Topic 07 Running an agri-business that conserves biodiversity through the cultivation of tomatoes

Using ecosystem-friendly pesticides

Kagome makes intensive efforts not to use excess pesticides and chemical fertilizers when cultivating tomatoes for making juice. In 2003, we established our own "Kagome Standards for Pesticide Usage." Aside from removing pesticides that are suspect to include toxic substances or environmental hormones, we also work to eradicate those which bring negative effects to the ecosystem. We keep pesticide use at a minimum by having our field masters visit the fields, confirming the existence of pests and quickly assessing the situation, and informing workers of the farm of the appropriate dosage.

Visiting fields and providing guidance in the appropriate usage of pesticides and fertilizers

Changing pollenating bees from foreign species to native species

We use bees to pollenate our fresh tomatoes. The foreign species Bombus terrestris was listed as a candidate for specific foreign species that are potentially problematic. Consequently, since May 2004, Kagome has changed the pollinators in the 3 directly-managed large greenhouses all over Japan to Bombus ignitus. Moreover, the 5 large greenhouses established afterwards also employed Bombus ignitus from day one. The breeding technology of the said species had not been established, and its effects on the quality and economy of the tomatoes were unclear at that time, but through the proactive technological development of Kagome, it was soon successfully employed. The technology is currently well-established enough to employ Bombus ignitus for the cultivation of tomatoes all over Japan.

Photo credit: Masahiro Mitsuhata

Using the native species, Bombus ignitus, as pollinators for fresh tomatoes

Topic 08 Employing eco-friendly packaging for beverage products

Switching into product containers with a smaller environmental footprint

The Kagome Group focuses on the research and development of environmentally-friendly products, and is working to switch into product containers with a smaller environmental footprint.

FSC-certified®* paper packaging

*FSC® (the Forest Stewardship Council®) is an international institute that manages the certifying system for forests that produce timber, as well as the distribution and processing of the timber that come from those forests. (FSC®N002385)

Containers that use green energy*

*Green energy: electricity produced by means of wind energy, solar energy, bioenergy, in the belief that CO_2 is not produced in the process of energy conversion using natural means.

Proactive adoption of the "CartoCan," an eco-friendly paper container, 30% of which comprises domestic thinned wood and wood waste

Promotion of the segregation and volume reduction of used paper containers

We include a thank you message on the packaging that says "Thank you for folding us up!" to customers who segregate and fold used containers to reduce volume.

Topic 09 Promotion of the sustainable development of agriculture through cultivating tomatoes and vegetables suited to the climate and soil quality of countries all over the world

Mechanical harvesting in the vast Kagome Australia tomato fields

Sensors installed in fields all over the world link to satellites, collecting information such as temperature, humidity, and precipitation

The sustainable farming of Kagome Australia Pty. Ltd.

Inside and outside Japan, the Kagome Group has been promoting the development and spread of agricultural technology that is highly sustainable, while capable of protecting blessings granted to us by nature. Kagome Australia Pty. Ltd. (Australia) is 100% compatible with the sustainable agricultural standards established by an industry forerunner Unilever, and is working on achieving agriculture that allows long-term cultivation through fertilizer management by means of drip irrigation, as well as soil improvement by means of appropriate crop rotation.

H.I.T. (Portugal) also bases its agriculture on the GAP (Good Agricultural Practice). Moreover, the seed company United Genetics Holdings (U.S.A.) implements initiatives from the seed level, working on developing new tomato and vegetable species that are suited to the climate and soil quality of the cultivation sites, establishing cultivation technologies, and striving towards enhancing technology so as to further reduce environmental impact and provide stable raw materials.

The drip irrigation system of Kagome Australia
Drip irrigation is used for the cultivation of tomatoes for processing. Underground tubes provide irrigation water directly and slowly to the plant roots, minimizing the amount of water and fertilizer consumed. The photo above shows the installation of pipes under the soil.

Research and development of the leading cultivation technologies for tomatoes for processing

From March 2015, we have been working to develop cutting-edge cultivation techniques for tomatoes for processing overseas, through the use of agricultural ICT*. In practical terms, we utilize data obtained from sensors for climate, soil, etc. installed in experimental fields, as well as from satellites and drones, to optimize the amount of water, fertilizers, and pesticides used according to the growth status of tomatoes and climatic conditions, in addition to maximizing yield. This in turn assists us in our aim to increase added value in agriculture and to achieve environmentally-friendly agriculture.

Moreover, to establish a supply system in response to the increased global consumption of tomatoes, we opened an agriculturally-focused research and development center in Portugal in March 2016, in which we engage in activities toward the stable production of tomatoes for raw materials, as well as research with the aim to develop Kagome's own tomato varieties and cultivation technologies. Through these activities, we are able to develop new varieties of tomatoes in anticipation of market demand, and aim to increase added value in agriculture by maximizing the quantity and quality of crops, while minimizing resources invested (e.g. water, fertilizers). Moreover, we are also working to develop cultivation technologies connected to the achievement of environmentally-friendly agriculture.

*ICT: Information and Communication Technology

One of Kagome Agri-business Research and Development Center's activities