



HOKKO

2018

Company Information and Market Report of Agrochemicals in Japan

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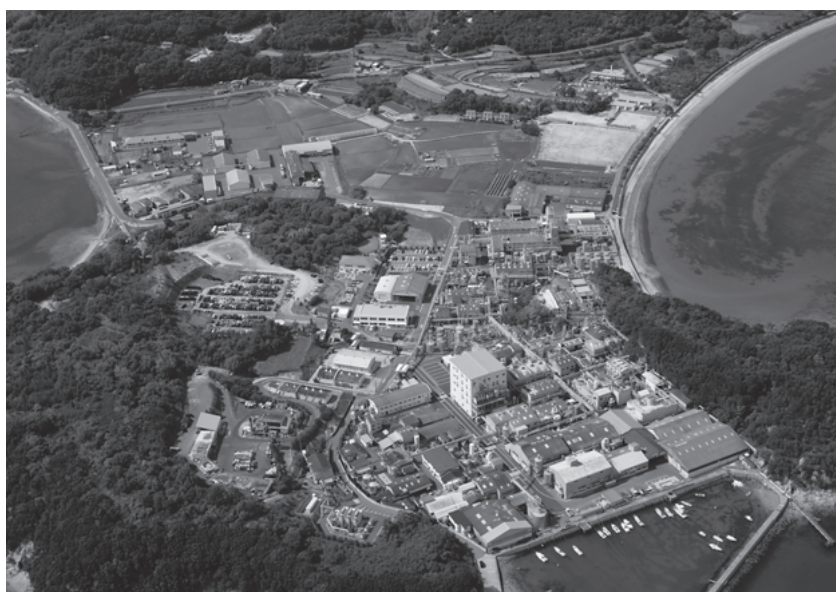
Part I. COMPANY INFORMATION

1. Briefings (As of November 30, 2017)

Foundation:	February 27, 1950
Paid-in Capital:	¥3.2 billion
Main stock holders	
	Nomura Shokusan Co., Ltd. 7.0%
	Sumitomo Chemical Co., Ltd. 6.6%
	Resona Bank, Limited. 4.5%
	Hokko Chemical Industry Employee Shareholding Association 4.4%
	The Norinchukin Bank 2.9%
	Nomura Holdings, Inc. 2.8%
	National Federation of Agricultural Cooperative Associations(ZEN-NOH) 2.7%
Employees:	637



Central Research Laboratories



Okayama Factory

2. Organization (As of February 27, 2018)

Board of Directors:

President Yoshikatsu Nakashima

Director, Managing Executive Officer
Tetsuyoshi Hashimoto
Ken-ichi Sano

Head Office: Sumitomo Fudosan Nihonbashi Building
1-5-4, Nihonbashi Honcho, Chuo-ku
Tokyo 103-8341, Japan

Branches: Sapporo, Sendai, Tokyo, Niigata,
Osaka, Okayama, Fukuoka

Main Factories: Hokkaido, Niigata, Okayama

Laboratories: Central Research Laboratories (Kanagawa)
Fine Chemicals Research Laboratories (Kanagawa)

Experimental Farms: Hokkaido, Kanagawa, Shizuoka

Subsidiaries: HOKKO SANGYO CO., LTD. (Tokyo, Japan)
BIEI HAKUDO INDUSTRY CO., LTD. (Hokkaido, Japan)
HOKKO PAX CO., LTD.(Okayama, Japan)
Zhangjiagang HOKKO CHEMICAL INDUSTRY CO., LTD.
(Jiangsu, China)
HOKKO CHEMICAL AMERICA CORPORATION (Cary, NC, U.S.A)

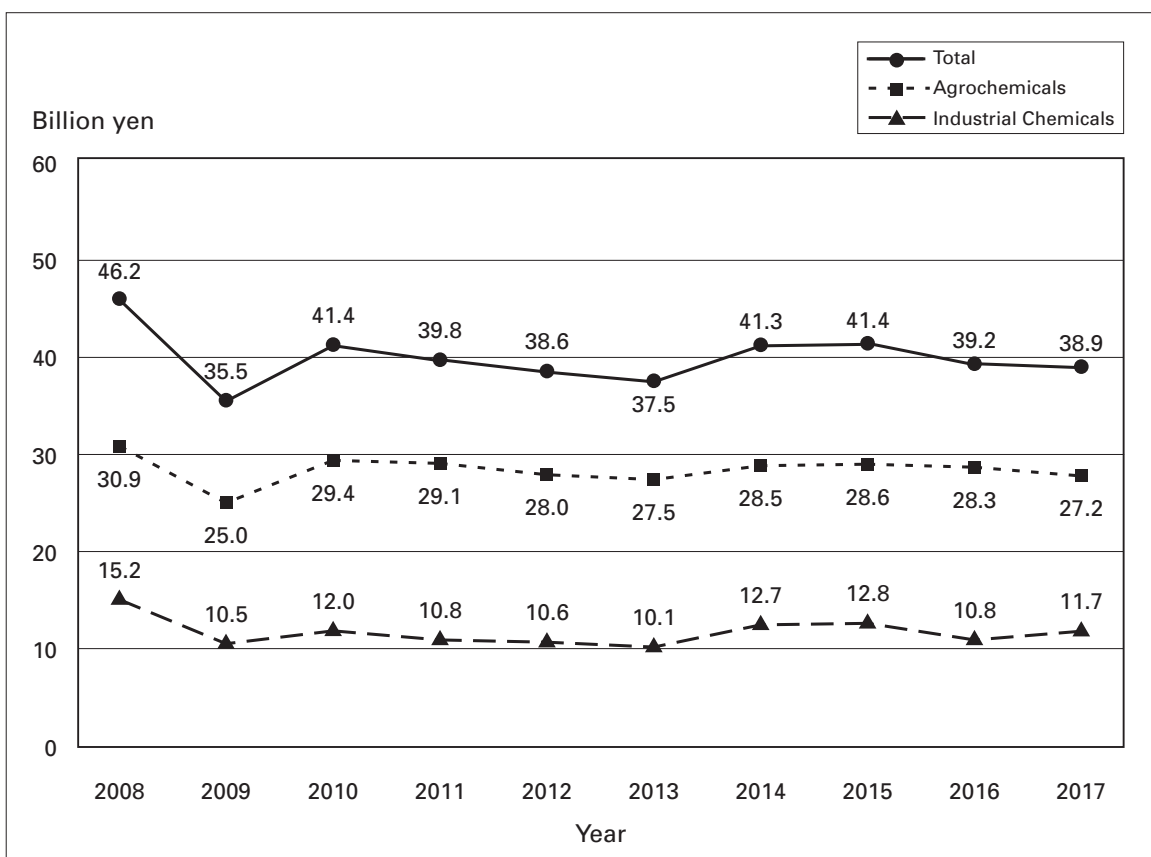
3. 2017 Business Report (As of November 30, 2017)

3-1. Sales Splits of Crop Protection Products(Fiscal Year)

Value: Million yen

	2016		2017		
	Value	Share(%)	Value	Share(%)	Growth(%)
Agrochemicals					
Insecticides	5,365	13.7	5,329	13.7	99.3
Fungicides	7,842	20.0	7,715	19.9	98.4
I/F Combinations	6,541	16.7	5,973	15.4	91.3
Herbicides	8,157	20.8	7,718	19.9	94.6
Others	431	1.1	426	1.1	98.9
Subtotal	28,335	72.4	27,162	69.9	95.9
Industrial Chemicals	10,823	27.6	11,695	30.1	108.1
Total	39,159	100	38,857	100	99.2
Export (Included in Total Sales)					
Agrochemicals	2,636	6.7	2,738	7.0	103.9
Industrial Chemicals	2,388	6.1	2,694	6.9	112.8

3-2. Annual Progress of Business Turnover(2008-2017)



4. Hokko's Leading Products in 2017

4-1. INSECTICIDE

Product Name	Active Ingredient	Crop	Pest
Ortran	acephate	Fruit, Vegetables	Thrips, Aphids, Lepidopteran pests
Starkle	dinotefuran	Rice, Vegetables, Fruit	Diamondback moth, Cabbage worm, Cabbage armyworm
Ferterra	chlorantraniliprole	Rice	Rice leafroller, Green rice caterpillar, Rice stem borer
MR.Joker	silafuofen	Rice	Planthoppers, Stinkbugs, etc.
Kirappu	ethiprole	Rice, Fruit, Tea	Planthoppers, Stinkbugs, etc.
Rody	fenprothrin	Vegetables, Fruit, Tea	Thrips, Aphids, Lepidopteran pests, Mites, etc.
Prince	fipronil	Rice	Planthoppers, Locust, Rice leafroller, etc.
Prevathon	chlorantraniliprole	Vegetables	Diamondback moth, Cabbage worm, Cabbage armyworm

4-2. FUNGICIDE

Product Name	Active Ingredient	Crop	Disease
Oryzmate / Dr.Oryze	probenazole	Rice	Blast
Manage	imibenconazole	Fruit, Vegetables, Turf	Rust, Scab, Powdery mildew, Anthracnose
Topsin M	thiophanate-methyl	Fruit, Vegetables	Gray mold, Anthracnose, Bluemold, Blotch, Scab, Sclerotinia rot
Hokguard	tetraconazole	Sugar beet	Cercospora leaf spot
Kasumin-Bordeaux	kasugamycin+ copper oxychloride	Vegetables, Fruit, Tea	Bacterial diseases, Powdery mildew, Leaf mold, Downy mildew
Benlate T	thiuram+benomyl	Vegetables	<i>Sclerotium cepivorum</i>
Linber	furametpyr	Rice, Sugar beet	Sheath blight, Root rot, Leaf blight
Sumilex	procymidone	Vegetables	Gray mold, Stem rot
Aphet	penthiopyrad	Vegetables	Gray mold, Powdery mildew, Stem rot
Validacin	ValidamycinA	Rice, Vegetables	Sheath blight, Bacterial soft rot

4-3. I/F COMBINATION

Product Name	Active Ingredient	Crop	Disease, Pest
Dr.Oryze-Ferterra	probenazole + chlorantraniliprole	Rice	Blast, Various pests
Dr.Oryze-Prince	probenazole + fipronil	Rice	Blast, Various pests
Builder-Ferterra-Chess	probenazole + chlorantraniliprole + pymetrozine	Rice	Blast, Green rice caterpillar, Rice leaf beetle, Planthoppers
Imotiace Starkle	metominostrobin + dinotefuran	Rice	Blast, Stinkbugs
Builder-Prince-Greatam	probenazole + fipronil + thifluzamide	Rice	Blast, Various pests
Rabcide-Starkle	dinotefuran + phthalide	Rice	Blast, Stinkbugs
Doublecut K	kasugamycin + tricyclazole + ethiprole	Rice	Blast, Stinkbugs
Topsin Starkle	dinotefuran + thiophanate-methyl	Rice	Blast, Stinkbugs, Planthoppers

4-4. HERBICIDE

Product Name	Active Ingredient	Crop	Weed, Use
A-one	oxaziclomefone+tefuryltrione	Rice	One shot application
Kimarite	ipfencarbazone+tefuryltrione	Rice	One shot application
Winner	ipfencarbazone +bensulfuron-methyl +bromobutide	Rice	One shot application
Kachiboshi	ipfencarbazone +tefuryltrione +bensulfuron-methyl	Rice	One shot application
Meteor	pentoxazone	Rice	Annual weed, Pre-emergence application
Yuniherb	benzofenap+pretilachlor	Rice	Pre-emergence application
Clincher	cyhalofop-butyl	Rice	Grass weed, Post application
Basagran	bentazone	Rice, Beans, Wheats	Broadleaf weed, Post application
Lenapac	lenacil+chloridazon	Sugar beet	Annual weed, Early post application
Zaxa	glufosinate-P	Fruit, Vegetable, Tea	Non Selective

5. Hokko's Products for Export

Product Name	Active ingredient	Type	Formulation
Kasumin	kasugamycin	Fungicide, Bactericide	2% SL, 2% GR
Kasumin-Bordeaux	kasugamycin + copper oxychloride	Fungicide, Bactericide	2%+75.6% WP 5%+75.6% WP
Manage	imibenconazole	Fungicide	5% WP, 15% WP, 30% WDG
Hokko Bordeaux	copper oxychloride	Fungicide, Bactericide	84.1% WP
Healthied	pefurazoate	Fungicide	15% EC, 20% WP
Fighter	ipfencarbazone	Herbicide	2.5% GR, 25% SC

Formulation

GR / granule

EC / emulsifiable concentrate

WP / wettable powder

SL / soluble liquid

WDG / water dispersible granule

SC / suspension concentrate

5-1. FUNGICIDE

KASUMIN and KASUMIN-BORDEAUX

Original fungicides are globally used and highly reputed, having excellent control of various kinds of fungal and bacterial diseases on rice, vegetables, beans, fruits, ornamentals, etc.

MANAGE

A triazole fungicide having high efficacy against scab and rust in apple and pear, additionally showing remarkable performances in controlling grape anthracnose and citrus scab, both of which have been known as diseases difficult to control

HOKKO BORDEAUX

A contact fungicide having high preventive activities and low phytotoxicity

HEALTHIED

An imidazole fungicide having preventive and curative activities, low phytotoxicity, broad spectrum of pathogen such as ASCOMYCOTINA (*Diaporthe*, *Monilinia*), BASIDIOMYCOTINA (*Typhula*), DEUTERROMYCOTINA (*Fusarium*, *Gibberella*, *Valsa*, *Cladosporium*, *Colletotrichum*), additionally showing high performance against benzimidazole-resistant strains of *Gibberella fujikuroi*. This fungicide is recommended for seed treatment and in green house application because of its property of rapid photolytic degradation

KASUMIN and KASUMIN-BORDEAUX

Crop	Disease (Pathogen)	KASUMIN	KASUMIN-BORDEAUX
Rice	Blast (<i>Pyricularia oryzae</i> Cavara)	⊙	⊙
	Bacterial grain rot (<i>Burkholderia glumae</i>)	⊙	
	False smut (<i>Villosiclava virens</i>)		⊙
	Bacterial Brown stripe (<i>Acidovorax avenae</i> subsp. <i>avenae</i>)	⊙	
Sugar beet	Cercospora leaf spot (<i>Cercospora beticola</i> Saccardo)	⊙	⊙
Cucumber Melon, Watermelon	Angular leaf spot (<i>Pseudomonas syringae</i> pv. <i>lachrymans</i>)	⊙	⊙
	Bacterial spot (<i>Xanthomonas cucurbitae</i>)	⊙	⊙
	Anthracnose (<i>Colletotrichum orbiculare</i>)	⊙	
	Powdery mildew (<i>Sphaerotheca cucurbitae</i>)		⊙
	Downy mildew (<i>Pseudoperonospora cubensis</i>)		⊙
Tomato	Leaf mold (<i>Passalora fulva</i>)	⊙	⊙
	Bacterial canker (<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i>)	⊙	⊙
	Bacterial spot (<i>Xanthomonas vesicatoria</i>)		⊙
	Late blight (<i>Phytophthora infestans</i>)		⊙
Onion	Bacterial soft rot (<i>Pectobacterium carotovorum</i>)	⊙	⊙
Potato	Bacterial soft rot (<i>Pectobacterium carotovorum</i>)	⊙	⊙
Paprika Sweet pepper Chile	Bacterial spot (<i>Xanthomonas vesicatoria</i>)	⊙	⊙
	Anthracnose (<i>Colletotrichum capsici</i>)	⊙	⊙
	Powdery mildew (<i>Oidiopsis sicula</i> Scalia)		⊙
Green beans	Halo blight (<i>Pseudomonas savastanai</i> pv. <i>phaseolicola</i>)	⊙	⊙
Apple, Pear	Fire blight (<i>Erwinia amylovora</i>)	⊙	
Kiwifruit	Bacterial canker (<i>Pseudomonas syringae</i> pv. <i>actinidiae</i>)	⊙	⊙
	Bacterial blossom blight (<i>Pseudomonas marginalis</i> pv. <i>marginalis</i>)	⊙	⊙
Citrus	Canker (<i>Xanthomonas citri</i> subsp. <i>citri</i>)	⊙	⊙
Coffee	Black spot (<i>Pseudomonas syringae</i> pv. <i>garcae</i>)	⊙	⊙
Tea	Gray blight (<i>Pestalotiopsis longiseta</i>)	⊙	⊙
	Bacterial shoot blight (<i>Pseudomonas syringae</i> pv. <i>theae</i>)	⊙	⊙
Egg plant	Leaf mold (<i>Mycovellosiella nattrassii</i>)	⊙	
Celery	Early blight (<i>Cercospora apii</i>)	⊙	
Carrot	Bacterial soft rot (<i>Pectobacterium carotovorum</i>)	⊙	

Crop	Disease (Pathogen)	KASUMIN	KASUMIN-BORDEAUX
Cabbage	Black rot (<i>Xanthomonas campestris</i> pv. <i>campestris</i>) Bacterial soft rot (<i>Pectobacterium carotovorum</i>)		⊙ ⊙
Lettuce	Bacterial rot (<i>Pseudomonas cichorii</i> , <i>Pseudomonas marginalis</i> pv. <i>martinalis</i> , <i>Pseudomonas viridiflava</i>) Bacterial spot (<i>Xanthomonas axonopodis</i> pv. <i>vitians</i>)		⊙ ⊙
Rose	Powdery mildew (<i>Sphaerotheca pannosa</i>)		⊙

※also effective for various fungal and bacterial diseases to control on passion fruits, agave, etc.

MANAGE

Crop	Disease (Pathogen)
Citrus	Scab (<i>Elsinoe fawcetti</i>)
Grape	Anthracnose (<i>Elsinoe ampelina</i>) Powdery mildew (<i>Erysiphe necator</i> var. <i>necator</i>) Pestalotia-tsurugare-byo (<i>Pestalotiopsis menezesiana</i>) Rust (<i>Physopella ampelopsidis</i>)
Apple	Scab (<i>Venturia inaequalis</i>) Rust (<i>Gymnosporangium yamadae</i>) Powdery mildew (<i>Podosphaera leucotricha</i>) Fly speck (<i>Zygophiala jamaicensis</i>) Sooty blotch (<i>Gloeodes pomigena</i>) Alternaria leaf spot (<i>Alternaria mali</i>)
Pear	Scab (<i>Venturia nashicola</i>) Rust (<i>Gymnosporangium asiaticum</i>)
Peach	Scab (<i>Cladosporium carpophilum</i>)
Japanese apricot	Scab (<i>Cladosporium carpophilum</i>)
Apricot	Brown rot (<i>Monilinia fructicola</i>)
Melon and Watermelon	Powdery mildew (<i>Sphaerotheca fuliginea</i>)
Groundnut	Brown leaf spot (<i>Mycosphaerella arachidis</i>)
Soybean	Purple stain (<i>Cercospora kikuchii</i>)
Tea	Anthracnose (<i>Discula theae-sinensis</i>) Blister blight (<i>Exobasidium vexans</i>) Brown round spot (<i>Pseudocercospora ocellata</i>)
Banana	Black sigatoka (<i>Mycosphaerella fijiensis</i>)

Crop	Disease (Pathogen)
Turf	Rust (<i>Puccinia zoysiae</i>)
Rose	Black spot (<i>Diplocarpon rosae</i>) Powdery mildew (<i>Sphaerotheca pannosa</i>)
Chrysanthemum	Rust (<i>Puccinia horiana</i>) Rust (<i>Puccinia tanacetii</i> var. <i>tanacetii</i>)
Japanese spindle tree	Powdery mildew (<i>Oidium euonymi-japonicae</i>)
Crape Myrtle	Powdery mildew (<i>Uncinuliella australiana</i>)
Poplar	Powdery mildew (<i>Uncinula adunca</i> var. <i>mandshurica</i>) Massoning leaf blight (<i>Marssonina brunnea</i>)
Tobacco	Powdery mildew (<i>Erysiphe cichoracearum</i>)

HEALTHIED

Crop	Disease(Pathogen)	Application
Rice	Bakanae disease (<i>Gibberella fujikuroi</i>)	Seed treatment
Cyclamen(greenhouse)	Anthracoise (<i>Colletotrichum gloeosporioides</i>)	Spray

5-2. HERBICIDE

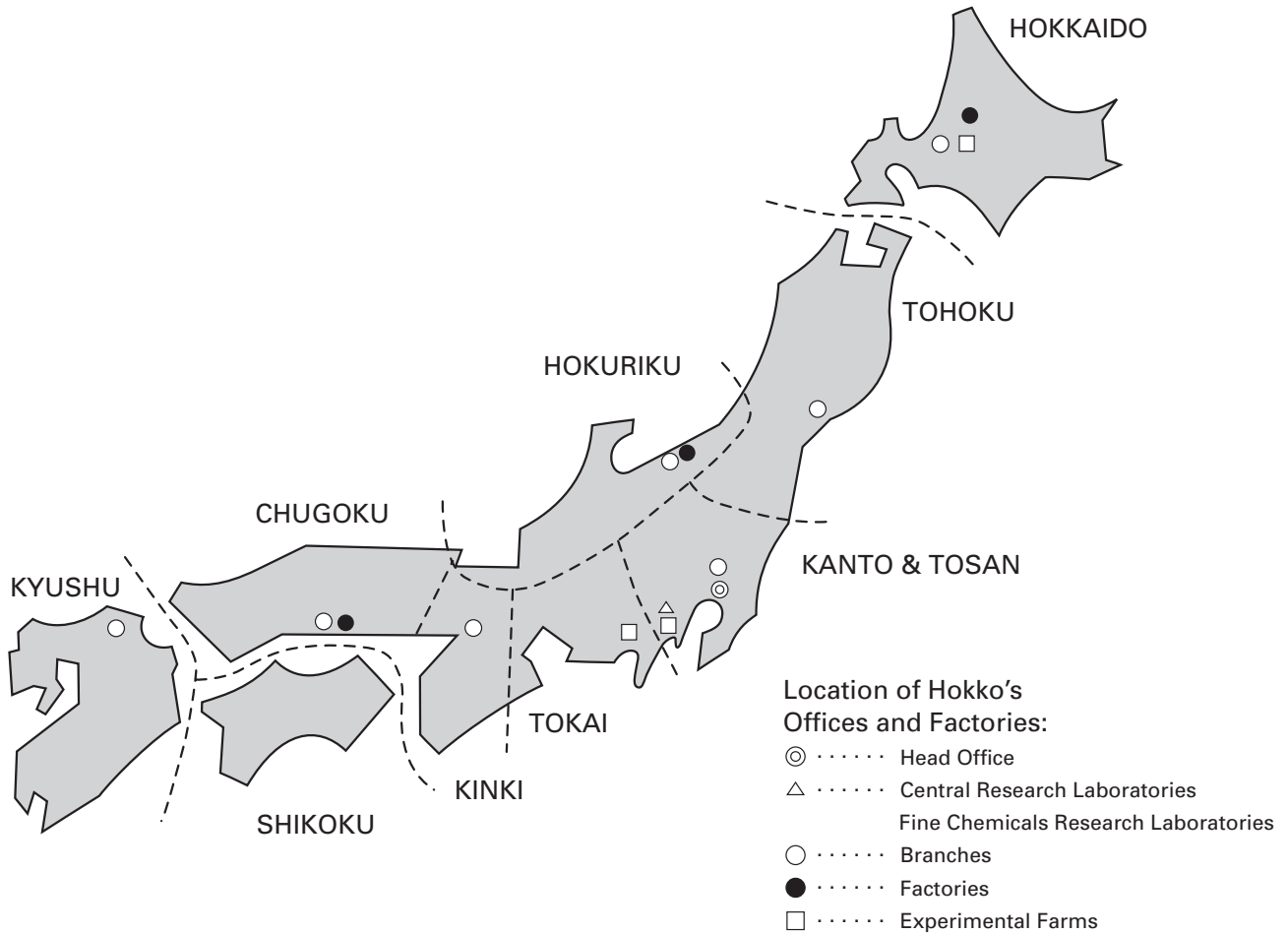
FIGHTER

A triazolinone class herbicide having high efficacy against gramineous weeds in paddy field. The mode of action is the inhibition of the very long chain fatty acids biosynthesis in plants

- Target weeds: *Echinochloa oryzicola*, *Cyperus difformis*, *Schoenoplectiella juncooides*, *Leptochloa chinensis*, *Lindernia procumbens*, *Monochoria vaginalis*, etc.
- Application timing: From pre emergence to early post emergence of weeds

Part II. MARKET REPORT OF AGROCHEMICALS IN JAPAN

1. Map of Japan by Agricultural Region



2. Area of Main Crops by Agricultural Region in 2017

(Source; MAFF / The Ministry of Agriculture, Forest and Fisheries of Japan)

Unit: 1,000ha.

Region	Crop										
	Rice	Wheat/Barley	Potato*	Soybean	Citrus	Apple	Pear	Grape	Cucumber	Cabbage*	Tea
HOKKAIDO	103.9	123.4	51.2	41.0	—	—	—	—	0.2	1.1	—
TOHOKU	374.8	8.2	3.6	36.3	—	—	—	—	2.2	2.5	—
HOKURIKU	204.1	10.5	1.4	13.5	—	—	—	—	0.6	0.8	—
KANTO & TOSAN	269.3	38.7	6.6	10.5	—	—	—	—	3.6	13.2	—
TOKAI	92.4	16.6	1.4	12.1	—	—	—	—	0.4	6.5	—
KINKI	103.2	10.5	1.1	9.9	—	—	—	—	0.6	2.0	—
CHUGOKU	104.3	5.7	1.4	4.7	—	—	—	—	0.5	1.5	—
SHIKOKU	49.9	4.7	0.6	0.6	—	—	—	—	0.6	0.9	—
KYUSHU	163.8	55.9	9.9	21.7	—	—	—	—	1.8	6.1	—
Total	1466.0	273.7	77.2	150.2	68.8	38.1	13.7	18.0	10.8	34.6	42.4
Comparison with Previous Year (100%)	99	97	100	100	98	99	97	100	99	100	98

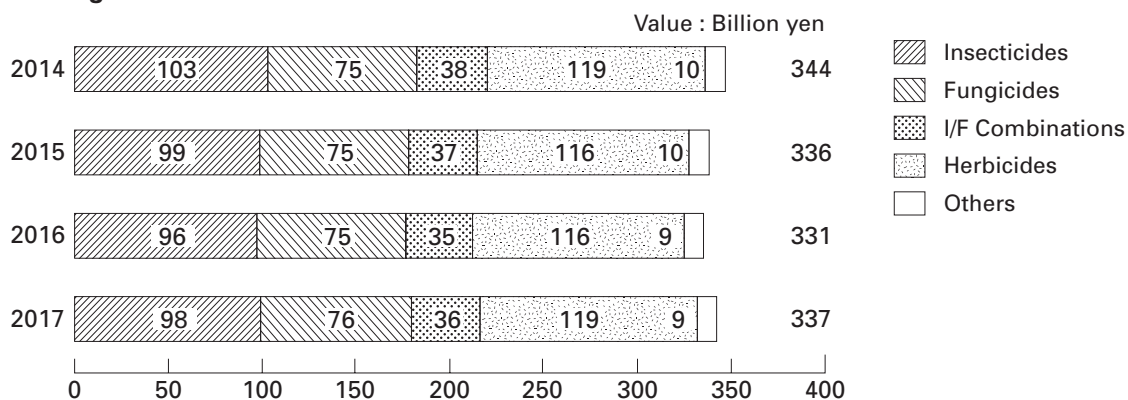
*; Data from 2016

—; not available

3. Agrochemicals Business by the member companies of JCPA* in 2017

(*Japan Crop Protection Association)

3-1 Agrochemicals Deliveries

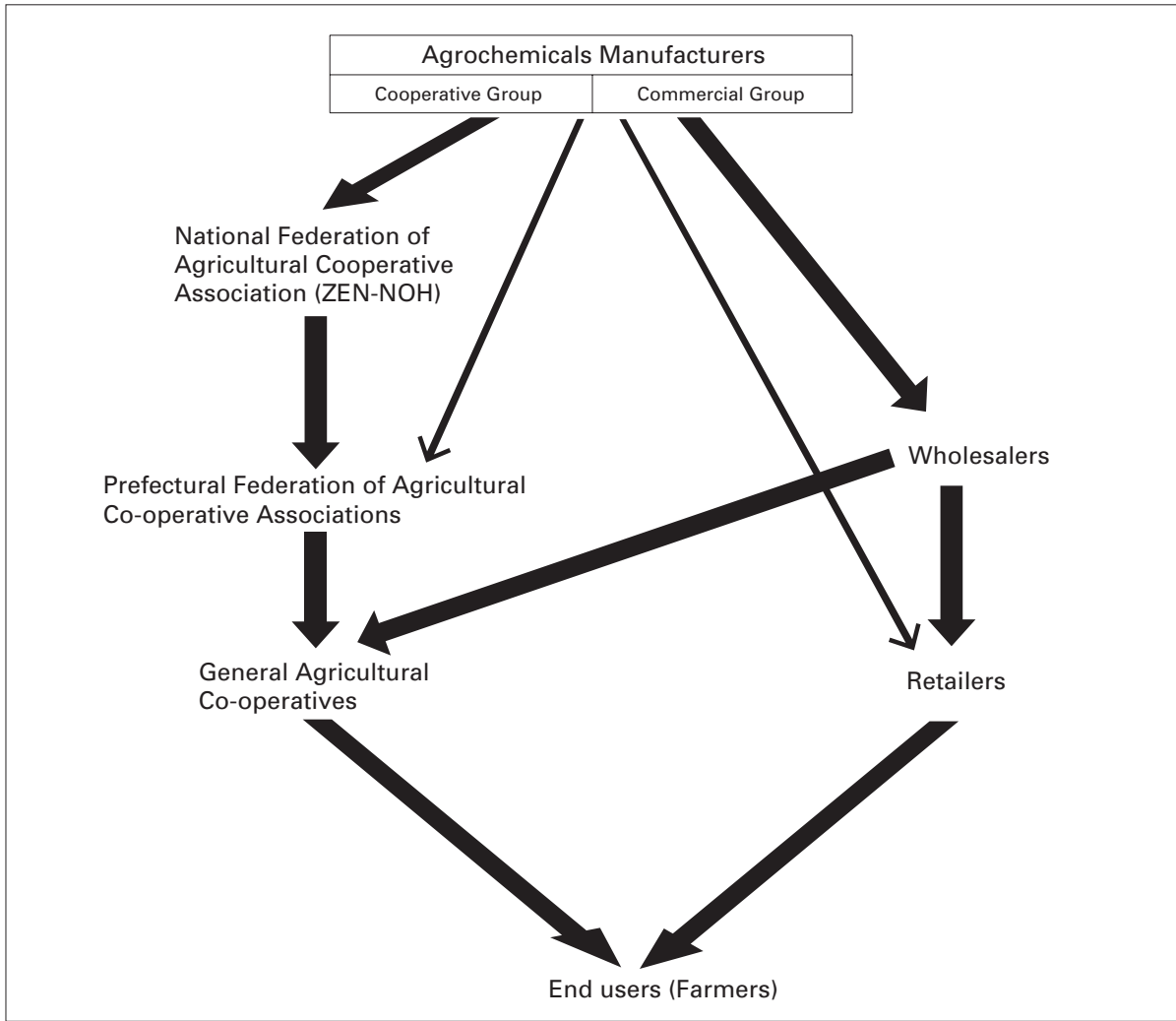


3-2 Agrochemicals Value by Crop

Sector	Agrochemicals group	Value		Comparison with 2016 (100%)
		Billion yen	%	
Paddy rice	Insecticides	12.1	4	100%
	Fungicides	9.6	3	97%
	I/F Combinations	30.3	9	101%
	Herbicides	64.7	19	102%
	Subtotal	116.7	35	101%
Fruit trees	Insecticides	20.6	6	98%
	Fungicides	19.1	6	98%
	I/F Combinations	0.3	0	102%
	Herbicides	8.4	2	105%
	Subtotal	48.5	14	99%
Vegetables, potatoes, beans etc.	Insecticides	58.4	17	104%
	Fungicides	41.0	12	102%
	I/F Combinations	3.2	1	108%
	Herbicides	21.1	6	100%
	Subtotal	123.8	37	103%
Others	Insecticides	6.7	2	98%
	Fungicides	5.7	2	102%
	I/F Combinations	1.8	1	110%
	Herbicides	25.0	7	107%
	Subtotal	39.1	12	104%
(Total)	Insecticides	97.8	29	102%
	Fungicides	75.5	22	101%
	I/F Combinations	35.6	11	102%
	Herbicides	119.2	35	103%
	Others	8.8	3	101%
Grand total		337.0	100	102%

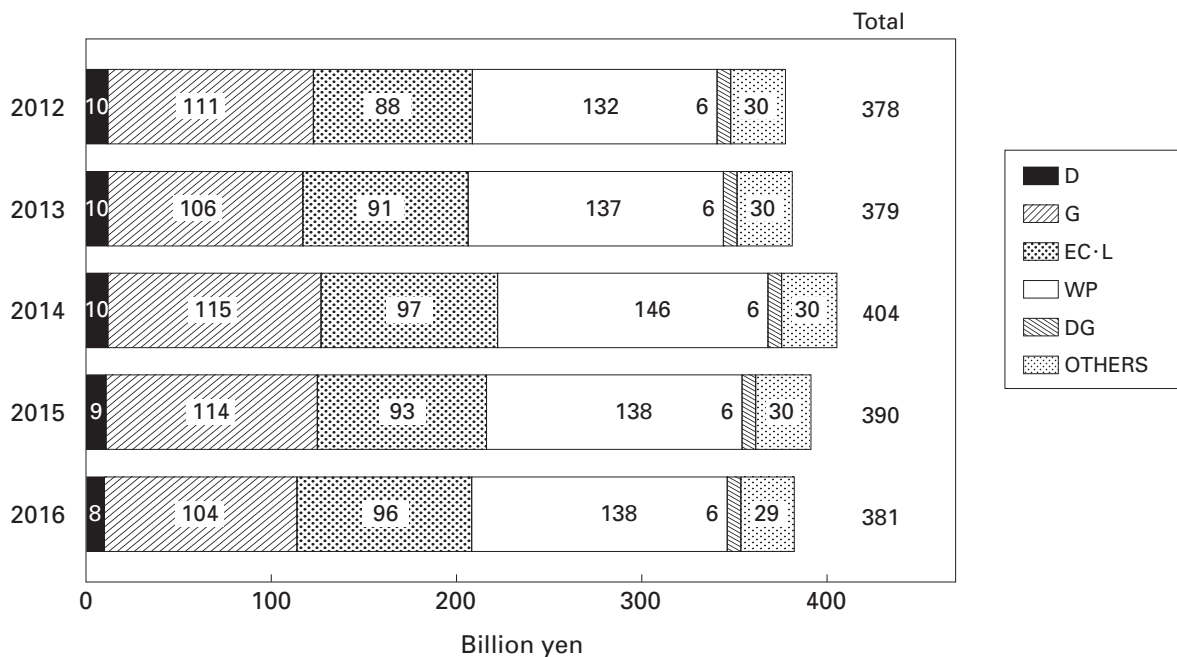
4. Distribution System of Agrochemicals

JPPA* in 2017



(*JPPA/Japan Plant Protection Association)

5. Agrochemicals Production by Formulation(2012-2016) (Source; JPPA)



6. Pest Infestation and Agrochemical Treatment in 2016(Source; JPPA)

Crop (Planted Area) (1,000ha)	Pests and diseases	Net treated area (1,000ha)	Total treated area	
			Area (1,000ha)	Comparison with 2015 (100%)
Rice (1,479)	Seedling blight	757	873	95%
	Blast(leaf)	1,053	1,375	94%
	Blast(neck & ear)	836	1,207	95%
	Sheath blight	578	688	97%
	"Bakanae" disease	866	866	103%
	Rice stem borer(2nd generation)	127	140	63%
	White-backed planthopper	763	1,123	94%
	Brown rice planthopper	512	826	94%
	Small brown planthopper	761	1,143	93%
	Green rice leafhopper	601	866	96%
	Rice leaf beetle	722	748	120%
	Rice stink bug	1,118	1,594	103%
	Rice leafroller	373	504	129%
	Rice water weevil	841	869	106%
Wheat & Barley (281)	Powdery mildew	120	306	107%
	Scab	223	513	97%
	Snow rots	96	96	102%
Potato (77)	Late blight	57	393	101%
	Twenty-eight-spotted ladybird	4	7	100%
Soybean (150)	Purple stain	62	92	106%
	Soybean pod borer	75	131	106%
	Stink bugs	66	89	105%
Citrus (70)	Scab	38	74	89%
	Melanose	58	215	99%
	Arrowhead scale	34	51	81%
	Citrus red mite	59	158	101%
Apple (39)	Blossom blight	25	49	123%
	Alternaria leaf spot	37	324	106%
	Scab	37	316	101%
	Peach fruit moth	36	180	97%
	Apple leafminer	37	70	103%
	Mites	14	42	37%
Pear (14)	Black spot	5	39	100%
	Scab	12	130	96%
Vine (18)	Ripe rot	13	43	102%
	Rust	11	27	93%
	Leaf spot	12	38	95%
	Anthraxnose	10	24	92%
	Downy mildew	13	55	98%
	Gray mold	10	33	100%
	Thrips	12	31	91%

Crop (Planted Area (1,000ha))	Pests and diseases	Net treated area (1,000ha)	Total treated area	
			Area (1,000ha)	Comparison with 2015 (100%)
Tea (43)	Anthracnose	36	78	95%
	Smaller tea tortrix	36	76	100%
	Oriental tea tortrix	31	61	103%
	Tea leafroller	37	61	95%
	Tea green leafhopper	36	87	99%
	Kanzawa spider mite	36	75	97%
	Thrips	36	93	101%
Cucumber (11)	Downy mildew	6	30	103%
	Anthracnose	2	8	100%
	Powdery mildew	6	28	104%
	Bacterial spot	2	5	83%
	Aphids	6	21	100%
Cabbage (35)	Black rot	17	33	103%
	Diamondback moth	19	44	83%

7. Herbicide Application in Rice Field

Crop	Application method	2017		
		Volume (t)	Value (million yen)	Estimated Area (1,000ha)
Rice	One-shot application	13,979	42,050	1,748
	Pre- and early post-emergence application	4,183	5,817	593
	Post-emergence application	6,678	11,443	631
	Total	24,840	59,309	2,971

(Source; JAPR / The Japan Association for Advancement of Phyto-Regulators)

8. Farm Household Economy (Source; MAFF)

8-1. Average Income per Household (include tax)

Value:1,000 yen

	2012	2013	2014	2015	2016
Agriculture	1,347	1,321	1,186	1,527	1,851
Non-agriculture	1,553	1,531	1,455	1,472	1,403
Others (Annuity etc.)	1,853	1,865	1,909	1,946	1,952
Total income	4,762	4,727	4,562	4,960	5,212

8-2. Average Agricultural Expenditure by Crop in 2016

Unit: yen/10a

	Rice		Wheat		Potato		Sugar beet		Soybean	
Seed & Seedling	3,695	3%	2,894	5%	14,132	19%	2,777	3%	3,378	7%
Fertilizers	9,313	8%	10,249	19%	11,370	15%	25,349	25%	5,501	11%
Agrochemicals	7,464	7%	5,085	9%	10,801	14%	14,443	14%	5,270	10%
Fuel	3,844	3%	1,794	3%	2,609	3%	3,115	3%	1,755	3%
Rent & Charge	11,953	11%	14,191	26%	1,218	2%	4,026	4%	7,861	16%
Buildings cost	4,146	4%	991	2%	1,454	2%	2,928	3%	1,236	2%
Agricultural machinery	23,872	21%	9,370	17%	14,085	19%	15,902	16%	9,892	20%
Labor	34,525	31%	5,828	11%	14,555	19%	22,169	22%	11,287	22%
Others	12,840	12%	4,228	8%	4,948	7%	9,437	9%	4,409	9%
Total	111,652	100%	54,630	100%	75,172	100%	100,146	100%	50,589	100%

9. Rice Production (Source; MAFF)

9-1. Transition of Rice Cultivated Area for 10 years

Unit: 1,000ha

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Cultivated Area	2,516	2,506	2,496	2,474	2,469	2,326	2,320	2,310	2,296	2,284
Planted Area	1,627	1,624	1,628	1,576	1,581	1,599	1,575	1,506	1,479	1,466
Set-aside*1 (%)	35	35	35	36	36	31	32	35	36	36

*1; Set-aside (%) = $\frac{\text{Cultivated area} - \text{Planted area}}{\text{Cultivated area}} \times 100$

9-2. Transition of Rice Production for 10 years

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Yield (t/ha)	5.43	5.22	5.22	5.33	5.40	5.39	5.36	5.31	5.44	5.34
Normal Yield (t/ha)*1	5.30	5.30	5.30	5.30	5.30	5.30	5.30	5.31	5.31	5.31
Index number of Rice Yield*2	102	98	98	101	102	102	101	100	102	101
Total Production (million ton)	8.8	8.5	8.5	8.4	8.5	8.6	8.4	8.0	8.0	7.8

*1; Determined by MAFF

*2; Index number = $\frac{\text{Yield}}{\text{Normal Yield}} \times 100$



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