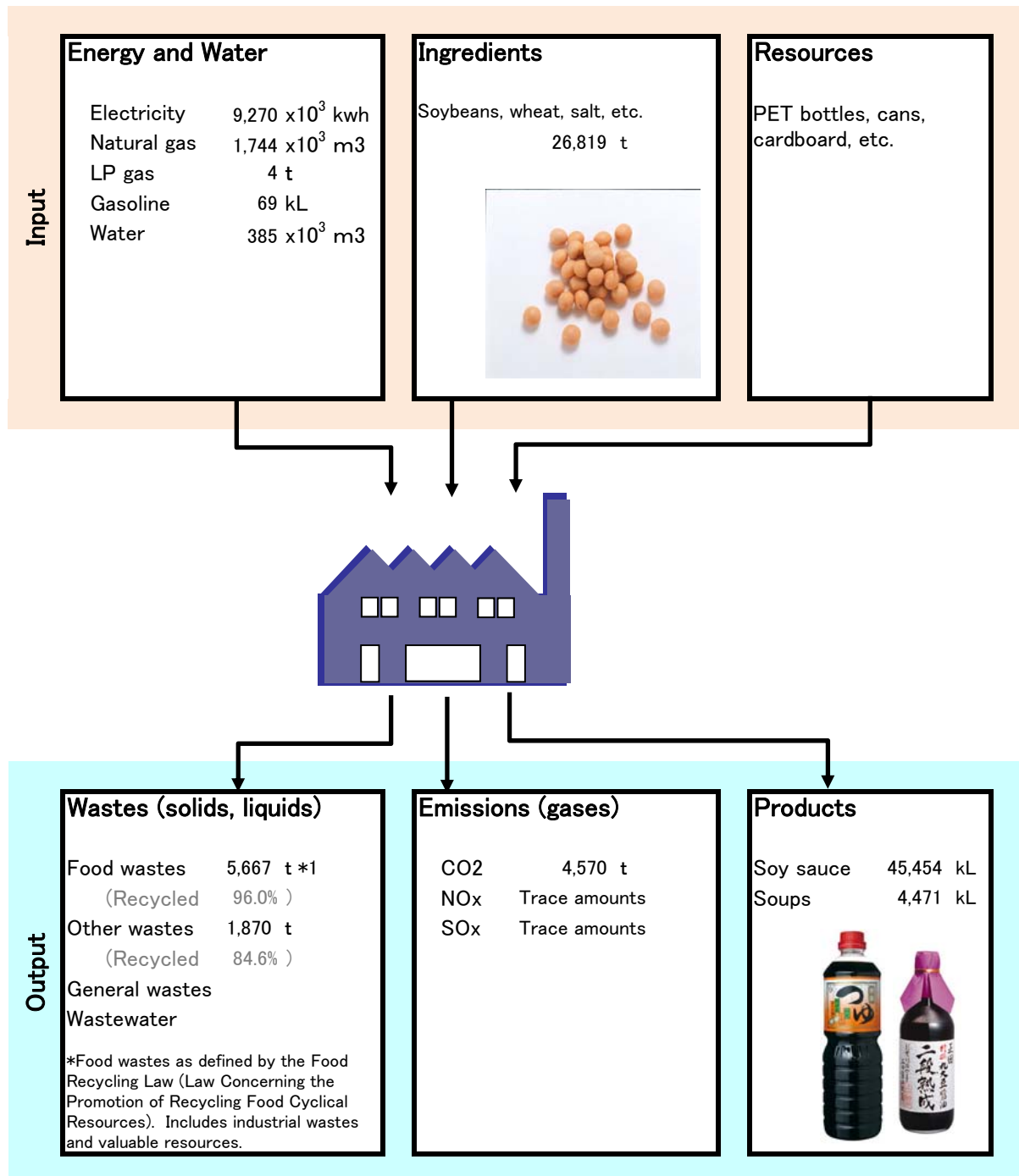
June, 2017 Takashi Shoda, President

## Implications of Shoda Shoyu's Business Operations on the Environment

Shoda Shoyu is aware that its business operations have an impact on the environment, and thus works to reduce this load.

### Flow of Energy, Resources and Wastes (Fiscal Year 2016)

Shoda Shoyu produces and distributes soy sauces and soups. These enterprises involve the use, not only of raw ingredients, but also of water and energy, while they also emit CO<sub>2</sub> and wastes. Shoda Shoyu works to reduce these environmental loads per each stage of its operations, such as development, production, and distribution.



## Outcomes

### Medium-Term Targets and Fiscal Year 2016 Outcomes

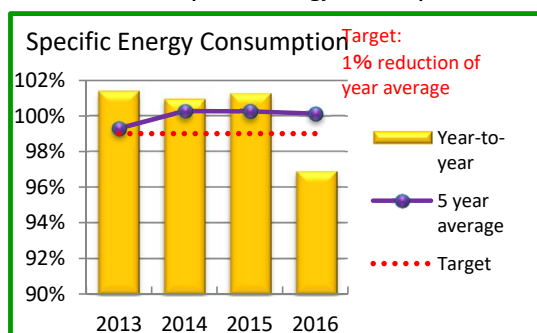
		Medium-Term Targets (Full term: end of 2018)	Targets for FY2016		
			Target	Outcome	Evaluation
Improvement in Energy Efficiency	Minimizing specific energy consumption*1	Less than 100% of previous year & 99% or lower for 5 year average	Less than 100% of previous year & 99% or lower for 5 year average	3% down from previous year & approx. 100% for 5 year average	△
Recycling Resources and Minimizing Waste Disposal	Minimizing inventory disposal	≤0.25% of sales	≤0.25% of sales	0.27% of sales	×
	Maintaining/Improving material recycling rate	90% or higher for industrial waste 95% or higher for food wastes	Maintain 100% for animal- and plant-based wastes, ≥95% for other wastes 95% or higher for food wastes	100% maintained for soy sauce cake & oil, 97.1% for others 96.0%	○

\*1 Specific energy consumption is a value expressing energy efficiency, obtained by dividing energy consumption by a closely relevant value. (See Law Concerning the Rational Use of Energy) As divisors, Shoda Shoyu uses total soy sauce production (103 kl).

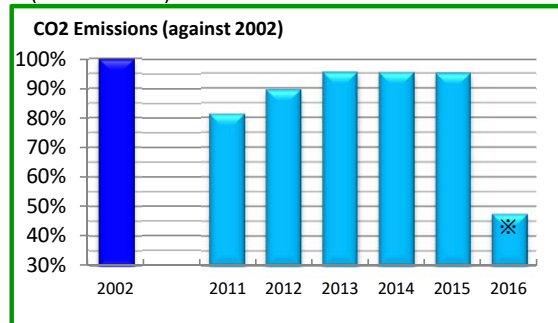
Our specific energy consumption for fiscal year 2016 decreased by approximately 3% from the previous year to achieve the target, owing to the installation of modern energy-efficient facilities. As outcomes for recent years had fallen short of targets due to the drop in production, among other factors, the target for the 5-year average specified in the Medium-Term Target could not be achieved. However, we will continue to work to save energy by planning replacements to energy-efficient machinery and facilities. Furthermore, switching to a new power company has yielded a lower CO2 coefficient, resulting in a reduction in greenhouse gases. To minimize wastes, we are selling soy sauce cake to be reused as feedstuff. In addition to maintaining the high recycling rate of soy sauce cake into feedstuff at 100% as we do every year, we were able to achieve our target for the recycling rate of other wastes as well. We will continue to explore new ways to minimize the generation of waste and to recycle more effectively.

### Data

#### ●Reduction of Specific Energy Consumption

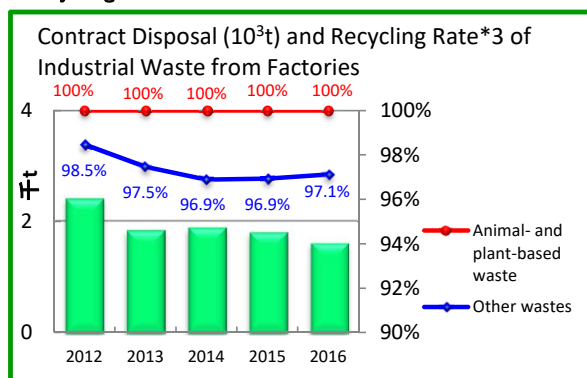


(For reference)

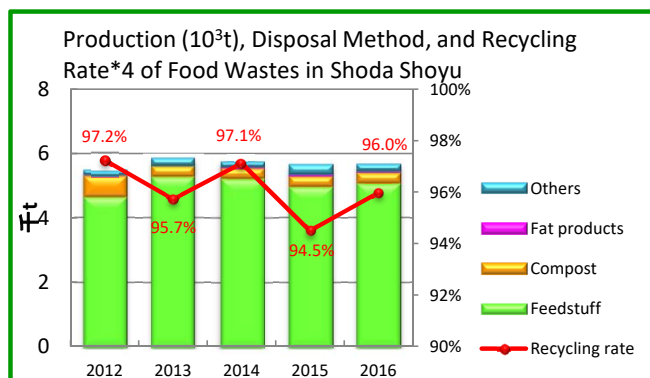


\* Changed power company in May, 2016

#### Maintaining and Improving Recycling Rate



\*3 Thermal recycling not included in recycling data



\*4 Recycling Rate includes only the processing methods of food wastes in accordance with the manufacture of specific compost and feedstuff, etc. of the Food Recycling Law.

## Action 1 Prevention of Global Warming

As a measure against global warming, we are measuring the energy consumed in each process of our factories and analyzing this data to cut down on any wastes. We are also saving energy company-wide, by using hybrid vehicles for sales activity, and controlling air-conditioning temperature settings throughout the year as part of the Shoda Eco-Style campaign.

### Shoda Eco-Style



The Cool Biz/Warm Biz campaign is carried out throughout the year, as part of the Shoda Eco-Style action plan.

### Renewal of wastewater treatment facilities

The Tatebayashi Factory is undergoing restructuring of its old wastewater treatment facilities. The Blower Room and Pre-treatment Facility were transferred and renewed in 2015. The energy-saving effect for the wastewater treatment facilities as a whole was a reduction in yearly power consumption from 520 MWh to 450 MWh (-13.5%), which translates to a significant reduction of 3.5% in the total power consumption of the factory.



New Blower Room



New Pre-Treatment Facility

### Centralizing and modernizing facilities



Heat exchangers (centralized)



Heat exchangers (obsolete)

The heat exchangers have been centralized through in-house improvement efforts, successfully resulting in an approximate 20% decrease in the steam required for heat processing.



Inside Cooling Room (before)



Chiller (after renewal)

The cooling chiller has been renewed, from conventional water-cooling to an air-cooling type requiring no maintenance, resulting in about a 40% reduction in power consumption, although performance during full operation over the summer is yet to be confirmed.

### Air conditioners in Welfare Building of Tatebayashi Factory renewed

The production and use of ozone layer-destroying HCFCs (including R22 refrigerants) are set to be abolished as of the end of 2020 by the Montreal Protocol and the Japanese Ozone Layer Protection Act. In 2016, we began replacing the air conditioners in the Welfare Building, the majority of which used R22. Currently 9 have been switched to modern models that use HFC (R410A and R32) as the refrigerant. A reduction in energy consumption of 13,000 kWh per year is anticipated. We plan to update the air conditioners in the production areas next.



### Atrium shading

We have installed blinds in the atrium space of the Headquarters office building.

The glass walls made the atrium hot in summer, but the new shades are expected to shield the heat to help save energy.



### Hybrid vehicles



We have been using hybrid vehicles since 1998, mainly for sales activity. Twenty-six are in use at present, constituting approximately 40% of all vehicles used by Shoda Shoyu.

### Switchover from fluorescent lighting to LEDs

We are switching over to energy-efficient lighting in the Head Office Building.

Changing the lighting in the Atrium Hall and other communal areas, as well as emergency lamps, to LEDs is expected to have an energy-saving effect.



### Large refrigerator renewed

The large refrigerator used outside the research building has been renewed.

The original three coolers were replaced with two energy-efficient types, estimated to yield an approximate 10% reduction in the annual power consumption of the Research Center.



## Action 2 Environmental Conservation Activities in Factories

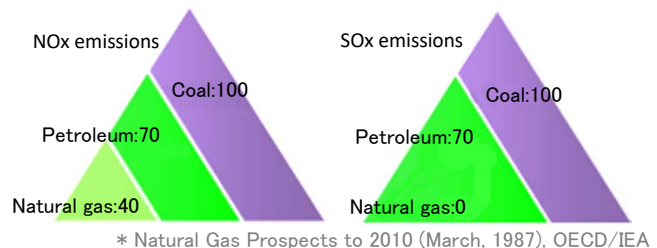
Shoda Shoyu has two factories: the Tatebayashi Factory located in front of the Tobu Railway Tatebayashi Station, within close quarters of a residential area, and the Tatebayashi East Factory by the Tohoku Motorway, a factory which has been augmenting its production facilities every year. The two factories are working towards environmental conservation in tune with their respective needs.

### Compliance to environmental regulations

Shoda Shoyu was in complete compliance with all laws and regulations in FY 2015. We will continue our good management to keep the company in compliance.

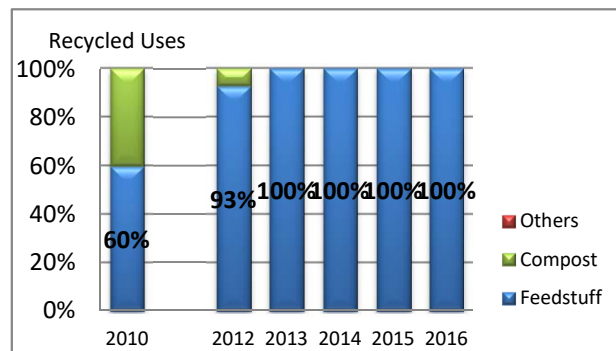
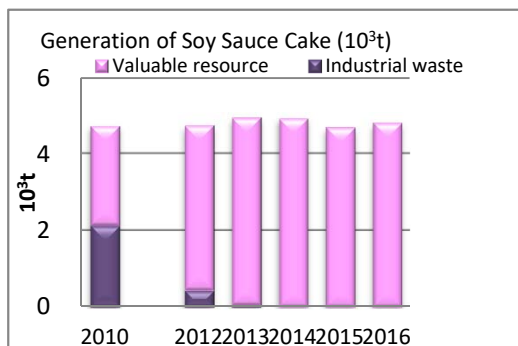
### Prevention of air pollution

The Tatebayashi and Tatebayashi East Factories have switched from Bunker A and LP gas, respectively, to the cleaner natural gas. Compared to petroleum and coal, natural gas, when combusted, produces less CO<sub>2</sub> (which causes global warming) and less NO<sub>x</sub> (nitrogen oxides, which cause urban ozone). Moreover, it produces no SO<sub>x</sub> (sulfur oxides, which cause acid rain) or dust emission whatsoever.



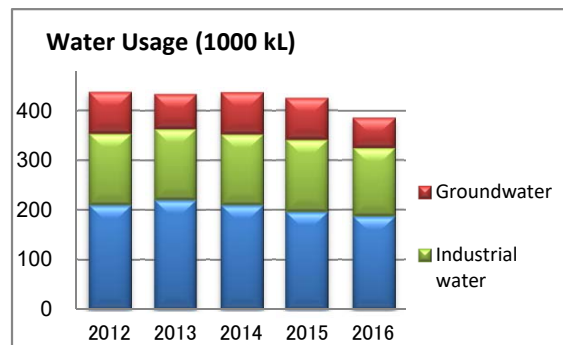
### Minimizing the disposal of soy sauce cake and expanding its recycling into feedstuff

While the percentage of soy sauce cake which was disposed of as industrial waste was 35% in 2010, it is now 0%. All of the soy sauce cake is now a valuable resource, thereby contributing largely to reducing the total industrial waste of the Company as a whole. The Food Recycling Law promotes recycling into specific compost and feedstuff, etc., in which category Shoda Shoyu's recycling rate of soy sauce cake is now 100%. In order to achieve further effective use, we are continuing our efforts to expand recycling into feedstuff.



### Saving water

Groundwater use has been reduced by adjusting the amounts of cooling water overflow and freeze-protection water flow in pipes. We plan to continue our water-saving efforts.



## Action 3 Other Efforts

Shoda Shoyu promotes eco-friendly choices in all of its business endeavors. Below are some examples.

### Green purchasing

In order to promote green purchasing, we choose eco-friendly products where possible when buying office supplies and work uniforms, etc.

### Environmentally friendly containers and packaging

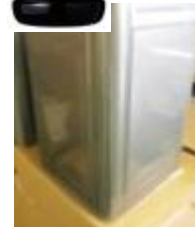
#### 1L PET bottles

The 1L PET bottles distributed mainly for household use have undergone a weight loss of approximately 4 grams per bottle (previous 33g down to 29g), which translates to an overall reduction of approximately 24 tons over the year (against previous year).



#### 18 Liter Cans

The total weight of the 18 liter can, a favorite among Shoda's professional-use customers, has been reduced by approximately 10% from the previous type. This change not only saves resources and minimizes waste, but is also expected to save fuel during transportation, thereby contributing to overall CO2 reduction.



### Litter cleanup

We hold a "Cleanup Shoda Walk Rally" once a year.

This event, a tradition since 2002, is a volunteer activity by Shoda's employees and their families. Picking up garbage is hoped to promote environmental awareness and good health. This year, the event was held in the area surrounding the Gunma Museum of Art, Tatebayashi, a popular tourist sight in Tatebayashi.



We also conduct cleanup and other beautification activities around the Tatebayashi East Factory.

#### Goshakai of Tobu Industrial

