



ZEN-NOH Fair/Taipei, Taiwan



ZEN-NOH Fair/Bangkok, Thailand



A ZEN-NOH Energy Corporation LP gas import facility/Sakaide, Japan



ZEN-NOH Grain Corporation's grain export facility with expanded loading capacity



ZEN-NOH Grain Corporation grain elevators/New Orleans, U.S.A.



Scotch Frost of Glasgow
Food importer and wholesaler/Great Britain and Ireland



TOKIMEITE, a Japanese restaurant operated
directly by ZEN-NOH/London, England



The Wengfu & Zijin Chemical Industry Co., Ltd. phosphate fertilizer facility/Shanghai, China



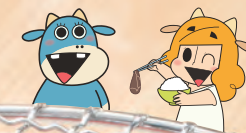
National Federation of Agricultural Cooperative Associations

JA is the abbreviation for Japan Agricultural Cooperatives.

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全農
ZEN-NOH



ZEN-NOH Report 2018



ZEN-NOH Group Corporate Identity

We, the ZEN-NOH Group,
are the trusted and reliable
go-between linking producers
and consumers.



一人は万人のために、万人は一人のために

One for all, all for one.

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Cover: ©Zeushi-kun

Co-operative identity, values & principles

Definition of a Co-operative

A co-operative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise.

Co-operative values

Co-operatives are based on the values of self-help, self-responsibility, democracy, equality, equity and solidarity. In the tradition of their founders, co-operative members believe in the ethical values of honesty, openness, social responsibility and caring for others.

Principles

The co-operative principles are guidelines

by which co-operatives put their values into practice.

Principle 1 Voluntary and Open Membership

Co-operatives are voluntary organizations, open to all persons able to use their services and willing to accept the responsibilities of membership, without gender, social, racial, political or religious discrimination.

Principle 2 Democratic Member Control

Co-operatives are democratic

organizations controlled by their members, who actively participate in setting their policies and making decisions. Men and women serving as elected representatives are accountable to the membership. In primary co-operatives members have equal voting rights (one member, one vote) and co-operatives at other levels are also organized in a democratic manner.

Principle 3 Member Economic Participation

Members contribute equitably to, and democratically control, the capital of their co-operative. At least part of that capital is usually the common property of the

ICA (International Co-operative Alliance) is an association of cooperatives from around the world, with 308 affiliated organizations of ICA in 107 countries and about 1.2 billion members as of April 2018 worldwide.

co-operative. Members usually receive limited compensation, if any, on capital subscribed as a condition of membership. Members allocate surpluses for any or all of the following purposes: developing their co-operative, possibly by setting up reserves, part of which at least would be indivisible; benefiting members in proportion to their transactions with the co-operative; and supporting other activities approved by the membership.

Principle 4 Autonomy and Independence

Co-operatives are autonomous, self-help organizations controlled by their members.

If they enter into agreements with other organizations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control by their members and maintain their co-operative autonomy.

Principle 5 Education, Training and Information

Co-operatives provide education and training for their members, elected representatives, managers, and employees so they can contribute effectively to the development of their co-operatives. They inform the general public — particularly young people and opinion leaders — about

the nature and benefits of co-operation.

Principle 6 Co-operation among Co-operatives

Co-operatives serve their members most effectively and strengthen the co-operative movement by working together through local, national, regional and international structures.

Principle 7 Concern for Community

Co-operatives work for the sustainable development of their communities through policies approved by their members.

Source: JA Handbook for Executive Officers/
Zenkoku Kyoudou Publishing Co. Ltd.

Accelerating Reforms Further to Realize Sustainable Agriculture

As a member of the JA Group, ZEN-NOH has adopted the JA Manifesto as our action guidelines

As a shared philosophy for members, management, and employees, the JA Manifesto calls for us to be an organization that is rooted in and progresses together with our communities, based on agriculture.

JA Manifesto

We, members, employees and officers of JA, act in accord with the fundamental definitions, values and principles of cooperative union activities (independence, self-reliance, participation, democratic management, fairness, and solidarity).

We will forecast environmental changes from a global perspective and renovate our organization, business, and management. We will also cooperate with cooperatives in local communities, across the country, and all around the world, in an effort to realize a more democratic and fairer society. To this end, we will fulfill our role in society as a community-based agricultural organization sincerely, by carrying out the following initiatives.

We will:

- 1 Develop agricultural industries in regions to protect food, nature, and water of our country.
- 2 Build local communities where people can live a safe and bountiful life by making a contribution to the environment, culture, and welfare.
- 3 Achieve cooperative results through active participation in and solidarity with JA.
- 4 Ensure sound management of JA and strengthen confidence in JA in accordance with the principles of independence, self-reliance and democratic management.
- 5 Pursue the achievement of meaningful lives together through learning the spirit of cooperation and implementing cooperative activities.

We wish to offer our sincerest thanks for the tremendous cooperation and support that the ZEN-NOH Group enjoys in its businesses.

In March 2017, the JA Group formulated, and swiftly began implementing, courses of action and practical measures for autonomous reforms in the fields of production materials and sales of agricultural produce, intended to increase agricultural income, in response to the "Agriculture, Forestry and Fisheries and Regions Vitalization Creation Plan."

In FY2018 as well, we will accelerate and make steady progress on initiatives to grow farmers' income, increase agricultural production, and develop healthy agricultural communities.

In the area of production, we will continue reducing production costs through means including expanding joint purchasing to include large tractors and corrugated cardboard materials in addition to fertilizers as well as enhancing our abilities to purchase feed materials from overseas. In addition, in light of the pressing need to address the weakening of production infrastructure along with labor-related issues, we will work together with our business partners to deploy efforts including measures in support of the agricultural workforce, across the entire industry.

In the area of marketing, together with development of producer

regions well suited to meeting increasing demand from the commercial, home meal replacement, and food service sectors and developing a shipping network among producer regions based on a relay structure, we will expand direct sales through investing in buyers and business alliances. We also will enhance our efforts to address growth in the e-commerce market and inbound tourist demand for food products. We will strengthen our export sales strategies based on new overseas facilities.

In light of the dramatic changes underway in production, distribution, and consumption structures, under our new three-year Medium-Term Plan that will take effect beginning in the next fiscal year, ZEN-NOH will, while continuing steady progress along the course we have advanced through now, develop new business models for the future and decisively implement further reforms in order to strengthen JA's support in a time of transformation, while also studying more efficient business operation and management methods based on closer interaction with those active in the field. We are confident that laying the tracks toward steady growth with an eye on developments five to 10 years in the future will both benefit our members and lead to a brighter, more sustainable future for agriculture.

We will appreciate your continued cooperation and understanding with regard to the operations of the ZEN-NOH Group in the future.

Chairman of
Supervisory Board
Yutaka Nagasawa

長澤 豊

President & CEO,
Board of Directors
Genichi Jinde

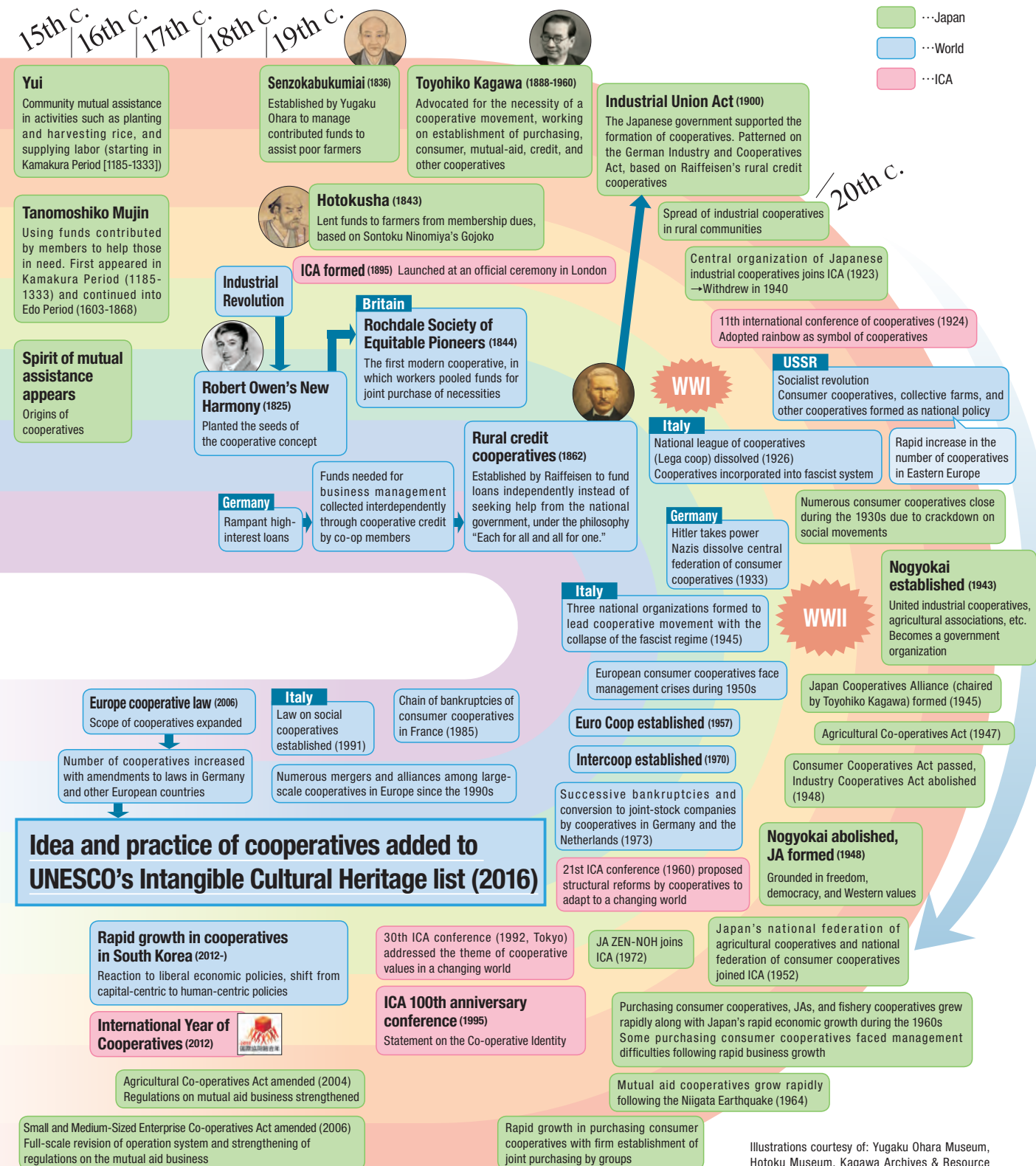
神出 元一

Why cooperatives are important today

Cooperatives in Japan and around the world

ZEN-NOH as a cooperative

History of cooperatives



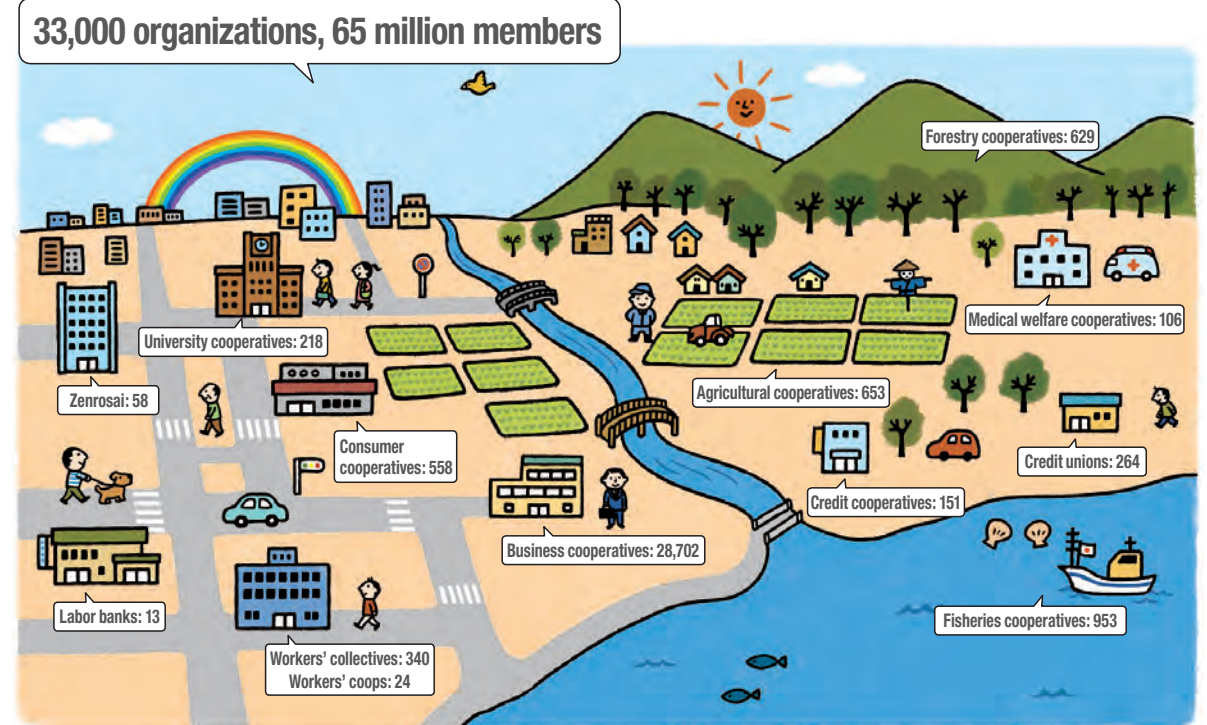
Cooperatives support communities and livelihoods

Cooperatives are organizations that manage their operations based on the principles of self-help and cooperation from long-term, multifaceted, and altruistic approaches, aiming to improve the livelihoods of their members. They are deeply involved in our lives over a broad range of areas from primary through tertiary industries. Under conditions in which overcompetition in the market economy can bring about global disruptions such as the 2008 financial crisis, the role of

cooperatives in providing fundamental support for local communities is growing more and more important. The Japanese government (in the online government magazine Highlighting Japan) has expressed its high regard for the roles of cooperatives, noting, "The growth of cooperatives should be supported as much as possible to enable the further spread of their mutual-aid activities rooted in the community, which play an important role in the lives of the public."

(Online as of July 2018)

Cooperatives cover a wide range of businesses from primary through tertiary industries



Notes: Figures shown represent numbers of cooperatives in Japan (source: Cooperatives Japan, 2018). Business cooperatives are organized by small and medium-sized enterprises (SMEs). A requirement for organizing a business cooperative is that at least four businesses (corporations or owner-operator businesses) participate. They are intended to facilitate more efficient management and improve trading conditions for SMEs.

Cooperatives' Efforts Are Highly Regarded Around the World

In September 2015, the United Nations Sustainable Development Summit adopted the 2030 Agenda for Sustainable Development, which includes the Sustainable Development Goals (SDGs).

The fundamental principle of the 2030 Agenda is the pledge that "no one will be left behind." It is an action plan to be realized by all nations and stakeholders by the year 2030, intended to promote sustainable development. The SDGs play a central role in the 2030 Agenda. Cooperatives are specifically identified as one element of the diverse private-sector participants playing roles in implementing the Agenda. The UN Secretary-General at the time stated, "Cooperatives are the embodiment of the SDGs' principle that no one will be left behind." The Japanese government also specifically refers to cooperatives in its implementation policy for the SDGs.

In addition, in November 2016, the United Nations Educational, Scientific and Cultural Organization (UNESCO) added the "Idea and practice of organizing shared interests in cooperatives" to its

Representative List of the Intangible Cultural Heritage of Humanity, based on an application submitted by Germany. The UNESCO committee noted that "cooperatives allow for community building through shared interests and values creating innovative solutions to societal problems, from generating employment and assisting seniors to urban revitalization and renewable energy projects."

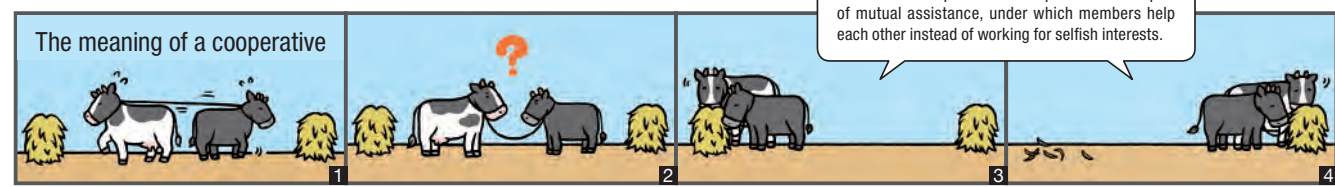
As these examples show, there are great expectations both in Japan and around the world for the idea and practical efforts of cooperatives.



The first shop of the Rochdale Society of Equitable Pioneers, established in Rochdale, England in 1844

Why cooperatives are important today

The cooperative concept



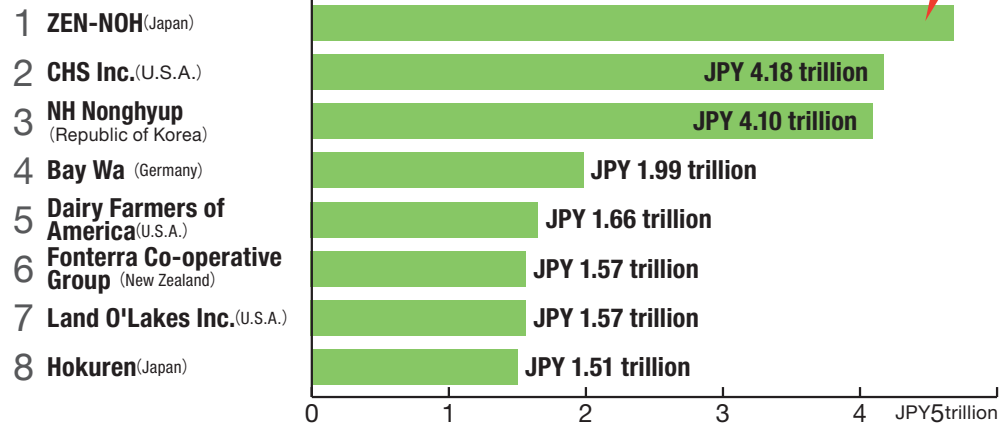
Source: Based on "What is a co-op?" Japanese Consumers' Co-operative Union

ZEN-NOH's standing among cooperatives worldwide

JPY 4.69 trillion

Note: On a trading volumes, as of FY 2015

The world's top eight cooperatives by trading volume

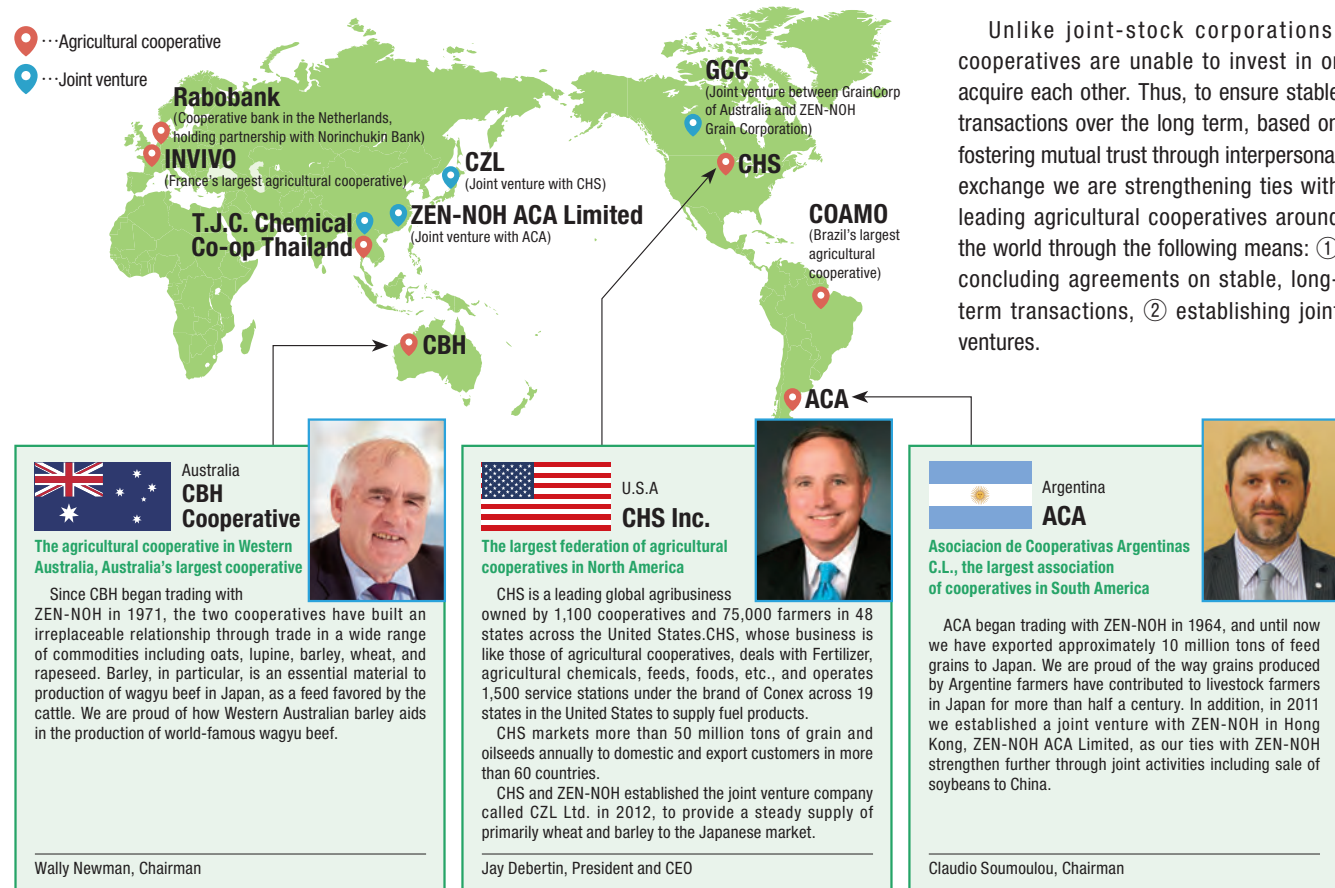


Note: Prepared by ZEN-NOH based on data from the World Co-operative Monitor 2017 (ICA)

Note: Figures for the NH Nonghyup in Republic of Korea include financial and insurance group member companies.

Around the world, cooperatives are involved in a wide range of businesses including agriculture and foods, consumer businesses, finance, insurance, and public services. A look at trading volume shows that the agriculture and foods segment accounts for 28% of all cooperative business, and ZEN-NOH is the largest cooperative in that segment. Agricultural cooperatives around the world expect ZEN-NOH to play a leading role in the field.

Partnering with leading agricultural cooperatives around the world



Unlike joint-stock corporations, cooperatives are unable to invest in or acquire each other. Thus, to ensure stable transactions over the long term, based on fostering mutual trust through interpersonal exchange we are strengthening ties with leading agricultural cooperatives around the world through the following means: ① concluding agreements on stable, long-term transactions, ② establishing joint ventures.

Dramatic global acquisitions of agricultural cooperatives in Canada and Australia

Many cooperatives worldwide have been acquired by global firms as a result of having shifted to a joint-stock company organizational structure in order to raise funds. While such agricultural cooperatives once accounted for a massive share of grain distribution in their own markets, with these organizational changes and acquisitions their shares have fallen. Tough competition is developing in grains markets worldwide as agricultural cooperatives convert to joint-stock companies and then become involved in successive acquisitions.

1 The case of ABB Ltd. in Australia and Viterra Inc. in Canada

Originally, Australia had both packing cooperatives for wheat and barley, organized by state, and a state government monopoly that exported barley. In 2000, these packing cooperatives and the state agency converted to joint-stock companies and merged to form ABB Ltd.

In Canada, four agricultural cooperatives that needed to consolidate their packing facilities in an effort to end losses in their grain shipping businesses merged and converted to joint-stock companies to raise funds for construction of new packing facilities. In 2007, these became Viterra Inc. Viterra Inc. acquired ABB Ltd. in 2009 as a means of preventing a hostile takeover. However, in 2012 Viterra Inc. was acquired by a major European company, Glencore plc.

Thus, the shift to a joint-stock company organization, intended to make it easier to raise funds, led in a little over a decade to acquisition by an overseas company, which in turn led to a major decrease in packing share.

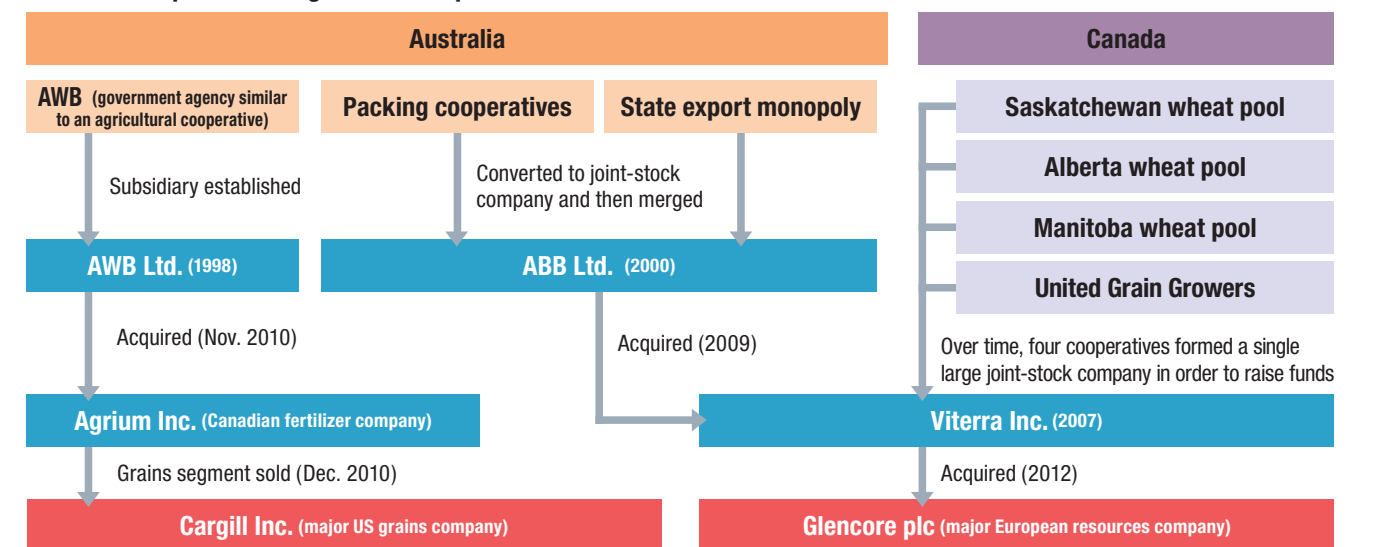
2 The case of AWB in Australia

Originally, AWB was a government agency that resembled an agricultural cooperative, with a monopoly on wheat exports and a pooling system. In 1998, it established a wholly owned subsidiary to which it transferred all of its businesses. In the following year, the original organization was dissolved and stock in the company was split into shares with voting rights, to be held only by farmers, and shares without voting rights. At that time, it remained a joint-stock company defended against hostile takeovers.

Later, in 2008, its articles of association were amended to abolish this distinction in types of stock and make it an ordinary company, and then in 2010 it was acquired by the Canadian fertilizer company Agrium Inc.

Only one month later, Agrium Inc. sold its grains segment to the major US grains company Cargill Inc., retaining only AWB's fertilizer subsidiary.

Flow of acquisitions of agricultural cooperatives



Differences between a cooperative and a joint-stock company

	Cooperative	Joint-stock company
Organization	Members seeking to improve their own living	Shareholders who have purchased company stock
Purpose	Improving members' living over the long term (not for profit)	Pursuing short-term returns (for profit)
Management	Members, users, and management are the same	Policies decided on in general meetings of shareholders
Voting rights	One person, one vote	One share, one vote
Acquisition	Impossible	Possible
Operating principles	Prioritizing long-term, multifaceted gains based on a spirit of helping each other	Prioritizing above all short-term profit through competition

Joining forces together makes it possible to overcome difficult challenges, and to do great things.
Cooperation enables further forward progress.

International Network and Diversification of Sources



ZEN-NOH strives to secure stable, long-term supplies of feed and fertilizer materials through our international network.

In the livestock business, our activities in the United States, the world's largest exporter of grains, include enhancement and strengthening of our grain originating infrastructure in the Midwest, through our subsidiaries including ZEN-NOH Grain and

CGB Enterprises, and developing a grain originating and shipping network for the U.S., realized in partnership with CHS, the largest organization of agricultural cooperatives in the U.S., on the West Coast.

In addition, we are proactively diversifying our sources beyond the U.S., including strengthening alliances with agricultural cooperative organizations in numerous

countries, including ACA in Argentina, COAMO in Brazil, CBH in Australia, and INVIVO in France.

At the same time, in the fertilizer business we consider the securing of stable supplies of materials to be a priority. Toward this end, we are strengthening our ties to overseas suppliers. While we rely on imports for most raw materials used in fertilizer, ZEN-NOH

strives to secure stable supplies by building relations of trust through transactions based on long-term trading with suppliers in various countries: China, Morocco, Jordan, South Africa, Vietnam, and the U.S. for phosphate, Canada, Russia, Belarus, Germany, Taiwan, and the U.S. for potassium, and Malaysia for urea.

In 2012 we invested in Wengfu & Zijin

Chemical Industry Co., Ltd., a company producing ammonium phosphate in China, and secured a role in its management, to realize preferential and stable supplies of high-quality ammonium phosphate. Furthermore, in fuel business we are working to secure improved supplies of fuel products from overseas to ensure stable supplies to our service stations and filling stations in Japan.

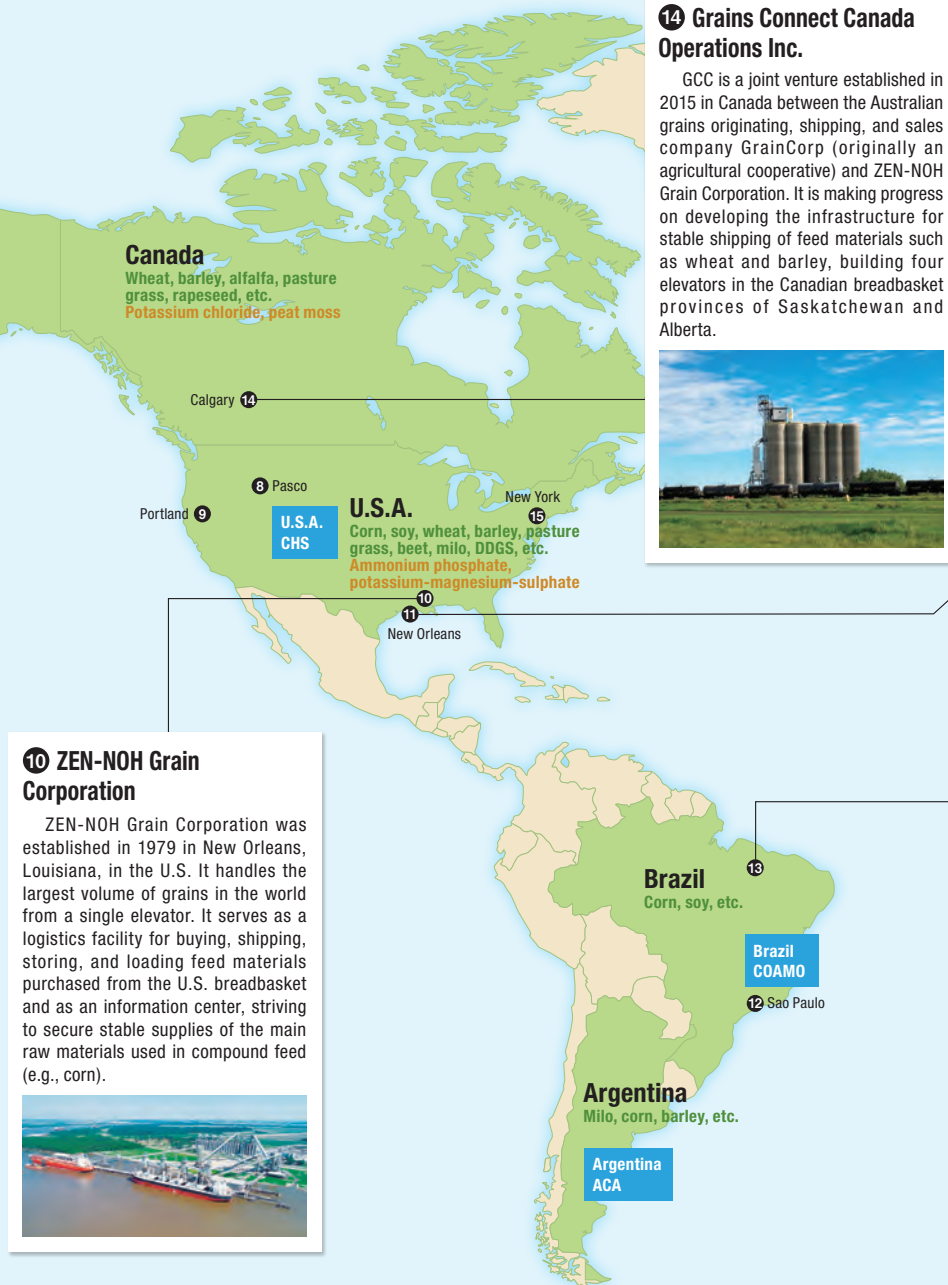


Feed, fertilizer, and fuel producing centers

Feed Fertilizers Fuels

Overseas subsidiaries, etc. Overseas ZEN-NOH offices

1 JA ZEN-NOH International Europe Limited (ZIE) - Established in 2015 (London) - Export/import of wheat variety, feed materials, livestock products, etc.	3 T.J.C. Chemical Co., Ltd. - Established in 1970 (Thailand) - Manufacture and sale of agricultural chemicals	5 Wengfu & Zijin Chemical Industry Co., Ltd. - Established in 2010 (China) - Manufacture of fertilizer materials	7 ZEN-NOH ACA Limited - Established in 2011 (Hong Kong) Joint venture with ACA - Sale of grains and oil seeds to Asia	9 ZEN-NOH Grain Corporation, Portland Division - Established in 2005 (U.S.) - Export and sales of grains and forage	11 CGB Enterprises, Inc. (CGB) - Acquired in 1988 (U.S.) - Origination, storage, and sales of grains
2 ZEN-NOH Green Resources Thailand Co., Ltd. - Established in 1964 (reorganized in 1977 and 1993) - Export/import of agricultural chemicals, chemical products, food products	4 JA ZEN-NOH International Asia Pte. Limited (ZIA) - Established in 2015 (Singapore) - Export/import of rice and wheat variety, feed materials, livestock products, etc.	6 ZEN-NOH Green Resources Corporation (ZGR), Shanghai Office - Established in 1991 (reorganized in 2005) - Information collection, attendant services, assistance with purchasing of fertilizer materials and production materials	8 ZEN-NOH Hay Inc. - Established in 1994 - Manufacture, export, and sale of forage	10 ZEN-NOH Grain Corporation (ZGC) - Established in 1979 (U.S.) - Export and sales of grains, information collection	12 ZEN-NOH Grain Brazil Holdings Ltda (ZGB) - Established in 2015 - Origination of grains, investment in exporting companies, information collection



10 ZEN-NOH Grain Corporation

ZEN-NOH Grain Corporation was established in 1979 in New Orleans, Louisiana, in the U.S. It handles the largest volume of grains in the world from a single elevator. It serves as a logistics facility for buying, shipping, storing, and loading feed materials purchased from the U.S. breadbasket and as an information center, striving to secure stable supplies of the main raw materials used in compound feed (e.g., corn).

14 Grains Connect Canada Operations Inc.

GCC is a joint venture established in 2015 in Canada between the Australian grains originating, shipping, and sales company GrainCorp (originally an agricultural cooperative) and ZEN-NOH Grain Corporation. It is making progress on developing the infrastructure for stable shipping of feed materials such as wheat and barley, building four elevators in the Canadian breadbasket provinces of Saskatchewan and Alberta.

11 CGB Enterprises, Inc.

ZEN-NOH acquired CGB in 1988 to strengthen its infrastructure for shipping grains from the Midwestern United States. The bulk of the grains it ships is exported by ZEN-NOH Grain Corporation. Currently, it operates about 90 storage facilities with a storage capacity of 5.4 million tons, the fifth largest in the United States.

13 Amaggi Louis Dreyfus ZEN-NOH Holdings S.A.

Amaggi Louis Dreyfus ZEN-NOH Holdings S.A. (ALZ) is a grain originating and exporting company in which ZEN-NOH Grain Corporation (ZGC) invested, through its Brazilian subsidiary ZGB, in July 2017. It will strive to stabilize supply of feed grains by building supply chains in Brazil, one of the world's leading exporters of grains (corn, soy) and one that is expected to see further growth in production and exports in the future.

13 Amaggi Louis Dreyfus ZEN-NOH Holdings S.A. (ALZ) - Invested in in 2017 (Brazil) - Origination and export of grains	15 ZEN-NOH America Corporation (ZNA) - Established in 1978 (reorganized in 1982) - Support for trading partners for meat - International trading in fertilizer materials, etc., business development of and business support for trading partners for meat, etc.	17 Taiwan ZEN-NOH International Corporation - Established in 2018 - Import of agricultural and livestock products, etc.	18 ZEN-NOH Beijing Office - Established in 1980 (reorganized in 2010) - Support for exports of domestic agricultural products, assisting in transfer of fertilizer materials, etc., information collection, attendant services	21 ZEN-NOH Hong Kong Office - Established in 2018 - Support for exports of domestic agricultural products, information collection, attendant services
14 GrainsConnect Canada Operations Inc. (GCC) - Established in 2015 - Origination, storage, and sale of wheat, barley, and other feed materials	16 ZEN-NOH International Hong Kong Limited - Established in 2018 - Import of agricultural and livestock products, etc.	18 ZEN-NOH London Office - Established in 2014 (reorganized in 2015) - Growing exports of domestic agricultural products, information collection, attendant services	20 ZEN-NOH Singapore Office - Established in 2013 (reorganized in 2015) - Transfer of fertilizer materials, juices, etc., export support, information collection, attendant services	22 ZEN-NOH Taiwan Office - Established in 2018 - Support for exports of domestic agricultural products, information collection, attendant services

As of September 2018

Japan's food supply outlook

Japan's food self-sufficiency rate continues to decrease. Currently, it is the lowest among developed countries. In addition, Japan's high degree of reliance on imports has led to concerns about the future of the nation's food supply. At the same time, Japan generates a large volume of food loss.



Japan's food self-sufficiency rate is the lowest among developed countries

Japan's food self-sufficiency rate on a calorie basis, which stood at 73% in 1965, has fallen continually since then, and over the last 20 years it has remained low at around 40%. Japan's food self-sufficiency rate in FY2017 was 38%. Causes of this decrease include reduced consumption of rice, for which the nation has a high self-sufficiency rate, and increased consumption of livestock products as well as oils, for which it depends on overseas for supplies of feed and raw materials.

While the leading exporters of food products, such as Canada, Australia, the United States, and France, have food self-sufficiency rates of more than 100%, Japan's is the lowest among developed countries.

Fig. 2. Food self-sufficiency rates of Japan and other countries

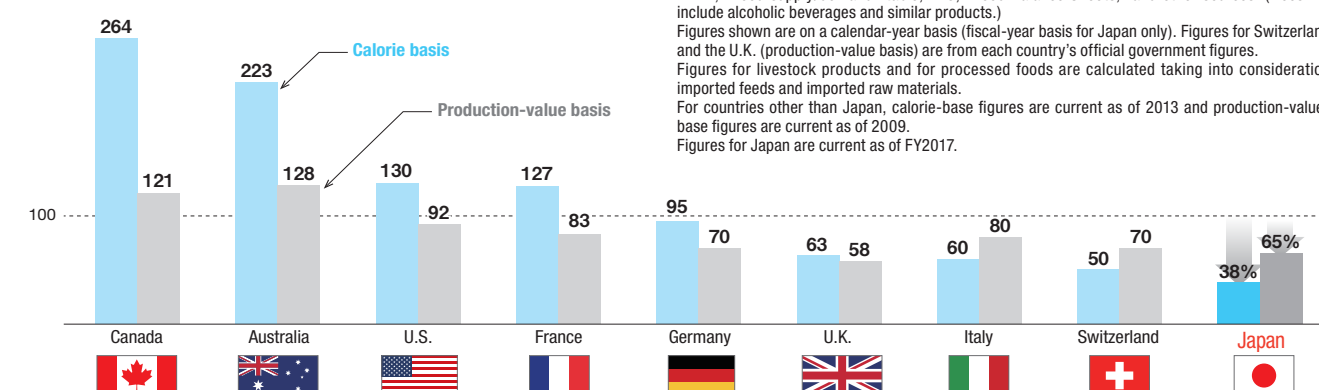
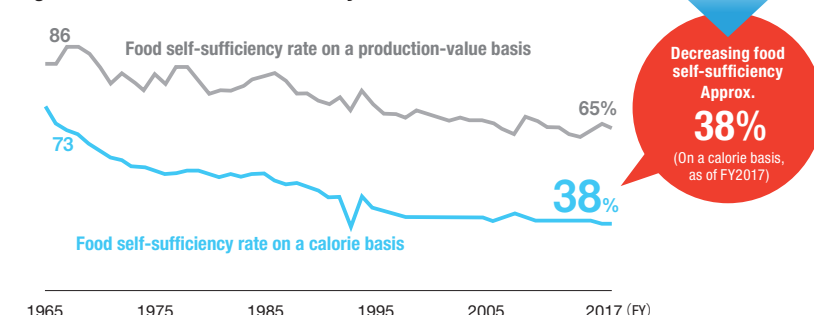


Fig. 1. Trends in food self-sufficiency



Notes: Source: Estimated by the Ministry of Agriculture, Forestry and Fisheries (MAFF) based on data from MAFF, "Food supply/demand" table, FAO, "Food Balance Sheets," and other sources. (Does not include alcoholic beverages and similar products.) Figures shown are on a calendar-year basis (fiscal-year basis for Japan only). Figures for Switzerland and the U.K. (production-value basis) are from each country's official government figures. Figures for livestock products and for processed foods are calculated taking into consideration imported feeds and imported raw materials. For countries other than Japan, calorie-base figures are current as of 2013 and production-value-base figures are current as of 2009. Figures for Japan are current as of FY2017.



Topic Agriculture is essential to the nation

Prof. Nobuhiro Suzuki
University of Tokyo

Food as a weapon

Constant, stable supplies of safe, reliable foods and the sustainability of the agriculture, forestry, and fisheries industries that support these are essential to protecting the lives of the public and the nation itself. Truly, agriculture is essential to the nation and is a linchpin of national security. For example, in the U.S. food is recognized as a weapon, with export aid effectively totaling as much as JPY 1 trillion/year invested in stimulating exports of just three grains, based on an understanding that no matter how much funds are devoted to strategic aid to leverage the nation's ability to feed people around the world it is more economical than military weapons. In addition, while subsidies account for about 30% of the income of farmers in Japan, this is the lowest figure among developed countries. For example, in the EU subsidies account for roughly 90% of agricultural income in the U.K. and France and almost 100% in Switzerland. The concept of national support for an industry that helps protect people's lives, the environment, and the nation and its borders is considered commonsense in Europe and North America.

Maintenance of the food self-sufficiency rate is essential

Japan's food self-sufficiency rate has fallen to 38% (on a calorie basis). If the nation were to abandon domestic agriculture because imported foods are less expensive, then in a case like the 2008 food crisis Japanese people could go hungry if other countries refuse to sell to Japan due to export restraints. This is why we need to recognize anew the fact that even if ordinary food costs are a little bit higher, supporting the people who work hard to produce food here in Japan actually is less costly over the long run. What's more, imported foods involve risks such as use of growth hormone and genetically modified organisms. Food security involves both quality and quantity. Securing a quality food supply requires securing sufficient quantities of food—that is, maintaining the food self-sufficiency rate—as well. However, conditions that pose increasing risks to the lives, and lifestyles of the public are advancing steadily, spurred by the breakdown of existing farm management methods due to further trade liberalization and domestic deregulation, measures aiming to break up agricultural cooperatives, and special treatment for certain companies, including foreign-affiliated ones.

Agricultural policy as a national security policy

Prices of agricultural products in Japan are being driven down. Conversion of farmers' agricultural income to hourly pay results in figures of roughly JPY480 for rice and JPY500–600 for fruits and vegetables. Continual shifting of the burden so that domestic farmers earn less than JPY1,000/hour and choosing imported products because of their lower prices would lead to decreases in domestic production, posing increasing risks to the lives and health of the public and to the environment. Key to the future will be whether or not consumers can recognize that, in order to protect our own way of life, an appropriate price is one that reflects the value of the multifaceted functions that agriculture provides, including those related to national security. Where such value cannot be reflected fully in prices, the pay farmers earn should be supplemented with taxpayer funds. Rather than protectionism, this is the fair value of the various types of security that agriculture provides. We need to restructure policies in the areas of agriculture, forestry, and fisheries, which play central roles in national security, keeping in mind at all times that foreign control of the nation's food supply means foreign control of the lives of the public, and a loss of independence.



With 50% of its food imported from overseas, Japan is large importer

Japanese people are said to require approximately 86 million tons of food per year, of which approximately 43 million tons are produced in Japan and approximately 43 million tons are imported from abroad. Grains account for the largest share of imports, at approximately 24 million tons. In particular, Japan imports about 15 million tons of corn—nearly double its rice consumption—in a year. This is consumed mainly as feed materials for the roughly 13 million tons of domestic livestock production.

In addition, as a result of Japan having deregulated imports of meat, the nation imports even more meat than China, which is said to have a population 10 times larger than Japan's, making it the world's largest meat importer. In 1991, when beef imports were deregulated, Japan's self-sufficiency rate for beef was 52%, but since then the volume of imports has increased dramatically due to the rapid increase in the value of the yen on international currency markets, the bovine spongiform encephalopathy (BSE) outbreak, and other factors, in addition to growing demand. The most recent figure shows that the self-sufficiency rate has fallen to 38%.

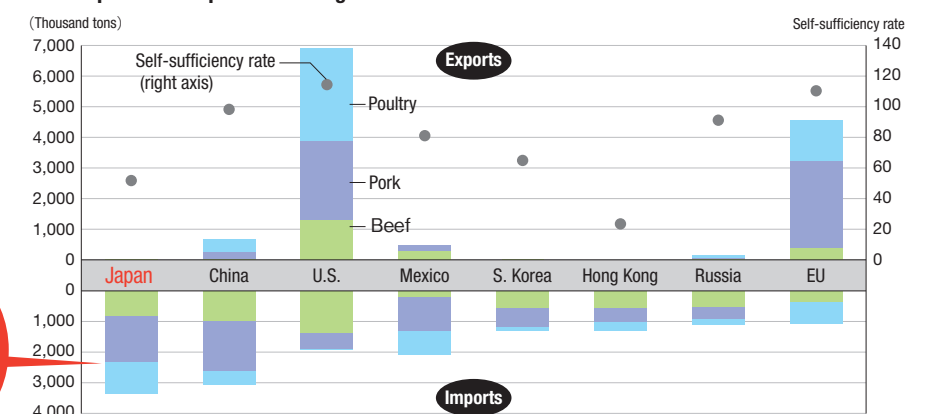
Food supply/demand (FY2015)

	Type/item	Domestic production	Foreign trade		Food intended for domestic consumption	
			Imports	Exports	Volume	Feed use (included at left)
Produce	Grains	965	2,424	12	3,283	1,424
	Rice	843	83	12	860	47
	Corn	0	1,510	0	1,476	1,127
	Vegetables	1,186	294	2	1,478	0
	Fruit	297	435	7	726	0
	Other	604	468	1	1,065	12
Livestock	Subtotal	3,051	3,621	22	6,553	1,436
	Meat	327	277	1	604	0
	Eggs	254	11	0	266	0
	Milk and dairy products	741	463	3	1,189	4
	Subtotal	1,322	752	4	2,058	4
Total		4,373	4,373	26	8,611	1,440

Consumption: approx. 86 million tons

Source: Based on Ministry of Agriculture, Forestry and Fisheries, "Food supply/demand" table

Meat exports and imports of leading nations



Source: Based on U.S. Department of Agriculture data



Food loss increases to 6.46 million tons/year

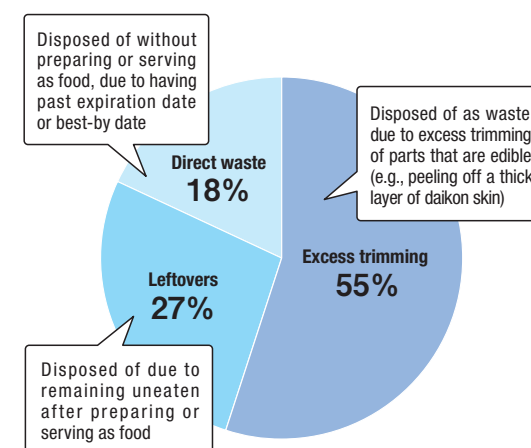
Food loss refers to food intended for consumption that was disposed of as waste instead, either left uneaten or unsold in stores. Japan generates approximately 6.46 million tons of food loss per year. This is the equivalent of throwing out a rice bowl full of food every day for each person in Japan. It means that while Japan imports large volumes of food due to its low food self-sufficiency, it still throws out a large amount of this food as waste. While food waste also arises in stores and restaurants, about one-half is generated in the home.

Causes of food loss in the home can be split into the categories of excess trimming, such as peeling too much skin off a fruit or vegetable or throwing out parts that are edible, leftovers generated when too much food is prepared, and direct waste, which arises when food remains unused past its expiration date or best-by date. For each of these causes, a little care can help to reduce food loss.

Estimated food loss:
6.46 million tons
(As of 2015)



Breakdown of food loss in the home



Source: Based on Consumer Affairs Agency data

A new age in food supply

Consumers face changing conditions

The conditions that consumers face are changing dramatically due to the progressive aging of society, increasing numbers of single and small households, and progressive globalization of consumer markets.



The changing shape of family: Increasing numbers of small households

Japan's population has been decreasing since peaking in 2008. At the same time, the number of households is increasing. The number of single-person households has grown fourfold compared to 40 years ago, while that of two-person households has tripled, as the trend toward a nuclear family and the movement away from three generations living together in the same household advance.

Fig. 1. Trends in numbers of households by family structure

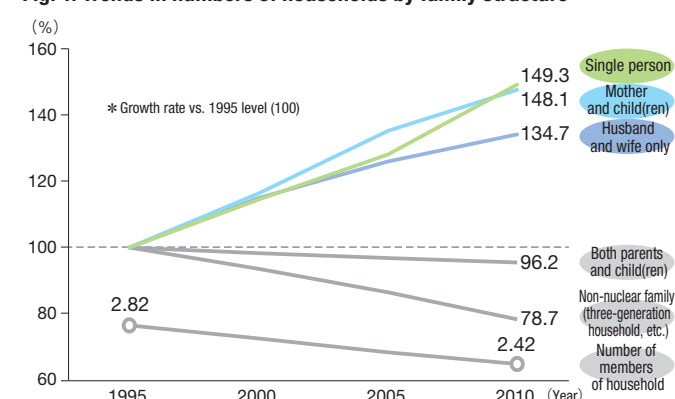
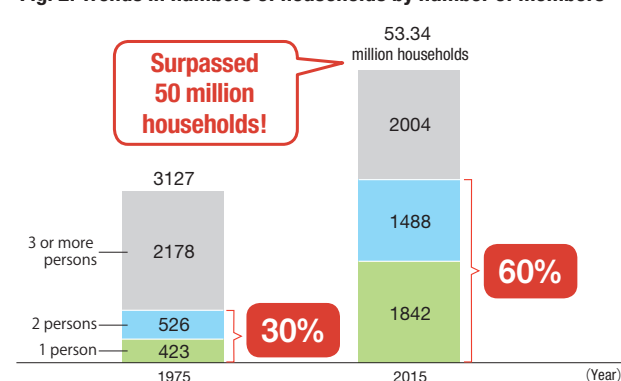


Fig. 2. Trends in numbers of households by number of members



The home meal replacement market surpasses JPY10 trillion as demand grows along with a record high in dual-income families

Recent years have seen rapid growth in the markets for food service (e.g., restaurants and bars) and meal-replacement products such as prepared meals and prepared dishes. In 2017, the home meal replacement market surpasses JPY10 trillion in size for the first time ever. It is thought that the main reasons for this growth include increasing demand for simplified dining, due to factors such as rising numbers of single-person households and working women. The number of dual-income households has continued to increase since 1980, reaching a level of 11.88 million households in 2017.

Fig. 1. Trend in the size of the meal-replacement market

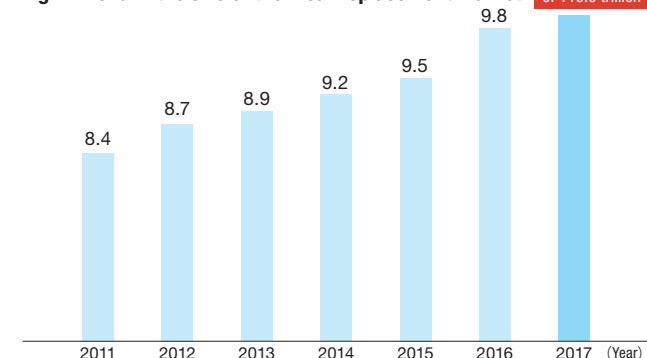
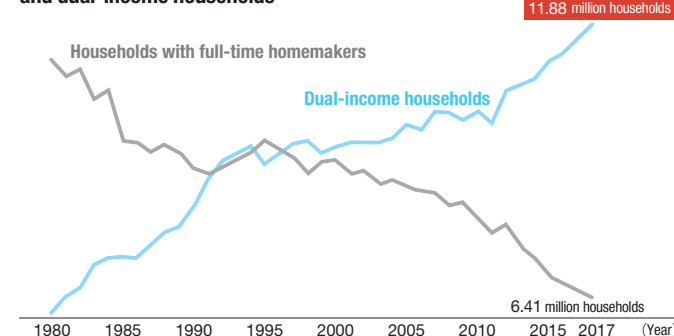


Fig. 2. Trends in numbers of households with full-time homemakers and dual-income households



Structural changes in demand: Food demand shifts away from the home

Backed by the trend toward dining out and use of meal replacements, demand for vegetables is shifting from the household to the processing and commercial sectors. Roughly 60% of vegetable demand by volume is consumed by the processing and commercial sectors, and imports account for about 30% of this figure. In addition, rice consumed in meal replacements and dining out accounts for about 30% of total consumption, and this share is increasing from year to year.

Fig. 1. Vegetable demand for processing/commercial use and household consumption

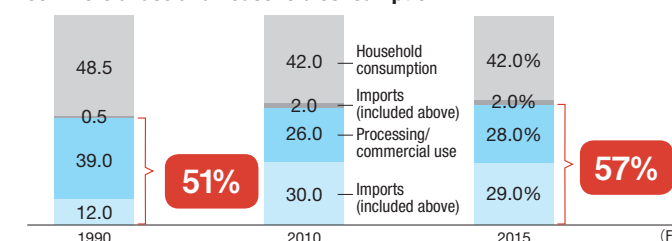
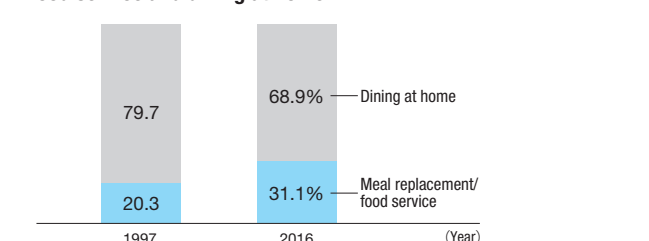


Fig. 2. Rice consumption for meal replacement/food service and dining at home



A progressive trend away from home consumption

60% of vegetable demand is for processing/commercial use

30% of rice consumption is for meal replacement/food service use (As of 2015/2016)



Numbers of foreign visitors to Japan have set record highs in five consecutive years: Growth in the inbound market

The number of foreign visitors to Japan is increasing from year to year, reaching 28.69 million people in 2017—roughly three times higher than the figure from five years ago. This has led to an increase in inbound demand, with the inbound market now JPY4.4 trillion (estimated figure) in size and expected to continue growing in the future as well. Food and beverages and shopping (groceries) account for about 30% of this demand by value.

Fig. 1. Trends in numbers of visitors to Japan and travel consumption by value

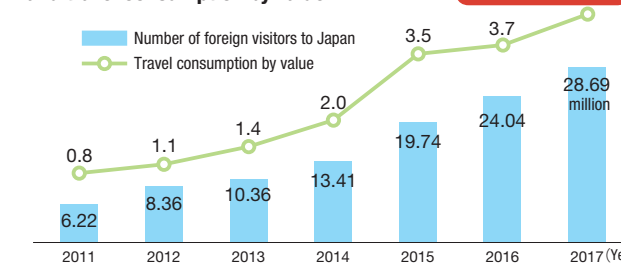
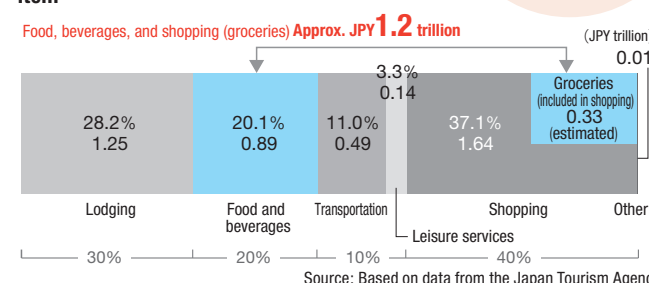


Fig. 2. Breakdown of value of consumption by visitors to Japan (JPY4.4 trillion in 2017) by item



Increase in visitors to Japan

Number of travelers: 28.69 million

Travel consumption: JPY4.4 trillion (Both as of 2017)



The e-commerce market has doubled in five years to JPY16 trillion

As the markets for department stores and general supermarkets decrease in size, the e-commerce market is growing rapidly in Japan. The e-commerce market (B2C) in 2017 grew by 9.1% (year-on-year) to JPY16.5054 trillion. A breakdown shows that sale of goods accounted for about 50% of this market, as use of e-commerce advances in home electronics, e-books, and other segments. At the same time, the rate of use of e-commerce in the food industry tends to be relatively low compared to other categories, at just 2.41%. However, since the market for commercial transactions in food products is second only to clothing and apparel in size, considerable growth is expected in the future.

Trends in department store, drugstore, supermarket, and e-commerce sales

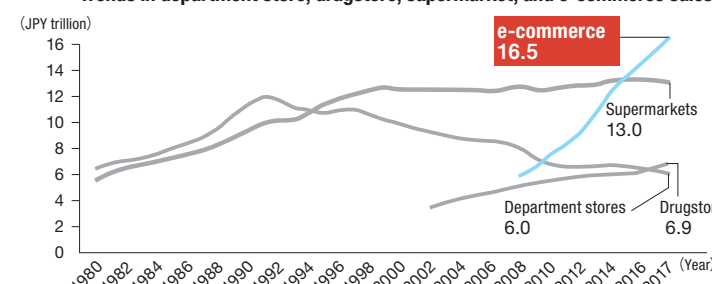


Table 1. B2C-EC market size by segment

Merchandise sales	JPY8.6008 trillion
Services	JPY5.9568 trillion
Digital	JPY1.9478 trillion
total	JPY16.5054 trillion

Table 2. Market size by category and e-commerce adoption rate in merchandise sales

Category	Market size (JPY100 million)	e-Commerce adoption rate (%)
Apparel, clothing, accessories, etc.	16,454	11.54
Food, non-alcoholic beverages, alcoholic beverages	15,579	2.41
Home appliances, home audio/video, personal computers and peripherals, etc.	15,332	30.18
Sundries, furniture, interior	14,817	20.40
Books, video, music	11,136	26.35
Cosmetics, pharmaceuticals	5,670	5.27
Other	2,779	0.80
Automobiles, motorcycles, parts, etc.	2,192	3.02
Office supplies, stationery	2,048	37.38
total	86,008	5.79

Growth in e-commerce

B2C market size

Approx. JPY16 trillion (As of 2017; includes non-food segments)

Agriculture in Japan: Signs of light amid difficult challenges

Changing production conditions

Japan's agricultural production infrastructure itself is at risk of breaking down due to factors such as its decreasing and ageing farming population and growth in abandoned cultivated land due to a lack of people to farm it and labor shortage. At the same time, there are some bright signs as well, such as an increase in numbers of new farmers.

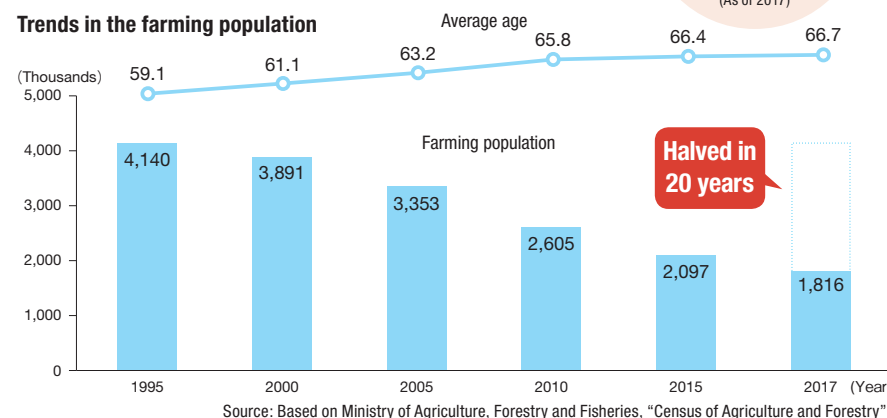


The farming population has decreased by one-half in 20 years, due to ageing

The percentage of the population employed in farming stood at 1.81 million in 2017, down more than 50% from 1995. In addition to people leaving the field as they age, another major cause of this decrease is thought to be the trend toward small-scale farmers joining community agricultural management organizations.

In addition, the average age of the farming population in 2017 was 66.7 years, as ageing of the rural population continues to advance.

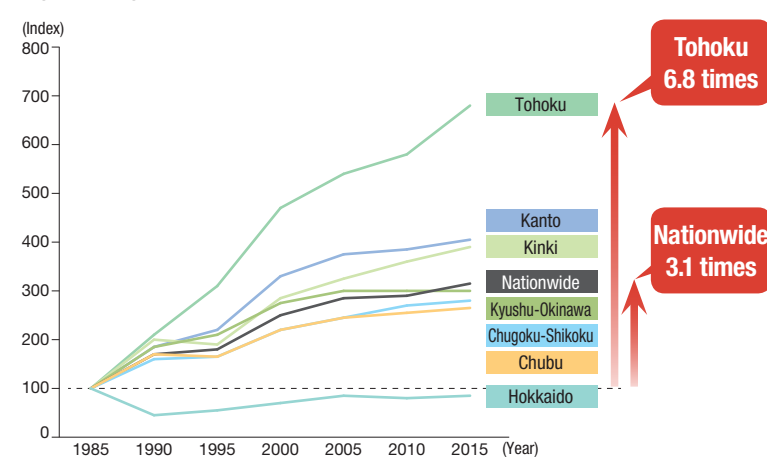
Trends in the farming population



Abandoned cultivated land grows threefold in 30 years

The total area of abandoned cultivated land in 2015 was 423,000 ha, equivalent to the area of Fukui Prefecture (while the total area of all cultivated land was 4,496,000 ha). The nationwide figure is 3.1 times that of 30 years ago, while the figure in the Tohoku area is rising rapidly to 6.8 times that of 30 years ago. In addition, a look at the surface areas and percentages of abandoned cultivated land by regional bloc shows that the Tohoku and Kanto regions account for about one-half of the total, while abandoned cultivated land accounts for more than 20% of managed farmland in the Kanto and Chugoku-Shikoku regions.

Fig. 1. Changes in areas of abandoned cultivated land



Source: Figs. 1–3 based on Ministry of Agriculture, Forestry and Fisheries, "Census of Agriculture and Forestry in Japan" (2015)

Fig. 2. Areas and percentages of
abandoned cultivated land
by regional bloc (2015)

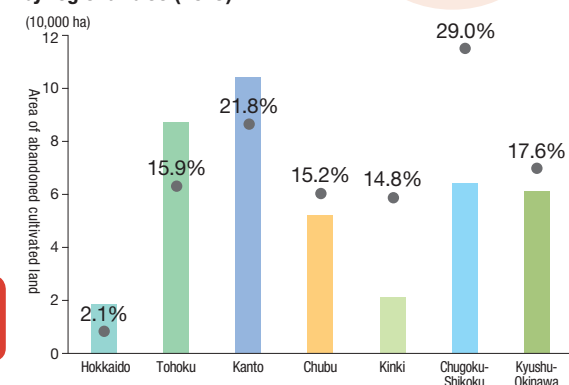
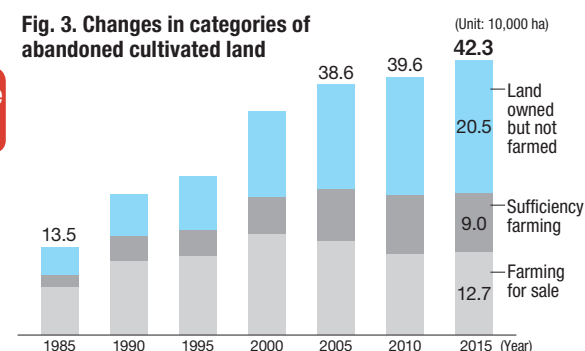


Fig. 3. Changes in categories of
abandoned cultivated land



Growth
in abandoned
cultivated land

Abandoned
cultivated land
420,000ha
(As of 2015)



Corporate farming is an increasing presence, accounting for about one-third of sales

In 2015, the number of farming corporations totaled 18,857, up 2.2 times from 10 years earlier. Their share of sales of agricultural produce by value has risen greatly from 15% to 27%, as they are becoming an important presence in agricultural production. In addition, the concentration of land under management of large-scale agricultural organizations also is advancing, as organizations managing 20 ha or more managed 37% of all cultivated land in 2015. The movement toward concentration of farmland under the management of large organizations is accelerating.

Fig. 1. Changes in numbers of
corporate farming organizations

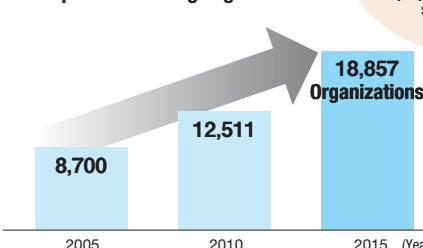
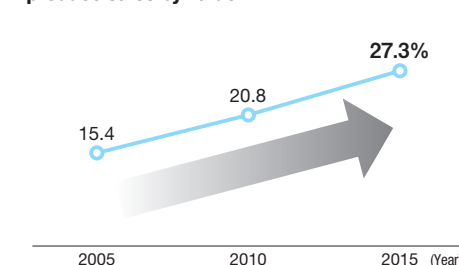
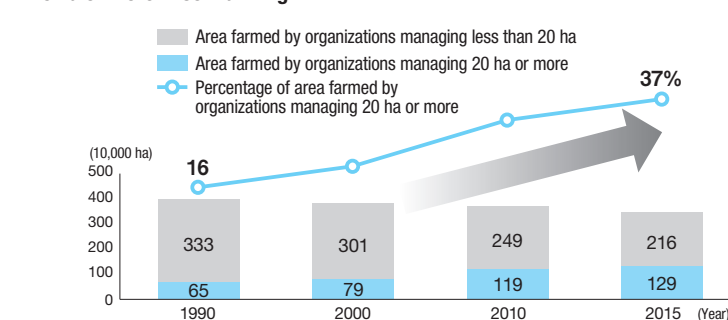


Fig. 2. Corporations' share of agricultural
produce sales by value



Source: Figs. 1–3 based on Ministry of Agriculture, Forestry and Fisheries, "Census of Agriculture and Forestry in Japan"

Fig. 3. Changes in percentage of land farmed by organizations managing
20 ha or more in soil farming



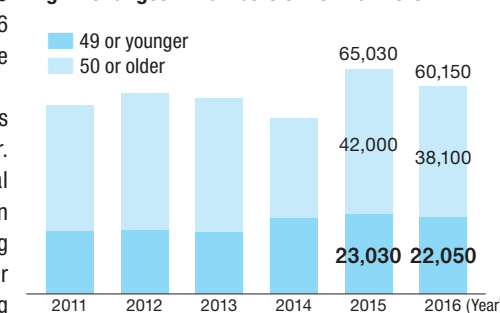
For the third year in a row, more than 20,000 new farmers aged 49 or younger have entered the field

The number of new farmers aged 49 or younger who entered the field in 2016 was 22,050, exceeding 20,000 people for the third consecutive year.

The total number of new farmers was 60,150, down 7% from the previous year.

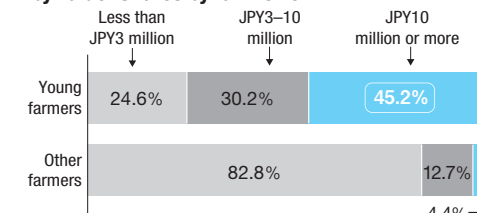
A look at the value of agricultural production sold by farmers other than young farmers shows that those selling less than JPY3 million accounted for 82.8% of the total, while among young farmers those selling JPY10 million or more accounted for 45.2% of the total.

Fig. 1. Changes in numbers of new farmers



Source: Ministry of Agriculture, Forestry and Fisheries, "Survey on Newcomers in Agriculture"

Fig. 2. Sales of
agricultural production
by value: Shares by farm size



Farms including farmers aged 49 or younger are classified as "young farmers," while other farms are classified as "other farmers."

Source: Based on Ministry of Agriculture, Forestry and Fisheries, "Census of Agriculture and Forestry in Japan" (2015) (statistics recomposed)

Topic

Proposing new lifestyles

As aging and depopulation advance, a movement to return from urban to rural areas, chiefly among young people, and a desire to live permanently in farming communities, through means such as the so-called "U-turn," "I-turn," and "grandchild-turn" phenomena, is growing. In Shimane Prefecture, "50-50 farming" is being recommended and promoted as a rural lifestyle suited to the prefecture, one in which farmers earn the income they need for living through both farming and another job.

"50-50 farming" initiatives

Examples of recommendation and promotion in Shimane Prefecture

- Shimane Prefecture recommends and promotes "50-50 farming" as a rural lifestyle suited to the prefecture, in which farmers earn the income they need for living through both farming and another job.
- "50-50 farming" is recognized as one form of farming, in addition to independent farming and farming as an employee.

Support provided

- Subsidies for training and other expenses during training needed for farm management Subsidy amount: JPY120,000/month (for up to one year)
- Subsidies for expenses needed during initial farm management after taking up permanent residence Subsidy amount: JPY120,000/month (for up to one year)
- Subsidies for facility and equipment expenses needed to begin farm management at permanent residence Subsidy amount: up to one-third of the expenses (max.: JPY1 million)

Source: Based on Shimane Prefectural Government website

Outline of FY2018 Business Plan

Recognition of conditions

1. State of ZEN-NOH's efforts

●ZEN-NOH is implementing a three-year plan based on the following three priority measures, to increase farm income, grow agricultural production, and vitalize rural communities.

- Contributing to sustainable agricultural production and management**
- Proactive deployment of international businesses**
- Support for creating healthy rural communities**

●The JA/ZEN-NOH Group is implementing practical measures in the production materials business and consumer business, and measures intended to increase exports (referred to collectively as "annual plan" hereinafter), under "Our Responses to the Ministry of Agriculture, Forestry and Fisheries' Basic Plan for Food, Agriculture and Rural Areas" in FY2017.

2. Agricultural policies

- Elimination of direct payments and allocation of government production targets for rice produced in 2018 and later
- Revisions to the Wholesale Market Act
- Movements toward enactment of the TPP and Japan-EU EPA

Basic thinking on the FY2018 Business Plan

1. Steady implementation of the current three-year plan and self-reforms

- Wrapping up the three priority measures, as the final year of the current three-year plan.
- Further intensifying and expanding initiatives implemented through now regarding the practical measures identified in the "JA Group Initiatives and Proposals to Realize More Attractive Agriculture and Rural Communities" and the annual plans.
- Forging new routes toward efficient business management, and implementing self-reforms to benefit members.

●**Production:** Reducing production costs (expanding joint purchase of agricultural machinery and materials such as cardboard boxes, in addition to fertilizer; development of generic agrochemicals; enhancing ability to procure feed materials from overseas), utilizing ICT and other new technologies, labor support for agricultural subcontractors and others active in the field

●**Sales:** Enhancing support for local production based on actual consumers' needs (developing production centers for commercial rice and vegetables for food-processing and commercial use; developing shipping structures based on relay networks among production centers), expanding direct sales (enhancing sales structures; selling products across varieties; investment in and business alliances with actual consumers and rice wholesalers), enhancing export businesses (implementing sales strategies suited to the needs of trading-partner countries, centered on new overseas sales facilities)

●**Support for community development:** Transforming the businesses of JA consumer shops, expanding general home-delivery services, proposing methods of operating lifeline service stations

2. Support for disaster recovery and restoration

●To support recovery and restoration from disasters causing severe damage to agricultural production, such as earthquakes and torrential downpours, working together with government and other organizations to implement initiatives suited to the needs of affected areas, based on the resources of the entire ZEN-NOH Group.

3. Initiatives of the ZEN-NOH Group as a whole

- Together with putting the management resources of the entire ZEN-NOH Group to effective use, enhancing sharing of strategies and implementing practical measures.
- Moving forward with efficient business operations and administration reflecting changes in areas such as the production, logistics, and consumption structures.

FY2018 management plan

Business plan

Despite decreases in the volume of business handled due to factors such as transfer of business activities to subsidiaries in the feed business and decreased production volume of rice, volumes of fruits and vegetables and petroleum products handled are projected to increase, so that total business will be JPY4.59 trillion.

Business	FY2018 plan	FY2017 plan	YoY change
Rice and grain production	7,505	7,616	99
Fruit and vegetables/farm products	11,879	11,813	101
Agribusiness/production materials	8,042	8,050	100
Livestock	10,229	10,567	97
Consumer	8,257	7,884	105
Total	45,912	45,929	100

*Figures shown above do not include consumption tax. *Totals may not match due to rounding.

Units: JPY100 million, %

Practical measures by business



Farm products

- 1 Implementing efforts to reduce total production costs through the 55 model JAs (intended to maximize farmers' take-home pay) and testing high-performance irrigated rice fields through adoption of measures such as growing high-yield varieties
- 2 Enhancing efforts to support farmers through further improving TAC activities



Consumer

- 1 Expanding lifeline services, through means such as general home-delivery services through new practical activities by JA consumer businesses and conversion of JA consumer shops
- 2 Expanding consumption of domestic livestock products through support for increased activities by produce direct-sales facilities and enhancing development of A-COOP products and ZEN-NOH branded products
- 3 Implementing a master plan including promoting shifting of core full-service service stations to self-service, and expanding handling of photosynthesis promotion devices for protected horticulture
- 4 Implementing electricity diagnosis and other energy-conservation and cost-cutting solutions along with comprehensive energy solutions combining oil, gas, and electricity



Rice and grain production

- 1 Expanding direct negotiations and trading with actual consumers, and promoting capital and business tie-ups with actual consumers and rice wholesalers
- 2 Securing stable transaction volumes through means such as expanding use of prior agreements and proposing a wide range of products suited to actual consumers' needs, and expanding items purchased for resale through such measures
- 3 Developing stable supply structures, through means such as promoting adoption of new varieties and new technologies, to secure demand for domestic wheat and soybeans
- 4 Communicating information to expand consumption of rice, and developing new markets to grow demand for domestic soybeans and sweet-potato starch



Production materials

- 1 Implementing new joint purchasing efforts, through means including consolidation of brands and standards for fertilizers and other production materials and development of low-cost agricultural machinery
- 2 Promoting standards for direct shipment of agrochemicals to farmers and low-labor, low-cost materials suited to producers' needs, in areas such as BB fertilizer made to order
- 3 Expanding wide-area logistics and enhancing general consulting on jointly used facilities, to reduce costs to JA
- 4 Enhancing ties with overseas suppliers to ensure stable procurement of fertilizer raw materials, and developing materials to contribute to expansion of exports of agricultural production



Business development, exports

- 1 Developing new trading partners, expanding volumes traded with existing partners, and enhancing development of products and production centers based on market needs
- 2 Development of production centers and selection of products suited to the needs of export markets



Fruits and vegetables

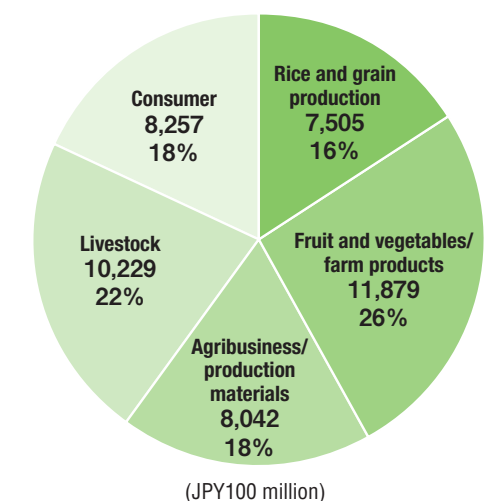
- 1 Clarifying priority trading partners and promoting business alliances, and expanding infrastructure related to direct sales, such as wide-area collection/shipping and processing facilities
- 2 Proposing production of vegetables for food-processing and commercial use, based on actual consumers' needs, and promoting production of fresh vegetables imported in large volumes
- 3 Expanding transactions based on contracts, through forward direct trading that makes actual consumers clear
- 4 Building low-cost logistics systems through establishment of stocking points in producing and consuming regions and expanding pallet shipping
- 5 Enhancing efforts to support the workforce, through means such as use of agricultural subcontractors



Livestock

- 1 Enhancing businesses for promotion and sales directly to consumers, through means such as development of meat packing facilities and enhancing activities in the e-commerce market
- 2 Implementing measures to address production infrastructure, such as support for increased production of beef and dairy cattle through development of cattle stations
- 3 Reducing production costs through means including securing stable supplies of grains for use in feed, through enhancing the grain collection infrastructure overseas, and production under contract to commercial suppliers
- 4 Expanding volumes of fresh milk for consumer consumption, through adjustments to the balance between supply and demand, and increasing sales of commercial milk

FY2018 business volume plans



(JPY100 million)

Efforts to reduce total production costs

As we seek to maximize farmers' take-home pay, ZEN-NOH is implementing efforts to reduce total production costs. The 55 JAs that have agreed to implement these efforts since FY2016 are considered model JAs, where efforts to cut the cost of sales, reduce labor costs, and increase productivity are being tested.

Menu of measures to reduce total production costs

Cutting costs of sales

Fertilizer	① Shifting to new purchasing methods through joint procurement ② Expanding direct shipments of trucks full of fertilizer ③ Handling low-priced imported chemical fertilizers ④ Order-made BB fertilizers and wide-area production suited to producers' needs ⑤ Large package standards
Agrichemicals	⑥ Lowering agrichemical prices through standards for direct shipment to farmers ⑦ Generic agrichemicals ⑧ Consolidation of brands of herbicides for irrigated rice fields
Agricultural machinery	⑨ Shifting from private ownership to joint use Shared leasing of agricultural machinery (joint use of large combines) Expanding rental business for machinery used in vegetable farming ⑩ Enhancing handling of low-priced machinery focused on specific functions
Cardboard boxes	⑪ Consolidation of box standards nationwide ⑫ Consolidation of standards by prefecture (e.g., consolidation of types of paper materials used) ⑬ Activities to propose appropriate packagin
Electricity	⑭ Electricity diagnostics and power supply to agriculture facilities, etc.
Other	⑮ Wide-area logistics for fertilizer and agrichemicals ⑯ Reducing operating costs and restructuring at jointly used JA facilities, through comprehensive consulting ⑰ Integrated management of agricultural machinery by prefecture and JA

Cutting labor costs

Fertilizing	① Brands containing controlled release fertilizer materials ② Brands containing imported controlled release fertilizer materials ③ Use of seedling boxes as-is ④ Fertilizing vegetables in seedling pots ⑤ Cellular seedling fertilizer method ⑥ Fertilizing once for 2-3 crops ⑦ Filling irrigated rice fields with fertilized water
Pest control	⑧ Pest control with low labor requirements through use of granular chemicals and granular hydrates ⑨ Pest control through use of natural enemies and Banker Sheet® (brand name)
Harvesting	⑩ Direct rice planting (iron-coated direct submersion, dry planting) ⑪ High-density planting of irrigated rice fields ⑫ Sparse planting of irrigated rice fields ⑬ Mechanical harvesting of vegetables ⑭ Biodegradable multi-crop planting ⑮ Greenhouse environmental monitoring systems

Increasing productivity

Cultivation	① Appropriate fertilizing based on soil diagnostics ② With One ③ ZEN-NOH drip irrigation system ④ Use of photosynthesis promotion devices in greenhouses (C02) ⑤ Electric fences for pest control
Varieties	⑥ Adoption of high-yield varieties in irrigated rice farming ⑦ Adoption of new wheat varieties ⑧ Adoption of new soy varieties ⑨ Development of production centers for vegetables for food-processing and commercial use
Infrastructure	⑩ Promotion of FOEAS
Management	⑪ Use of Z-BFM agricultural management planning support system ⑫ Using production management systems (ICT)
Labor management	⑬ Labor-management support ⑭ Use of drones



↑ Testing sparse cultivation through high-density seeding in irrigated rice farming (JA Fukuoka Keichiku) → Efforts have begun including narrowing down the brands of production materials in order to maximize farmers' take-home pay (JA Tsugaru Nishikita)



Testing large-scale agricultural management models

Testing of agricultural management improvement models based on large-scale management organizations is underway at 83 organizations within JA, as model organizations for large-scale agricultural management intended to cut total production costs.

Case studies of testing of options to reduce total production costs

Corp. A, Niigata

Expansion of the scale of management based mainly on irrigated-rice and soy farming, and adoption of vegetable farming, at a facility managing more than 500 fields

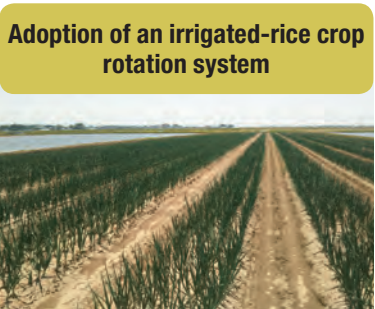


Through agriculture based on experience, visualizing data on management of more than 500 fields and sharing information and passing along expertise among employees to enable further growth in the scale of management.



Identifying fields with low yields in the key areas of irrigated-rice and soybean farming, based on results of a survey of yields by field, and striving to improve yields through means such as soil improvement, improving fertilizers used, and addressing field drainage.

*Irrigated rice: Testing of improvements underway in 2018 crops
*Soy: Improved from 185 kg/10 a in 2016 to 250 kg/10 a in 2017
Results of soil improvement (fertilizing with cattle manure and lime nitrogen) on yields per 3.3 sqm



Vegetable farming (onions) was adopted to reduce labor requirements. As part of FOEAS testing, the challenge was taken on of rotating six crops in four years through the following cycle: soy-onion-soy-onion-irrigated rice-irrigated rice. Efforts are being made to improve soil productivity through crop rotation.

Corp. B, Shiga

Adoption of crop rotation and vegetable farming in fields with poor drainage



Even fields with poor drainage could be planted on time even during the rainy season thanks to adoption of up-cut rotary tilling that made it possible to plant seeds in ridges at the same time as tilling. This increased yields by 1.5 times from the previous year.



Furthermore, in fields where FOEAS had been adopted, ditching was unnecessary and yields increased by 1.5 times compared to fields where it had not been adopted.

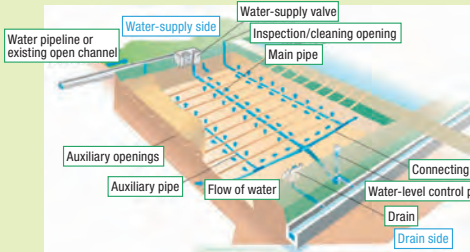


A crop-rotation system of two crops/year was adopted by planting vegetables (cabbage) after barley. Plans call for expanding the scale of cabbage production in the future, using harvester machinery.

FOEAS

FOEAS (Farm Oriented Enhancing Aquatic System) is a system that makes it possible to control groundwater levels in fields. It uses underground culverts, auxiliary openings, and water-level control panels for subsurface irrigation during dry seasons and to drain underground excess water in the soil due to heavy rainfall or other causes. Not only can it reduce crop damage due to humidity or drought, but it also makes it possible to adjust moisture in the soil in accordance with crop growth, resulting in increased productivity.

FOEAS overview



Rice and grain production business

Production of rice and wheat

The rice production business delivers rice collected from producers through the JA network to consumers through rice wholesalers, manufactures, and other businesses. It handles a wide range of products including not only rice consumed as a staple food but also raw-material rice such as that used in brewing sake or producing rice flour, glutinous rice, feed rice used to feed livestock, and rice for export to overseas markets.

ZEN-NOH builds and expands stable transaction relationships with customers, in order to secure stability and reliable earnings in producers' rice-growing businesses. It is striving to realize an environment in which producers can grow rice with peace of mind, through efforts to expand use of advance contracts concluded before the harvest, such as pre-planting and multiyear

contracts, as well as proposing planting of high-yield varieties and cultivation under contract, based on providing growers with feedback on needs ascertained through business negotiations with trading partners, to meet commercial demand, which has been growing in recent years with growth in commercial demand in prepared food, food service, and similar businesses.

Farm produce department handles wheat and barley, soybean and the local specialties such as starch which are highly valuable for the social society.

In order to secure the domestic demand, we are working on to develop a stable supply chain system based on the demand trends by supporting the production engineering which is helpful for promoting the production development and increasing the harvest yields.



Affiliates

ZEN-NOH Pearl Rice Corp.

As the JA Group's flagship company in field of polishing rice, ZEN-NOH Pearl Rice Corp. operates nine rice-polishing facilities, each certified under FSSC 22000 or HACCP. These process rice produced in production centers into polished rice for sale through a wide range of channels including co-ops, supermarkets, restaurant chains and the Internet.

In addition, it cooks rice at its rice-preparation facility in Chiba in the greater Tokyo metropolitan area and at its subsidiary Kirameki Co., Ltd. (Kyoto) in the Kansai area, processing it for sale as a wide range of rice food products including not only white rice but also vinegared rice, rice balls, and inari sushi.

Fruit and vegetables/ farm products



While we are expanding direct sales to actual consumers and the sales made in cooperation with Group member companies and partner markets, based on clearly identifying priority trading partners, we are also making progress on expanding proposal of production solutions and contractual transactions with production centers based on actual consumer needs. Priority initiatives focus on developing production of produce intended for processing and commercial use, for which demand is growing in particular, and fresh produce for household consumption, of which imported produce has secured a strong market share. We also are advancing research and product development on processed products using domestic produce as raw materials, while reflecting consumers' needs.

To maintain and grow the production infrastructure, we are expanding regional collection, shipping, and other facilities that combine selection, sorting, adjustment, and packaging functions and expanding efforts involving subcontracting of farm work, to strengthen our support for meeting production centers' labor needs.

In addition, we are striving to streamline the distribution of produce by transitioning from shipping by trucks to freight and marine shipping as well as setting up stocking points in production centers and consumer regions, to establish a joint shipping structure extending across prefectural boundaries in response to logistics issues such as a shortage of qualified truck drivers, as well as expanding shipments made using pallets.



Produce stored temporarily in an automated low-temperature warehouse

Affiliates

ZEN-NOH Fresh Produce Marketing Corporation

ZEN-NOH Fresh Produce Marketing Corporation sells fruit and vegetables produced by JAs across Japan to customers including co-ops, supermarkets, processors, and commercial buyers, through facilities that secure a cold distribution chain. By equipping each of its main facilities with packing equipment, it also carries out high-value-added packing operations to meet consumer needs as well as the particular needs of producers (In FY2017, it packed approximately 200 million packs in total).

It also works together with the Agricultural Research and Development Center and partners from other industries including seed and seedling companies and food-product manufacturers, to propose production solutions suited to industry-specific needs (in areas such as varieties, species, standards, and timing of production). Its future plans include advancing into the production and sales businesses for products including processed foods using domestic Japanese produce as raw materials and active development of new products (including chilled precooked vegetables, frozen vegetables, prepared dishes, pre-cut fruit, and beverages).

Topic

Green Message Co., Ltd.: Connecting producers to the dining table

In response to the growing market for cut vegetables as consumers' lifestyles change, Green Message Co., Ltd. was established as a joint venture between Kewpie Corporation and ZEN-NOH to contribute to increasing consumption of domestic vegetables through manufacturing and sales of cut vegetables. Its plant began operation in May 2015. Today it ships more than 230 tonnes of products per month, and its sales continue to grow steadily.

Its high-quality products—made using methods that prevent harm to vegetables, to process safe, reliable domestic Japanese ingredients supplied by ZEN-NOH into products in highly sanitary facilities based on production technologies from Kewpie Corporation—have been recognized by many consumers to convey the natural deliciousness of vegetables.

Demand for cut vegetables is growing increasingly diverse in terms of factors such as

sizes, volumes, and shapes, depending on individual uses. New demand also is arising in response to changing environmental conditions, such as a shortage of workers. Green Message is concentrating on development of its own products enabling proposal of high-quality salad menu solutions even while saving on labor requirements and on improvements to its production structure, targeting fields in which it can demonstrate its strengths in quality and flavor even amid changing and diversifying market conditions.

Based on its management philosophy of “delivering good health to consumers, production centers, and communities through vegetable processing,” Green Message is growing its businesses to contribute to even more consumers and producers, as a vegetable processing plant that connects producers to the dining table.

A manufacturer of commercial salad vegetables formed as a joint venture between Kewpie Corporation and ZEN-NOH



Cut vegetables processed for commercial use

Topic

Initiatives to promote contracted cultivation of promising varieties for the commercial market

As amount of rice consumption continues to decrease, it is home consumption in particular that is leading the decline, while the demand for commercial use, including home-meal replacements and restaurants, is on the increase together with rising numbers of single-person and dual-income households.

To help stabilize the rice production businesses of producers, ZEN-NOH proposes rice production based on needs such as product properties and price and builds stable transaction relationships between large-scale consumers and producers or JAs.

Specifically, in addition to promoting cultivation under contract to major sushi chains of sushi

varieties with appropriate grain and softening properties, ZEN-NOH also is proposing to producers cultivation of rice varieties suited to processing, thanks to properties such as large grain and low glutinosity, to meet the needs of producers of processed rice foods.

We are expanding these efforts while also providing support for farm management, including provision of cultivation records for individual varieties and providing cultivation guidance. Furthermore, in addition to these varieties we also are working to develop unique varieties of rice to enable us to propose solutions to meet various needs on the producers' side as well, such as humidity-, blight-, and pest-resistant varieties.

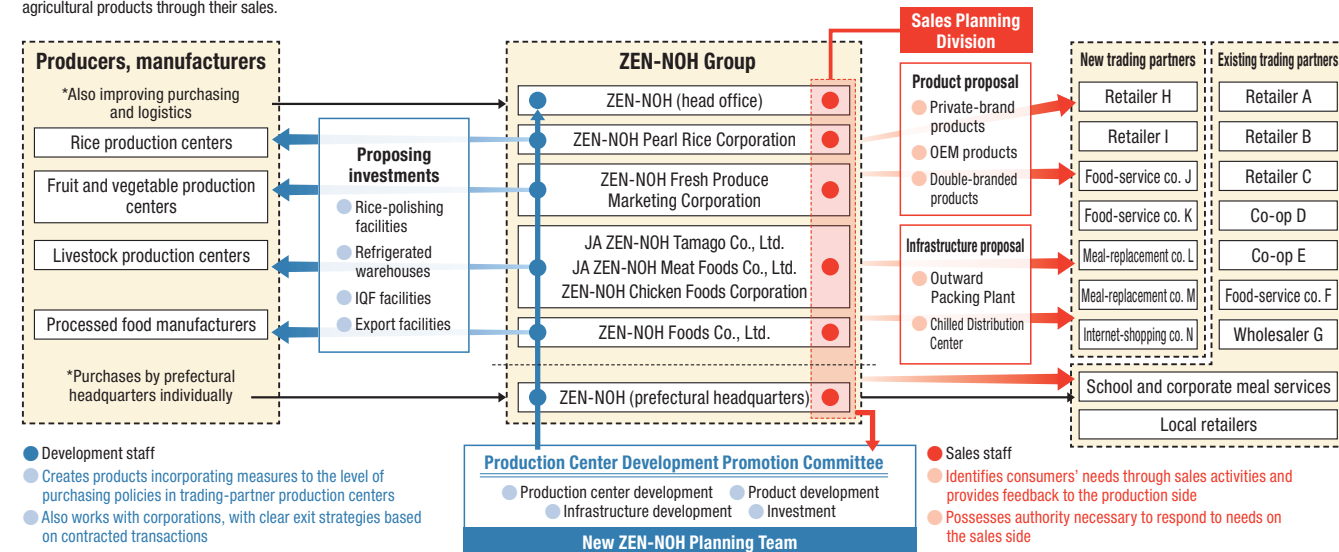
Some varieties proposed for production as rice for the commercial market

Variety	Properties	Expected uses
Akidawara	Multi-yield, delicious taste	Home-meal replacement restaurants, etc.
Yamadawara	Multi-yield, somewhat low glutinosity	Frozen rice dishes
Hoshijirushi	Multi-yield, delicious taste	Home-meal replacement restaurants, etc.
Toyomeki	Multi-yield, low glutinosity	Frozen rice dishes
Yumiazusa	Multi-yield, delicious taste	Home-meal replacement restaurants, etc.
Chihominori	Multi-yield, delicious taste	Home-meal replacement restaurants, etc.
Eminokizuna	Appropriate glutinosity, softness	Sushi rice

Sales Planning Division

The Sales Planning Division was formed in September 2017 with the goal of creating value chains in the ZEN-NOH Group through fusing the sales business with the functions of six Group member sales companies. It develops products and production centers based on the needs of new trading partners, through sales targeting top management of buyer firms and specialized sales for individual product lines. In addition, it also carries out product development while identifying market needs, through establishment of cross-functional projects at a level close to actual consumers and sharing of products in sales activities.

"Creating a value chain" in ZEN-NOH sales businesses refers to a system intended to optimize individual functions, such as production, logistics, processing, and sales, through integrated efforts by the ZEN-NOH Group from production of agricultural products through their sales.



Food Market Business Division

ZEN-NOH established the Food Market Business Division in April 2018 in order to strengthen points of contact with consumers through retail businesses and to expand sales channels for Japanese agricultural products.

For restaurants and bars operated by the ZEN-NOH Group directly, it develops and promotes business schemes related to store operation and management and operates highly profitable restaurants using domestic and local ingredients, to expand use of domestic and local ingredients in the food-service industry as well as raising awareness of local ingredients among consumers.

In the rapidly growing e-commerce market, it also develops e-commerce businesses utilizing the JA Group's production and logistics infrastructures.



↑ Minoru Diner, Ekie Hiroshima

Minori Minoru Project

The TAC (Team for Agricultural Coordination) is an agricultural coordination team formed by ZEN-NOH and JAs from across Japan. At present, there are about 1,800 TACs (JA employees) at JAs across the country, visiting daily more than 80,000 producers to provide consultation and other services utilizing the full power of the JA Group. However, some of the producers' comments received via TACs concern topics that would be difficult to be addressed by the JA Group's existing businesses. In 2010, ZEN-NOH established the Minori Minoru Project to respond to such feedback from producers.

Specific activities include ① Planning

and operating directly operated Minori Cafe and Minoru Diner outlets, which aim to transform the food-service business while letting consumers experience the attractions of local, seasonal ingredients, ② Publishing Agrifuture, a free newspaper that conveys producers' ideas while also seeking out and publicizing appealing aspects of the local community, ③ Holding Minori Minoru Marche events in partnership with Agrifuture, and ④ Other activities such as promoting I-turn and U-turn activities with local governments, planning and selling workwear, and holding matchmaking events for singles with an eye toward marriage.



↑ Minori Cafe, Ginza Mitsukoshi



↑ The Agrifuture free newspaper

Topic

JA Town, a convenient e-commerce service run by ZEN-NOH, ships farm products and local specialties from across Japan directly from the farm

JA Town is an Internet mall run by ZEN-NOH. As of March 2018, JA Town had grown to 98 shops and about 360,000 members. JA Town is intended to serve as a new distribution channel for domestic farm products by utilizing information technology.

Along with seasonal farm products and carefully selected local goods, JA Town also sells JA Town Gift Cards which can be utilized as gifts and offers a business service

for restaurants, bars, and other commercial customers. It also sells through major e-commerce sites, seeking to expand its customer base and usage.

In April 2016, the Furusato Nozei Shien System, created to support tax payment based on the JA Town system, was developed and the service introduced to local governments and members of the JA Group across Japan.

We aim to invigorate production centers

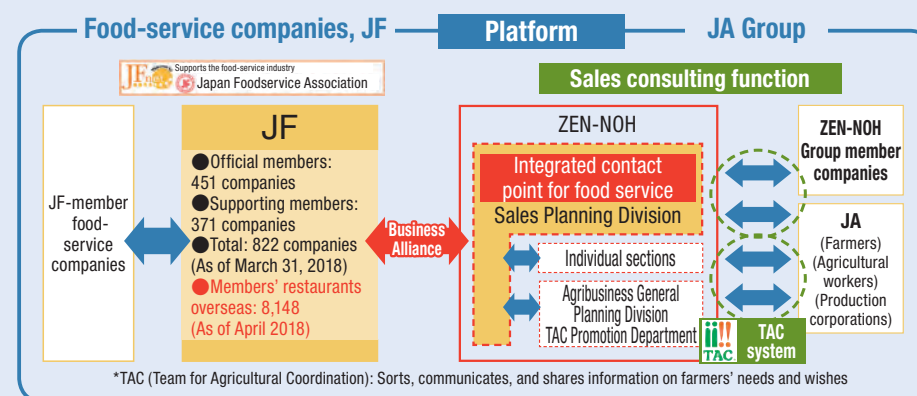
and local communities through use of this system to expand use of domestic farm products as gifts.



Topic

A new food-service platform

ZEN-NOH formed a business alliance with the Japan Foodservice Association (JF), an association of restaurants and other businesses, in 2018. Under this alliance, we propose and provide stable supplies of ingredients produced in Japan for JF members' restaurants overseas.



Efforts to strengthen sales capabilities

The ZEN-NOH Tohoku Project



Although sales of agricultural products mainly is conducted on a prefectural basis, in FY2015 ZEN-NOH began the ZEN-NOH Tohoku Project aiming to enhance sales of agricultural products and processed products from the six prefectures of the Tohoku region, through cooperation among the prefectural headquarters treating the entire region as a single production center.

Promoting the ZEN-NOH Tohoku Project in booths at events

ZEN-NOH Tohoku Project sales booths are being used at various events to promote rice, fruits, vegetables, and processed food products from the six prefectures of the Tohoku region. In FY2017, the booths were set up at events including Otemachi Ennichi in Tokyo's Otemachi district and Vegetables Day at Tokyo Sky Tree Town.



Developing the Tohoku Wagyu brand

Calves born at the Fujisawa ranch (in Ichinoseki, Iwate Prefecture) operated directly by JA ZEN-NOH Kita-Nihon Cooperative Feed & Mills Co., Ltd. are marketed under the new Tohoku Wagyu brand, a ZEN-NOH Group brand for beef fattened in the six prefectures of Tohoku.

The concept behind this brand is a focus on red meat that balances the taste and texture of wagyu, without stressing marbling excessively.

This brand is intended to promote Tohoku as a single production center, with cattle bred, raised, and fattened entirely in the Tohoku region.

(Registered trademark)



Cosponsoring the Tohoku Sosei Genki Project, organized by seven newspapers in the Tohoku region

ZEN-NOH was a cosponsor of the Tohoku Sosei Genki Project, organized by the Tokyo bureaus of seven local newspapers from the Tohoku region, which exhibited Tohoku food products such as salted rice balls made with Tohoku Wagyu beef and Hitomebore rice from Miyagi Prefecture, fruits and vegetables from various Tohoku prefectures, and processed foods from the region at the 2017 Tohoku Recovery Festival held in Tokyo's Nakano district in October 2017.

The Project also took part in a panel discussion during a forum held in the city of Akita during the same month, and it is aiming to expand sales channels using the power of the Tohoku brand.



Rice gift packs developed

ZEN-NOH is developing gift packs that combine rice brands from the six prefectures of Tohoku.

The goal is to develop a project based on careful consideration of varieties, volume, and design, through use of consumer focus groups. (Timing of product introduction to be determined)



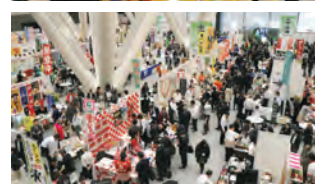
ZEN-NOH trade fairs for domestic agriculture and livestock products

Connecting production areas with consumers through business matching of production and sales

In order to expand sales channels for JA Group products and to meet the demands of farmers to strengthen their sales capabilities, ZEN-NOH cosponsors with JA Bank trade fairs for domestic agriculture and livestock products. These trade fairs have been held annually since 2007, providing opportunities for members of the JA Group and farmers from across Japan to meet together at one place and sell fresh and processed foods (including ready-to-eat and easy-to-prepare foods, preserved foods, snacks, and beverages) from each region directly to consumers. Cases of efforts to ensure stable supply of fruits and vegetables to the home-meal replacement and restaurant industries through adjustments to planting and shipping and to supply fresh local specialties as materials in response to the demands of food-

product manufacturers have increased as a result.

The 12th fair, held in March 2018 at the Tokyo International Forum, hosted exhibits by 147 organizations from across Japan and welcomed 5,244 attendees. Proactive business negotiations took place during the fair. In addition to consumers such as mass merchandisers and consumer cooperatives, attendees also included high percentages of representatives of the home-meal replacement and restaurant industries and manufacturers of food products. Attendees seemed to be strongly motivated to switch from imported ingredients to domestic ones as much as possible. The 2019 fair will aim to serve as an even more attractive opportunity for business discussions.



Export business



In April 2017, ZEN-NOH established the new Exports Planning Division to promote the export business and develop production centers for export. With export administration operations centralized at subsidiary ZEN-NOH International Corporation, this business is establishing new facilities overseas and

strengthening sales in overseas markets. In addition, it is building efficient shipping systems that maintain freshness through testing and adoption of new technologies effective for maintaining the quality of fresh fruits and vegetables, joint distribution, and other efforts.

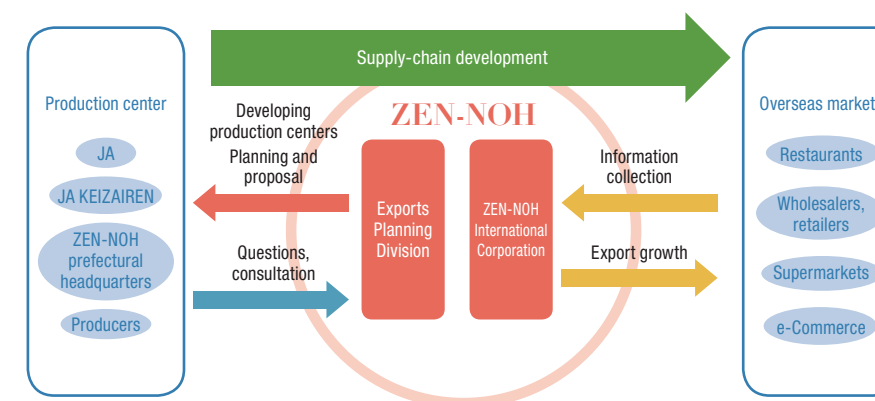
Exhibiting at various trade shows in Japan and worldwide

ZEN-NOH strives to match producers with consumers through exhibiting domestic agricultural products and processed food products at trader shows.

List of exhibitions in 2018

- Food & Hotel Asia (April, Singapore)
- THAIFEX (May, Thailand)
- Food Taipei (June, Taipei)
- Hong Kong Food Expo (August, Hong Kong)
- "Japan's Food" Export Fair (October, Japan)
- China International Import Expo (November, Shanghai)

Overview of export business development



Main initiatives of the ZEN-NOH Group (FY2018)

Developing production centers for export

- Developing production centers in Japan to produce products for export based on the needs of export markets
- Developing shipping structures based on relay networks to enable seamless exporting from multiple production centers
- Developing rice production centers exclusively for export, through growing high-yield varieties

Enhancing sales capabilities

- Enhancing marketing capabilities centered on overseas export-related facilities (number of overseas facilities: 13)

Creating new demand

- Exhibiting in booths at food expos in Japan and worldwide
- Selling via e-commerce in China and Hong Kong
- Attracting inbound tourist demand

Raw-material exports, processed food products, etc.

- Beginning delivery of rice produced in Japan for sake brewing to Japan-affiliated sake brewers in the U.K.
- Local production of frozen sushi in the EU (Bulgaria) using rice produced in Japan



↑ The opening ceremony in August 2018 for the ZEN-NOH Taiwan Office



← Delivery of rice produced in Japan for sake brewing to the U.K. begins

Topic

Wagyu meat-cutting facility opened in suburban Los Angeles

In March 2018, operations began at a meat-processing company established as a joint venture between the ZEN-NOH Group and a local foods wholesaler in suburban Los Angeles. By cutting blocks (approx. 10 kg each) of wagyu beef exported from Japan into cuts such as steaks and thin slices suited to wagyu, this facility will aim to expand exports

through sales channels close to consumers, such as supermarkets, hotels, restaurants, and e-commerce, in addition to selling to existing wholesalers.

It also will aim to grow the base of demand through providing information on cuts of meat unfamiliar in the U.S., serving suggestions for thinly sliced beef, and other subjects.

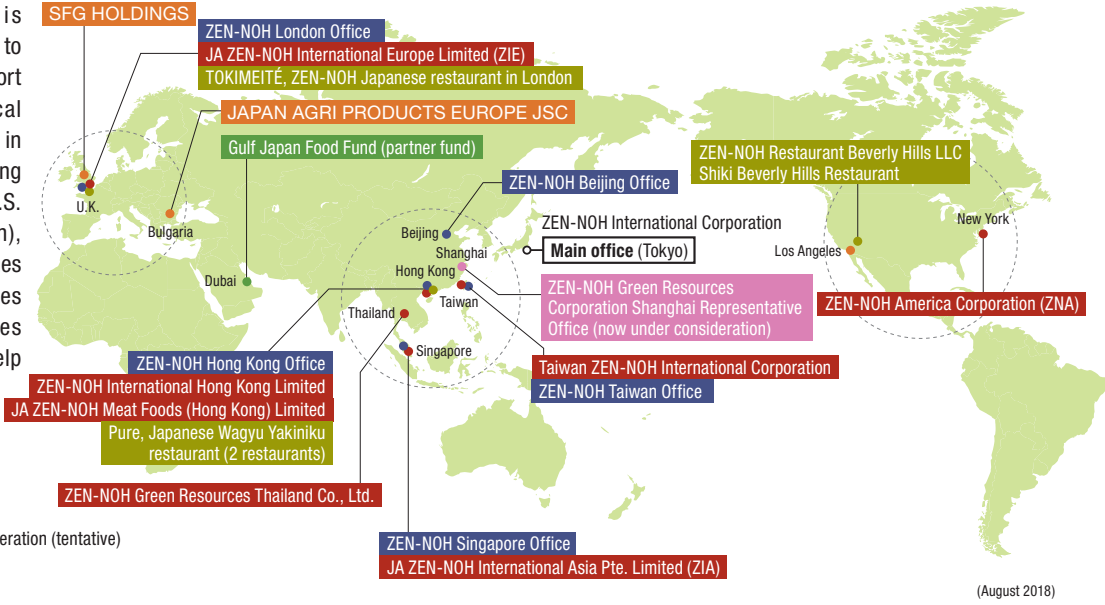


Cutting and providing serving suggestions for thinly sliced beef, largely unfamiliar in the U.S.

Development of overseas facilities

The ZEN-NOH Group is developing facilities overseas to enhance sales in priority export markets. In April 2018, local subsidiaries were established in Hong Kong and Taiwan, joining the existing facilities in the U.S. (New York), the U.K. (London), and Singapore. It also dispatches staff to the overseas facilities of Group member companies in Thailand and China, to help strengthen exports.

- ZEN-NOH overseas office
- Overseas subsidiary
- Overseas sales company
- Restaurant, etc.
- Future facility under consideration (tentative)
- Partner fund
- Priority area



2019 JA Group target for agricultural exports: JPY38 billion

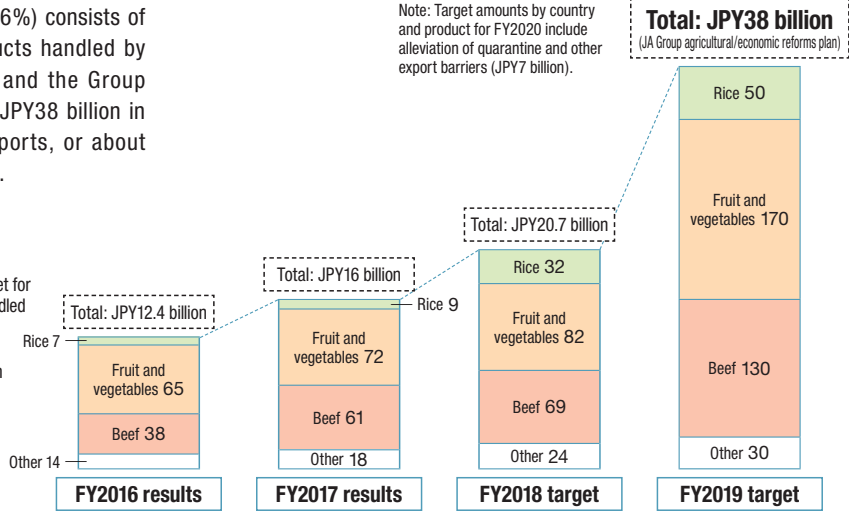
The Japanese government has set a target for total exports of agricultural, forestry, and fisheries products and food products of JPY1 trillion by 2019. Of this figure, JPY56.5

billion (approx. 6%) consists of the main products handled by the JA Group, and the Group aims to export JPY38 billion in agricultural exports, or about 70% of the total.

JA Group export growth targets

Breakdown of FY2019 Japanese government targets	
Fruits and vegetables	JPY25 billion
Beef	JPY25 billion
Rice (brown, polished)	JPY6.5 billion
Flowers	JPY15 billion
Tea	JPY15 billion
Processed foods	JPY500 billion
Fisheries products	JPY350 billion
Processed rice products (Japanese sake, rice snacks)	JPY53.5 billion
Forestry products	JPY25 billion
Total	JPY1,015 billion

Total government target for the main products handled by the JA Group: **JPY56.5 billion**
(Total for rice based on ZEN-NOH estimates)



*FY2018 target figures include JA KEIZAIKEN, prefectural JA, ZEN-NOH, and ZEN-NOH subsidiary figures.

Eliminating export barriers is key

To increase exports, it will be important to address import restrictions in various countries, to overcome the negative image overseas due to the 2011 nuclear accident, and to stimulate recovery of exports.

Exports and imports in Japan and other countries and regions

	U.S.		EU		China		Taiwan		Hong Kong		Singapore		Australia	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Total (JPY100 million)	76	6,581	39	3,224	28	4,625	168	131	227	2	36	14	4	2,683
Polished rice	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Beef (frozen)	○	○	○	○	×	×	○	×	○	×	○	×	○	○
Pork (frozen)	×	○	×	○	×	×	○	×	○	×	○	×	×	○
Poultry (frozen)	×	○	×	○	×	—	×	×	○	×	×	×	—	×
Persimmons	○	○	○	○	×	×	○	×	○	×	○	×	○	○
Cherries	×	○	○	×	×	×	○	○	○	○	○	○	×	○
Grapes	×	○	○	○	×	×	○	○	○	×	○	×	×	○
Oranges	○	○	○	○	×	×	○	×	○	×	○	×	○	○
Melons	×	○	○	○	×	○	○	×	○	○	×	×	×	○
Cabbage	×	○	○	○	×	○	○	○	○	○	○	×	×	○
Onions	×	○	○	○	×	○	○	○	○	○	○	×	×	○

Notes: 1. Export/import amounts are from actual results for fresh and processed meats; dairy products and eggs; and rice, fruit, and vegetables from 2016 trade statistics. Key: ○ permitted unconditionally; ○ permitted conditionally or results recorded; × not permitted; — not confirmed; * under negotiation

Agribusiness General Planning Division



With the goal of maximizing farmers' disposable income, in addition to testing and promoting direct sowing of irrigated rice fields, narrow-row cultivation of soy beans, subsurface drip irrigation systems for vegetables (→?) and agricultural ICT and other agricultural technologies to contribute to labor and cost savings and productivity improvements, we also are making progress on development of new cultivation technologies, varieties, etc.

In addition, we are proceeding with general application of irrigated rice cultivation through adoption of FOEAS (→?) and other technologies to utilize sustainable irrigated rice cultivation and with proposal

and verification of highly productive crop-rotation systems to produce full harvests of irrigated rice and field crops each time. In the area of feed rice, we are striving to reduce production and distribution costs and to promote its use as a self-sufficient feed source, in order to establish full-fledged production and supply systems.

Furthermore, together with raising the level of TAC activities and training human resources to develop producing areas, we are making progress on addressing the issues faced by farmers through means including support for new entries to farming, business succession, and workforce support.

Agricultural Research and Development Center

The activities of the Agricultural Research and Development Center include R&D on agricultural production technologies, quality testing on products sold through the ZEN-NOH organization, and HR development. It develops new varieties to meet the needs of both producers and consumers, carries out R&D on processed food products, and proposes various solutions to producing centers and business partners in cooperation with the ZEN-NOH Rice Division and the Kanagawa Center of ZEN-NOH Fresh Produce Marketing Corporation.



ZEN-NOH Tomato Land

ZEN-NOH Tomato Land opened in April 2016 on the Kashiwanoha Campus of Chiba University as a facility for selecting tomato varieties, promoting production based on actual consumer needs, and proposing varieties to secure new sales opportunities. (It moved to Hiratsuka in October 2018.) Together with selection of superior varieties using ZEN-NOH original simple hydroponic cultivation system "With One", it also carries out testing and research on cultivation of ZEN-NOH's exclusive baby plum tomato variety "Angelle". It also contributes to HR development through training JA staff and others on cultivation technologies.



Subsurface Drip Irrigation system

This technology for drip irrigation using tubes buried underground makes it possible to save on labor related to fertilization by fertilizing crops at the same time it irrigates them. It has been shown to result in higher yields and improved quality for green onions in particular.

FOEAS

A culvert system that makes it easy to switch from wet field cultivation to dry field cultivation and vice-versa, while avoiding both moisture damage and drought and maintaining groundwater levels suited to growing crops.

Topic

TACs help to coordinate farmers' management

Under the TAC program, TACs visit the farmers who power local agriculture and reflect their comments and concerns in the businesses of the JA Group, to support local agricultural development. TACs are active everyday in efforts to solve the problems that farmers face, through efforts including invigorating production, expanding sales channels, and improving management, all based on demonstrating the total power of the JA Group in response to farmers' opinions and needs. It has been 10 years since TAC activities first began, and the activities

are intensifying. For example, TACs work together with farmers to address issues such as support for securing the workforce needed in agriculture, support for business succession, and topics affecting rural communities as a whole.

TACs will continue visiting farmers to help solve the issues they face, in order to adapt to farmers' increasingly diverse needs.

ZEN-NOH holds a TAC Power Up Conference every year, in which TACs from across Japan come together in one place to exchange information and help each other learn, through

an awards ceremony for outstanding activities, presentations on activity case studies, and subcommittee meetings on themes related to supporting farmers.

Tとことん、A会って、Cコミュニケーション!!



*TAC (Team for Agricultural Coordination): This refers to coordinators organized by JA, prefectural federations, and ZEN-NOH to coordinate local agriculture, and to the activities of these coordinators. About 1,800 TACs visit 90,000 farmers daily. Their motto calls for meeting and communicating with farmers thoroughly.

Production materials business

Fertilizer, agrochemicals/production materials

Striving to reduce total production costs, we are implementing efforts that include centralized procurement through concentration of chemical fertilizer product lines; expanding the range of large-scale products for which direct shipment of agrochemicals to farmers is available; developing generic agrochemicals; joint procurement of agricultural machinery reflecting the views of farmers; and share leasing of large-scale combines. We are also strengthening ties with overseas suppliers in order to secure stable supplies of fertilizer materials, and expanding the support for reorganization and improvement of JA resource shops and shared facilities in order to enhance JA business infrastructure.

Furthermore, we are also striving to reduce production costs through development and promotion of labor- and cost-saving products and development of procurement, supply, and logistics structures that extend across prefectural boundaries, in addition to continuing efforts to ensure proper fertilization based on soil analysis, safe chemical pest control, and proper adoption of agricultural machinery. We are also responding to diversified farmers and consumer needs by shifting from individual ownership of vegetable farming equipment to shared use, promoting standardization of cardboard boxes, and promoting use of delivery containers in the processing and commercial sectors.

Affiliates

ZEN-NOH Green Resources Corporation

ZEN-NOH Green Resources Corporation comprehensively handles import operations for fertilizer raw materials and final products as well as port loading and unloading, storage, and transportation. It also imports flexible container bags and handles materials related to advanced greenhouse farming, in cooperation with ZEN-NOH's efforts, and it has begun efforts toward development of a production-support business.



ZM Crop Protection K.K.

This joint venture with Mitsubishi Corporation handling the registration and manufacture of agrochemicals, mainly owned by ZEN-NOH, began operation in April 2018. It will secure benefits of scale through expanding sales of agrochemicals and formulations for non-arable land overseas and in Japan and will contribute to reducing agrochemical prices through procurement of generic agrochemicals.



*Banker Sheet®(brand name) is an implementation technology for the agriculture and food businesses (implementation development stage 26070C), developed chiefly by the National Agriculture and Food Research Organization and the Central Region Agricultural Research Center.

Livestock business



The livestock business supports the commercial activities of livestock producers through numerous businesses, facilities, and companies in areas including helping improve livestock breeding and strains, procurement of grains and other feed raw materials from suppliers in Japan and around the world, production and sale of feeds for distribution in Japan, manufacture and sale of veterinary drugs, vaccines, and other materials, and processing, distribution, and sale of products (eggs, meat, and milk). (See chart below.)

In product sales, we are expanding sales of meat through JA direct sales stands

and expanding our affiliated restaurants in urban markets and elsewhere, in addition to efforts focused on NB packaged products and processed foods in meat processing in particular. In the area of production, we are developing technologies including using ICT to improve productivity (see p. 51) and using genome information to diagnose livestock illnesses (see p. 46). In dairy farming, in addition to promoting use of milk from regional sources for drinking through sales adjustments, we are expanding sales of commercial milk to beverage manufacturers.



ZEN-NOH Grain Corporation supports a stable supply of feed raw materials

IP handling

In the U.S., a leading exporter of corn, the main raw material in livestock feed, genetically modified organism (GMO) seeds have increased their share of planted crops to 92% (as of 2017). In response to the needs of consumers including consumer cooperatives, the ZEN-NOH Group utilizes its strengths in integration to use identity-preserved (IP) handling from producing centers to individual farmers to supply feeds made using non-genetically modified corn that is not treated with chemicals post-harvest (PHF/NON-GMO). In the future, we will continue to meet the expectations of producers and consumers by ensuring stable supplies of NON-GMO seeds through contracting with U.S. seed producers.

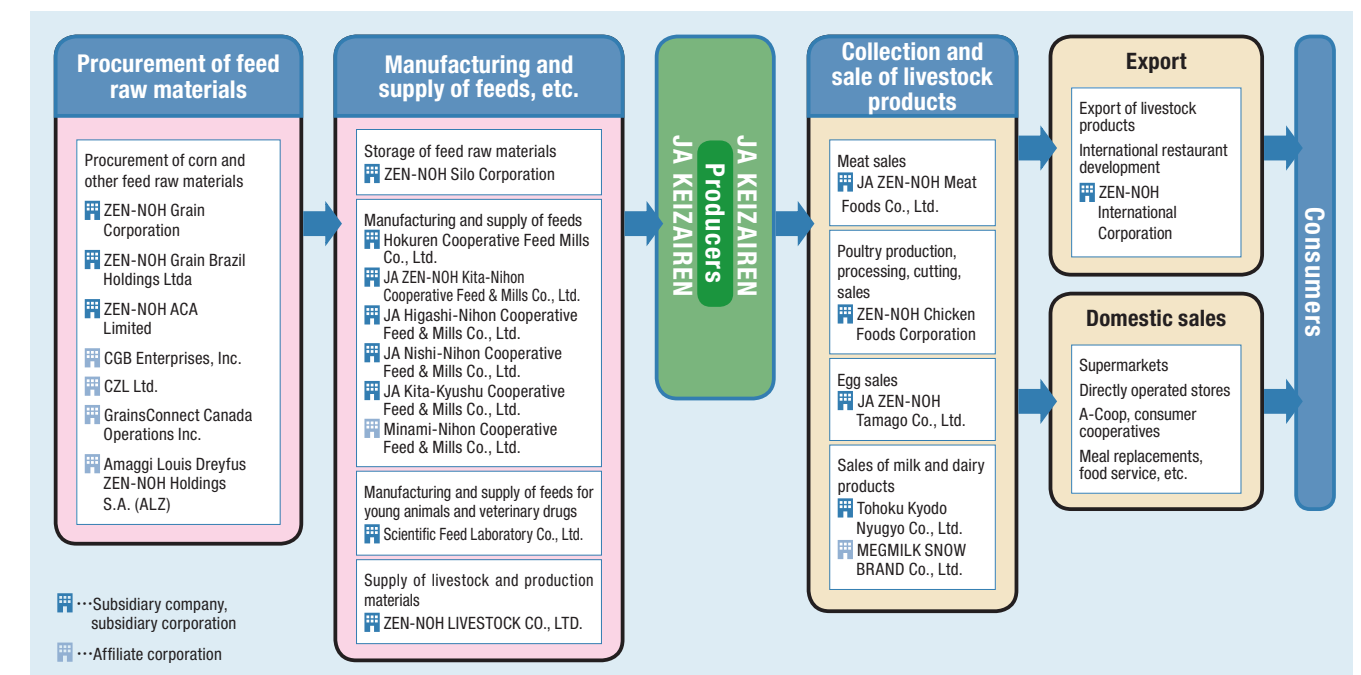
PHF: avoiding use of chemicals to maintain quality after harvesting

Non-GMO: non-genetically modified organisms



Grain farmer members organized by CGB implement an IP handling program

Developing a value chain in the livestock business



Topic

Banker Sheet®(brand name)*, new protective devices for pests' natural enemies, now in use

As spider mites, which can occur in plants such as vegetables and fruit trees, have developed highly resistant to chemical pesticides, there are limits to the degree to which they can be controlled using such chemicals. For this reason, there is a need for new pest-control systems that do not rely on agrochemicals.

Together with the equipment manufacturer, ZEN-NOH has co-developed the Banker Sheet®(brand name) technology, a practical solution that combines packs of solution containing *Neoseiulus californicus*, natural enemies of spider mites, with protective equipment. Sales of this product began in December 2016.

The Banker Sheet®(brand name) is a unique pest-control product that protects the natural enemy from

environmental changes such as heat and humidity as well as the effects of water and chemical spray, enabling it to replicate and remain active for a long period of time. As a result, it can be used with fruit trees and flowers, as well as open-field culture, all of which are crop types for which use of these natural enemies has been difficult until now. By reducing the frequency of application and labor requirements for distribution of pesticides, as well as use of chemicals, it can be expected to reduce pest-control costs and labor and help increase crop's added value.

Future plans call for expanding the supply of Banker Sheet®(brand name) after first testing them in various locales to demonstrate their labor and cost savings as well as their high pest-control performance.

Affiliates

ZEN-NOH Grain Corporation

ZEN-NOH Grain Corporation already has built an integrated supply chain for grains in the U.S., handling operations from originating through shipping, storage, and loading, together with the affiliate company CGB Enterprises, Inc.

Global grain demand is projected to continue growing in the future, backed by population increases and economic development in emerging markets. Against this background, competition is intensifying among the major grain suppliers as they strengthen their originating capabilities in leading grain markets.

To succeed amid such fierce competition, ZEN-NOH Grain Corporation began construction to expand its export grain elevators in 2015, and this work was completed in December 2017. As a result, its capacity for receiving grains from barges is expected to rise to 5,500 tons/hour, and its capacity for loading to ships for export is expected to increase from 13.5 million tons to 19 million tons per year. ZEN-NOH Grain Corporation will continue striving to secure stable supplies of raw materials for livestock feed to Japan in the future as well.



Hokuren Cooperative Feed Mills Co., Ltd.

Hokuren Cooperative Feed Mills Co., Ltd. produces livestock feed in Hokkaido, handling about 850,000 tons at its three mills in Tomakomai, Tokachi, and Kushiro. It does business in partnership with the Hokuren Federation of Agricultural Cooperatives, which sells the feed. ZEN-NOH's feed business (with functions including procurement of raw materials and development of feed formulas) was transferred to Hokuren Cooperative Feed Mills after it became a ZEN-NOH subsidiary in 2017.

Hokkaido is a leading dairy-farming region, accounting for a share of 54% of all Japan's fresh milk production. In light of the continuing trend toward construction of large-scale dairy farming facilities using robotic milking equipment, Hokkaido's market share is expected to grow even further. In the future, Hokuren Cooperative Feed Mills will work together with ZEN-NOH and Hokuren to make its feed business even more competitive and expand the volumes of feed it handles, striving to contribute to the growth of the dairy farming and livestock businesses with the same pioneering spirit shown by producers in Hokkaido.



JA ZEN-NOH Kita-Nihon Cooperative Feed & Mills Co., Ltd.

The businesses of JA ZEN-NOH Kita-Nihon Cooperative Feed & Mills Co., Ltd. include producing and selling mixed and single-ingredient feed for JAs and livestock producers in the six prefectures of the Tohoku region of northern Japan. From its feed mills in Hachinohe and Ishinomaki, it produces and sells approximately 1.1 million tons of feed per year, resulting in a market share of roughly 30% in its region. In addition, in recent years it has been emphasizing the agricultural production segment. It directly operates poultry, pork, and beef facilities, and its wagyu breeding efforts (conducted at the Fujisawa Ranch in Ichinoseki, Iwate Prefecture) were described in the Ministry of Agriculture, Forestry and Fisheries' Annual Report on Food, Agriculture and Rural Areas in Japan FY2017 as a "breeding facility helping to train the next generation and stabilize feeding and farming business conditions." In the future as well, JA ZEN-NOH Kita-Nihon Cooperative Feed & Mills will do all it can to maintain and expand the infrastructure for livestock production and stabilize business conditions for livestock producers, while also supplying safe, reliable feed to livestock producers in the Tohoku region.



The Fujisawa Ranch, reported on in the Ministry of Agriculture, Forestry and Fisheries' Annual Report on Food, Agriculture and Rural Areas in Japan FY2017

JA Higashi-Nihon Cooperative Feed & Mills Co., Ltd.

As a member of the JA ZEN-NOH Group, JA Higashi-Nihon Cooperative Feed & Mills Co., Ltd. produces and sells safe, reliable, high-quality feeds for livestock producers in the 16 prefectures of the Kanto, Koshin'etsu, Tokai, and Hokuriku regions. (It handles approximately 1.8 million tons of feed per year at five mills in Ota, Kashima, Niigata, Shimizu, and Chita.) It also has a fertilizer plant in the city of Midori (formerly the town of Omama), Gunma Prefecture, where it produces and sells advanced chemical and organic fertilizers for sale chiefly to producers in Gunma Prefecture (handling approximately 25,000 tons/year). Through efforts such as visiting farmers individually and developing wagyu breeding and production infrastructure, it delivers attentive services and management support suited to its customers' needs, engaging in its business activities under a philosophy of contributing to community development and further enriching Japan's food culture.



JA Nishi-Nihon Cooperative Feed & Mills Co., Ltd.

JA Nishi-Nihon Cooperative Feed & Mills Co., Ltd. supplies approximately 900,000 tons of feed per year to 15 prefectures in the Kinki, Chugoku, and Shikoku regions.

Recently, it has been working to improve the feed production and supply structure in western Japan through consolidation at the Kurashiki Mill of the operations handled previously by the Mizushima, Kobe, and Sakaide mills. Capable of producing approximately 800,000 tons of compound feed per year, the Kurashiki Mill is the largest in Japan. It was completed in June 2017 after a construction period of about two years, and full-fledged production already has begun. JA Nishi-Nihon Cooperative Feed & Mills will continue to support livestock production in western Japan through production and supply of safe, reliable, and high-quality compound feeds at the reorganized Kurashiki Mill, the Uwajima Mill, and the Komatsu Mill (which specializes in fish breeding).



JA Kita-Kyushu Cooperative Feed & Mills Co., Ltd.

JA Kita-Kyushu Cooperative Feed & Mills Co., Ltd. produces and sells compound feeds for an area consisting of the six prefectures of Yamaguchi, Fukuoka, Saga, Nagasaki, Kumamoto, and Oita. It operates four mills in total—one each in Fukuoka, Nagasaki, Kumamoto, and Oita prefectures—where it produces about 700,000 tons of compound feed per year.

In 2017, it marked its 50th anniversary after years of working together with livestock producers. In preparation for the next 50 years, it will review its structure for efficiency production and supply of compound feeds in response to changes in livestock production infrastructure. It will continue doing all it can to support producers' safe and reliable livestock production, through responding with sensitivity to market changes by making the most of the ZEN-NOH and JA Group networks.



Scientific Feed Laboratory Co., Ltd.

Scientific Feed Laboratory Co., Ltd. produces and sells additives such as vitamins and minerals that are essential materials in compound feeds and formulas for lactation. It also produces and sells products such as veterinary medicines and feed for fish culture.

Based on the themes of delivering peace of mind to consumers, improving productivity of livestock producers, and caring for the environment, it is building a structure capable of meeting diverse future needs, striving to produce and sell safe, high-quality products while giving top priority to increasing customer satisfaction.

ZEN-NOH LIVESTOCK CO., LTD.

Since its establishment in 1991 as a company specializing in the livestock facilities and materials businesses of the ZEN-NOH Group, ZEN-NOH LIVESTOCK CO., LTD. has grown into a comprehensive livestock company as its businesses have expanded to include pork and poultry breeding as well as imports and sales. In line with its mission of contributing to income growth and business development for livestock producers, it demonstrates its comprehensive capabilities through producing and selling reliable products that help increase productivity, centered on the Hi-Coop specific pathogen-free (SPF) pork developed by ZEN-NOH.

ZEN-NOH Silo Corporation

Through activities ranging from receiving & shipping, storage, and quality control for raw materials such as grains that have been imported from around the world in to centralized shipping to feed manufacturers and food processors, ZEN-NOH Silo Corporation contributes to the streamlining of distribution and the reducing of feed costs as well as striving to support the safety and reliability of Japanese food and to increase customer satisfaction (CS) while enhancing its quality control.

In April 2017, it opened its Kurashiki Branch at Takarajima Harbor Island in Kurashiki, Okayama Prefecture, which forms a part of a new food complex through efficient supply of raw materials using conveyor belts to the adjoining Kurashiki Mill of JA Nishi-Nihon Cooperative Feed & Mills Co., Ltd. and Kurashiki Plant of J-Oil Mills, Inc.

JA ZEN-NOH Tamago Co., Ltd.

JA ZEN-NOH Tamago is a member of the JA Group that supplies domestically produced eggs to consumers across Japan. Its primary emphasis is on fresh, safe, and tasty eggs. It strives to improve the quality of eggs through joint efforts with designated producer centers and the feed division. In the area of safety, it has established various hygiene control and inspection systems backed by scientific research. Building on these efforts, it proposes new products and ideas for sales-floor concepts to meet the diverse needs of consumers.

Its "Shin-Tamago," a premium egg product, is a long-selling product produced from chickens fed on domestic brown feed rice fortified with omega-3 (alpha-linolenic acid) and folic acid. In July 2017, it introduced "Tokutama," an egg perfectly suited to serving over rice, patented together with the Livestock Production Division, which has been well received by consumers.

In January 2018, it made Miyako Shokuhin Co., Ltd., which produces egg-based processed food products such as thick fried eggs, a subsidiary, and it is striving to expand sales of processed egg products, for which demand is growing.

Tamago COCCO, a specialist in sweets made using eggs, sells products baked individually with care by professional pastry chefs, using fresh eggs and, as much as possible, domestic ingredients. JA ZEN-NOH Tamago also posts egg recipes on recipe websites and social media and proactively encourages egg consumption through activities related to events such as Easter and Halloween.



ZEN-NOH Chicken Foods Corporation

Chicken is the most widely consumed meat in Japan. ZEN-NOH Chicken Foods Corporation has subsidiary plants in the three largest domestic chicken-producing regions of Miyazaki, Kagoshima, and Iwate prefectures. Miyazaki Kumiai Chicken Foods Corporation, Kagoshima Kumiai Chicken Foods Corporation, and Sumita Foods Corporation together make up one of Japan's largest groups of companies in the poultry industry, handling everything from production, butchering, processing and marketing. The group's main butchering facilities and processing plants are FSSC 22000 certified (other smaller plants/facilities are ISO 9001 certified) traceability systems

make it possible to deliver safe, delicious and fresh domestically produced chicken to consumers the based on thorough food safety initiatives. In 2016, it began sales of the new Kagoshima-litoko-chicken brand. This new chicken brand, earned good reputation by consumers, is the first one to be introduced in 12 years. The Group has adopted as its mission "Delivering the joy of tasty Japanese chicken that are raised with care to Japanese consumers." As dietary culture in Japan goes through massive changes, ZEN-NOH Chicken Foods Corporation will develop new products that will capture the hearts of consumers and deliver them through new channels as it aims to create a most trusted brand by consumers.



JA ZEN-NOH Meat Foods Co., Ltd.

Serving as the base for the ZEN-NOH Group's marketing, processing and distribution of meats in major consumption areas, JA ZEN-NOH Meat Foods Co., Ltd. brings together meats and processed meat products from farming areas around Japan and delivers them to consumers in a prompt and consistent manner. In August 2017, it opened a new logistics center in Saitama Prefecture, through which it will reinforce its logistics functions in the Tokyo area. Through the development of a traceability system and the introduction of the ZEN-NOH Reassurance System, it supplies safe and reliable domestically produced meats and serves as a bridge between producers and consumers.

At the same time, efforts are being made to expand SQF certification at processing facilities, enhance hygienic facilities, and improve product quality. The company sells its domestic meats and related products mainly at co-ops and supermarkets, with an overriding emphasis on reliable safety and taste. To meet diversifying market needs, in June 2017 it opened a new deli meats plant, as it works enhance the deli business for products including roast beef. It also directly operates the Yakiniku Pure restaurant chain, Jun, and it plans to enter the Tonkatsu market.



Topic

"Wagyu Koshien," a national competition for beef cattle raised by high-school students

"Wagyu Koshien" is a competition in which high-school students from across Japan compete in the quality of meat from wagyu cattle they raise and in their everyday efforts. This competition began in January 2018, with the goals of (1) raising motivation to enter the field of agriculture among high-school students who can power the future of agriculture, (2) encouraging networking among students with similar interests and increasing their motivation and skills, and (3) fostering understanding of the JA Group, which supports activities from production to sales.

In the first competition, 53 students and 21 black wagyu cattle, from 15 schools across Japan, took part. The judges were surprised by the high level of efforts participants from each school described in their presentations on their experiences. In evaluation of the meat quality of the participating cattle, 19 of the 21 cattle were ranked at grade 4 or above, and the high skill levels of the students, which rival those of professional breeders, attracted attention from across Japan and were regarded highly by buyers. The competition also has attracted considerable attention from the media.

The participating schools also were impressed by the competition, describing it as "a goal for students" and "unlike anything else." The second competition is planned for January 2019.



Consumer business

In our campaign to implement a new JA lifestyle business (→②) we enhance our support for customers' lifelines by introducing new business models for JA consumer shops and maintaining fuel supplies by suitable placement of service stations and fuel distribution facilities.

In addition, we also are striving to grow the sales of ZEN-NOH branded products by stimulation the sales floors of JAs' shops selling agricultural products directly and A-Coop stores combined with directly operated shops(JA farmers).

We also strengthen our efforts in reducing farming energy costs by cutting fuel distribution costs with means such as shipping directly from coastal oil terminals, promoting adoption of photosynthesis promotion devices to greenhouse farming (→②) and proposing energy and cost savings together with use of electric power.



Fuel oil is distributed from seven petroleum facilities across Japan to about 2,600 JA-SS service stations.



Fuel supply structure

We strive to secure stable fuel supplies to our customers by carrying out a master plan aimed at suitable placement of service stations and fuel distribution facilities and developing the home energy business at LP gas sales stores(places).

In the petroleum business, we promote building self-service stations and streamlining of fuel delivery, we also support the establishment of compact self-service stations and research operation methods in cooperation with government, to maintain the fuel lifeline for members and residents in depopulated areas such as mountainous regions.

In the LP gas business, we also enhance services for members and users with means of remodeling in alliance with builders and facilities sections of our members and propose new ways of living by combined use of LP gas and kerosene. In addition, we secure our users' safety with the 24-hour centralized monitoring (gas safety) system.



A compact self-service station, which keeps down (reduces) the installation and operating costs with its minimum design and limited product lineup.

Affiliates

ZEN-NOH Energy Corporation

ZENNOH Energy Corporation's businesses include operation service stations which are mainly self-service, operating and shipping petroleum products from six oil terminals(in Sendai, Niigata, Kanazawa, Nishinihon, Karatsu and Ariake) across Japan, wholesale and retail sales of LP gas and operation of LP gas terminal in Sakaide. Recently it also has entered the retail electricity business.

② Campaign to implement a new JA lifestyle business

The campaign is intended to study, coordinate, and implement JA lifestyle business activities for the future that reflect community issues and needs, based on surveys of members conducted by each JA.

② Photosynthesis promotion equipment

This equipment promotes crop photosynthesis by generating carbon dioxide from LP gas.



JA-Kurashi-no-Takuhaibin



JA-Kurashi-no-Takuhaibin is a service that lets members and users order products on the Internet for delivery directly to their homes. It not only greatly shortens the lead time from when an order is placed to its delivery but also can help reduce inventory at JAs, simplify shipping, and enable a choice of payment methods (such as credit card or COD), compared to traditional joint-purchasing methods.

The product range contains about 1,000 items, including products under the A-Coop and ZEN-NOH brands, from 266 JAs in 30 prefectures (as of July 31, 2018).

In the future, we plan to use the functions of JA-Kurashi-no-Takuhaibin to deliver everything consumers need, through cooperation with other businesses, to make it even more convenient for members and users.

ZEN-NOH Brand

ZEN-NOH develops and markets processed foods under its own brand, made mainly using domestic agricultural products. With a priority on use of domestic ingredients, a total of about 160 items (as of July 31, 2018) are offered under the brand, aiming to contribute to safe, comfortable, healthy living.

These products are sold through channels such as supermarkets, including ones operated by the JA Group, as well as consumer co-ops, convenience stores, and TV shopping.

New products under the brand include dried fruit made using citrus fruits produced in Ehime Prefecture and freeze-dried miso soup made with domestic vegetables.

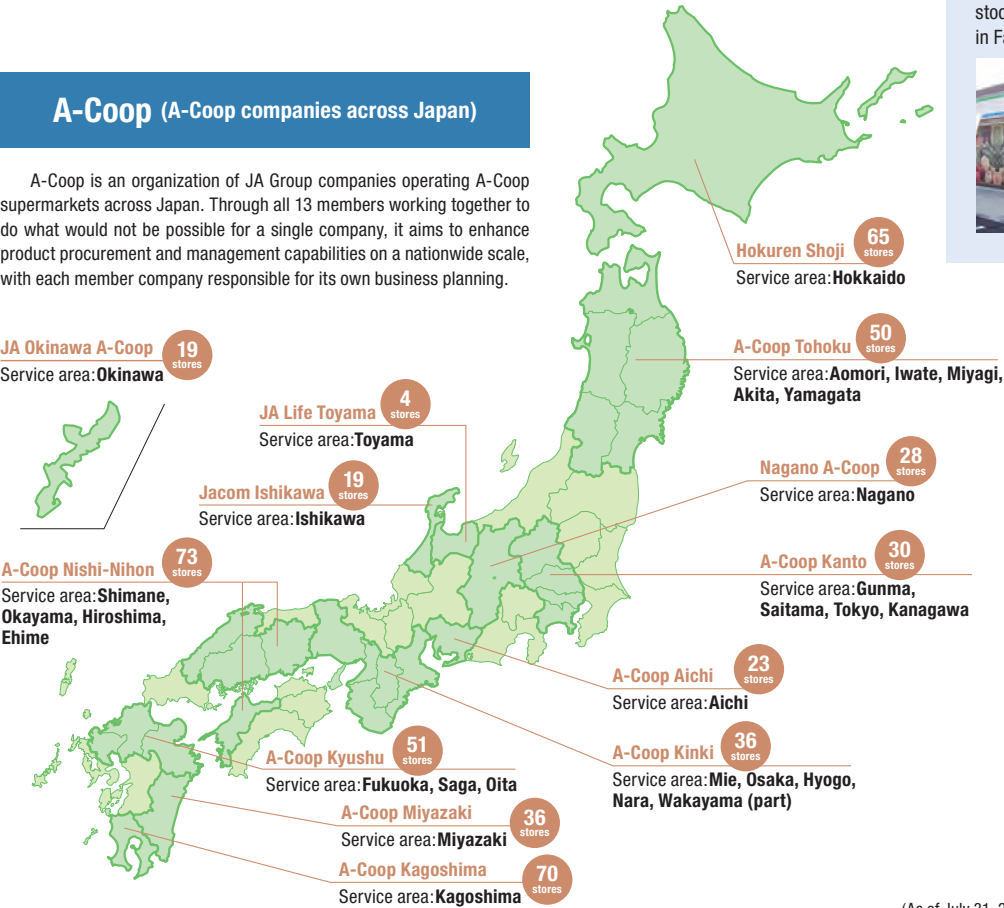
Through stressing domestic produce and developing products to meet consumers' needs, we are striving to expand consumption of domestic agricultural products.



Dried fruit from Ehime Prefecture

A-Coop (A-Coop companies across Japan)

A-Coop is an organization of JA Group companies operating A-Coop supermarkets across Japan. Through all 13 members working together to do what would not be possible for a single company, it aims to enhance product procurement and management capabilities on a nationwide scale, with each member company responsible for its own business planning.



FamilyMart convenience stores.

JA Farmers

ZEN-NOH and A-Coop consider A-Coop supermarkets to be not just key facilities in members' daily lives but also bases for sale of domestic agricultural products. JA Farmers stores, in which A-Coop supermarkets include direct-sales facilities for agricultural produce opened in cooperation with local JAs, are opening steadily across Japan, reaching a number of 18 stores as of the end of July 2018.



Maintaining key rural lifeline facilities

Efforts are being made to support the survival of JA stores through transforming their business models, improving earnings, and adoption of mobile shops, in cooperation with distributors. These are intended to help address rising concern about those in rural communities who find shopping difficult.

In cooperation with FamilyMart Co., Ltd., FamilyMart + A-Coop and other stores are being developed to deliver improved convenience to members and users, through addition of sections selling produce directly from producers, enhancement of fresh-food products stocked, and installation of dining facilities in FamilyMart convenience stores.

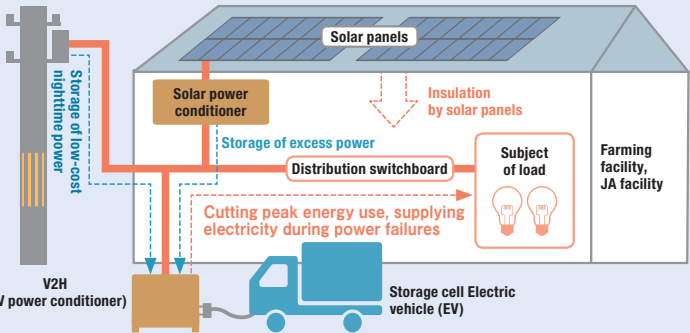
Topic

Power diagnostics and retail sales business: helping cut farm energy costs

To cut agricultural energy costs, in addition to traditional oil and gas, we entered the electricity diagnostics and retail business in August 2016. We are developing power supply infrastructure through consolidation of demand at JA Group facilities to deploy electricity diagnostics and propose cost savings for produce, livestock, and other farming facilities.

We also will deploy new energy supply models for agriculture, including use of solar power and storage cells, as we strive to conserve energy and ensure stable supplies.

Overview of proposed model for supply to farming facilities, etc.



* We are promoting power supply in nationwide areas except Hokkaido and Okinawa Electric Power area.

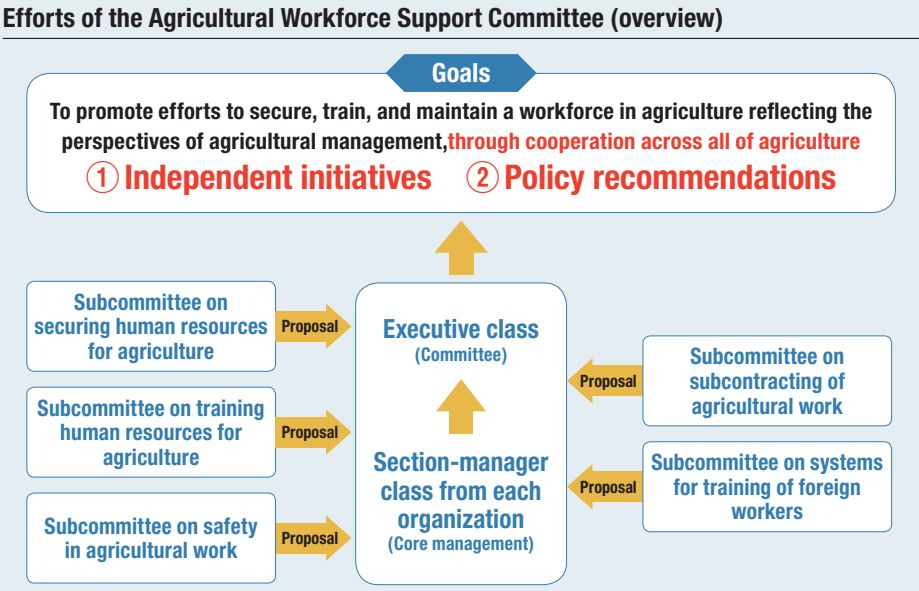
Labor support initiatives

A labor shortage is becoming a pressing issue amid a shrinking working population and ageing and decreasing numbers of those employed in agriculture. ZEN-NOH carries out a variety of efforts to help meet agriculture’s labor needs.

Efforts of the Agricultural Workforce Support Committee

The Agricultural Workforce Support Committee was established in April 2016, with membership consisting of executives from ZEN-NOH, the Japan Agricultural Corporations Association, JA ZENCHU, the NORINCHUKIN Bank, ZENKYOREN, and the National Chamber of Agriculture.

The Committee has established five subcommittees on the topics of securing human resources for agriculture, subcontracting of agricultural work, training human resources for agriculture, systems for training of foreign workers, and safety in agricultural work. These subcommittees identify related issues and share information. On topics that cannot be resolved through private-sector efforts alone, the Committee makes recommendations to the government.

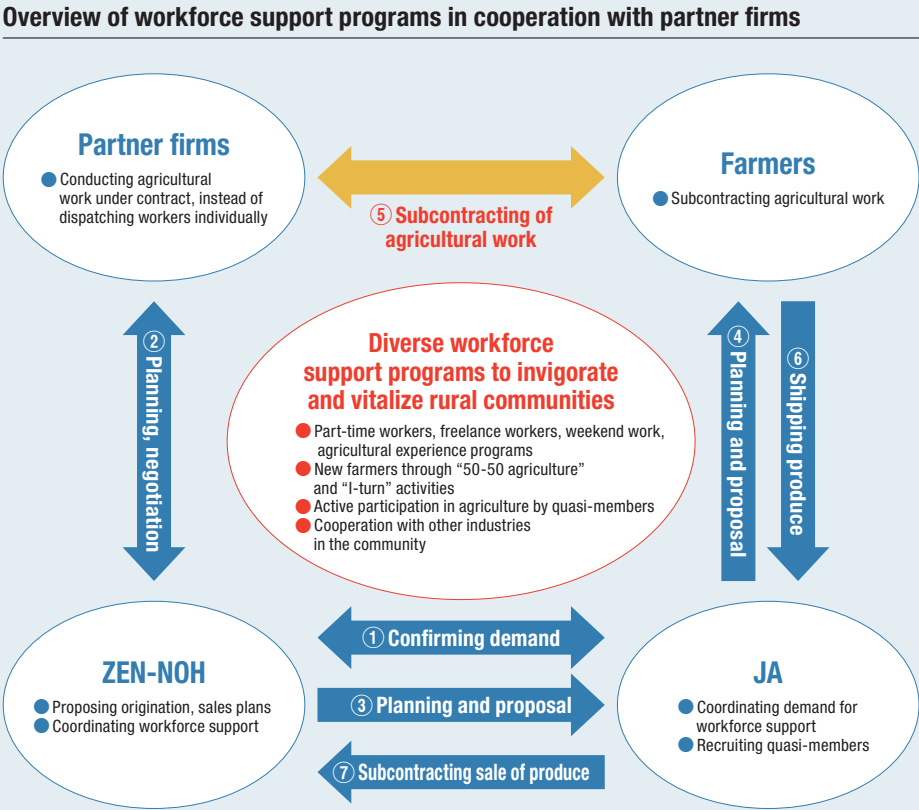


ZEN-NOH’s independent initiatives

As independent ZEN-NOH initiatives, prefectural headquarters including those in Okayama and Oita have joined with partner businesses to implement measures including subcontracting of cabbage planting, sorting, and other work, matching local needs with support programs available, and training new farm workers. As these initiatives expand, JAs in Oita, Fukuoka, and Saga are working together to place workers with the farmers who need them. Future efforts to secure the workforce needed in agriculture will include working with partner firms to adopt and expand subcontracting of agricultural work and support for employing foreign workers.



Harvesting cabbages through a workforce support program (Oita Prefecture)



Initiatives to support farming

Publication of books on business succession (for family farms and community management organizations)

Considering business succession to be a pressing issue in agriculture, in January 2017 ZEN-NOH published the Business Succession Book: An Opportunity for Discussions between Parents and Children. The book has been distributed mainly by JA TACs who meet with farmers around the country.

As these efforts progressed, it became clear that business succession also is an important subject among the nation’s community agricultural management organizations.

In response, another book, the Business Succession Book: An Opportunity for Discussions between the Generations, was prepared and published in April 2018.

This latter book is being put into use in community agricultural management organizations nationwide in FY2018 through distribution to JAs and related organizations via prefectural-level organizations and use in TAC visits, among other efforts.



Business Succession Book: An Opportunity for Discussions between Parents and Children (published January 2017)



Business Succession Book: An Opportunity for Discussions between the Generations (published April 2018)

Z-GIS farming management system launched

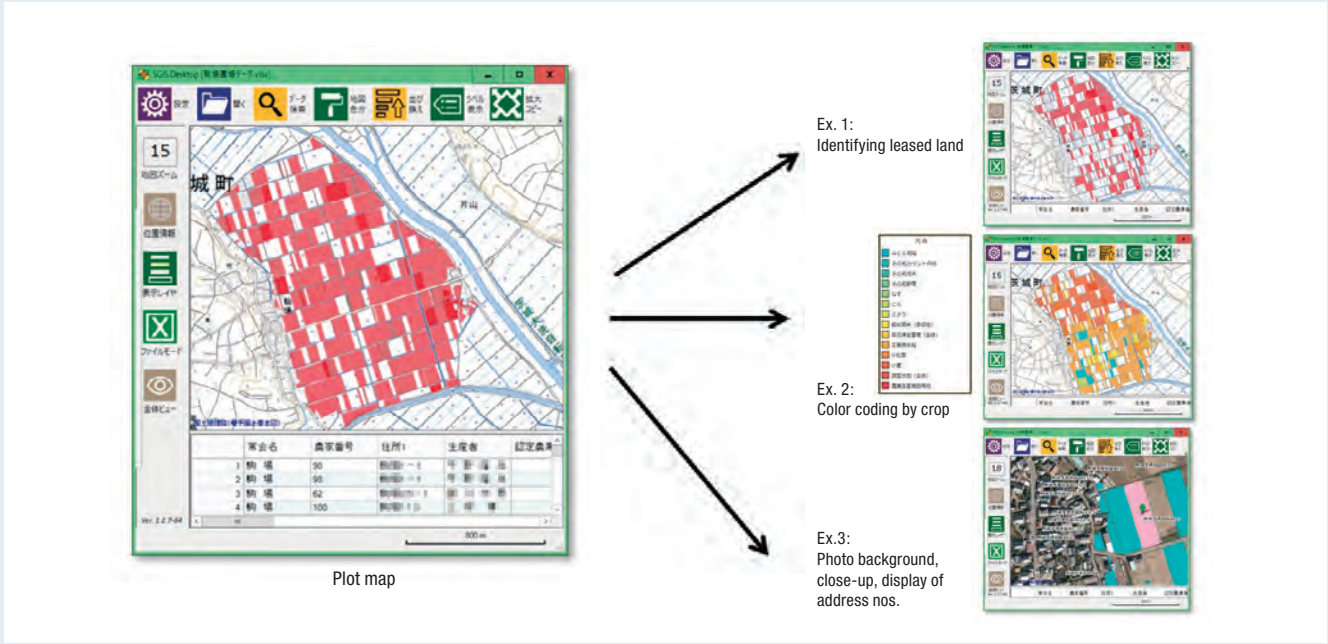
As farmers age and face a shortage of workers, farmlands are being consolidated, resulting in an increase in the area of land managed by individual farms.

This makes management of farming information, including land and crop status, work plans, and work records, more complex, placing a greater burden on farmers.

At the same time, use of Geographic Information Systems (GIS) technology, which links various data to geographical information for visual expression, is spreading in the field of agriculture.

In response, on April 25, 2018 ZEN-NOH launched the Z-GIS farm management system (see p. 51). This system records data such as farm owners, crops, and work records to plots of farmland identified on Internet maps.

This system is intended for use by agricultural corporations, community management organizations, JAs, and other parties faced with increases in farmland that make it difficult to manage on a paper basis alone.



On the cutting edge of technological development

ZEN-NOH's R&D units are focusing on both development of technologies that support the everyday activities of producers and fundamental research with an eye toward the future. These initiatives include collaboration between research institutes and also R&D in cooperation with government research institutes and private-sector businesses as well.

Central Institute for Feed & Livestock

As a research facility that aids in the management of livestock farms through innovative products and technologies, the Central Institute for Feed & Livestock is involved in the commercialization of compound feed and superior livestock production materials, the development of technologies related to nutrition management and productivity improvements, holding training courses, and other activities.

Its recent achievements include (i) development of poultry feed to maximize poultry capabilities based on breeding improvements, (ii) development and promotion of pork varieties offering outstanding flavor and productivity and of feeds for them, (iii) development of technologies for improving productivity and saving labor in wagyu and dairy cattle using ICT equipment, and of low-cost breeding systems and feeds, (iv) feeder improvements through genome analysis, and (v) development of tasty livestock assessment methods through new analytical methods.



Testing broiler feed

Establishing a next-generation model of dairy-farm management program

The Kasama dairy/beef cattle laboratory is carrying out research on the theme of establishing a next-generation model of a dairy-farm management program, intended to realize energy savings and higher productivity.

As part of these efforts, it is developing technologies in areas including introduction of milking robots, which have been used increasingly in dairy farming in recent years, special-purpose feeds to draw out the maximum performance of milking robots, and stabilization of milk fat content, which will be an issue when adopting robotics.



Institute of Animal Health

The Institute of Animal Health is the department that strives to prevent infectious disease of livestock. It includes a research and development section that works on product development of vaccines and feed supplements and basic research on animal diseases. It also has a diagnostic center, which conducts health inspection of livestock and provides production guidance (called "clinics") based on the findings, and five field clinics across Japan. The diagnostic center tests about 200,000 specimens per year, making it indisputably the largest livestock health inspection facility in Japan. Its field clinics based on the results of inspection are conducted by veterinarians assigned to five sites across Japan—Hokkaido, north Japan, east Japan, west Japan, and Kyushu—greatly contributing to ranchers' productivity improvements.



R&D on livestock production without relying on antibiotics, in response to producers' and consumers' needs

Use of the clinic center's new testing building begins

A new testing building has been under construction at the clinic center, to further improve testing capabilities and expand the diverse range of services offered, including genetic and biochemical testing. The long-awaited new building was completed in March of this year. The first robotic testing equipment in Japan was installed in the new building, and it is used in numerous testing processes today.



New testing building

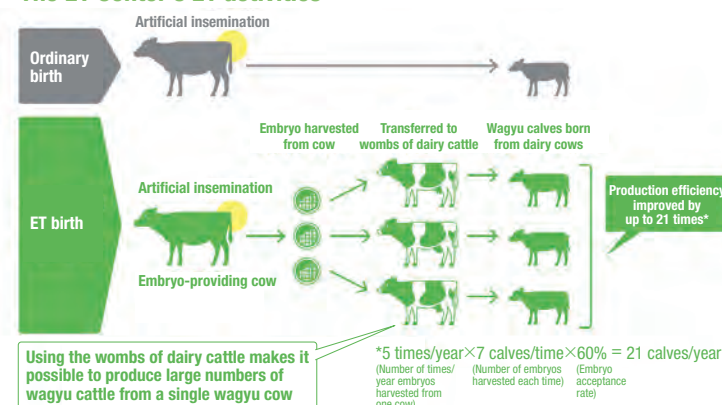


Robotic testing equipment

ET Center

ET (Embryo Transfer) technology is used to transfer an embryo from one cow to another for birth. The ET Center was a pioneer in this technology, and it boasts a world-leading array of ET technologies. To increase production of wagyu beef, an important asset of Japanese agriculture, advances are being made in ET using the wombs of Holstein cows, and the ET Center helps to protect Japan's livestock infrastructure through cooperation with wagyu breeders and dairy farmers (see illustration at right). Currently, the Center supplies about 25,500 bovine embryos and 1,100 pregnant heifers to farmers across Japan each year. Since considerable room still remains for further progress in this field, the Center also is focusing on development of new technologies and new products as well as offering special training programs intended to train young research students to be professionals in ET.

The ET Center's ET activities



Agricultural Research and Development Center

The Agricultural Research and Development Center was established in 1962 as a research facility focusing on agronomy. Over the 56 years since then, it has carried out R&D on agricultural production technologies, testing on produce and production materials, and HR development for the JA Group, to increase the farmers' disposable income.



Angele, a delicious mini tomato

Development of varieties reflecting input from the market

In cooperation with the National Agriculture and Food Research Organization and other partners, the Center develops high-yield varieties of rice, such as commercial and feed rice varieties, in response to changing trends among rice consumers. In the area of vegetables, it partners with domestic and international seedling producers to develop varieties such as mini-tomatoes based on consumer needs. The delicious mini-tomato Angele is grown on about 33 ha of land across Japan and sold to mass retailers and others through the ZEN-NOH Fresh Produce Marketing Corporation.

The Center also is making progress on R&D related to maintaining the freshness of fruits and vegetables during transport and storage, to help increase agricultural exports.

Development of cultivation technologies to increase productivity

The Center develops a wide range of cultivation technologies intended to save on labor and costs in agricultural production and to increase yields and quality. In outdoor cultivation, it has developed new cultivation technologies such as subsurface drip irrigation of leeks and direct sowing of onions.

In greenhouse cultivation, it is developing and promoting the With One small-volume substrate hydroponic cultivation system using greenhouses that produce seedlings for wet rice growing. With One combines components including polystyrene planters and irrigation equipment into a single package, which has been adopted in the more than 80 producing areas across Japan, and helped to improve producers' disposable income.

Technological support for nuticulture

To support the production of high-quality agricultural produce, regional soil analysis centers analyze the nutrient content of soil. Based on the results of this analysis, the Center is developing nuticulture fertilizer distribution planning software called Yoeki Meijin, which makes it possible for producers to design appropriate fertilizer distribution plans. It also is developing a database of physiological disorders as a tool to support appropriate decision-making on the causes of such disorders in produce and countermeasures against them. As of May 2018, the database had been deployed to 44 types of produce.

Comprehensive soil diagnostics

To maximize soil productivity, the Center addresses to improving the three essential soil elements of chemistry, physics, and crop properties. In the area of chemistry, regional soil analysis center maintains diagnostic systems, and at present is addressing soil nitrogen in addition to general analytical subjects. In the area of physics, it is developing and bringing to market the ZEN-NOH physical properties diagnostics set, jointly developed with a manufacturer.



Measuring the hardness of soil using the ZEN-NOH physical properties diagnostics set

Development of new agrochemicals and efficient usage solutions to contribute to stable production

In partnership with agrochemical companies, we develop new agrochemicals that are highly effective against hard-to-control pests and weeds, while also being less labor intensive.

We developed a low environmental impact herbicide that is highly active against barnyard grass, and a highly active herbicide against broadleaf weeds that is even highly effective against sulfonylurea-resistant weeds. These are widely used in Japan. We also developed the generic agrochemicals mancozeb (brand name: Penncozeb) and acephate (brand name: J-Ace).

As well as developing new agrochemicals, we are also striving to promote integrated pest management (IPM), which involves use of agrochemicals efficiently and effectively in combination with various pest-control methods such as biological control.



Control of spider mites by predatory mites using "Banker Sheet" (brand name)

Testing for chemical residue to ensure safety

The Center supports the supply of safe fruits and vegetables distributed by the JA Group by testing the chemical residues. Its testing of chemical residue for registration of agrochemicals, using cutting-edge analytical devices, achieved conformity with the Good Laboratory Practice (GLP) for agrochemicals in 2015.

GLP for Agrochemicals

ZEN-NOH has been certified Good Laboratory Practice (GLP) of agrochemicals to study toxicity and residue of pesticides since 2015 for the registration of new pesticide and its usage expansion.

GLP is the essential system that the national department judges if the facilities operate the accuracy of the data and the process of the study properly in the fields of medicine, agrochemicals and others to authorize the registrations. All facilities that conduct the studies for the registration of medicines, pesticides and so on, should meet the standard of GLP in Japan.

In addition, the GLP study data are accepted by all countries join in the Organization for Economic Co-operation and Development (OECD). When Japanese product importers demand the settings of the residue levels of pesticides, the obtained GLP data in Japan will be provided to the importers.

The Agricultural Research and Development Center conducts the GLP in residue pesticide studies in crops from not only ZEN-NOH but also other agrochemical companies.



Measuring agrochemical residue with the latest liquid chromatograph-mass spectrometer

Efforts in development of production materials, quality control, and human-resources development

The Center handles quality control for packaging materials like cardboard boxes for produce, paper bags for rice and barley, and plastic and piping used in greenhouses based on

its own standards. It also develops new materials to keep produce fresh and new materials, as well as checking the performance of new products in cooperation with related agencies and manufacturers. It holds basic training sessions on agricultural equipment four times a year, JA agricultural equipment service technician training once a year, and training sessions on farming and packaging materials twice a year, as part of its efforts on behalf of JA Group HR development.



Quality checking of cardboard boxes using pressure testing equipment

JA Group HR development

The Center holds 60 training sessions per year on various topics related to agribusiness and purchasing for JA Group staff. Since the Center opened, it has trained a cumulative total of more than 130,000 trainees.

Since FY2015, it has held training sessions on subjects related to cultivation methods, including the principles of vegetable cultivation, ground vegetable cultivation techniques, growing vegetables for food-processing and commercial uses, and agricultural techniques based on utilizing the properties of the soil, for JA agribusiness consultants and others involved in development of producing regions as well as prefectural and regional staff. Over the three-year period from when this training began through FY2017, a total of 3,900 staff members completed the training, and today they are putting what they learned to use in the field of agricultural production across the country.

Agromony TOPICS

Harumi, a variety of rice developed by ZEN-NOH, secures Special A ranking for the second year in a row

As part of its R&D activities, the Agricultural Research and Development Center also is stressing the development of new varieties for paddy rice cultivation. In a market in which most wet paddy rice varieties are developed by public institutions such as the National Agriculture and Food Research Organization and prefectural agricultural testing centers, Harumi, a variety developed by ZEN-NOH, is a rare example of a variety developed by the private sector.

The variety name Harumi, meant to evoke the clear seas ("hareta umi") of the Shonan region where the variety was developed, was registered officially in 2014. In 2015, it was adopted as a recommended variety by Kanagawa Prefecture, intended as the successor to Kinuhikari. It was the first rice variety developed solely by a private-sector organization to be chosen as a recommended variety.

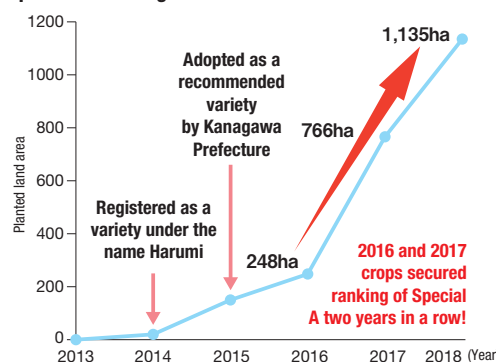
Harumi rice is suited to production of quality rice crops because it is resistant to a reduction in quality due to chalky grains under high temperature during summer and preharvest sprouting caused by the long rains of autumn. Cooked Harumi rice is characterized by its shine, sweet taste and the fact that it is delicious even when eaten cooled. The rice produced in Kanagawa Prefecture in 2016 and 2017 was entered to the Rice Taste Ranking conducted by the Japan Grain Inspection Association,*¹ attracting attention as it secured the highest ranking of Special A two years in a row.

JA Group Kanagawa is holding training

sessions on Harumi cultivation at JAs in leading rice-producing areas, seeking to spread use of the variety and improve the quality of rice production. The Kanagawa Prefecture Quality Rice Growing Association, formed in FY2016, carries out activities including quality measures to increase the percentage of top-grade rice produced, sales-promotion activities, and efforts to reduce production costs.

As a result of these efforts, in FY2018 the

Trend in land on which Harumi rice is planted in Kanagawa Prefecture



ZEN-NOH Pearl Rice Corporation began selling Harumi rice grown in Kanagawa Prefecture starting with the FY2016 crop

total area of cropland planted with Harumi rice in Kanagawa Prefecture grew to 1,135 ha.

Progress is being made on efforts to produce and sell Harumi throughout the JA Group, as test cultivation is underway in response to its Special A ranking in various locations in addition to those such as Ibaraki and Tokushima prefectures, where Harumi has been designated as a brand variety of the growing district.*²



Mr. Nishiyama, a Harumi grower for nine years



Exhibiting in the Fall Rice Festival at the Tamagawa Takashimaya Shopping Center

*¹ The Rice Taste Ranking: Five ranks of Special A, A, A', B, and B'. Designating a blend of Koshihikari rice from multiple producing areas as the standard of A', a panel of 20 experts ranks the rice on six items: external appearance, aroma, flavor, stickiness, softness, and overall evaluation.

*² Brand variety of the growing district: Designated for each prefecture by the Ministry of Agriculture, Forestry and Fisheries, under the Agricultural Products Inspection Act. Since designation as a brand variety of the growing district means that produce can be inspected for its origin, variety, and year of production to be certified, increased production and sales can be expected.

Disaster recovery and restoration

We work together with government and other parties to assist in recovery and restoration from successive natural disasters, which have caused massive damage to agricultural production in recent years to do efforts in response to the needs in affected areas. In the Tohoku region, where improvements are underway to agricultural infrastructure, including farmland and agricultural facilities, damaged by disaster, we are advancing efforts in areas such as adoption of advanced technologies, sales support based on related needs, enhancing system for providing agribusiness guidance, and promoting sales of agricultural products from the region to establish a new agricultural structure through agricultural corporations.

Support for recovery from the Great East Japan Earthquake

Corporation with JA investment Yamamoto Farm Miraino, K.K.

The tsunami caused by the Great East Japan Earthquake brought devastating damage to the town of Yamamoto in southeastern Miyagi Prefecture. Yamamoto Farm Miraino, K.K., an agricultural production corporation, was established in July 2015 aiming to resume farming in this district with the support of the JA Group (JA Miyagi Watari, ZEN-NOH, the Norinchukin Bank, and others).

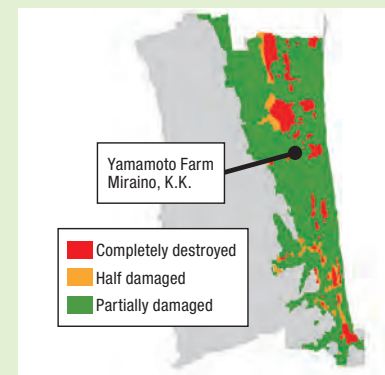
Aiming to build a large-sale management model based on proper land use, this cooperation is growing vegetables (such as leeks, onions, sweet potatoes, and carrots) through ground farming, with ZEN-NOH providing support in the areas of cultivation techniques, varieties, adoption of integrated mechanization systems, and sales.

In March 2018, it, along with two other corporations in the prefecture, earned Global GAP certification (for tomatoes) under the JA Group Good Agricultural Practice (GAP) Third-party Certification Support Program.

Since the ZEN-NOH Miyagi Prefectural Headquarters serves as the group secretariat for this certification, other producers in the prefecture can participate as well, and its use is expected to expand further in the future.



Global GAP certificate



Tsunami damage in Yamamoto

Support for recovery from the Kumamoto Earthquakes (2016)

A series of major earthquakes with epicenters in the Kumamoto area of Kumamoto Prefecture struck on April 14 and 16, 2016, causing damages including collapsed homes, mudslides, and loss of many lives.

In response, on April 15 the JA Group set up the 2016 Kumamoto Earthquakes Central Response Headquarters chaired by the chairman of JA Zenchu, and ZEN-NOH sent a support team of about 200 people over the period from April 25 through to May 20 to assist in producers' farming activities, helping to sort produce such as cucumbers and eggplants that were at the peak of the harvest at the time.

As shown by their comments, like "I wanted to help in any way I could after seeing how tough the situation was" or "I wanted to give something back out of gratitude for the aid we received from across the country in areas affected by the Great East Japan Earthquake," staff who joined the support team did so for a variety of reasons.

ZEN-NOH will continue to support agricultural recovery and operations in Kumamoto Prefecture.

ZEN-NOH also provides support for disaster mitigation efforts by prefectural federations and prefecture JAs in response to damage to crops and farming and other facilities due to wind and rain, cold weather, earthquakes, and other causes. ZEN-NOH's prefectural headquarters also carry out disaster mitigation efforts for JAs. The total amount invested in disaster mitigation efforts since FY2007 is approximately JPY8.2 billion.



A letter of gratitude to the JA Group from the Minister of Agriculture, Forestry and Fisheries

Tohoku-Miyagi Revive Marathon (October 2017)

The Great East Japan Earthquake on March 11, 2011 caused unprecedented damage due to the resulting tsunami and its other aspects. In October 2017, more than six and a half years after the disaster, the first official full marathon since the disaster was held in Miyagi Prefecture, with ZEN-NOH, as a member of the JA Group, serving as a sponsor.

After starting at Iwanuma Kaihin Ryokuchi, the runners passed through newly developed areas such as Millennium Hope Hill and Raised Road, marking a new stage in the region's history. Together with events like the Revive Marathon, the JA Group will do all it can to help affected areas recover as quickly as possible, communicating nationwide a spirit of gratitude to recovery.

Supplying "Recovery Tomatoes" grown on recovered farmland in Yamamoto and Angele tomatoes from Minamisanriku



Topic

Chairman Nagasawa visits areas damaged by torrential downpours in western Japan

A promise of maximum support (2018)

Chairman Nagasawa of the ZEN-NOH Supervisory Board visited Okayama and Hiroshima prefectures in July 2018 to inspect the damage caused by the torrential downpours in western Japan. He observed the state of damage to facilities and stores managed by JA Okayama-Nishi and exchanged opinions with the JA chairperson and farmers. In response to farmers' requests, he promised to provide maximum support, stating, "The entire JA Group will do whatever it can to help."



Touring a damaged JA Okayama-Nishi facility

Digital Innovation

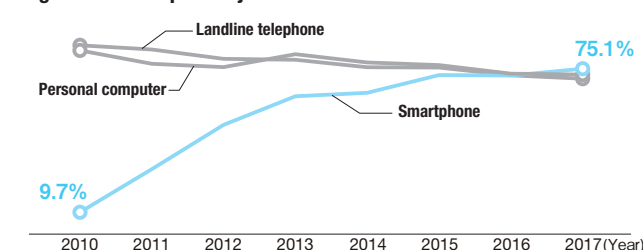
Digital innovation in the JA Group makes it possible to provide support for producers and new food-related services for consumers, through utilization of data linked and exchanged between the agricultural management, sales, cooperative, and financial sectors. We will continue to develop agricultural value through digital innovation.

Current state

The data show explosive growth in use of smartphones

Although in 2010 only 9.7% of households had smartphones, in 2017 this percentage had increased to 75.1%—even higher than that of household with landline telephones or personal computers. In

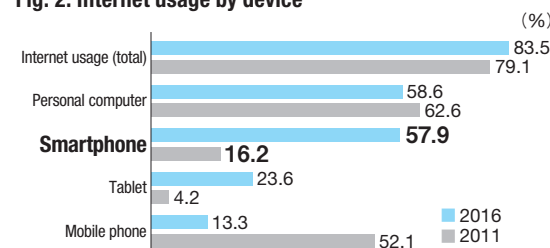
Fig. 1. Ownership of major information/communication devices



Source: Based on Ministry of Internal Affairs and Communications, "Communications Usage Trend Survey"

addition, the percentage of households using the Internet was 83.5% in 2016, and a look at Internet usage by type of device shows that smartphones accounted for the majority of such use in 2016, at 57.9%.

Fig. 2. Internet usage by device

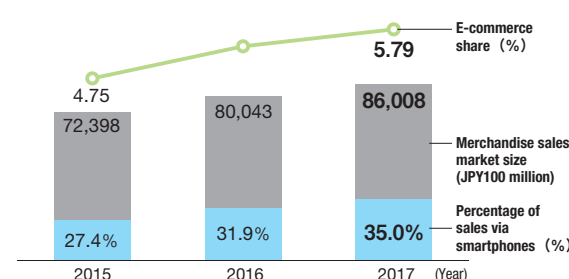


Source: Based on Ministry of Internal Affairs and Communications, "Communications Usage Trend Survey"

The e-commerce market sets a new record

In 2017, the e-commerce market grew by 7.5% from the previous year to JPY8.6008 trillion. Sales made via smartphones accounted for more than JPY3 trillion, or 35%, of this total. Mail-order sales (including e-commerce) accounted for 5.79% of total merchandise sales.

Market size, e-commerce share, and smartphone use



Source: Based on Ministry of Economy, Trade and Industry, "E-Commerce Market Survey"

Sales

● **JA Town** JA Town is an e-commerce site in which JAs and other organizations from across Japan sell seasonal agricultural products and local specialties for shipping directly from production center to consumers (see p.33). In order to adapt to rapid growth in the e-commerce market, in 2018 ZEN-NOH EC Solutions Corp., a joint venture with ECBEING Corp., the largest vendor of e-commerce packages in Japan, was formed as part of efforts to grow JA Town even further.

● **ZEN-NOH app** This app's features include loyalty points for customers of ZEN-NOH Group restaurants and bars, product coupons, recipes using seasonal ingredients, and a walking game in which players walk to help produce and livestock grow. It incorporates many design elements intended to encourage users to learn more about domestic agricultural products and consume them in delicious ways.



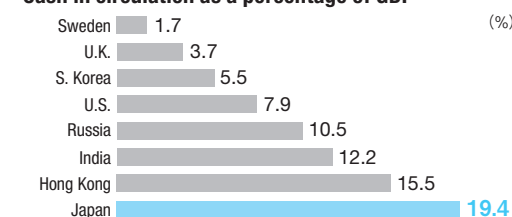
JA全農アプリ



With the rise of FinTech, use of cashless payments is growing in Japan

Recent years have seen rapid progress in the spread of a wide range of new services taking advantage of the properties of smartphones, including financial technology (FinTech), the sharing economy, augmented reality (AR)/virtual reality (VR), flea-market apps, and personal data storage. In Japan as well, the rise of FinTech has led to increasing use of cashless payment methods. As a result, the cashless payment market is growing from year to year, and in 2016 the number of cashless payments made in the country was more than 5.1 billion, resulting in a market size that had grown to approximately JPY5.1 trillion. Still, this percentage remains low compared to other countries, and the Japanese government has set a goal of increasing the share of cashless payments to 40% by 2025.

Cash in circulation as a percentage of GDP

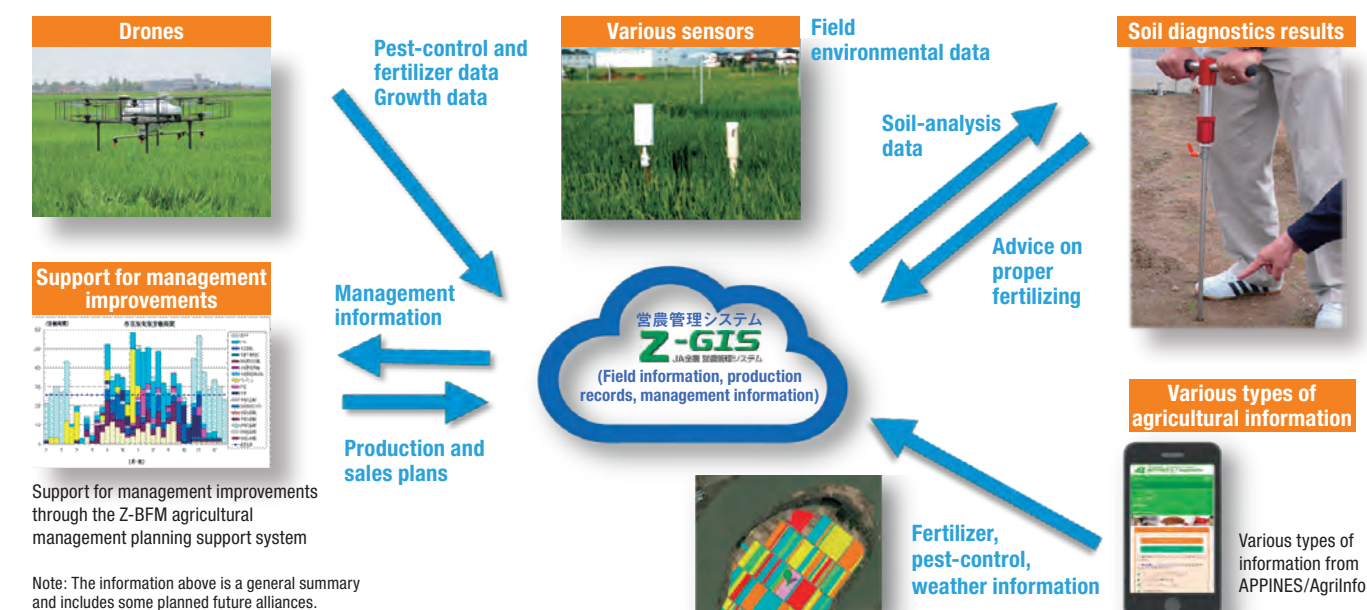


Source: Bank for International Settlements, 2016

Utilizing ICT to improve yields and quality in agricultural production

Agribusiness/Agronomy

As the scale of agricultural production increases, topics such as management of fields under cultivation and securing the necessary workforce become pressing issues. ZEN-NOH is adopting innovative technologies such as fully automated drones and agricultural information and communication technologies (ICT) to help save labor and visualize agricultural work and management. The Z-GIS cloud-based agricultural management system launched in 2018 (see p. 45) is a revolutionary new system that makes it possible to manage geographical information and crop data centrally, through entry of data such as varieties, production records, and agricultural work information for fields plotted on a digital map. Over the first three months following its launch, the trial version was downloaded by about 4,000 users, chiefly agricultural corporations and similar parties, and its use is growing.



Support for technological innovation based on agricultural ICT

Livestock

As of May 2018, Mobile Gyuonkei, a system intended to monitor cattle for signs of birth, was in use by about 1,500 ranchers to help reduce cases of death when cattle give birth. In 2017, we invested in Farmnote Holdings Inc. We propose solutions to help ranchers improve results using Farmnote Color, which uses sensors to detect in real time when cattle are ready to mate and increases visibility and efficiency in breeding management using artificial intelligence.

Furthermore, in April 2018 we introduced Ushirase, a system developed jointly with Sony Engineering Corporation that can detect dysstasia in cattle during fattening. Through efforts such as these, we are incorporating superior technologies from other fields to help increase producers' productivity and income.



Topic

The JA Group's digital innovations exhibited at AG/SUM2018

ZEN-NOH was a cosponsor of Agritech Summit (AG/SUM) 2018, an event based on the theme of fusing agriculture and information technology (IT), which included discussions on future directions for technological development to resolve the issues faced by agriculture in Japan and around the world as well as introductions to new technologies. Its symposia, seminars, exhibition booths, and marketplace (sales booths) attracted about 14,000 attendees. In one symposium, President & CEO Jinde spoke on the subject of "The JA Group's Vision for Digital Innovation in Agriculture," describing how the JA Group is able to fuse agriculture with IT in response to the need he described for "linking and utilizing information from various projects, such as the content of interviews with farmers, to increase member satisfaction."



President & CEO Jinde speaking on the subject of "The JA Group's Vision for Digital Innovation in Agriculture"

Social Responsibility Activities

As an active member of local communities, ZEN-NOH employs a proactive approach to social responsibility. Covering a wide range of areas from food and agricultural education through sports and the environment, these activities contribute to building the future of our communities. They include support for professional and amateur sports, activities to deepen education on food and agriculture for children, who will form the Japanese society of the future, and welfare and cultural activities.

Sports

Support for professional sports

- **Table tennis**
Contracts with the Japan National Team and player Kasumi Ishikawa
Sponsoring the Emperor's Cup and Empress's Cup All-Japan Table Tennis Championship Tournament
Sponsor of the Japan Open Ogimura Cup (2017)
Provider of food supplies to Japan National Team players participating in international tournaments
- **Curling**
Contracts with the Japan National Women's Team and the Japan National Mixed Doubles Team
Sponsor of the ZEN-NOH Japan Curling Championships
Sponsor of the ZEN-NOH Japan Mixed Doubles Curling Championships
Provider of food supplies to Japan National Team players participating in international tournaments



写真提供：ニッタクニュース



©世界 Curling

Environment

Support for the next generation

- **Table tennis**
ZEN-NOH Cup All-Japan Table Tennis Championship Tournament (elementary school age and younger)
All-Japan Table Tennis Championship Tournament (middle school)
- **Football**
JA ZEN-NOH Cup Chibi-lympics football for elementary school students from across Japan
- **ZEN-NOH Chibi-lympics**
- **Baseball**
JA ZEN-NOH WCBF youth baseball lessons
Joint training for high-school baseball players with Ritsumeikan University
- **Swimming**
ZEN-NOH/"Hagitomo" swimming lessons

- ZEN-NOH Group Agricultural Products Fair
- Furusato-no-shoku Nippon-no-shoku National Festival
- Tohoku-Miyagi Revive Marathon



- Rice Paddy Organism Survey
- Participating on the Japan Committee for the United Nations Decade on Biodiversity
- Visiting classes



Food and agricultural education

- ZEN-NOH parent-child cooking classes
ZEN-NOH Minna no Kodomo cooking classes
- ZEN-NOH parent-child agricultural experience tours
- Sponsor of Ashita no Watashi Festival, organized by Benesse Corporation
- Support for the Japan Agricultural News readers' photo contest
- Sponsor of the Mainichi Agricultural Records Prize



Table tennis

In addition to sponsoring tournaments held in Japan and publicizing domestic agricultural products through provision of additional prizes and food samples, ZEN-NOH also supplies Japanese foods to players taking part in international tournaments and supports them. Table tennis player Kasumi Ishikawa, under contract to ZEN-NOH, took third place in the Emperor's Cup and Empress's Cup in January 2018. In May 2018, her team won the silver medal in the women's team event in the World Table Tennis Championships (held in Halmstad, Sweden).



写真提供：ニッタクニュース



We support the players by providing Japanese foods at the venue of the World Table Tennis Championships every year.

Curling

ZEN-NOH sponsors the ZEN-NOH Japan Curling Championships and the ZEN-NOH Japan Mixed Doubles Curling Championships, as well as providing additional prizes and food samples in the Championships venues.

Furthermore, we also support the activities of athletes participating in the World Curling Championships overseas by providing them with Japanese foods.

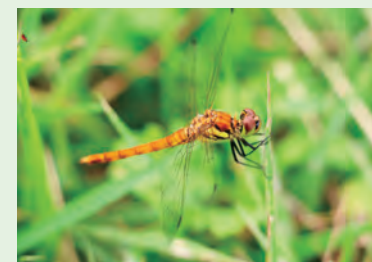


Promoting domestic agricultural products to attendees at the ZEN-NOH Japan Mixed Doubles Curling Championships (held in Aomori).

Rice Paddy Organism Survey

Implemented
479 times
Total participants
4,202
(2005-2018)

ZEN-NOH is carrying out the Rice Paddy Organism Survey in conjunction with JAs, producers, consumers, and children nationwide, arranging activities to enable participants to learn, through the five senses, about the deep connection between the environment and farming and the importance of conserving biodiversity.



ZEN-NOH parent-child cooking classes ZEN-NOH Minna no Kodomo cooking classes

Implemented
67 times
Total participants
2,108
(2006-2018)

ZEN-NOH hosts parent-child cooking classes using fresh domestic farm products and cooking classes for children with disabilities, in cooperation with various ZEN-NOH Group companies. This program allows children to take on the challenge of preparing a bento box lunch without relying on their parents, to enhance their understanding of and interest in the importance of food and food ingredients.

In these classes, employees of ZEN-NOH Group companies and ZEN-NOH itself deliver classes on Japanese agriculture and ingredients along with food quizzes, communicating to participants the importance of agriculture and food.



ZEN-NOH parent-child agricultural experience tours

Implemented
60 times
Total participants
2,240
(2005-2018)

These tours are organized with the cooperation of JAs to provide consumers who are generally unfamiliar with agricultural practices with an opportunity to interact with producers by experiencing farm work, including planting and harvesting vegetables, flowers, and rice, so that they can have a better understanding of agriculture.



Nationwide Store Network

●...Directly operated ●...Subsidiary ●...Affiliate

The ZEN-NOH Group operates a variety of stores in national production areas and in the greater Tokyo area. We promote domestic farm products directly through a diverse range of stores including direct-sales shops for domestic farm products, restaurants, cafes, and other shops, combined with spaces for holding events. We also are actively expanding our store network overseas, where we have opened Japanese restaurants and yakiniku barbecue restaurants. The goals of these efforts are to promote the high quality, delicious taste, and safety of wagyu beef from Japan while also growing its consumption by proposing new ways of enjoying it.



ZEN-NOH Group stores page



ZEN-NOH official app



Tonkatsu Butaniku O-ryori Jun Atré Urawa (Saitama)



Minoru Diner Ekie Hiroshima (Hiroshima)



Toyama Sodachi Funahashitei (Toyama)



Kokusandori Izakaya Hasedori Akihabara (Tokyo)
Niku Bar Tokyo Grill Center Akihabara (Tokyo)



Iwate Junjimai no Mise/Ginga Diner (Iwate)



Nikusho Jade Kanazawa (Ishikawa)



Shops & Markets

- ZEN-NOH Antenna Shop Ichigo Ichie [Tokyo](#)
- Agri Shop Aomori [Aomori Prefecture](#)
- JA Nosanbutsu Chokubaijo Ajikan [Fukushima Prefecture](#)
- Pocket Farm Dokidoki Ibaraki-machi [Ibaraki Prefecture](#)
- Pocket Farm Dokidoki Tsukuba Ushiku [Ibaraki Prefecture](#)
- Kaki Ryutsu Center Shinsen Gunma [Gunma Prefecture](#)
- Minori-kari [Gunma Prefecture](#)
- Shin-Maebashi Nochiku Sanbutsu Chokubaijo Aisaikan [Gunma Prefecture](#)
- ZEN-NOH no Oniku Kobo Sadamoto [Chiba Prefecture](#)
- JA Green Kanagawa [Kanagawa Prefecture](#)
- Taberu JA-n Yamanashi [Yamanashi Prefecture](#)
- JA Green Mineyama-Tango Yasai-kan Kicharina [Kyoto Prefecture](#)
- JA Koryu Hiroba Toretate Genki-ichi [Hiroshima Prefecture](#)
- JA no Onikuya-san Higashi-Onomichi [Hiroshima Prefecture](#)
- JA Green Core Yamaguchi [Yamaguchi Prefecture](#)
- FamilyMart-ZEN-NOH Fresh Hiroba [Ehime Prefecture](#)
- ZEN-NOH no Onikuya-san [Ehime Prefecture](#)
- Nokyoku Tokusan Center Tosa no Sato [Kochi Prefecture](#)
- A-Coop Kagami [Kochi Prefecture](#)
- NEW** ● Hanayaka Seinkuten [Okayama Prefecture](#)
- Fureai Junjo Ichiba Sakkorra [Iwate Prefecture](#)
- NEW** ● Chokubaijo Pure Hino [Tokyo](#)
- NEW** ● Chokubaijo Jun Yumebatake Kasuga [Fukuoka Prefecture](#)
- Chokubaijo Pure Kawauchi Nagano [Osaka Prefecture](#)
- Atashi no Chokubaijo Jun Dazaifu [Fukuoka Prefecture](#)
- Farmers' Market Iyokkora [Ehime Prefecture](#)
- Tamago COCCO by JA ZEN-NOH Tamago [Tokyo](#)
- JA Farmers Nodajuku [Gunma Prefecture](#)
- JA Farmers Asahi-cho [Gunma Prefecture](#)
- JA Farmers Annaka [Gunma Prefecture](#)
- JA Farmers Brace [Gunma Prefecture](#)
- JA Farmers Asakura-cho [Gunma Prefecture](#)
- JA Farmers Ota-Yabuzuka [Gunma Prefecture](#)
- JA Farmers Iruma [Saitama Prefecture](#)
- JA ZEN-NOH Farmers Lalaport Izumi [Osaka Prefecture](#)
- NEW** ● FamilyMart + A-Coop Aikawa [Akiita Prefecture](#)
- NEW** ● FamilyMart + ZEN-NOH Fureai Hiroba Motosawa [Yamagata Prefecture](#)
- FamilyMart + A-Coop Kaganu [Ishikawa Prefecture](#)
- FamilyMart + A-Coop Shinji [Shimane Prefecture](#)
- FamilyMart + A-Coop Koba [Shimane Prefecture](#)
- FamilyMart + A-Coop Obara [Hiroshima Prefecture](#)
- NEW** ● FamilyMart + A-Coop Saijo [Hiroshima Prefecture](#)
- FamilyMart + A-Coop Iyo [Ehime Prefecture](#)
- A-Coop Sue/JA FARMERS Kasuya [Fukuoka Prefecture](#)
- NEW** ● A-Coop Kusu/JA FARMERS Kusu-Kokonoe [Oita Prefecture](#)
- Niku no Eki main store [Gunma Prefecture](#)
- Niku no Eki Raran Fujioka [Gunma Prefecture](#)
- Niku no Eki Tamamurajuku [Gunma Prefecture](#)
- JA Green Kanazawa [Ishikawa Prefecture](#)
- A-Gaia [Ishikawa Prefecture](#)
- NEW** ● JA ZEN-NOH Mie Meat O-niku no Chokubaijo [Mie Prefecture](#)
- Antenna Shop Airport [Nagasaki Prefecture](#)
- Giovanni [Iwate Prefecture](#)
- Iwachiku Kitchen Morioka Station Fesan [Iwate Prefecture](#)
- Iwachiku Parc Avenue Kawatoku [Iwate Prefecture](#)
- Iwachiku Annex Kawatoku [Iwate Prefecture](#)
- Shokuniku Chokubaiten Fresh [Fukushima Prefecture](#)
- A-Coop Farmers Ueda [Nagano Prefecture](#)
- A-Coop Farmers Shinonoi [Nagano Prefecture](#)
- A-Coop Farmers Minami-Nagano [Nagano Prefecture](#)
- NEW** ● A-Coop Farmers Bingushi [Nagano Prefecture](#)
- NEW** ● A-Coop Farmers Fujimi [Nagano Prefecture](#)
- NEW** ● A-Coop Farmers Pia Midori [Nagano Prefecture](#)
- A-Coop Takagi (Farmers type) [Nagano Prefecture](#)
- Beishin O-Kome Kitchen Anto [Ishikawa Prefecture](#)



Overseas

- SHIKI BEVERLY HILLS [U.S.A.](#) ①
- TOKIMEITÉ [U.K.](#) ②
- Japanese Wagyu Yakiniku Pure 1 (Causeway Bay Store) [Hong Kong](#) ③
- Japanese Wagyu Yakiniku Pure 2 (Tsim Sha Tsui Store) [Hong Kong](#) ④



TOKIMEITÉ(London)

Encountering agriculture and the rural four seasons in central Tokyo

ZEN-NOH Antenna Shop Ichigo Ichie

Based on the concept of enabling customers to encounter agriculture and rural atmospheres from across Japan in a single place, this directly operated ZEN-NOH antenna shop sells seasonal agricultural products in cooperation with production centers across the country, to meet the demand for business gifts from businesspeople working in the Otemachi, Marunouchi, and Yurakucho areas. Its activities include selling fresh juice made using seasonal fruits from across Japan, selling "JA All-Stars"—carefully selected processed agricultural products from the JA Group across Japan—selling high-quality seasonal fruit, and selling specialty vegetables sent directly from JA's directly operated stores across Japan.



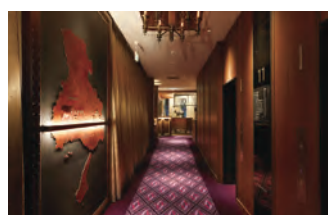
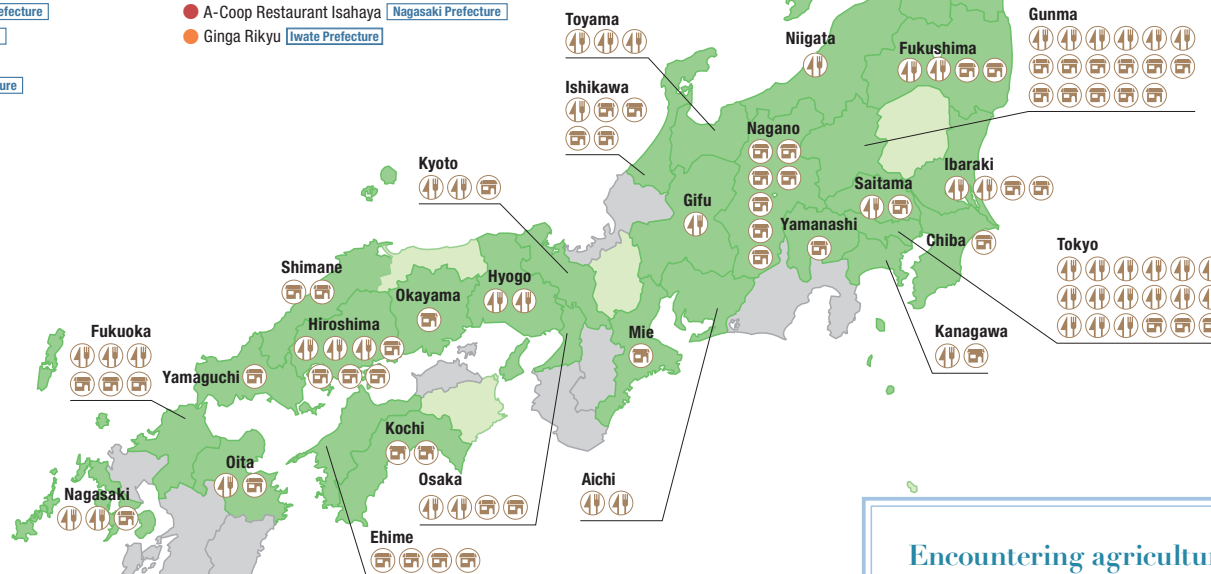
- Minoru Dining Fesan [Iwate Prefecture](#)
- Cafe & Grill Minoru Minoru Niigata [Niigata Prefecture](#)
- Minoru Cafe Takashimaya Kyoto [Kyoto Prefecture](#)
- Minoru Diner Takashimaya Kyoto [Kyoto Prefecture](#)
- NEW** ● Minoru Minoru Marche S-PAL Yamagata [Yamagata Prefecture](#)
- NEW** ● Cafe & Restaurant Minoru Minoru Oita (planned to open in 2018) [Oita Prefecture](#)

Restaurants

- La Campagne [Tokyo](#)
- Kobe Plaisir Ginza [Tokyo](#)
- Iwate Junjimai no Mise/Ginga Diner [Iwate Prefecture](#)
- Fukushima-gyu Yakiniku Gyuho Asahi [Fukushima Prefecture](#)
- Fukushima-gyu Yakiniku Gyuho Yatsuyamada [Fukushima Prefecture](#)
- Pocket Farm Dokidoki Ibaraki-machi Mori no Katei Ryori Restaurant [Ibaraki Prefecture](#)
- Pocket Farm Dokidoki Tsukuba Ushiku Dokidoki Restaurant [Ibaraki Prefecture](#)
- Wafu Yakiniku Toyama Sodachi [Toyama Prefecture](#)
- Toyama Sodachi Funahashitei [Toyama Prefecture](#)
- Nikusho Jade Kanazawa [Ishikawa Prefecture](#)
- Hidagyu Ryori Takumi [Gifu Prefecture](#)
- Kobe Plaisir [Hyogo Prefecture](#)
- Genki-ichi Shokudo [Hiroshima Prefecture](#)

- Yakiniku Pure Kanda [Tokyo](#)
- Yakiniku Pure Shinbashi [Tokyo](#)
- Yakiniku Honpo Pure Otemachi [Tokyo](#)
- Yakiniku Honpo Pure Shinagawa [Tokyo](#)
- NEW** ● Kokusandori Izakaya Hasedori Akihabara [Tokyo](#)
- NEW** ● Niku Bar Tokyo Grill Center Akihabara [Tokyo](#)
- NEW** ● Tonkatsu Butaniku O-ryori Jun Atré Urawa [Saitama Prefecture](#)
- Yakiniku Honpo Pure Ikebukuro [Tokyo](#)
- Yakiniku Honpo Pure Iidabashi Sakura Terrace [Tokyo](#)
- Yakiniku Honpo Pure Kitasenju Marui [Tokyo](#)
- Yakiniku Honpo Pure Marui Mizonokuchi [Kanagawa Prefecture](#)
- Yakiniku/Sukiyaki Jun Umeda Main Store [Osaka Prefecture](#)
- NEW** ● Yakiniku/Sukiyaki Jun Osaka Fukushima [Osaka Prefecture](#)
- Yakiniku/Sukiyaki Jun Ebista Nishinomiya [Hyogo Prefecture](#)
- Yakiniku/Sukiyaki Jun Tenjin-Kego [Fukuoka Prefecture](#)
- Shinsen Hormone Futsukaichi [Fukuoka Prefecture](#)
- Joshu Wagyu Senmonten Gunma Sodachi [Tokyo](#)
- Yakitori Mizutaki Kanda Kashiwaki [Tokyo](#)
- Yakiniku Aguri Asahian [Gunma Prefecture](#)
- Yakiniku Aguri Maebashi main store [Gunma Prefecture](#)
- NEW** ● Yakiniku Aguri Nittaen [Gunma Prefecture](#)
- Yakiniku Aguri Kaburaeni [Gunma Prefecture](#)
- Yakiniku Aguri Rakurakuen [Gunma Prefecture](#)
- NEW** ● Yakiniku Aguri Nodajukuan [Gunma Prefecture](#)
- Miyagi Junmaishu Club Sanaburi [Miyagi Prefecture](#)
- Tonami Sodachi [Toyama Prefecture](#)
- Nagasaki Wagyu Yakiniku Pure [Nagasaki Prefecture](#)
- A-Coop Restaurant Isahaya [Nagasaki Prefecture](#)
- Ginga Rikyu [Iwate Prefecture](#)

- Restaurants (Food service) 57 locations
- Shops & Markets (Direct sales) 64 locations
- Areas served



Kobe Plaisir Ginza (Tokyo)

- Minoru Cafe Ginza Mitsukoshi [Tokyo](#)
- Minoru Diner Ginza Mitsukoshi [Tokyo](#)
- Minoru Cafe S-PAL Sendai [Miyagi Prefecture](#)
- Grill Minoru S-PAL Sendai [Miyagi Prefecture](#)
- Minoru Cafe Maker's Pier [Aichi Prefecture](#)
- Grill Minoru Maker's Pier [Aichi Prefecture](#)
- NEW** ● Minoru Diner Ekie Hiroshima [Hiroshima Prefecture](#)
- NEW** ● Minoru Cafe Ekie Hiroshima [Hiroshima Prefecture](#)
- Minoru Cafe Fukuoka Parco [Fukuoka Prefecture](#)

JA Group Organization and Businesses

JAs are organizations that conduct business activities through the participation and collective efforts of their members. They collectively purchase the materials necessary for agricultural production and market agricultural products under the provisions of the Agricultural Cooperative Association Act. They are also involved in a wide range of business activities including those that provide members with products necessary for daily life; savings accounts and credit services such as loans; and mutual insurance services that offer life, property, and car insurance.

Prefectural-level federations and central unions as well as the national-level federation ensure that the business activities of JAs are conducted efficiently. The entire JA organization is known as the JA Group. It consists of three levels: JAs; prefectural-level JA federations and CHUOKAI (Prefectural Central Union of Agricultural Cooperatives) organizations; and the national JA federation.

What is ZEN-NOH's role?

The ZEN-NOH Group is responsible for the marketing and supply business of the JA Group, including sale of agricultural products and supply of materials for use in agricultural production. It cooperates with JAs, who are members of the ZEN-NOH Group, and prefectural federations to create scale advantages in carrying out competitive marketing and supply activities. These activities support increases in members' farm incomes and expansion of their agricultural production capacity. ZEN-NOH's role is to supply food products to consumers across Japan through such activities.

JA KEIZAIREN and prefectural JAs

Among JA federations, JA KEIZAIREN do business in their prefectures, while national federations, including ZEN-NOH, do business nationwide.

Previously, JA KEIZAIREN in each prefecture handled economic activities such as sale of agricultural produce under contract and handling of production materials, but these were consolidated into eight organizations under organizational reforms, and other KEIZAIREN were merged with ZEN-NOH successively beginning in 1998, so that as of April 2018 ZEN-NOH included 34 prefectural headquarters.

JA regional consolidation across multiple municipalities also is underway, leading to the birth of five prefectural JAs in which JAs succeed the activities of the JA KEIZAIKEN.

ZEN-NOH Profile

Established
March 30, 1972

Business goal

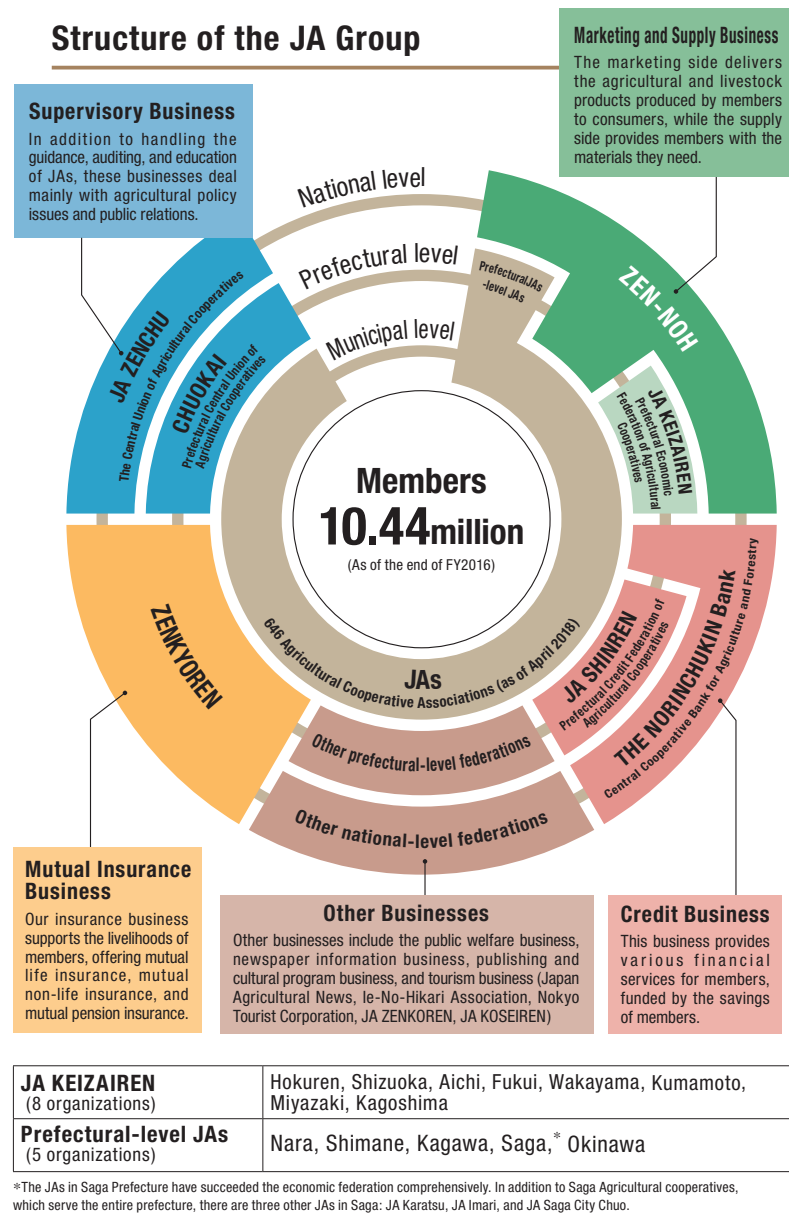
All member cooperative unions work together to promote ZEN-NOH businesses, thereby increasing the production efficiency of the work of member farmers, improving their economic conditions, and contributing to the raising of their status in society. Our businesses, which provide production materials, daily necessities, and process and market agricultural products, are conducted with this goal in mind.

Offices

Main office: Tokyo

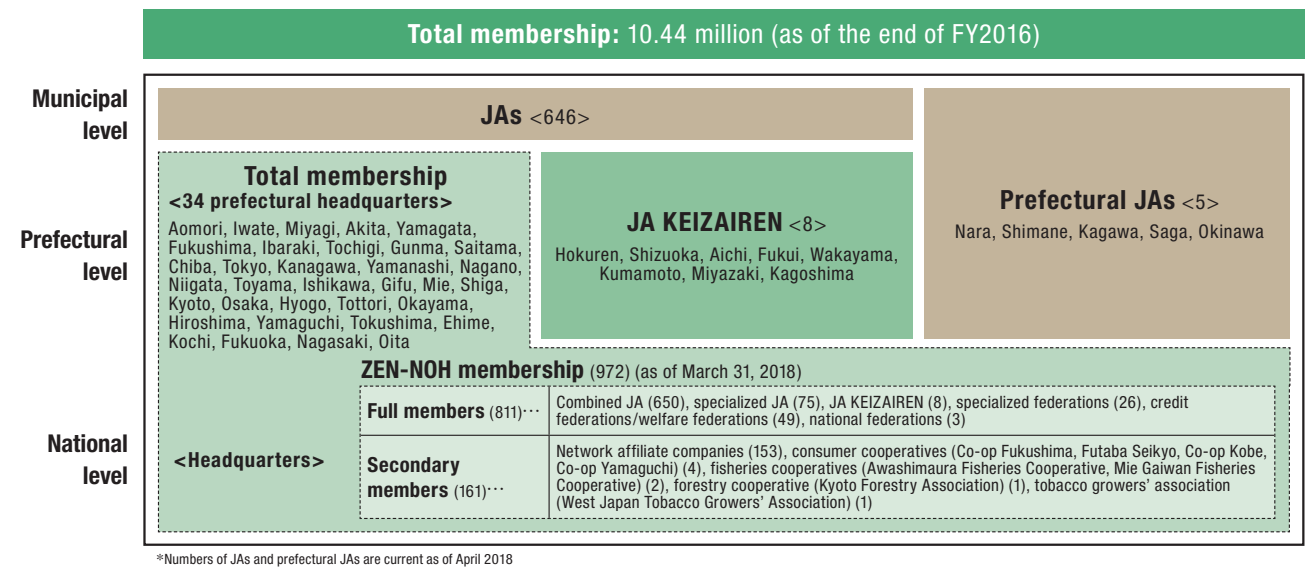
Prefectural headquarters: Aomori, Iwate, Miyagi, Akita, Yamagata, Fukushima, Ibaraki, Tochigi, Gunma, Saitama, Chiba, Tokyo, Kanagawa, Yamanashi, Nagano, Niigata, Toyama, Ishikawa, Gifu, Mie, Shiga, Kyoto, Osaka, Hyogo, Tottori, Okayama, Hiroshima, Yamaguchi, Tokushima, Ehime, Kochi, Fukuoka, Nagasaki, Oita

*Plans call for establishing a prefectural-level JA in Kochi Prefecture in January 2019 and one in Yamaguchi Prefecture in April 2019.

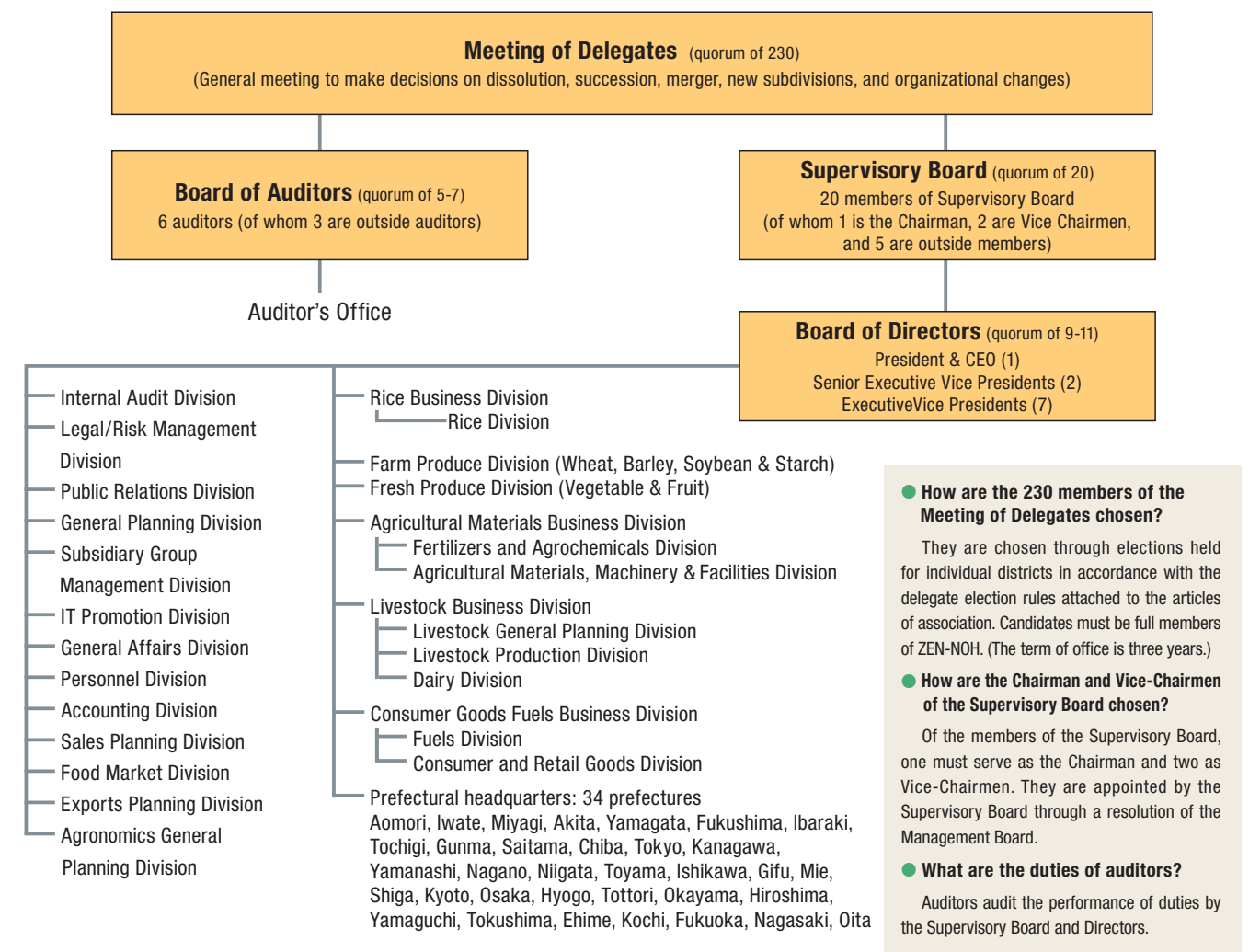


ZEN-NOH's organizational structure

1. JA Group Organizational Chart (economic activities)

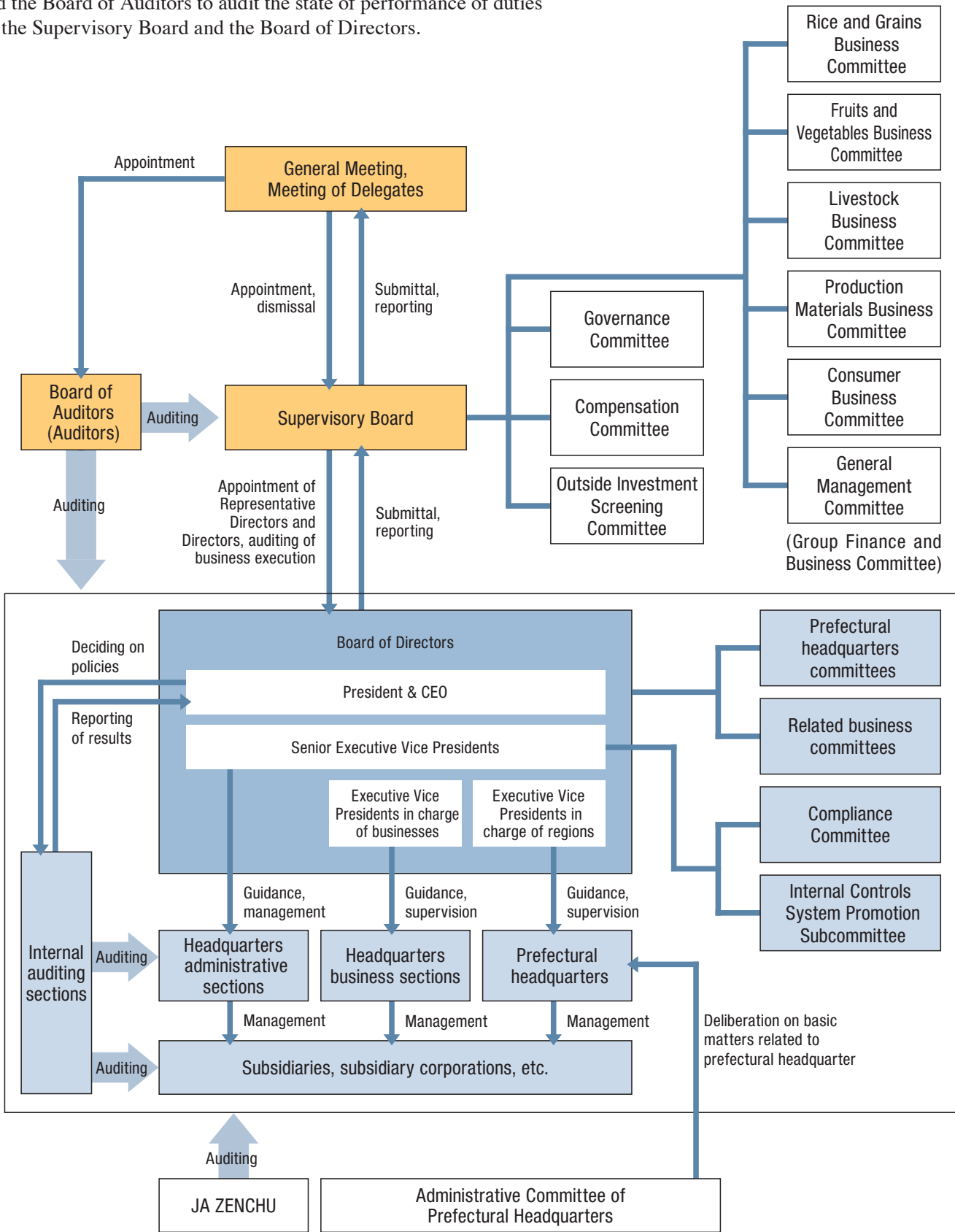


2. ZEN-NOH Organizational Chart (as of July 31, 2018)



Corporate Governance

To manage its operations in accordance with the intentions of members, ZEN-NOH has formed a sound, highly transparent corporate governance structure through the establishment of the General Meeting and Meeting of Delegates as its highest decision-making bodies, the Supervisory Board to decide on business execution policies and other important decisions, the Board of Directors to carry out everyday business execution in accordance with the decisions of the Supervisory Board, and the Board of Auditors to audit the state of performance of duties by the Supervisory Board and the Board of Directors.



Officers

Supervisory Board

 Yutaka Nagasawa (Chairman of Administrative Committee of Yamagata Prefectural Headquarters)	 Kenichi Osawa (Chairman of Administrative Committee of Yamagata Prefectural Headquarters)	 Yukio Kanno (Chairman of Administrative Committee of Ehime Prefectural Headquarters)	 Kazuyuki Uchida (Chairman of Hokuren Federation of Agricultural Cooperatives)	 Kotaro Funaki (Chairman of Administrative Committee of Akita Prefectural Headquarters)	 Osamu Sano (Chairman of Administrative Committee of Ibaraki Prefectural Headquarters)	 Takeshi Takahashi (Chairman of Administrative Committee of Tochigi Prefectural Headquarters)
 Choji Imai (Chairman of Administrative Committee of Niigata Prefectural Headquarters)	 Yoshio Adachi (Chairman of Administrative Committee of Gifu Prefectural Headquarters)	 Yasuhiro Nakagawa (Chairman of Administrative Committee of Kyoto Prefectural Headquarters)	 Atsunobu Nakade (Chairman of the Supervisory Board, JA Nara)	 Masayuki Takeshita (Chairman, JA Shimane)	 Mitsuo Kaneko (Chairman of Administrative Committee of Yamaguchi Prefectural Headquarters)	 Katsuyoshi Yamanaka (Chairman of Administrative Committee of Nagasaki Prefectural Headquarters)

Councilor

 Yugo Shinmori (Chairman of Miyazaki Prefectural Economic Federation of Agricultural Cooperatives)	 Kazuyoshi Honkawa (Administration of agriculture, forestry and fisheries)	 Hiroyuki Shimada (Cooperatives)	 Hisashi Yamazaki (Attorney)	 Toshihiro Takahashi (Former corporate executive)	 Kunio Ishizuka (Former corporate executive)	 Tomoaki Yoshizumi (Ex-Chairman, JA Youth)
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Auditors

 Reiko Miyazaki (Director, National Council of the Agricultural Cooperative Women's Association)	 Noriaki Fujii	 Kenzo Enomoto	 Shigeshi Onishi	 Sumie Komiya (Attorney)	 Shohei Harada (Certified public accountant)	 Kenji Aikawa (Former corporate executive)
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Directors

 Genichi Jinde President & CEO	 Haruya Iwaki Senior Executive Vice President	 Shuji Yamazaki Senior Executive Vice President	 Hitoshi Yoshimi Executive Vice President	 Sakae Noguchi Executive Vice President	 Yoshifumi Kuwada Executive Vice President	 Tadataka Yasuda Executive Vice President
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Chief Officer

 Shozo Kubo Executive Vice President	 Harumi Kubota Executive Vice President	 Masayuki Takao Executive Vice President	 Kazuhisa Toi Chief Officer
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as of September 2018

Financial Information

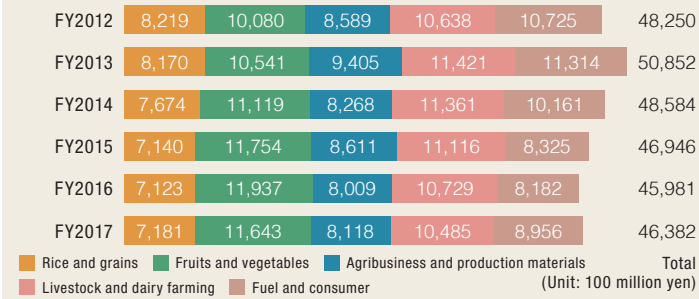
FY2017 Profit and Loss Statement

(April 1, 2017–March 31, 2018)

(Unit: million yen)

Item	Amount	Previous year	Year-on-year
1. Total operating income	91,713	91,978	100%
(1) Operating earnings	4,726,405	4,685,229	101%
(2) Operating expenses	4,634,692	4,593,251	101%
2. Business administrative expenses	92,466	93,995	98%
(1) Personnel expenses	58,309	58,733	99%
(2) Business expenses	8,579	8,311	103%
(3) Office expenses	7,125	7,318	97%
(4) Taxes and dues	6,613	7,840	84%
(5) Equipment/facility expenses	8,555	8,500	101%
(6) Depreciation expenses	3,283	3,289	100%
Operating profit	△ 753	△ 2,016	-
3. Non-operating profit or loss	10,554	9,516	111%
Ordinary income	9,800	7,499	131%
4. Extraordinary profit or loss	△ 2,019	1,746	-
Income before taxes	7,780	9,246	84%
Provision for corporate, residential and business taxes	317	325	97%
Adjustment to corporate tax, etc.	2,706	6,063	45%
Net surplus	4,756	2,857	166%

Turnover by Different Business Operations



FY2017 Balance Sheet (As of March 31, 2018)

(Unit: million yen)

Assets	Amount	Previous year	Change over previous year	Liabilities and Member's Equity	Amount	Previous year	Change over previous year
1. Current assets	875,568	839,776	35,792	3. Current liabilities	836,687	799,586	37,100
Cash	352	233	119	Notes payable	14,445	14,590	△ 144
Deposits	41,741	29,515	12,226	Short-term borrowing	186,663	189,841	△ 3,177
Notes receivable	662	748	△ 85	Accrued liabilities	548,765	511,665	37,099
Marketable securities	20,798	21,598	△ 799	Unliquidated liabilities	12,897	12,399	497
Accounts receivable	460,357	441,697	18,659	Other current liabilities	67,877	65,145	2,732
Unliquidated claims	200,001	207,204	△ 7,203	Reserve for bonus	4,501	4,393	107
Inventories	142,557	129,490	13,066	Reserve for losses from gift voucher redemption	1,508	1,520	△ 11
Other current assets	8,796	7,564	1,231	Reserve for point card certificates	27	30	△ 2
Deferred tax assets	4,156	5,382	△ 1,226	4. Fixed liabilities	76,864	81,044	△ 4,179
Allowance for doubtful accounts	△ 3,854	△ 3,658	△ 196	Long-term borrowing	8,383	7,922	460
2. Fixed assets	369,186	368,961	224	Long-term accrued liabilities	6,280	6,013	267
Tangible fixed assets	335,622	331,718	3,904	Long-term deposits received	1,401	1,403	△ 2
Less accumulated depreciation	△ 194,216	△ 193,018	△ 1,197	Long-term business deposits	1,200	1,181	18
Intangible fixed assets	5,856	6,545	△ 689	Assets retirement obligations	2,487	2,446	40
Outside investments	170,348	166,877	3,470	Reserve for retirement benefits	56,754	61,642	△ 4,887
Long-term securities	28,659	32,594	△ 3,934	Miscellaneous reserve	357	435	△ 77
Long-term accounts receivable	850	3,534	△ 2,684	Total liabilities	913,552	880,631	32,920
Long-term prepaid expenses	1,422	1,510	△ 87	5. Net assets	331,202	328,106	3,095
Other fixed assets	18,700	18,574	126	Capital	115,261	115,252	8
Long-term deferred tax assets	3,067	4,779	△ 1,711	Capital reserve	9,622	9,622	-
Allowance for doubtful accounts	△ 413	△ 3,083	2,670	Revaluation reserve	36	36	-
Allowance for doubtful accounts—outside investments	△ 712	△ 1,070	358	Earned surplus reserve	96,517	95,937	580
				Voluntary reserve	81,004	84,029	△ 3,025
				Unappropriated earnings	11,934	6,998	4,936
				Evaluation adjustment	16,825	16,229	596
Total	1,244,754	1,208,737	36,016	Total	1,244,754	1,208,737	36,016

FY2017 Turnover

(Unit: 100 million yen)

Business Operation	Result	Previous year	Year-on-year
Rice and grains business total	7,181	7,123	101%
Pearl Rice	466	429	109%
Rice	5,610	5,511	102%
Wheat and barley	209	222	94%
Soybean and colesseed	259	278	93%
General farming products	637	677	94%
Sales projects	-	7	-
Fruits and vegetables business total	11,643	11,937	98%
Fruits and vegetables	11,580	11,880	97%
Prefecture-level direct sales	62	58	108%
Agribusiness and production materials business total	8,118	8,009	101%
Sales planning	1	-	-
JA Green	50	50	100%
Fertilizer	1,886	1,918	98%
Agrochemical	1,196	1,220	98%
Production materials	369	371	100%
Packing materials	148	161	92%
Cardboard products	985	964	102%
Agricultural machinery	1,260	1,273	99%
Facility and housing	2,224	2,053	108%
Livestock business total	10,485	10,729	98%
Livestock production business	1,177	1,349	87%
Single-ingredient feed and feed ingredients	3,479	3,472	100%
Livestock product sales	1,907	1,925	99%
Dairy farming business	3,150	3,155	100%
Livestock sales	772	827	93%
Consumer business total	8,956	8,182	109%
Automobiles	166	168	99%
Oil	5,918	5,229	113%
Gas	852	704	121%
Daily necessities	2,020	2,081	97%
Grand total	46,382	45,981	101%

* Figures shown are rounded off to the nearest 100 million yen.

FY2017 Consolidated Profit and Loss Statement

(April 1, 2017–March 31, 2018)

(Unit: million yen)

Item	Amount	Previous year	Year-on-year
1. Total operating income	222,169	224,332	99%
(1) Operating earnings	6,182,405	6,185,493	100%
(2) Operating expenses	5,960,235	5,961,161	100%
2. Business administrative expenses	199,695	199,008	100%
(1) Personnel expenses	126,276	124,818	101%
(2) Business expenses	17,998	17,376	104%
(3) Office expenses	10,624	10,642	100%
(4) Taxes and dues	10,011	11,212	89%
(5) Equipment/facility expenses	24,866	23,917	104%
(6) Depreciation expenses	9,509	9,393	101%
(7) Other expenses	409	1,648	25%
Operating profit	22,474	25,324	89%
3. Non-operating profit or loss	12,595	11,461	110%
Ordinary income	35,069	36,785	95%
4. Extraordinary profit or loss	△ 59	1,003	-
Income before taxes	35,009	37,788	93%
Provision for corporate, residential and business taxes	7,329	10,087	73%
Adjustment to corporate tax, etc.	5,319	6,052	88%
Total corporate tax, etc.	12,648	16,140	78%
Income	22,360	21,648	103%
Income attributable to non-controlling interests	3,882	3,155	123%
Net Income	18,478	18,493	100%

* Operating earnings and operating expenses for FY2016 reflect the results of revisions to amounts of elimination of internal sales/transfers.

FY2017 Consolidated Balance Sheet (As of March 31, 2018)

(Unit: million yen)

Assets	Amount	Previous year	Change over previous year	Liabilities and Member's Equity	Amount	Previous year	Change over previous year
1. Current assets	1,246,794	1,154,999	91,794	3. Current liabilities	1,075,925	981,284	94,641
(1) Cash and deposits	150,891	123,811	27,080	(1) Notes payable	16,209	17,310	△ 1,101
(2) Notes receivable	2,257	2,231	26	(2) Short-term borrowing	351,631	289,989	61,641
(3) Marketable securities	21,283	22,078	△ 795	(3) Accounts payable	546,002	519,433	26,569
(4) Accounts receivable	492,226	483,432	8,794	(4) Unliquidated liabilities	12,951	12,448	503
(5) Unliquidated claims	182,083	194,477	△ 12,393	(5) Other current liabilities	139,300	132,514	6,785
(6) Inventories	246,044	223,894	22,149	(6) Reserve for bonus	9,594	9,305	288
(7) Other current assets	148,985	100,567	48,417	(7) Deferred tax liabilities	235	280	△ 45
(8) Deferred tax assets	6,478	7,791	△ 1,312	4. Fixed liabilities	229,779	219,794	9,984
(9) Allowance for doubtful accounts	△ 3,455	△ 3,284	△ 171	(1) Long-term borrowing	101,619	91,145	10,473
2. Fixed assets	669,436	636,514	32,921	(2) Liabilities for retirement benefits	79,420	83,540	△ 4,120
(1) Tangible fixed assets	1,072,807	1,021,688	51,119	(3) Other long-term provisions	9,569	10,205	△ 636
Less accumulated depreciation	△ 665,769	△ 636,924	△ 28,845	(4) Long-term monetary liabilities	20,703	20,556	146
(2) Intangible fixed assets	12,450	12,849	△ 399	(5) Asset retirement obligations	7,266	6,176	1,090
(3) Outside investments	164,006	147,086	16,919	(6) Long-term deferred tax liabilities	10,215	7,314	2,901
(4) Long-term securities	29,703	33,665	△ 3,961	(7) Other fixed liabilities	984	853	130
(5) Long-term loans receivable	23,130	26,921	△ 3,791	Total liabilities	1,305,705	1,201,079	104,626
(6) Long-term prepaid expenses	1,738	1,899	△ 160	5. Net assets	610,525	590,435	20,090
(7) Fixed assets for retirement benefits	1,663	1,717	△ 53	(1) Capital	115,261	115,252	8
(8) Other fixed assets	19,581	19,784	△ 202	(2) Capital reserve	9,711	9,712	△ 1
(9) Long-term deferred tax assets	11,388	12,261	△ 872	(3) Retained earnings	417,545	401,337	16,207
(10) Allowance for doubtful accounts	△ 1,036	△ 4,206	3,170	(4) Valuation and exchange adjustments	19,077	21,236	△ 2,158
(11) Allowance for doubtful accounts—outside investments	△ 228	△ 228	0	(5) Minority equity	49,006	42,972	6,033
Total	1,916,230	1,791,514	124,716	(6) Other	△ 76	△ 76	0
				Total	1,916,230	1,791,514	124,716

Breakdown of Operating Earnings by Business Segment

(April 1, 2017–March 31, 2018)

(Unit: million yen)

Item	Amount	Previous year	Year-on-year
Rice and grains	804,124	791,176	102%
Fruits and vegetables	1,243,150	1,270,417	98%
Agribusiness and production materials	876,367	834,978	105%
Livestock	2,161,586	2,240,537	96%
Consumer	1,065,237	985,538	108%
Other (transportation, etc.)	191,740	212,490	90%
Total	6,342,205	6,335,139	100%
Elimination*	△ 159,800	△ 149,645	-
Grand total	6,182,405	6,185,493	100%

* This indicates inter-segment sales/transfers.

ZEN-NOH Subsidiaries and Affiliated Companies

...Overseas ...Subsidiary corporation

- A subsidiary is a company in which ZEN-NOH or its subsidiary holds more than 50% of voting rights.
- An affiliate is a company over which ZEN-NOH or its subsidiary can exercise control by holding 40% to 50% of voting rights and a majority of seats on the board of directors.

Total: 136 companies (including overseas companies) (As of July 1, 2018)

	Rice		Fruits and vegetables		Production materials		Livestock		Export		Consumer		General		
Production, packing, storage, logistics			Main office	ZEN-NOH Grain Corporation (USA) 🇺🇸				Main office	ZEN-NOH LIVESTOCK CO., LTD.						
			Main office	ZEN-NOH Grain Canada Corporation (Canada) 🇨🇦				Main office	Kyodo Fish Meal Co., Ltd.						
			Main office	ZEN-NOH GRAIN BRAZIL HOLDINGS Ltda. (Brazil) 🇧🇷				Main office	Uwajima Fish Feeds Co., Ltd.						
	Main office	ZEN-NOH Green Resources Corporation		Main office	ZEN-NOH ACA Limited (Hong Kong) 🇭🇰			Main office	Kita-Nihon JA Livestock Co., Ltd.						
	Main office	ZEN-NOH Green Resources Thailand Co., Ltd. (Thailand) 🇹🇭		Main office	ZEN-NOH Hay, Inc. (USA) 🇺🇸			Main office	Institute of Livestock Business Management						
		Iwate	Kumiai Fertilizer Co., Ltd.		Main office	ZEN-NOH Silo Corporation		Main office	Nishi-Nihon JA Livestock Co., Ltd.						
	Tochigi	JA Green Tochigi Co., Ltd.		Main office	Ishinomaki Futo Silo Corporation		Main office	JA Kitakyushu Farm Co., Ltd.				Main office	ZEN-NOH Logistics Co., Ltd.		
	Ishikawa	JA Agri Line Ishikawa Co., Ltd.		Main office	Kushiro Silo Corporation		Main office	JA Usukitamago Farm Co., Ltd.				Yamanashi	Sankei Co., Ltd.		
	Hiroshima	Hiroshima Fertilizer Production Co., Ltd.		Main office	JA ZEN-NOH Kita-Nihon Cooperative Feed & Mills Co., Ltd.		Fukushima	Midori Kosan Co., Ltd.							
	Tokushima	Tokushima Kyodo Fertilizer Co., Ltd.													
	Gunma	JA House Service Co., Ltd.		Main office	JA Higashi-Nihon Cooperative Feed & Mills Co., Ltd.		Okayama	Okayama JA Livestock Co., Ltd.							
	Hiroshima	JA Noki Hiroshima Service Co., Ltd.		Main office	JA Nishi-Nihon Cooperative Feed & Mills Co., Ltd.		Main office	Hokuren Cooperative Feed Mills Co., Ltd.							
				Main office	JA Kita-Kyushu Cooperative Feed & Mills Co., Ltd.		Main office	ZEN-NOH Grain & Feed LLC (Brazil) 🇧🇷							
				Main office	Scientific Feed Laboratory Co., Ltd.		Main office	SFG Holdings Limited (UK) 🇬🇧							
				Main office			Main office	Scotch Frost of Glasgow Ltd (UK) 🇬🇧							
	Sales, processing			Main office	ZEN-NOH Pearl Rice Corporation				Niigata	Niigata COOP Livestock Co., Ltd. 🇯🇵					
Main office		ZEN-NOH Pearl Rice Corporation		Saitama	ZEN-NOH Fresh Produce Marketing Corporation			Ibaraki	Ibaraki Kyodo Shokuniku Co., Ltd.						
Main office		Kirameki Co., Ltd.		Ehime	Kawagoe Kaki Ichiba Co., Ltd.			Gunma	Gunma-ken Syokuniku Oroshiuri Ichiba Co., Ltd.		Main office	Sumita Foods Corporation 🇯🇵			
		Iwate	Jun-Jo Rice Iwate Co., Ltd.		Yamagata	Ehime Beverage Inc.		Nagano	Nagano Shokuniku Kosha		Gunma	ZENNOH CHICKEN FOODS CORPORATION			
Miyagi		Pearl Rice Miyagi Corporation		Yamaguchi	Yamagata Foods Co., Ltd.			Tottori	Tottori-ken Shokuniku Center Co., Ltd.						
Nagano		MYPEARL NAGANO Co LTD		Fukuoka	NIHON KAJITSU KOUGYOU Co., Ltd.		Ehime	JA Ehime Ipacks Co., Ltd.		Main office	JA ZEN-NOH Tamago Co., Ltd.				
Shiga		Pearl Rice Shiga Co., Ltd.		Oita	Fukuren Co., Ltd.		Fukuoka	Kyushu Kyodo Shokuniku Co., Ltd.		Main office	Miyako Shokuhin Co., Ltd.				
Okayama		Okayama Pearl Rice Corporation		Ehime	JA Foods Oita Co., Ltd.		Nagasaki	Sasebo Meat Center Co., Ltd.		Hiroshima	ZEN-NOH Hiroshima Keiran Co., Ltd.				
Ehime		HIME RICE Corporation			Ehime Foods Co., Ltd.		Yamagata	Yamagata Shokuniku Kosha 🇯🇵		Ehime	JA Ehime Fresh Foods Co., Ltd.				
Main office		ZEN-NOH Foods Co., Ltd.		Main office	JA ZEN-NOH Meat Foods Co., Ltd.		Mie	JA ZEN-NOH Mie Meat Co., Ltd.		Main office	Tohoku Kyodo Nyugyo Co., Ltd.				
Main office		ZEN-NOH Foods Co., Ltd.		Main office	JA Takasaki Ham Co., Ltd.										
Main office		ZEN-NOH Foods Europe Co., Ltd. (Bulgaria) 🇵🇪		Main office	Yoshida Ham Co., Ltd.		Main office	ZEN-NOH Chicken Foods Corporation 🇯🇵							
				Main office	Meat Land Co., Ltd.		Main office	Miyazaki Kumiai Chicken Foods Corporation 🇯🇵							
				Yamagata	Shonai Shokuniku Kosha		Main office	Kagoshima Kumiai Chicken Foods Corporation 🇯🇵		Main office	Pure Dish Co., Ltd. 🇯🇵				
Retail				Main office	ZEN-NOH Energy Corporation				Main office	Zennoh Kumix Co., Ltd.					
		Main office	ZEN-NOH Foods America Corporation (USA) 🇺🇸		Saitama	JA Energy Saitama Co., Ltd.			Main office	A-COOP Tohoku Co., Ltd.					
	Main office	ZEN-NOH Restaurant Beverly Hills LLC (USA) 🇺🇸		Chiba	JA Energy Chiba Co., Ltd.			Main office	A-COOP Kanto Co., Ltd.						
	Main office	ZEN-NOH Restaurant London Limited (London) 🇬🇧		Hyogo	JA Energy Hyogo Co., Ltd.			Main office	A-COOP Kinki Co., Ltd.						
				Hiroshima	Hiroshima Kumiai Fuel Co., Ltd.			Main office	A-COOP Nishi-Nihon Co., Ltd.		Saitama	Pearl Total Service Co., Ltd.			
				Tokushima	JA Tokushima Fuel Service Co., Ltd.			Main office	A-COOP Kyushu Co., Ltd.		Chiba	JA Life Chiba Co., Ltd.			
				Ehime	JA Ehime Energy Co., Ltd.			Main office	A-COOP Kyushu Co., Ltd.		Nagano	Nagano A-COOP Supply Co., Ltd.			
				Kochi	JA Energy Kochi Co., Ltd.		Ishikawa	Jacom Ishikawa Co., Ltd.		Kochi	JA Memorial Kochi Co., Ltd.				
			Fukuoka	Fukuoka Life Energy Co., Ltd.		Mie	MIE Coop Sangyo Co., Ltd.								
Main office	J-ACE Co., Ltd. 🇯🇵		Nagano	JA Auto Nagano Co., Ltd.		Kyoto	A-COOP KYOTO, Inc.								
Main office	JA ZEN-NOH Meat Foods (Hong Kong) Limited (China) 🇨🇳		Tottori	Nihonkai Mitsubishi Motors Marketing Corporation		Fukushima	JA Life Create Fukushima Co., Ltd.								
						Tochigi	JA Tochigi Life Co., Ltd.								
Trade	Main office		ZEN-NOH AMERICA CORPORATION (USA) 🇺🇸		Main office	ZEN-NOH International Corporation				Main office	ZEN-NOH International Hong Kong Limited (China) 🇭🇰				
Business administration	Main office		Agrinet Service Corporation		Main office	ZEN-NOH International Europe Limited (London) 🇬🇧				Main office	Taiwan ZEN-NOH International Cooperation (Taiwan) 🇹🇼				
	Main office		ZEN-NOH Business Support Co., Ltd.		Main office	ZEN-NOH Nagano Keisan Center Co., Ltd.									
General	Main office	JA AGURI SHIMANE CORPORATION		Toyama	Kumiai Kensetsu Co., Ltd.			Nagano	JA Agriwell-Nagano Co., Ltd.						
	Yamagata	ZEN-NOH Life Support Yamagata Co., Ltd.		Toyama	JA Life Toyama Co., Ltd.			Nagano	Naganoken Nokyo Chokuhan Co., Ltd.		Nagasaki	Nagasaki-ken Nokyo Chokuhan Co., Ltd.			
	Fukushima	JA Pearl Line Fukushima Co., Ltd.		Ishikawa	JA KENSETSU ENERGY CO., LTD		Hiroshima	ZEN-NOH Hiroshima Chokuhan Co., Ltd.			Oita	Pearl Rice Oita Keizairen Co., Ltd.			
	Ibaraki	ZEN-NOH Life Ibaraki Co., Ltd.		Gifu	Gifu Agri-foods Co., Ltd.		Yamaguchi	Yamaguchi Nokyo Chokuhan Co., Ltd.							

Rice... / Fruits and vegetables... / Production materials... / Livestock... / Export... / Consumer... / General...

	Trading companies		Food and beverage manufacturers	Materials manufacturers	Other	Overseas agricultural cooperatives
Joint ventures with major firms (Including some investments by subsidiaries)	Uwajima Fish Feeds Co., Ltd. Itochu Corporation	Pacific Grain Terminal Co., Ltd. Marubeni Corporation	Green Message Co., Ltd. Kewpie Corp.	Nippon Ryuan Service G.K. Ube Industries, Ltd.	JA-LP Gas Information Center Co., Ltd. NTT Group	ZEN-NOH ACA Limited Asociación de Cooperativas Argentinas
	CGB Enterprises, Inc. Itochu Corporation	JA Mitsui Leasing, Ltd. Mitsui & Co., Ltd.	Zen-noh Kewpie Egg-station Co., Ltd. Kewpie Corp.	Kyoyu Agri Co., Ltd. Sumitomo Chemical Co., Ltd.	NJ Agri Support Co., Ltd. Nishi-Nippon Railroad Co., Ltd.	GrainsConnect Canada Operations Inc. GrainCorp
	Tohoku Grain Terminal Co., Ltd. Toyota Tsusho Corporation	JAMC Solar Energy G.K. Mitsubishi Corporation	Sungrain Ltd. Suntory Holdings Ltd.	Zen-Noh High Pack Co., Ltd. Nippon Light Metal Co., Ltd.		T.J.C. Chemical Co., Ltd. Co-op Thailand
	Katakura & Co-op Agri Corporation Marubeni Corporation	ZM Crop Protection K.K. Mitsubishi Corporation		Nippon Phosphoric Acid Co. Nissan Chemical Industrial Co., Ltd.		CZL CHS Inc.
				JA-Sekkei Architects & Engineers, Inc. Mitsubishi Chemical Corporation		

*I'll continue cheering for
Japanese food and
agriculture as a player
on the ZEN-NOH team*

*Thank you for all the encouragement you provide.
As I tour the world for half the year,
balanced nutrition is essential to being able
to play at a consistent level around the world.
The power provided by the rice and other
Japanese ingredients that ZEN-NOH provides
are my source of energy.
Thanks to your support, I intend to keep doing
my best while eating agricultural products from Japan.*

Kasumi Ishikawa
Japan National Table Tennis Team



Message from
table tennis player
Kasumi Ishikawa

