



HOKKO

2020

Company Information and Market Report of Agrochemicals in Japan

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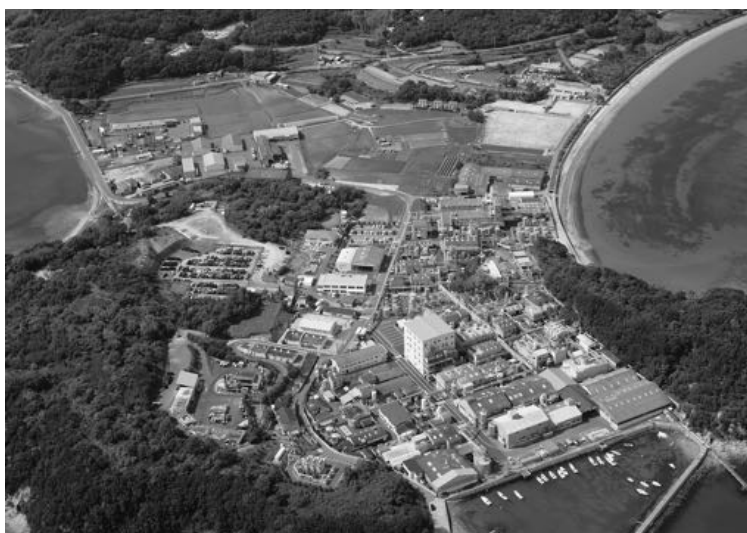
Part I. COMPANY INFORMATION

1. Briefings (As of November 30, 2019)

Foundation:	February 27, 1950
Paid-in Capital:	¥3.2 billion
Main stock holders	
	Nomura Shokusan Co., Ltd. 7.8%
	Sumitomo Chemical Co., Ltd. 7.3%
	Resona Bank, Limited. 5.0%
	Hokko Chemical Industry Employee Shareholding Association 4.8%
	Japan Trustee Services Bank, Ltd.(trust) 4.5%
	The Master Trust Bank of Japan Ltd.(trust) 3.4%
	The Norinchukin Bank 3.2%
	Nomura Holdings, Inc. 3.1%
	National Federation of Agricultural Cooperative Associations(ZEN-NOH) 3.0%
Employees:	635



Central Research Laboratories



Okayama Factory

2. Organization (As of February 26, 2020)

Board of Directors:

President Ken-ichi Sano
Director, Managing Executive Officer
 Tetsuyoshi Hashimoto

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)
 C.Murata & Co., Ltd.(Osaka, Japan)

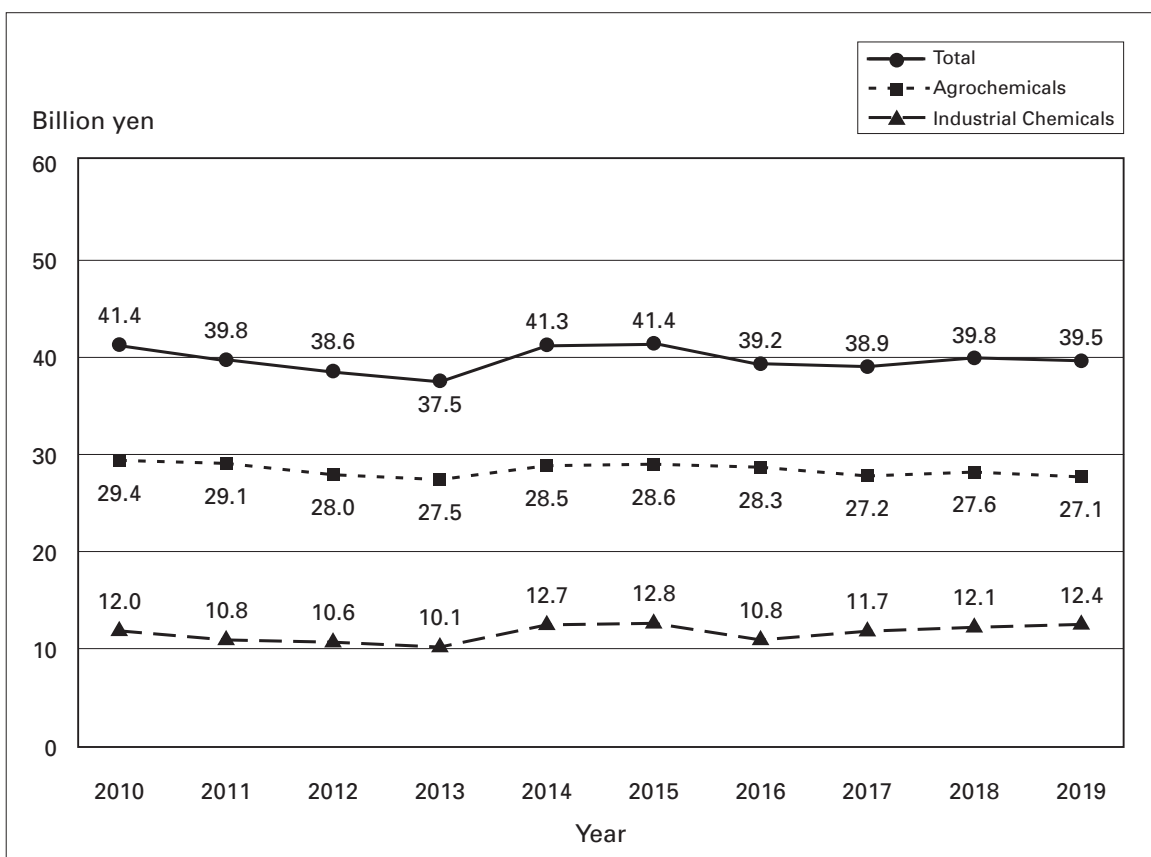
3. 2019 Business Report (As of November 30, 2019)

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

Value: Million yen

	2018		2019		
	Value	Share(%)	Value	Share(%)	Growth(%)
Agrochemicals					
Insecticides	5,656	14.2	5,908	15.0	104.5
Fungicides	7,364	18.5	6,874	17.4	93.3
I/F Combinations	6,587	16.6	6,041	15.3	91.7
Herbicides	7,581	19.1	7,812	19.8	103.0
Others	442	1.1	420	1.1	95.0
Subtotal	27,631	69.5	27,054	68.5	97.9
Industrial Chemicals	12,149	30.5	12,415	31.5	102.2
Total	39,780	100	39,469	100	99.2
Export (Included in Total Sales)					
Agrochemicals	2,706	6.8	2,357	6.0	87.1
Industrial Chemicals	2,496	6.3	2,498	6.3	100.1

3-2. Annual Progress of Business Turnover (2010-2019)



4. Hokko's Leading Products in 2019

4-1. INSECTICIDE

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

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
Prior	diethofencarb + benomyl	Vegetables, Tea, Wheats	Gray mold, Anthracnose, Sclerotinia rot, Fusarium blight
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>
Limber	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
Orthocide	captan	Fruit, Vegetables, Wheats	Scab, Alternaria leaf spot, Downy mildew, Gray mold, Fusarium blight

4-3. I/F COMBINATION

Product Name	Active Ingredient	Crop	Disease, Pest
Dr.Oryze-Ferterra	probenazole + chlorantraniliprole	Rice	Blast, Various pests
Dr.Oryze-Padeet	probenazole + cyantraniliprole	Rice	Blast, Various pests
Dr.Oryze-Prince	probenazole + fipronil	Rice	Blast, Various pests
Builder-Ferterra-Zexalon	probenazole + chlorantraniliprole + triflumezopyrim	Rice	Blast, Green rice caterpillar, Rice leaf beetle, Planthoppers
Builder-Prince-Greatam	probenazole + fipronil + thifluzamide	Rice	Blast, Various pests, Sheathblight
Rabcide-Starkle	dinotefuran + phthalide	Rice	Blast, Stinkbugs
Doublecut K	kasugamycin + tricyclazole + ethiprole	Rice	Blast, Stinkbugs
Topsin Starkle	dinotefuran + thiophanate-methyl	Rice	Blast, Stinkbugs, Planthoppers
Blasin Kirappu	ferimzone + phthalide + ethiprole	Rice	Blast, Stinkbugs, Planthoppers

4-4. HERBICIDE

Product Name	Active Ingredient	Crop	Weed, Use
A-one	oxaziclomefone + tefuryltrione	Rice	One shot application
Kachiboshi	ipfencarbazone + tefuryltrione + bensulfuron-methyl	Rice	One shot application
Kimarite	ipfencarbazone + tefuryltrione	Rice	One shot application
Winner	ipfencarbazone + bensulfuron-methyl + bromobutide	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, Soybean, 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, 8% SL
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>)	○	
	Bacterial leaf blight (<i>Xanthomonas oryzae</i> pv. <i>oryzae</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>Podosphaera xanthii</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>Leveillula taurica</i>)		○
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 natrassii</i>)	○	
Celery	Early blight (<i>Cercospora apii</i>)	○	
Carrot	Bacterial soft rot (<i>Pectobacterium carotovorum</i>)	○	
Cherry	Bacterial blast (<i>Pseudomonas syringae</i> pv. <i>syringae</i>)	○	
	Bacterial canker (<i>Pseudomonas syringae</i> pv. <i>syringae</i>)	○	
Walnut	Walnut blight (<i>Xanthomonas campestris</i> pv. <i>juglandis</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>Podosphaera 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>Podosphaera pannosa</i>)
Chrysanthemum	Rust (<i>Puccinia horiana</i>) Rust (<i>Puccinia tanacetii</i> var. <i>tanacetii</i>)
Japanese spindle tree	Powdery mildew (<i>Erysiphe euonymicola</i>)
Crape Myrtle	Powdery mildew (<i>Erysiphe australiana</i>)
Poplar	Powdery mildew (<i>Uncinula adunca</i> var. <i>mandshurica</i>) Marssonina 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)	Anthrachnose (<i>Colletotrichum gloeosporioides</i>)	Spray

5-2. HERBICIDE

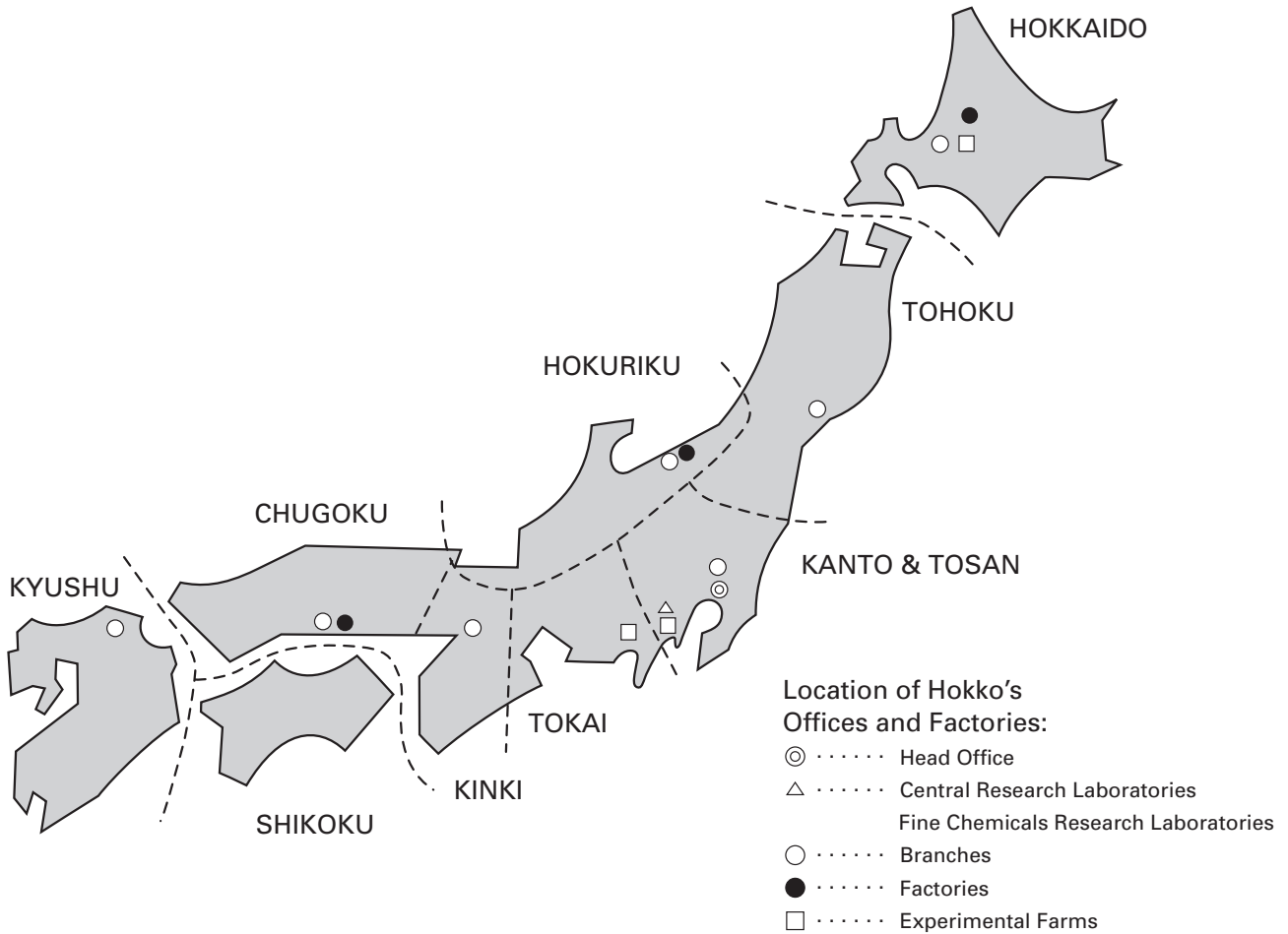
FIGHTER

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	<i>Echinochloa oryzicola</i> , <i>Echinochloa crus-galli</i> , <i>Leptochloa chinensis</i> , <i>Ischaemum rugosum</i> , <i>Fimbristylis miliacea</i> , <i>Cyperus difformis</i> , <i>Schoenoplectiella juncooides</i> , <i>Lindernia procumbens</i> , <i>Monochoria vaginalis</i> , <i>Cyperus rotundus</i> , 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 2019

(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	103.0	123.3	50.8	39.1	—	0.6	—	1.2	0.1	1.2	—
TOHOKU	382.0	7.7	—	35.1	—	28.0	—	—	2.1	—	—
HOKURIKU	206.5	9.7	—	12.4	—	—	0.8	—	0.6	—	—
KANTO & TOSAN	271.1	38.1	—	9.9	—	—	—	—	3.5	—	—
TOKAI	93.1	16.8	—	11.9	—	—	—	—	0.5	6.4	—
KINKI	102.6	10.3	—	9.4	—	—	—	—	0.6	—	—
CHUGOKU	102.1	6.0	—	4.3	—	—	—	—	0.6	1.5	—
SHIKOKU	48.3	4.9	—	0.5	18.5	—	—	—	0.5	—	—
KYUSHU	160.7	56.4	—	21.0	12.5	—	—	—	1.7	6.0	—
Total	1469.0	273.0	76.5	143.5	65.9	37.4	12.9	17.8	10.3	34.6	40.6
Comparison with Previous Year (100%)	100	100	99	98	98	99	98	99	97	99	98

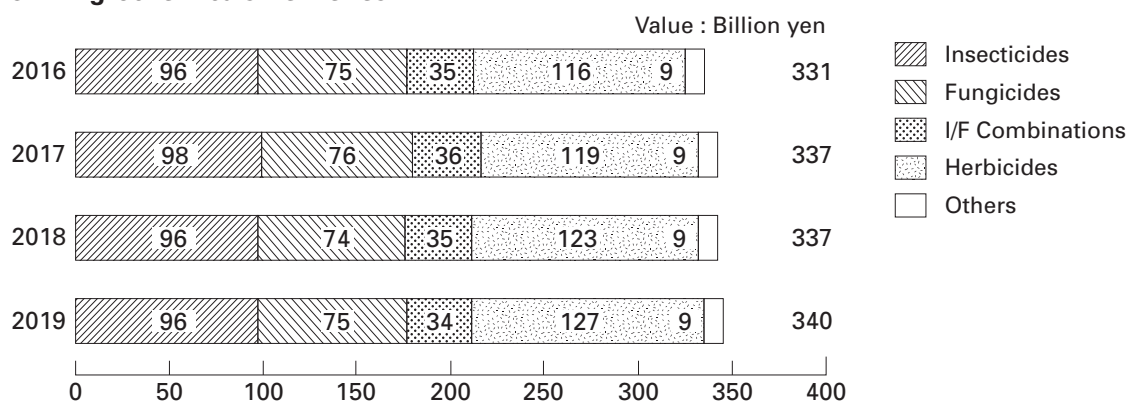
* ; Data from 2018

—; not available

3. Agrochemicals Business by the member companies of JCPA* in 2019

(*Japan Crop Protection Association)

3-1 Agrochemicals Deliveries

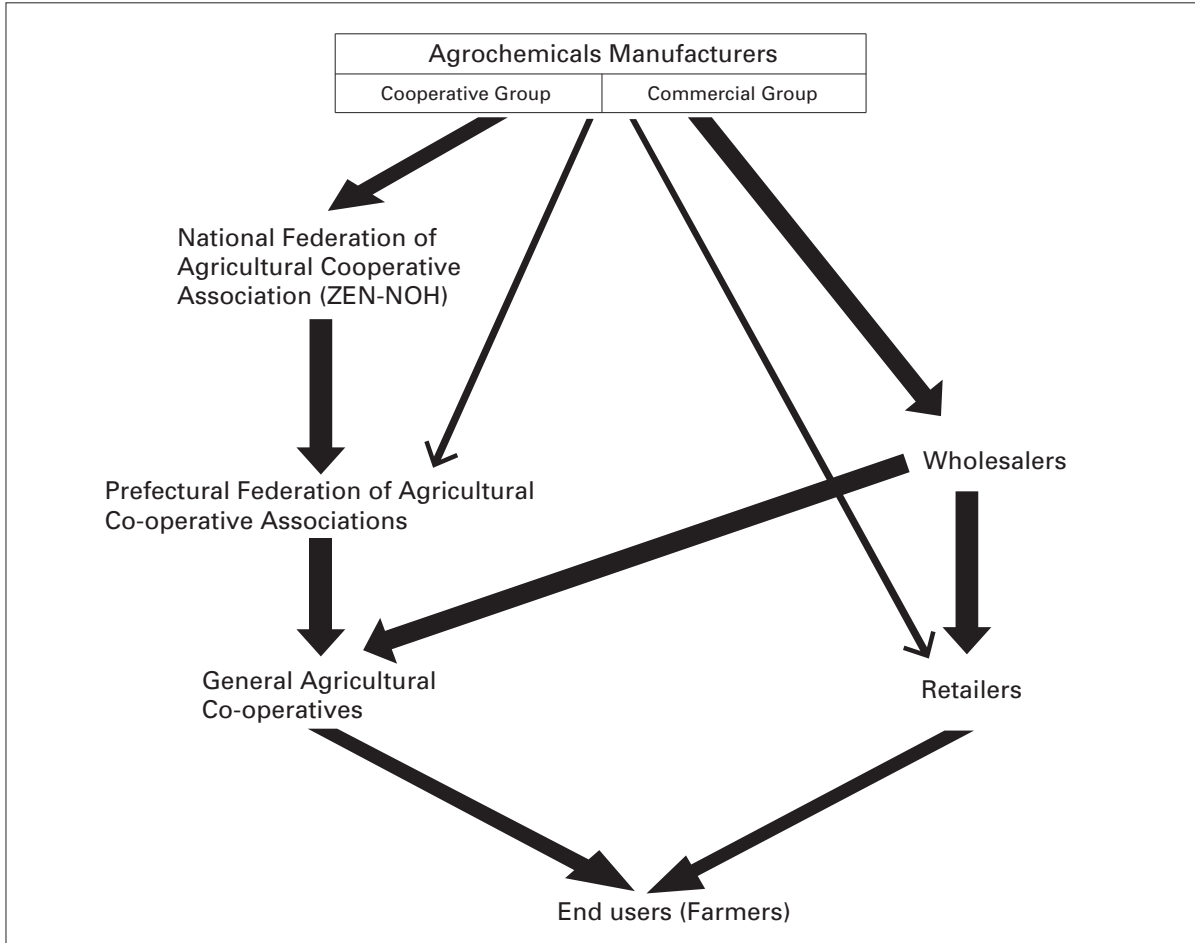


3-2 Agrochemicals Value by Crop

Sector	Agrochemicals group	Value		Comparison with 2018 (100%)
		Billion yen	%	
Paddy rice	Insecticides	11.7	3	97%
	Fungicides	9.2	3	98%
	I/F Combinations	28.8	8	96%
	Herbicides	64.6	19	100%
	Subtotal	114.2	34	99%
Fruit trees	Insecticides	20.1	6	98%
	Fungicides	18.3	5	98%
	I/F Combinations	0.3	0	96%
	Herbicides	8.5	3	104%
	Subtotal	47.2	14	99%
Vegetables, potatoes, beans etc.	Insecticides	57.9	17	101%
	Fungicides	41.4	12	102%
	I/F Combinations	2.9	1	96%
	Herbicides	22.4	7	106%
	Subtotal	124.6	37	102%
Others	Insecticides	6.3	2	98%
	Fungicides	5.9	2	102%
	I/F Combinations	1.6	0	104%
	Herbicides	31.4	9	109%
	Subtotal	45.2	13	106%
(Total)	Insecticides	96.0	28	100%
	Fungicides	74.7	22	100%
	I/F Combinations	33.6	10	96%
	Herbicides	127.0	37	104%
	Others	9.0	3	102%
Grand total		340.3	100	101%

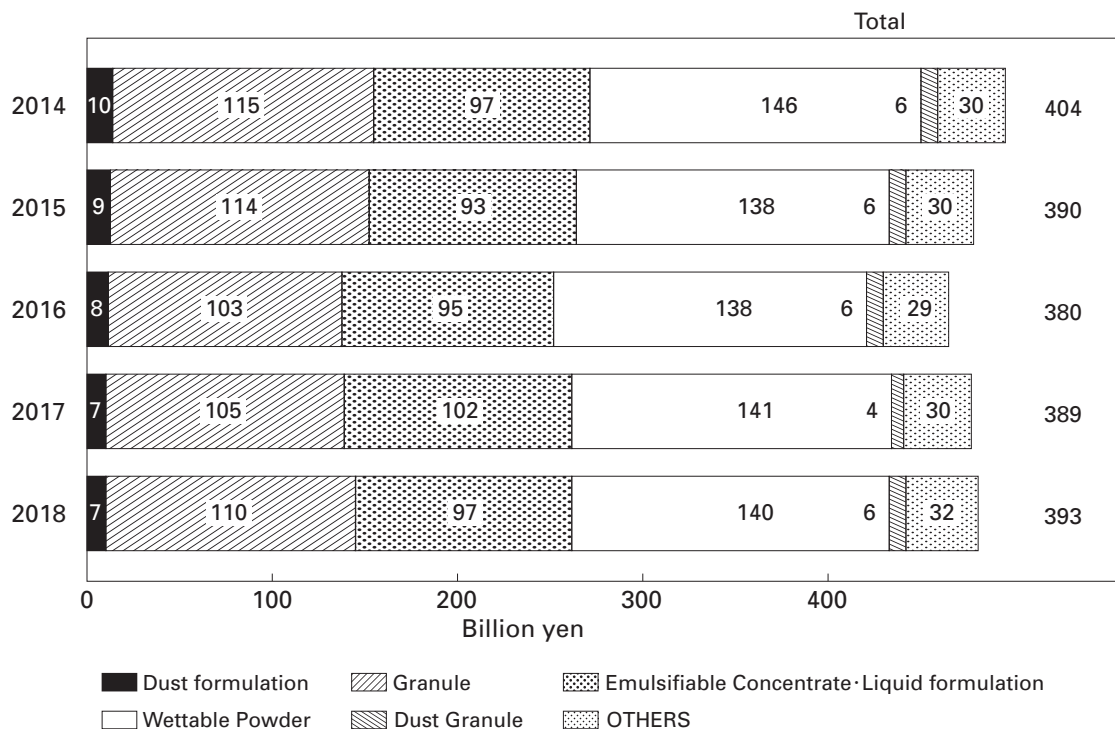
4. Distribution System of Agrochemicals

JPPA* in 2019



(*JPPA/Japan Plant Protection Association)

5. Agrochemicals Production by Formulation (2014-2018) (Source; JPPA)



6. Pest Infestation and Agrochemical Treatment in 2018 (Source; JPPA)

Crop (Planted Area) (1,000ha)	Pests and diseases	Net treated area (1,000ha)	Total treated area	
			Area (1,000ha)	Comparison with 2017 (100%)
Rice (1,469)	Seedling blight	768	868	102%
	Blast(leaf)	1,076	1,319	100%
	Blast(neck & ear)	807	990	84%
	Sheath blight	610	680	95%
	"Bakanae" disease	948	948	99%
	Rice stem borer(2nd generation)	156	160	101%
	White-backed planthopper	760	1,068	95%
	Brown rice planthopper	486	755	86%
	Small brown planthopper	815	1,190	100%
	Green rice leafhopper	643	901	99%
	Rice leaf beetle	601	596	91%
	Rice stink bug	1,058	1,474	91%
	Rice leafroller	306	333	75%
	Rice water weevil	753	738	93%
Wheat & Barley (273)	Powdery mildew	122	272	87%
	Scab	357	634	126%
	Snow rots	94	94	108%
Potato (77)	Late blight	58	394	99%
	Twenty-eight-spotted ladybird	4	7	100%
Soybean (144)	Purple stain	64	95	100%
	Soybean pod borer	83	148	95%
	Stink bugs	57	74	97%
Citrus (66)	Scab	38	72	94%
	Melanose	55	202	96%
	Arrowhead scale	35	66	100%
	Citrus red mite	56	143	91%
Apple (37)	Blossom blight	25	52	98%
	Alternaria leaf spot	37	373	108%
	Scab	37	396	109%
	Peach fruit moth	36	193	107%
	Apple leafminer	36	71	93%
	Mites	14	43	105%
Pear (13)	Black spot	4	42	95%
	Scab	11	121	93%
Vine (18)	Ripe rot	12	40	93%
	Rust	10	26	96%
	Leaf spot	11	32	86%
	Anthracoise	10	20	87%
	Downy mildew	12	58	105%
	Gray mold	10	21	66%
	Thrips	11	30	97%

Crop (Planted Area (1,000ha))	Pests and diseases	Net treated area (1,000ha)	Total treated area	
			Area (1,000ha)	Comparison with 2017 (100%)
Tea (41)	Anthracnose	36	77	108%
	Smaller tea tortrix	35	72	96%
	Oriental tea tortrix	29	58	98%
	Tea leafroller	35	60	98%
	Tea green leafhopper	35	84	98%
	Kanzawa spider mite	35	73	99%
	Thrips	35	90	98%
Cucumber (10)	Downy mildew	6	30	100%
	Anthracnose	2	9	100%
	Powdery mildew	6	27	96%
	Bacterial spot	2	5	83%
	Aphids	6	20	95%
Cabbage (35)	Black rot	18	26	81%
	Diamondback moth	20	47	102%

7. Herbicide Application in Rice Field

Crop	Application method	2019		
		Volume (t)	Value (million yen)	Estimated Area (1,000ha)
Rice	One-shot application	13,045	41,176	1,704
	Pre- and early post-emergence application	4,189	5,947	602
	Post-emergence application	6,617	12,603	676
	Total	23,851	59,726	2,982

(Source; JAPR / 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

	2014	2015	2016	2017	2018
Agriculture	1,186	1,527	1,851	1,907	1,741
Non-agriculture	1,455	1,472	1,403	1,418	1,536
Others (Annuity etc.)	1,909	1,946	1,952	1,924	1,824
Total income	4,562	4,960	5,212	5,260	5,108

8-2. Average Agricultural Expenditure by Crop in 2018

Unit: yen/10a

	Rice		Wheat		Potato		Sugar beet		Soybean	
Seed & Seedling	3,756	3%	3,237	6%	14,487	18%	2,675	3%	3,677	7%
Fertilizers	8,942	8%	8,985	17%	10,427	13%	22,599	24%	5,462	11%
Agrochemicals	7,570	7%	5,046	10%	11,259	14%	13,646	14%	5,796	11%
Fuel	4,693	4%	2,008	4%	3,577	5%	3,844	4%	2,320	4%
Rent & Charge	11,569	10%	13,868	26%	1,074	1%	2,982	3%	7,761	15%
Buildings cost	3,973	4%	956	2%	1,465	2%	2,083	2%	1,266	2%
Agricultural machinery	24,173	22%	8,822	17%	16,374	21%	15,966	17%	10,620	20%
Labor	34,854	31%	5,866	11%	14,955	19%	21,460	23%	10,430	20%
Others	12,509	11%	4,320	8%	5,606	7%	9,552	10%	4,565	9%
Total	112,039	100%	53,108	100%	79,224	100%	94,807	100%	51,897	100%

9. Rice Production (Source; MAFF)

9-1. Transition of Rice Acreage for 10 years

Unit: 1,000ha

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Cultivated Area	2,496	2,474	2,469	2,326	2,320	2,310	2,296	2,284	2,273	2,261
Planted Area	1,628	1,576	1,581	1,599	1,575	1,506	1,479	1,466	1,470	1,470
Set-aside*1 (%)	35	36	36	31	32	35	36	36	35	35

*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	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Yield (t/ha)	5.22	5.33	5.40	5.39	5.36	5.31	5.44	5.34	5.29	5.28
Normal Yield (t/ha)*1	5.30	5.30	5.30	5.30	5.30	5.31	5.31	5.32	5.32	5.33
Index number of Rice Yield*2	98	101	102	102	101	100	102	100	99	99
Total Production (million ton)	8.5	8.4	8.5	8.6	8.4	8.0	8.0	7.8	7.8	7.8

*1; Determined by MAFF

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



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