



HOKKO

2021

Company Information and Market Report of Agrochemicals in Japan

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Part I. COMPANY INFORMATION

1. Briefings (As of November 30, 2020)

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%
Custody Bank of Japan, Ltd.(trust)	6.4%
Resona Bank, Limited.	5.0%
The Master Trust Bank of Japan Ltd.(trust)	4.6%
Hokko Chemical Industry Employee Shareholding Association	4.3%
The Norinchukin Bank	3.2%
Nomura Holdings, Inc.	3.1%
National Federation of Agricultural Cooperative Associations(ZEN-NOH)	3.0%
Nomura Land and Building Co., Ltd.	2.6%

Employees: 636



Central Research Laboratories



Okayama Factory

2. Organization (As of February 25, 2021)

Board of Directors:

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

Head Office:	Sumitomo Fudosan Nihonbashi Building 1-5-4, Nihonbashi Honcho, Chuo-ku Tokyo 103-8341, Japan
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Branches:	Sapporo, Sendai, Tokyo, Niigata, Osaka, Okayama, Fukuoka
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Main Factories:	Hokkaido, Niigata, Okayama
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Laboratories:	Central Research Laboratories (Kanagawa) Fine Chemicals Research Laboratories (Kanagawa)
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Experimental Farms:	Hokkaido, Kanagawa, Shizuoka
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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)
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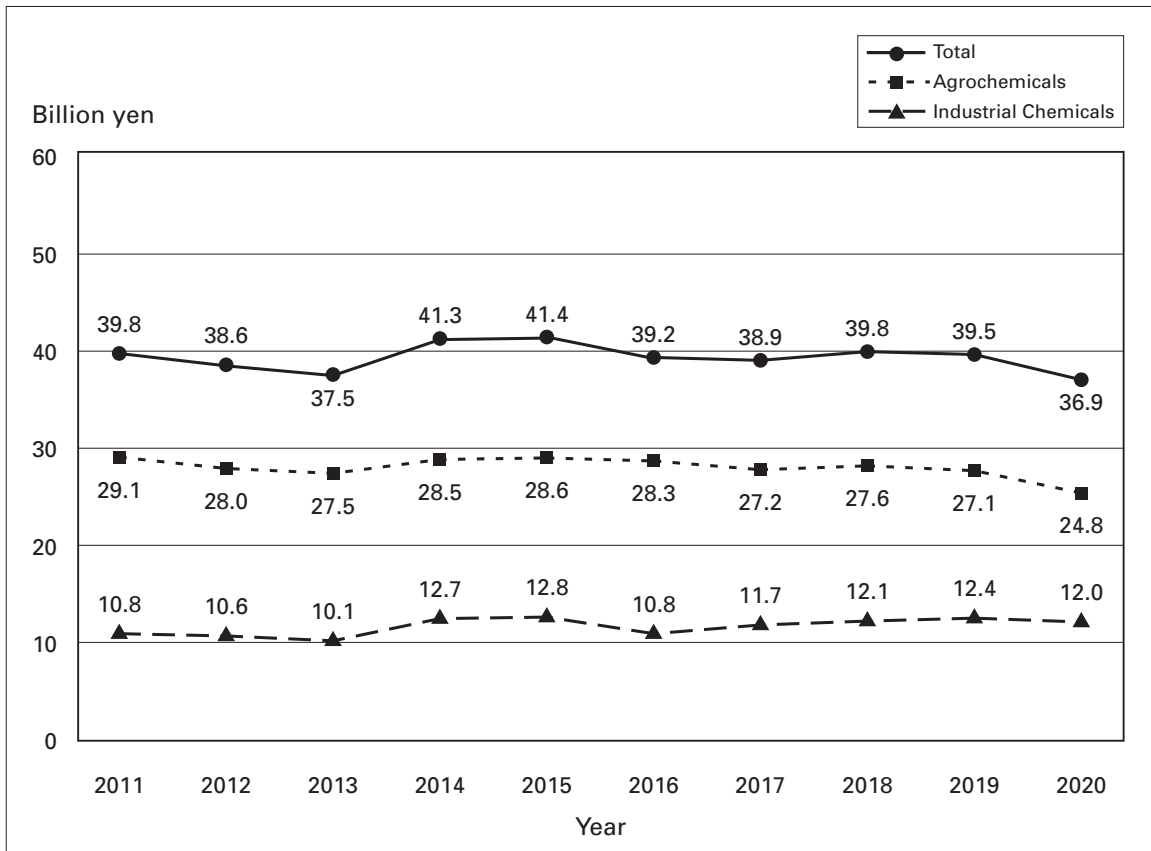
3. 2020 Business Report (As of November 30, 2020)

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

Value: Million yen

	2019		2020		
	Value	Share(%)	Value	Share(%)	Growth(%)
Agrochemicals					
Insecticides	5,908	15.0	5,581	15.1	94.5
Fungicides	6,874	17.4	6,675	18.1	97.1
I/F Combinations	6,041	15.3	5,309	14.4	87.9
Herbicides	7,812	19.8	6,802	18.4	87.1
Others	420	1.1	477	1.3	113.4
Subtotal	27,054	68.5	24,843	67.3	91.8
Industrial Chemicals	12,415	31.5	12,047	32.7	97.0
Total	39,469	100	36,890	100	93.5
Export (Included in Total Sales)					
Agrochemicals	2,357	6.0	2,363	6.4	100.2
Industrial Chemicals	2,498	6.3	2,600	7.0	104.1

3-2. Annual Progress of Business Turnover (2011-2020)



4. Hokko's Leading Products in 2020

4-1. INSECTICIDE

Product Name	Active Ingredient	Crop	Pest
Starkle	dinotefuran	Rice, Vegetables, Fruit	Planthoppers, Stinkbugs, Aphids, Thrips, Whiteflies, Scales, etc.
Kirappu	ethiprole	Rice, Fruit, Tea	Planthoppers, Stinkbugs, etc.
Prevathon	chlorantraniliprole	Vegetables	Diamondback moth, Cabbage worm, etc.
Ferterra	chlorantraniliprole	Rice	Rice leafroller, Green rice caterpillar, etc.
Ortran	acephate	Fruit, Vegetables	Thrips, Aphids, Lepidopteran pests
MR.Joker	silafuofen	Rice	Planthoppers, Stinkbugs, etc.
Transform	sulfoxaflor	Vegetables, Fruit	Thrips, Aphids, Scales, etc.
Exceed	sulfoxaflor	Rice	Stinkbugs, Planthoppers, etc.
Finesave	flometoquin	Vegetables, Citrus, Tea	Thrips, mites, Lepidopteran pests, etc.
Prince	fipronil	Rice	Planthoppers, Locust, Rice leafroller, etc.

4-2. FUNGICIDE

Product Name	Active Ingredient	Crop	Disease
Kasumin-Bordeaux	kasugamycin + copper oxychloride	Vegetables, Fruit, Tea, Sugar beet	Bacterial diseases, Powdery mildew, Leaf mold, Downy mildew
Manage	imibenconazole	Fruit, Vegetables, Turf	Rust, Scab, Powdery mildew, Anthracnose
Orthocide	captan	Fruit, Vegetables, Wheats	Scab, Alternaria leaf spot, Downy mildew, Gray mold, Fusarium blight
Aphet	penthiopyrad	Vegetables	Gray mold, Powdery mildew, Stem rot
Oryzmate / Dr.Oryze	probenazole	Rice	Blast
Blasin	ferimzone + phthalide	Rice	Blast, Bacterial disease
Limber	furametpyr	Rice, Sugar beet	Sheath blight, Root rot, Leaf blight
Onlyone	tebconazole	Fruit	Gray mold, Stem rot, Anthracnose, Scab, Powdery mildew, etc.
Topsin M	thiophanate-methyl	Fruit, Vegetables	Gray mold, Anthracnose, Bluemold, Blotch, Scab, Sclerotinia rot
Benlate T	thiuram + benomyl	Vegetables	Fusarium disease, Seed-borne disease
Doublecut	kasugamycin + tricyclazole	Rice	Blast

4-3. I/F COMBINATION

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

4-4. HERBICIDE

Product Name	Active Ingredient	Crop	Weed, Use
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
Binwan	oxaziclomefone + tefuryltrione + 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	Anthraxnose (<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	Anthraxnose (<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)	Anthraco nose (<i>Colletotrichum gloeosporioides</i>)	Spray

5-2. HERBICIDE

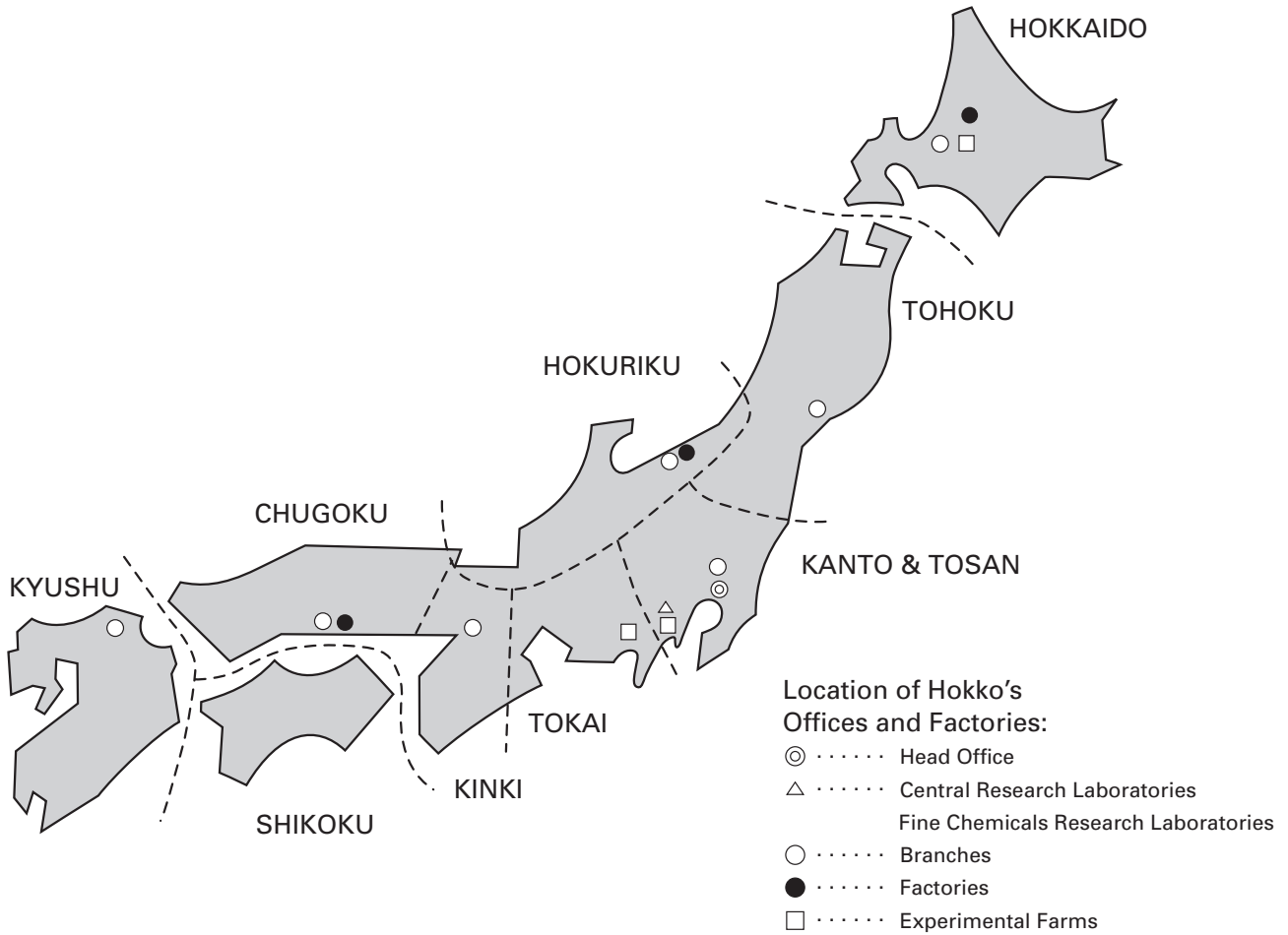
FIGHTER

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 2020

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

Unit: 1,000ha.

Region \ Crop	Crop										
	Rice	Wheat/Barley	Potato*	Soybean	Citrus	Apple	Pear	Grape	Cucumber	Cabbage*	Tea
HOKKAIDO	102.3	124.2	49.6	38.9	—	0.6	0.1	1.2	0.1	1.2	—
TOHOKU	381.5	7.7	3.3	34.9	0.0	27.8	2.6	2.9	2.0	2.4	—
HOKURIKU	206.4	9.7	1.3	11.9	0.0	0.2	0.9	0.5	0.5	0.8	—
KANTO & TOSAN	269.6	37.6	6.3	9.6	1.8	8.2	4.8	7.6	3.3	13.1	1.9
TOKAI	92.5	17.0	1.3	11.8	9.3	0.0	0.7	0.6	0.2	6.6	19.0
KINKI	101.3	10.4	1.0	9.1	10.7	0.0	0.3	1.0	0.6	1.9	2.9
CHUGOKU	101.2	6.6	1.3	4.3	4.5	0.2	1.2	1.9	0.5	1.5	0.4
SHIKOKU	47.4	5.1	0.6	0.5	18.2	0.0	0.4	0.4	0.5	0.9	0.6
KYUSHU	158.6	58.0	9.6	20.8	19.3	—	1.5	1.6	1.5	6.0	14.3
Total	1462.0	276.2	74.4	141.7	64.4	37.1	12.5	17.8	10.1	34.6	39.1
Comparison with Previous Year (100%)	100	101	97	99	98	99	97	100	98	100	96

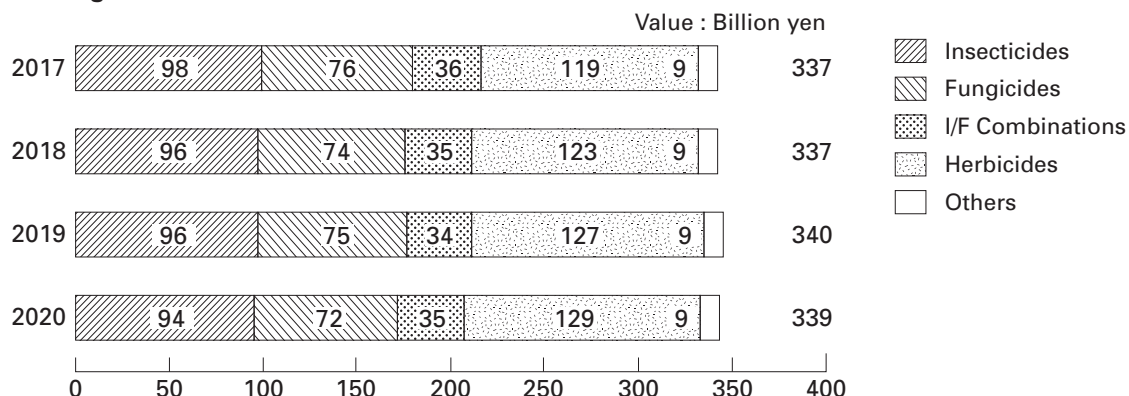
*; Data from 2019

—; not available

3. Agrochemicals Business by the member companies of JCPA* in 2020

(*Japan Crop Protection Association)

3-1 Agrochemicals Deliveries

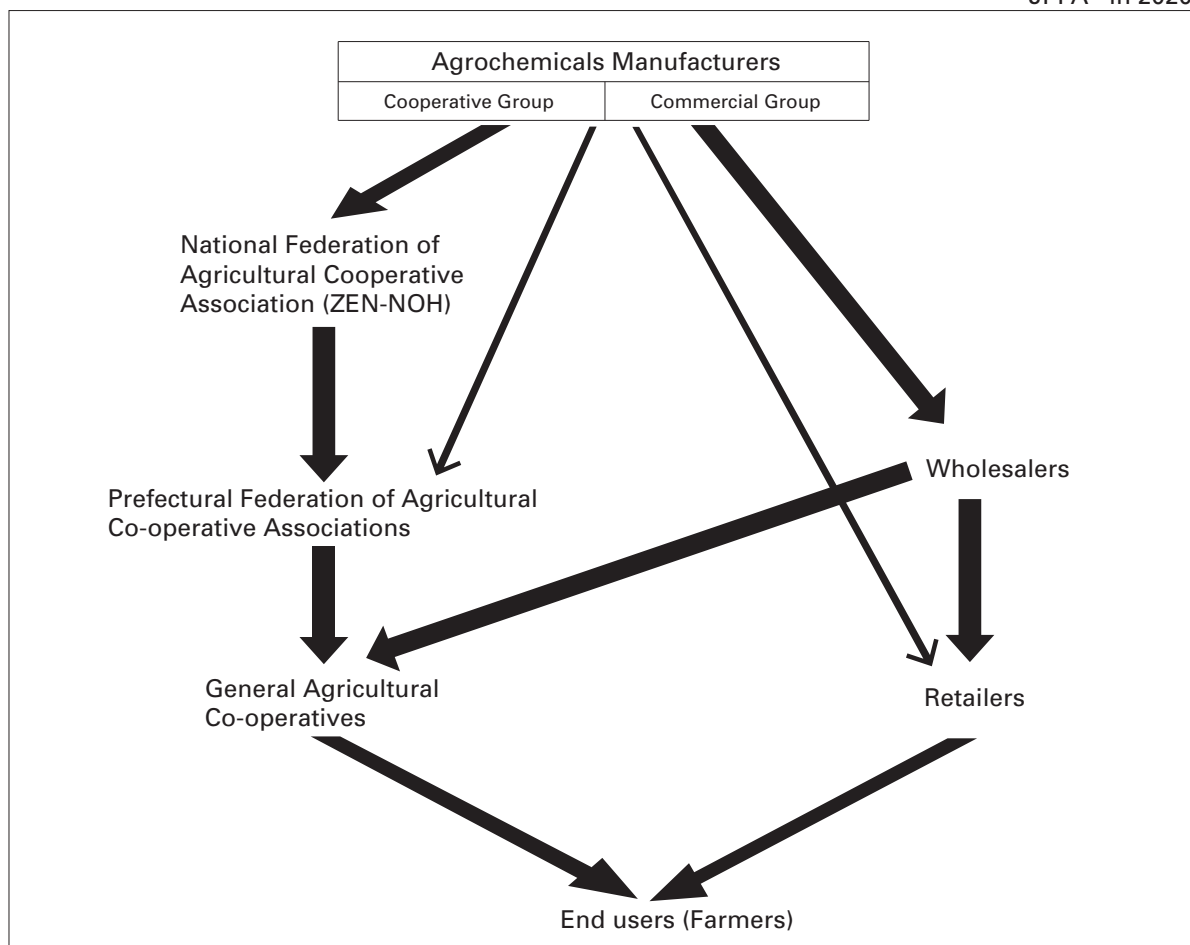


3-2 Agrochemicals Value by Crop

Sector	Agrochemicals group	Value		Comparison with 2019 (100%)
		Billion yen	%	
Paddy rice	Insecticides	12.4	4	106%
	Fungicides	9.3	3	102%
	I/F Combinations	30.1	9	105%
	Herbicides	65.3	19	101%
	Subtotal	117.2	35	103%
Fruit trees	Insecticides	19.5	6	97%
	Fungicides	17.9	5	98%
	I/F Combinations	0.3	0	104%
	Herbicides	9.0	3	105%
	Subtotal	46.5	14	99%
Vegetables, potatoes, beans etc.	Insecticides	56.6	17	98%
	Fungicides	39.3	12	95%
	I/F Combinations	2.9	1	101%
	Herbicides	22.3	7	99%
	Subtotal	121.2	36	97%
Others	Insecticides	6.0	2	95%
	Fungicides	5.6	2	95%
	I/F Combinations	1.9	1	113%
	Herbicides	32.0	9	102%
	Subtotal	45.3	13	100%
(Total)	Insecticides	94.4	28	98%
	Fungicides	72.1	21	97%
	I/F Combinations	35.2	10	105%
	Herbicides	128.5	38	101%
	Others	8.9	3	99%
Grand total		339.2	100	100%

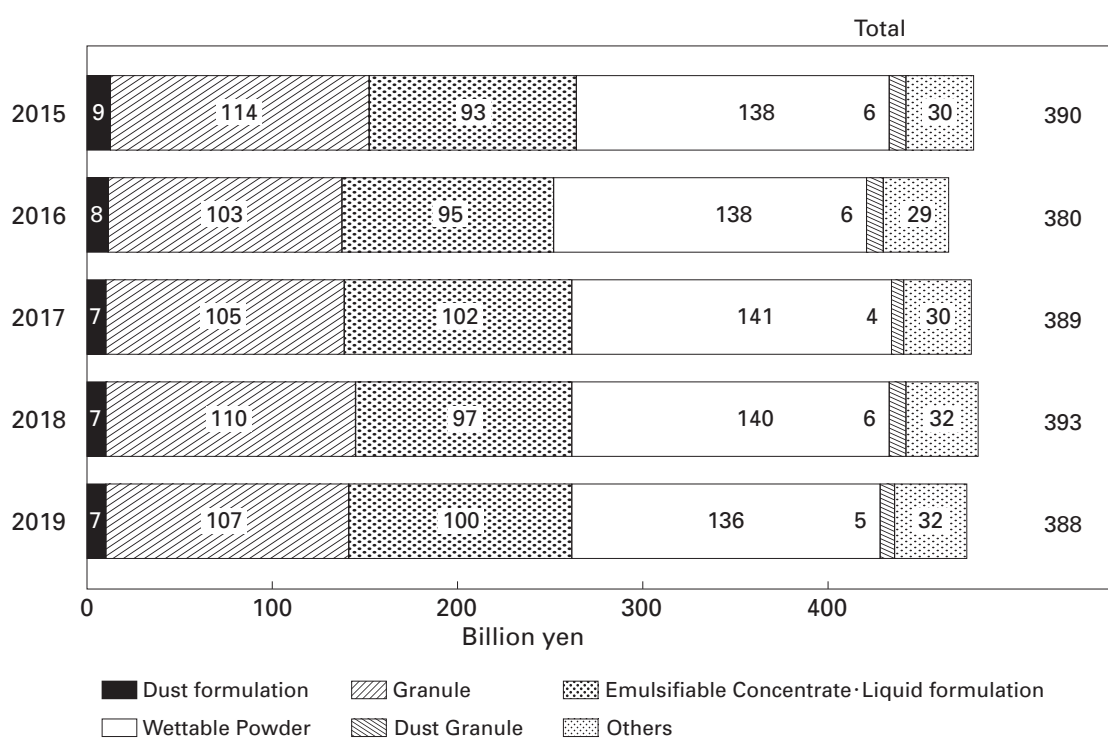
4. Distribution System of Agrochemicals

JPPA* in 2020



(*JPPA/Japan Plant Protection Association)

5. Agrochemicals Production by Formulation (2015-2019) (Source; JPPA)



6. Pest Infestation and Agrochemical Treatment in 2019 (Source; JPPA)

Crop (Planted Area) (1,000ha)	Pests and diseases	Net treated area (1,000ha)	Total treated area	
			Area (1,000ha)	Comparison with 2018 (100%)
Rice (1,470)	Seedling blight	703	769	89%
	Blast (leaf)	1,075	1,311	99%
	Blast (neck & ear)	843	1,121	113%
	Sheath blight	586	656	96%
	Bakanae disease	939	940	99%
	Rice stem borer (2nd generation)	154	166	104%
	White-backed planthopper	778	1,175	110%
	Brown rice planthopper	514	892	118%
	Small brown planthopper	798	1,238	104%
	Green rice leafhopper	636	984	109%
	Rice leaf beetle	597	592	99%
	Rice stink bug	1,034	1,526	104%
	Rice leafroller	358	430	129%
	Rice water weevil	788	812	110%
Wheat & Barley (273)	Powdery mildew	156	329	121%
	Scab	227	497	78%
	Snow rots	94	94	100%
Potato (74)	Late blight	57	388	98%
	Twenty-eight-spotted ladybird	4	7	100%
Soybean (144)	Purple stain	62	95	100%
	Soybean pod borer	82	146	99%
	Stink bugs	60	74	100%
Citrus (66)	Scab	41	79	110%
	Melanose	54	202	100%
	Arrowhead scale	38	76	115%
	Citrus red mite	54	152	106%
Apple (37)	Blossom blight	25	50	96%
	Alternaria leaf spot	36	324	87%
	Scab	36	363	92%
	Peach fruit moth	35	186	96%
	Apple leafminer	36	70	99%
	Mites	7	41	95%
Pear (13)	Black spot	5	41	98%
	Scab	11	119	98%
Vine (18)	Ripe rot	12	43	108%
	Rust	10	27	104%
	Leaf spot	8	28	88%
	Anthracoise	9	20	100%
	Downy mildew	13	59	102%
	Gray mold	13	31	148%
	Thrips	11	31	103%

Crop (Planted Area 1,000ha)	Pests and diseases	Net treated area (1,000ha)	Total treated area	
			Area (1,000ha)	Comparison with 2018 (100%)
Tea (41)	Anthracnose	35	77	100%
	Smaller tea tortrix	34	76	106%
	Oriental tea tortrix	29	57	98%
	Tea leafroller	35	64	107%
	Tea green leafhopper	34	84	100%
	Kanzawa spider mite	34	74	101%
	Thrips	34	84	93%
Cucumber (10)	Downy mildew	6	30	100%
	Anthracnose	2	8	89%
	Powdery mildew	6	27	100%
	Bacterial spot	2	6	120%
	Aphids	6	21	105%
Cabbage (35)	Black rot	17	25	96%
	Diamondback moth	20	45	96%

7. Herbicide Application in Rice Field

Crop	Application method	2020		
		Volume (t)	Value (million yen)	Estimated Area (1,000ha)
Rice	One-shot application	13,192	42,391	1,749
	Pre- and early post-emergence application	4,157	5,858	594
	Post-emergence application	6,245	12,500	665
	Total	23,594	60,749	3,008

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

8. Average Agricultural Expenditure by Crop in 2019 (Source; MAFF)

Unit: yen/10a

	Rice		Wheat		Potato		Sugar beet		Soybean	
Seed & Seedling	3,707	3%	3,210	5%	14,734	18%	3,636	4%	3,910	7%
Fertilizers	9,065	8%	9,858	17%	10,546	13%	23,125	25%	6,019	11%
Agrochemicals	7,670	7%	5,354	9%	11,266	14%	13,024	14%	5,871	11%
Fuel	4,745	4%	2,219	4%	3,476	4%	3,710	4%	2,511	5%
Rent & Charge	11,495	10%	16,078	28%	1,426	2%	2,480	3%	7,982	15%
Buildings cost	3,640	3%	1,116	2%	1,412	2%	1,696	2%	976	2%
Agricultural machinery	25,452	23%	9,521	16%	16,746	21%	15,975	17%	11,565	21%
Labor	34,247	30%	6,332	11%	14,761	18%	20,597	22%	11,317	21%
Others	12,675	11%	4,709	8%	5,888	7%	9,289	10%	4,599	8%
Total	112,696	100%	58,397	100%	80,255	100%	93,532	100%	54,750	100%

9. Rice Production (Source; MAFF)

9-1. Transition of Rice Acreage for 10 years

Unit: 1,000ha

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cultivated Area	2,474	2,469	2,326	2,320	2,310	2,296	2,284	2,273	2,261	2,248
Planted Area	1,576	1,581	1,599	1,575	1,506	1,479	1,466	1,470	1,470	1,462
Set-aside*1 (%)	36	36	31	32	35	36	36	35	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	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Yield (t/ha)	5.33	5.40	5.39	5.36	5.31	5.44	5.34	5.29	5.28	5.31
Normal Yield (t/ha)*1	5.30	5.30	5.30	5.30	5.31	5.31	5.32	5.32	5.33	5.35
Index number of Rice Yield*2	101	102	102	101	100	102	100	99	99	99
Total Production (million ton)	8.4	8.5	8.6	8.4	8.0	8.0	7.8	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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