PROPAGATION OF EUREPGAP IN JAPAN AND THE DEVELOPMENT OF JAPAN GOOD AGRICULTURAL PRACTICE (JGAP)

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ABSTRACT

In Japan, government agencies and distributors have started to promote good agricultural practices (GAPs) and propose the standards they have developed. Also, in cooperation with the retail fruit and vegetable industry and the Ministry of Agriculture, Forestry and Fisheries, Japanese agricultural producers who aquired a EurepGAP certification have constructed their own Japanese Good Agricultural Practice (JGAP). JGAP consists of standards for risk management on farms and covers food safety, environmental sustainability and personnel protection. The establishment of JGAP as a model and its implementation at production sites involve construction of a sustainable agricultural production system and a new, GAP-based agricultural model, including reforms in the distribution of agricultural products.

Key words: JGAP, EUREPGAP, food safety, GAP certification

JAPAN'S APPROACH TO GAP

Because of food-related incidents such as the bovine spongiform encephalopathy, the deceptive labeling of product origins and the use of unregistered agrichemicals, Japanese consumers' distrust of foods has grown to an extremely high level, and the traceability of foods has attained nationwide attention. The Japanese government has been expending large amounts of energy in developing a food traceability system, and its efforts brought forth the *Guidelines for Introducing Food Traceability*, published in March 2003. This document encourages producers to display production histories, because products that are free from ambiguity give producers a human face, enabling consumers to buy food without anxiety. Japan's Central Union of Agricultural Cooperatives and National Federation of Agricultural Cooperative Associations have started to ask producers to put their signatures on their products and are making strong efforts to encourage the spread of this practice.

However, the publication of production history alone is not enough to regain the diminishing trust of consumers, as was indicated by the results of a survey of their opinions. What they really want is a way of guaranteeing the safety of agricultural products by making them traceable. To this end, it is important that producers are able to show how production and distribution workers cautiously handle agricultural products to secure safety. To satisfy these requirements, everyone involved needs to take safety precautions to eliminate the various factors anticipated in every process: production planning, planting, raising, harvesting and shipping.

GAP is being promoted worldwide as a comprehensive risk management approach to the production cycle of agricultural products, and Japan has joined the movement. GAP is, in general, designed to secure food safety and control the environmental burden in production activities. We present here five examples of the approach to these two objectives.

Manual on the Development and Propagation of GAP for Food Safety (Food Safety GAP)

The Consumption and Safety Bureau of the Ministry of Agriculture, Forestry and Fisheries developed four kinds of GAP — for vegetables, fruit, grains and mushrooms — published in

April 2005 in its *Manual on the Development and Propagation of GAP for Food Safety*. The government intends to use the manual to develop and implement GAPs by region and by product. Considering the results of experiments in each region, it plans to review the manual by the end of 2006.

Practicing Agricultural Production in Harmony with the Environment (Agro-environmental Practice)

The Production Bureau of the Ministry of Agriculture, Forestry and Fisheries in its *Manual on the Inspection of Crop Production*, published in April 2005 and designed for farmers and technology instructors, gives guidelines for agro-environmental practice in producing agricultural products and in feeding and producing livestock.

The government plans to incorporate this agro-environmental practice into its agricultural support policy. This policy includes extending support and granting subsidies to promote sustainable agriculture by way of lightening the environmental burden imposed by chemical fertilizers and agrichemicals.

TOPVALU GREEN EYE Good Agricultural Practice

This is the revised (second) edition of the quality control standard that AEON, a leading Japanese chain retailer, established in February 2004 for its private brand of agricultural products. The company has added this standard to the AEON Produce Suppliers Standards and AEON Good Distribution Practice standard. It also aims to increase the reliability of its products by implementing the three standards in a comprehensive manner.

GAP of Farm-Fresh Products Sold at Consumer Cooperatives

This GAP was published by the Japan Consumers' Cooperative Union in March 2005. The union, through comprehensive operation and control of the GAP, good distribution practice (GDP) and good sales practice (GSP) (i.e., good transactions practiced by consumer cooperatives), aims to construct a quality assurance system for fruit and vegetables from the farm. In the initial stage of this plan (2005–2006), the union plans to conduct an experiment and review and study the system with a view to applying it in the future to commodities other than farm-fresh agricultural products.

Japan Good Agricultural Practice (JGAP)

The Japan GAP Initiatives (JGAI) published JGAP in February 2005. It then collected the details of producers who wished to carry out JGAP and started to introduce it to them in July. The GAP Promotion Council of the Ministry of Agriculture, Forestry and Fisheries included JGAP as part of the ministry's comprehensive food projects for 2004. The council modified EurepGAP to reflect Japan's meteorological phenomena and other production conditions.

This paper describes the history of the development of JGAP, its current status and the problems associated with its propagation.

ACQUISITION OF EUREPGAP CERTIFICATION

Aim: To Continue Exporting to Europe

The Katayama Apple Company (Katayama Apples), in the city of Hirosaki in Aomori Prefecture, exports apples to Great Britain. The company received a letter from its customer, Empire World Trade (EWT), in July 2002 asking Katayama Apples to conclude an agreement with a EurepGAP certification agency by 1 October 2002 to finish a EurepGAP examination by 1 January 2004 and meet the major requirements of the EurepGAP examination by 1 January 2005 (Katayama 2004).

As requested, Katayama Apples underwent a EurepPGAP examination on 7 March 2003. It failed one of the 23 major requirements and 21 of the 95 minor requirements, recording conformity rates of 96% and 78%, respectively. Katayama Apples did not succeed in the first trial, as EurepGAP requires an applicant to achieve 100% conformity in major requirements and 95% in minor requirements. It succeeded in the second trial on 16 September 2004.

In examining the processes of third-party certification and the requirements submitted by the European customer and wholesaler, we raise the following five points as characteristic of the EurepGAP:

1) It is a standard established under the initiative of volume retailers to provide consumers with safe agricultural products.
2) It is a standard that should be observed on farm. It covers neither warehouses nor shipping processes.
3) Examination is conducted by a third-party certification agency that has no interest in the farmer.
4) It is a standard that retailers demand in the procurement stage of agricultural products. Originally, it was not assumed that a certification mark would be used in retailing (i.e., disclosed to consumers).
5) It is not a positive certification that gives additional value to agricultural products such as organic products; instead, it is a preemptive measure aimed at eliminating every possible risk anticipated in the production stage.

Aim: To Rationalize Production Management and Strengthen Collaboration with Customers

As described above, Katayama Apples acquired EurepGAP certification to continue exporting to Europe. Elsewhere in Japan, too, leading volume retailers and consumer cooperatives have established their own quality and production standards and have asked agricultural producers to observe these standards. This trend is expected to expand and accelerate in the future to secure food safety.

Wagoen, an agricultural producers' cooperative in Yamada Cho in Chiba Prefecture, is composed of about 90 producers, all of whom grow agricultural products, mainly on a contractual basis with consumer cooperatives, restaurants and volume retailers. Consumer cooperatives account for 40–45%; restaurants, 30%; and volume retailers, 25–30% of Wagoen's shipments.

Farmers affiliated with Wagoen manage their cultivation in ways that satisfy the quality and production standards imposed by Wagoen's customers. And because customer quality and production requirements vary, Wagoen find it rather complicated to make the farm and production management strategies of each member agree with the standards imposed by the customers. Accordingly, the clerical burden has grown bigger.

To cope with this worrying situation, members decided to publish a manual that would govern the items common to every member. They established an internal auditing committee in 2002 and developed their own management guidelines. The committee made a tour among members and conducted internal examinations twice a year to improve their farm management. (Tanoue 2003).

Wagoen already had a basis for introducing GAP, as described above, and on the advice of the writer, it submitted a farm owned by one of its representatives to a certification examination. Using a checklist, Wagoen started to conduct an internal examination in August 2004 and corrected any questionable items.

It had the farm examined on 17 September 2004, obtaining conditional approval (Tanoue 2005b). It then had the farm reexamined after correcting two failed major requirements and 10 failed minor requirements, succeeding in the second trial to become the second organization awarded a EurepGAP certification in Japan.

DEVELOPING JGAP

GAP was originally something that sellers asked producers to follow. If, however, producers were asked to observe GAPs that varied among sellers, it became too difficult for them to comply with each request. Consumers, on the other hand, became confused and could not share uniform ideas on food safety. However, it did not cause problems if sellers imposed these diverse quality requirements for agricultural products on their suppliers, because such an action was naturally part of their job.

Producers have to respond to these requirements actively. GAP as a management standard for agricultural production is required because it is a prerequisite for the satisfaction of quality standards. Furthermore, the GAP's management items should be uniform standards that are explainable as laws and agricultural decisions. At the same time, they need to be effective worldwide.

In collaboration with those who acquired EurepGAP certification, I constructed a EurepGAP-based JGAP applicable to farm management and agricultural production in Japan and applicable worldwide. The introduction of JGAP provides the following benefits:

1) Consumers can get agricultural products whose safety is guaranteed by third-party certification. Risk is excluded as much as possible.
2) If domestic GAP is established, it can control the unlimited import of foreign-made agricultural products characterized by low prices without guarantees of safety.
3) At no extra cost, sellers can purchase agricultural products whose risk has been minimized. JGAP is not incompatible with GAPs developed by individual volume retailers. For example, Tesco in Great Britain employs EurepGAP as a standard for purchase, and at the same time, it adopts Nature's Choice as an advanced standard positioned above EurepGAP to establish a two-step standardization of its own agricultural product brand.
4) Export of domestic agricultural products will become easier upon the introduction of GAP compatible with world standards. Chile, Mexico and China have already established compatibility between their own GAPs and EurepGAP's standards (Katayama 2005).

Construction of JGAP began with the GAP Promotion Conference held in July 2004 with Wagoen and greengrocery wholesaler K. I. Fresh Access (KIFA). Joined by greengrocery distributors, agricultural administration agents and academic experts, the conference conducted concrete research on the publication of a GAP suitable to Japan.

By developing the operational and management guidelines currently observed by Wagoen and considering EurepGAP, we constructed a GAP suitable to the agricultural production and climatic conditions of Japan. (Fig. 1).

We modified EurepGAP to publish a checklist that satisfied Japanese laws, and as a provisional test, we used the checklist to examine the internal management of a farm affiliated with Wagoen. In this examination, we made judgments that were as strict as possible so as to pick up unsuccessful items and clarify those that needed improvement.

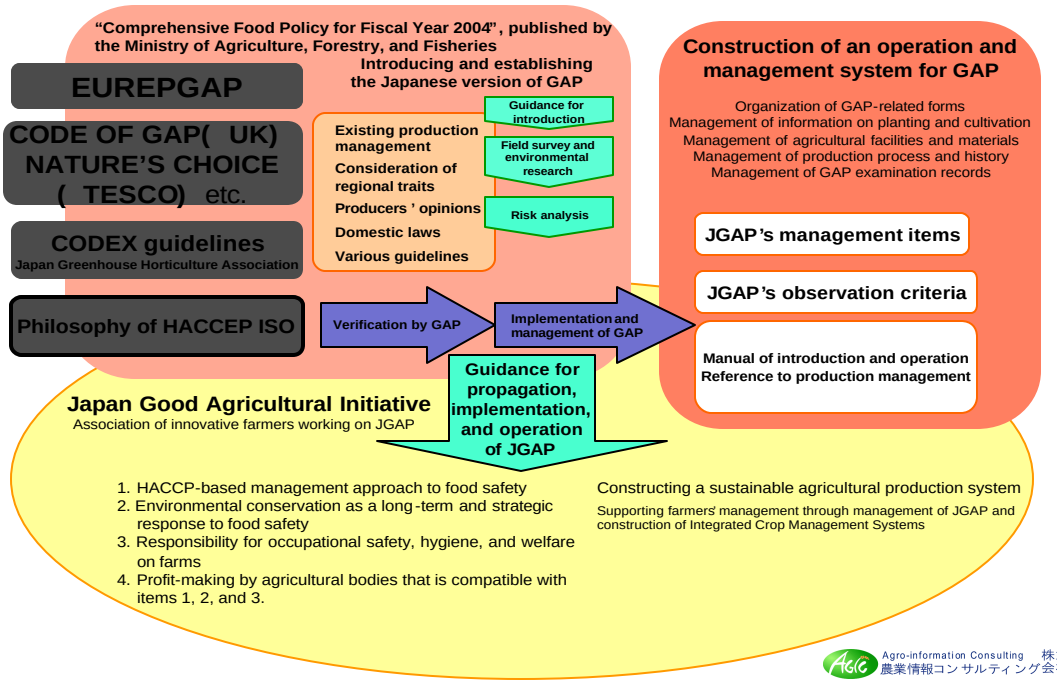

Fig. 1. JGAP applicable to vegetable and fruit production in Japan.

The farm workers drew up an improvement plan, in accordance with the requests we submitted, and carried out improvement measures, beginning with the item easiest to improve. We discussed the items that didn't need improvements, and we referred to related materials in reviewing the criteria used to define these items. In collaboration with observers and those associated with the farm, we made final decisions on the management items and observation criteria of JGAP.

While conducting the internal examination and publishing JGAP, we formulated the Wagoen version of the manual for introducing and implementing JGAP (Wagoen Production Management Standard). We revised each definition of the production management guidelines that originally belonged to Wagoen, and we added the necessary articles and organized a checklist.

Wagoen's production management standard is a procedural manual that everyone involved in agricultural production is required to observe. Besides defining and reorganizing each provision and item of various management forms, we reorganized the production management standard from the perspective of observing JGAP's management items. Actually, what we aimed to do was to reorganize it as a realistic quality control manual that everyone in the field could observe.

What we have tried to publish is a JGAP that will be used on the Japanese agribusiness scene. Sellers respond to consumers' requirements for food safety and wholesalers take charge of distribution. A continuous food safety chain that starts from the producer and ends at the seller can be established only if farmers stand atop the food supply chain. That is, a continuous food safety chain can be established only when producers, distributors and sellers share a common understanding of the need to secure food safety and when they cooperate by taking responsibility for their own business domains. In this sense, everyone in the food safety chain is required to develop JGAP as an initial task in the rationalization of distribution, which includes production, procurement and selling (Tanoue 2005c).

PROPAGATION OF JGAP AND THE JAPAN GOOD AGRICULTURE INITIATIVE

JGAP needs to be utilized as a standard for the examination of current agriculture and as a guideline for improvement; at the same time, it needs to be revised continuously to satisfy social requirements for safety and the realities of agribusiness. Because farmers implement JGAP every year, revision is necessary to make it appropriate to current affairs. To discuss these revisions, the JGAI was established on 1 April 2005 to continuously develop the projects of the GAP promotion conference.

JGAI was established under the initiative of Yoshinobu Katayama of Katayama Apples and Hirokazu Kiuchi of Wagoen. These were the only two Japanese producers who acquired EurepGAP certification, and they actively called on farmer and producer associations to establish JGAI. On 31 August 2005, JGAI had 14 independent farmers, 16 agricultural producers' associations and 11 supporting members. JGAI has two objectives, as follows: to contribute to the development of members through endeavors to secure safety and stable supply of agricultural products and to propagate and develop GAPs to establish a safe and sustainable agriculture system.

To achieve these two objectives, JGAI strives to establish and propagate GAP; extends help in agricultural management technology to members; enhances joint studies of the distribution of agricultural products; collects and provides information; supplies members with GAP management tools; and works on the activities needed to achieve other objectives (Rules of JGAI).

JGAP's Technology Committee reviews management items, observation criteria and examination provisions for establishing JGAP. The committee consists of professionals in the fields of precision agriculture, distribution of agricultural products, e-commerce and traceability and freshness of foods and hygiene inspection, besides academic experts from universities and private companies. It has also organized a domestic system that allows third-party certification in Japan, while establishing JGAP as the domestic standard and making it compatible internationally (Registering with EurepGAP).

At the same time, JGAI holds symposia and seminars to propagate JGAP. On 15 April, only two weeks after its establishment, it held the 2005 spring seminar titled "Introducing the Japanese version of good agricultural practice" at Nippon Seinen-kan Hall. The seminar drew an audience of about 300 people, from whom JGAI accepted applications for membership. At the 17th National Convention on Information Networks of Foods, Agriculture and Environment held by the Japanese Society of Agricultural Informatics at the Hotel Nikko Toyohashi on 5 and 6 August, JGAI also conducted a symposium on JGAP and the management of supply chains to realize traceability.

Concrete activities aimed at propagating JGAP included informing and guiding JGAI members and producers' associations with regard to the introduction of JGAP. We visited all member farms and explained JGAP to them, educated them on its introduction and consulted with them about the JGAP examination.

We also consult with the production divisions of Japan Agricultural Cooperatives and producers' associations (to which many producers belong) on how to introduce JGAP to satisfy organizational requirements. JGAI is the association devoted to propagating JGAP. However, because there is no qualified GAP examiner in Japan, we bring in examiners and set up a temporary committee to judge the internal JGAP examinations that we hold.

PROBLEMS WITH THE PROPAGATION OF JGAP AND THE NEW AGRICULTURAL MODEL

The propagation of JGAP comes with a pile of problems. Japan shows much less interest in GAP as a transaction standard than foreign countries because it exports only small amounts of agricultural products. Overwhelming amounts of agricultural products are distributed through the wholesale market, and farmers do not think that risk management brings any advantage (economic effect) to their business. At the same time, because most fruit and vegetables are traded on the wholesale market, wholesalers and retailers—both of whom are involved in trading agricultural products—are not greatly concerned about sharing the burden of securing food safety.

People are liable to treat the safety hazards posed by agricultural products as mistakes in management of the production process, because too much emphasis is placed on making products free from any ambiguity (transaction with a human face). However, many cases of biological hazard risks and tampering can be attributed to problems in processing, distribution and sales management.

Whatever the case may be, if producers (who are at the start of the food chain) manage risk to the fullest extent by introducing GAP, the question that inevitably comes after the introduction is "Who is responsible for foods once they come out of the farm gate?"

It is at this point that we define who takes what responsibility in each step of distribution, from the producer's to the consumer's hands. In this sense, everyone in the food chain has to understand that GAP is not merely a task given to producers but a framework that should function in every phase, from production to distribution.

In the narrow sense, GAP is a standard by which we examine a third party, but to put it into effect, we have to look at it from a broader viewpoint involving the entire food chain. The agricultural standards that farmers have to observe to satisfy consumers' requirements can be divided into three categories (Fig. 2).

We need responsible collaboration between producers and sellers to make everyone in the food chain understand these concepts and manage them at the point of production.

Quality Standard

Agricultural products have to be palatable, fresh and safe, besides meeting the purpose of consumption and securing traceability to satisfy consumer requirements. To this end, farms and production processes are managed properly, the technology used to plant agricultural products is excellent, and supply and demand adjustment and physical distribution management are conducted in collaboration with distributors and sellers.

Cultivation Standard

Agriculture has a low degree of reproducibility. No agricultural products raised in nature are

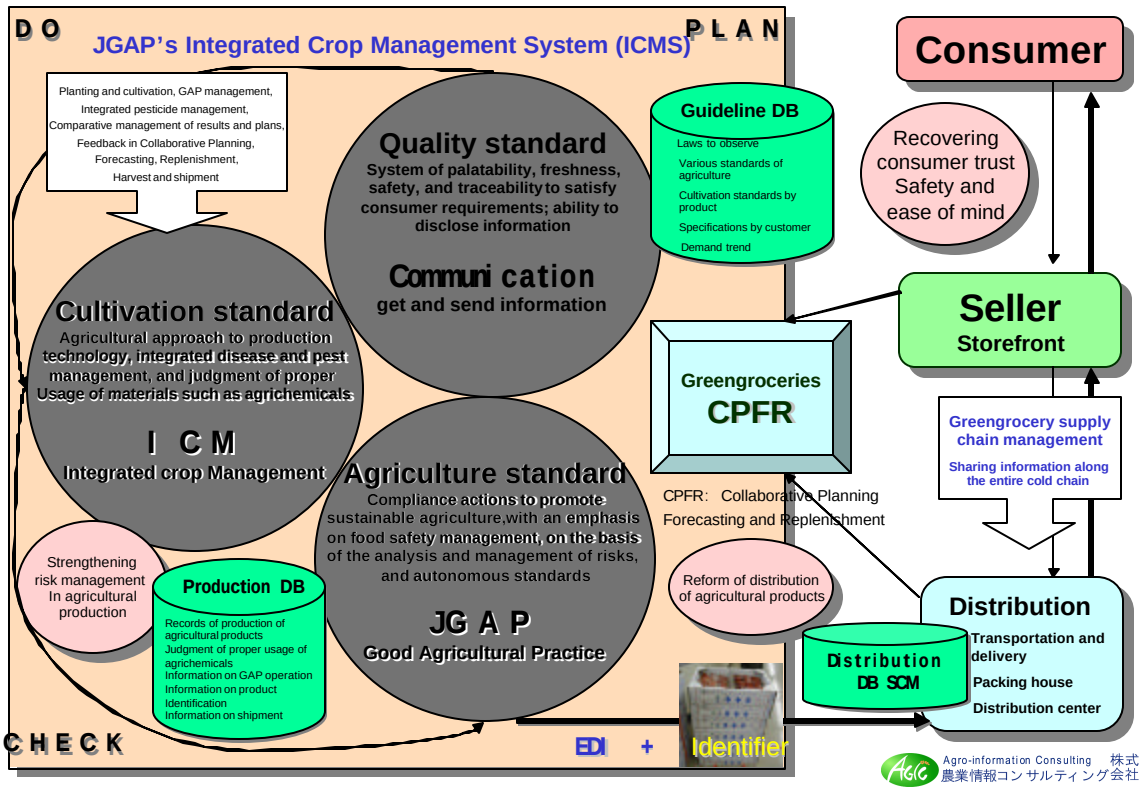

Fig. 2. Securing safety and innovative distribution under JGAP.

identical, and crops can rarely be harvested entirely as planned. Accordingly, to produce agricultural products that satisfy a quality standard, we have to realize comprehensive crop management incorporating integrated disease and pest management to reduce the amounts of chemicals used. We also have to establish a cultivation standard that incorporates as much knowledge and technology as possible and to select the most effective materials.

Agricultural Standard

Because it is at the mercy of nature, agricultural production has risks unique from those of industrial production; consequently, diverse measures are needed to avoid these risks. Accordingly, farmers themselves have to conduct risk analyses of their farms and production processes on the basis of the best agricultural standards by making efforts to secure the safety of their agricultural products. They also must work on environmental protection to make agriculture sustainable forever.

In agricultural management, after all, it is a concrete objective to increase profitability by achieving quality standards that can satisfy consumer requirements for palatable, fresh and safe products. Requirements for quality are very important to distributors and sellers, and agricultural products that fail to satisfy these requirements are consequently unsold. However, everyone involved has to realize that it is difficult to sustain agricultural management unless approaches to the handling of agricultural products are sustainable, the environment and ecology are maintained, and production enterprises are profitable.

Every agricultural production is a potential factor in the destruction of nature. Under these conditions, GAP, by selecting ideas and technologies that can establish a sustainable agricultural system, has been designed to decrease the burden on the natural environment (Tanoue 2005a).