HOKKO

2022

Company Information and Market Report of Agrochemicals in Japan

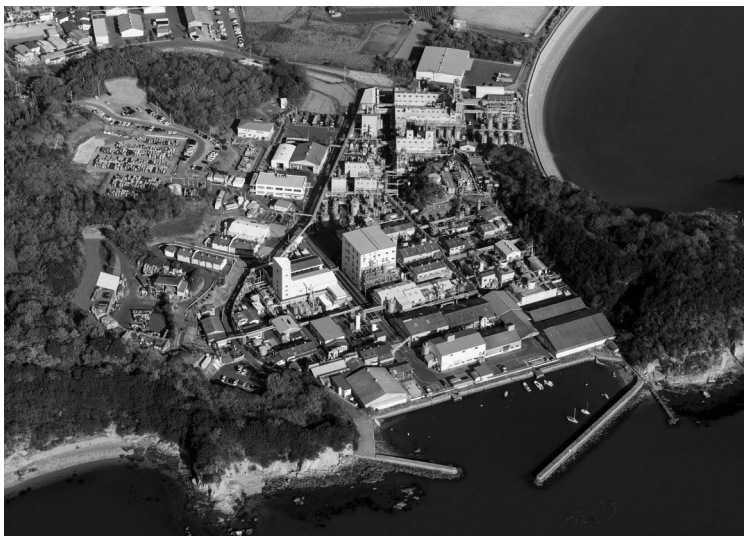
CONTENTS

Part I. COMPANY INFORMATION

1. Briefings (As of November 30, 2021)

Foundation:	February 27, 1950	
Paid-in Capital:	¥3.2 billion	
Main stock holders		
	The Master Trust Bank of Japan Ltd.(trust)	9.5%
	Nomura Shokusan Co., Ltd.	7.8%
	Sumitomo Chemical Co., Ltd.	7.3%
	Custody Bank of Japan, Ltd.(trust)	6.1%
	Resona Bank, Limited.	5.0%
	BNP PARIBAS SECURITIES SERVICES LUXEMBOURG/JASDEC/FIM/ LUXEMBOURG FUNDS/UCITS ASSETS	4.7%
	Hokko Chemical Industry Employee Shareholding Association	3.9%
	The Norinchukin Bank	3.2%
	Nomura Holdings, Inc.	3.1%
	National Federation of Agricultural Cooperative Associations(ZEN-NOH)	3.0%
Employees:	647	

Central Research Laboratories



Okayama Factory

2. Organization (As of February 25, 2022)

Board of Directors:

President — Ken-ichi Sano

Director, Managing Executive Officer — Shin-ichi Hayakawa

Director, Executive Officer — Naoyuki Hamada

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)

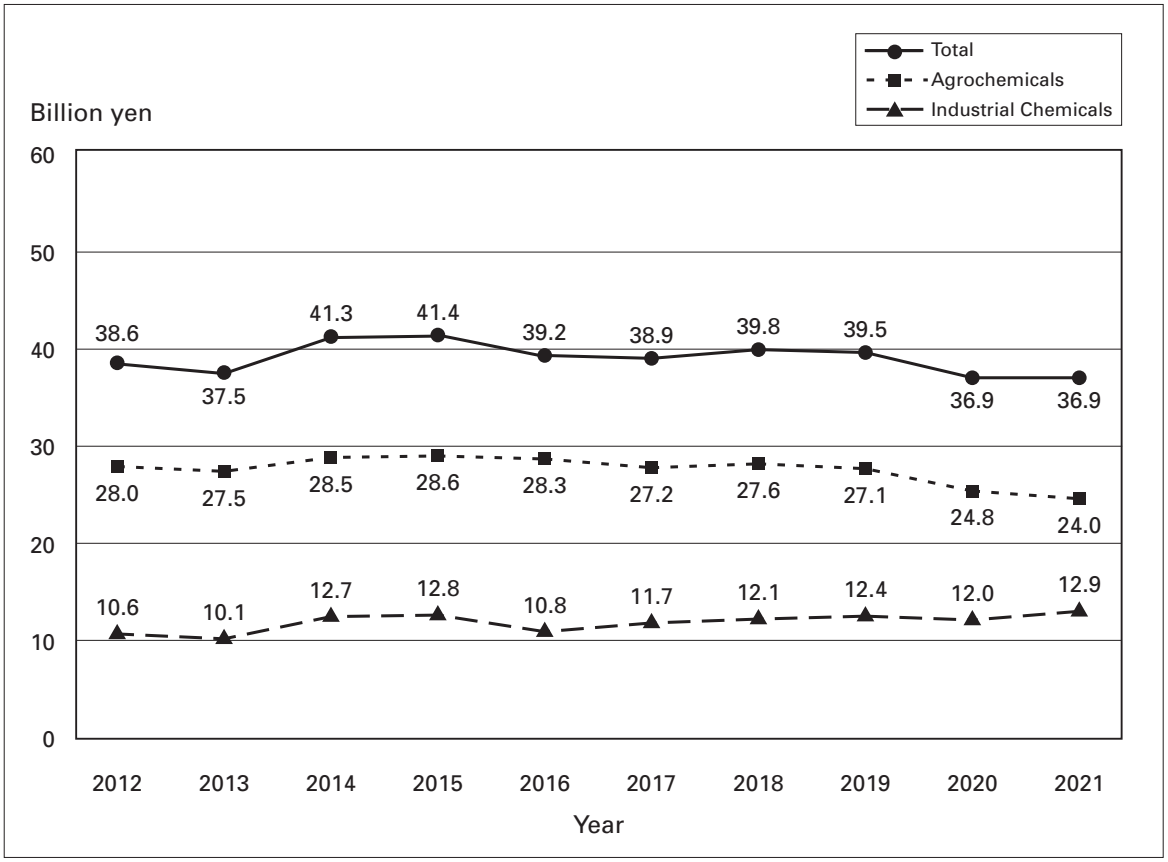
3. 2021 Business Report (As of November 30, 2021)

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

Value: Million yen

	2020		2021		
	Value	Share(%)	**Value**	**Share(%)**	**Growth(%)**
Agrochemicals					
Insecticides	5,581	15.1	**5,494**	**14.9**	**98.4**
Fungicides	6,675	18.1	**7,158**	**19.4**	**107.2**
I/F Combinations	5,309	14.4	**4,955**	**13.4**	**93.3**
Herbicides	6,802	18.4	**6,024**	**16.3**	**88.6**
Others	477	1.3	**401**	**1.1**	**113.4**
Subtotal	24,843	67.3	**24,032**	**65.1**	**96.7**
Industrial Chemicals	12,047	32.7	**12,861**	**34.9**	**106.8**
Total	36,890	100	**36,893**	**100**	**100.0**
Export (Included in Total Sales)					
Agrochemicals	2,363	6.4	**2,711**	**7.3**	**100.2**
Industrial Chemicals	2,600	7.0	**2,649**	**7.2**	**101.9**

3-2. Annual Progress of Business Turnover (2012-2021)



4. Hokko's Leading Products in 2021

4-1. INSECTICIDE

Product Name	Active Ingredient	Crop	Pest
Starkle	dinotefuran	Rice, Vegetables, Fruit	Planthoppers, Stink bugs, Aphids, Thrips, Whiteflies, Scales, etc.
Kirappu	ethiprole	Rice, Fruit, Tea	Planthoppers, Stink bugs, 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	silafluofen	Rice	Planthoppers, Stink bugs, etc.
Transform	sulfoxaflor	Vegetables, Fruit	Thrips, Aphids, Scales, etc.
Exceed	sulfoxaflor	Rice	Stink bugs, Planthoppers, etc.
Finesave	flometoquin	Vegetables, Citrus, Tea	Thrips, mites, Lepidopteran pests, etc.
Brofreya	broflanilide	Vegetables	Diamondback moth, Tobacco budworm, Tobacco cutworm, Leaf beetle, 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
Affet	penthiopyrad	Vegetables	Gray mold, Powdery mildew, Stem rot
Oryzemate / Dr.Oryze	probenazole	Rice	Blast
Blasin	ferimzone + fthalide	Rice	Blast, Bacterial disease
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
Millionaire	Inpyrfluxam	Vegetables	Rust, Gray mold, etc.
Gouketsu	tolprocarb	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, Sheath blight
Doublecut K	kasugamycin + tricyclazole + ethiprole	Rice	Blast, Stink bugs
Gouketsu-buster	dinotefuran + tolprocarb	Rice	Blast, Stink bugs, Various pests
Topsin Starkle	dinotefuran + thiophanate-methyl	Rice	Blast, Stink bugs, Planthoppers
Rabcide-Starkle	dinotefuran + fthalide	Rice	Blast, Stink bugs
Gouketsu-monster	dinotefuran + simeconazole + tolprocarb	Rice	Blast, Various pests
Blasin Kirappu	ferimzone + fthalide + ethiprole	Rice	Blast, Stink bugs, 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
Kairiki Z	ipfencarbazone + tefuryltrione + propyrisulfurom	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 emergence application
Basagran	bentazone	Rice, Soybean, Wheats	Broadleaf weed, Post emergence application
Lenapac	lenacil + chloridazon	Sugar beet	Annual weed, Early post emergence 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
Hokuto	ipfencarbazone	Herbicide	2.5% GR, 25% SC
Taipan	benzofenap	Herbicide	—
Benfuresate	benfuresate	Herbicide	—

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 exellent 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 (*Pyricularia oryzae*)	◎	◎
	Bacterial grain rot (*Burkholderia glumae*)	◎	
	False smut (*Villosiclava virens*)		◎
	Bacterial brown stripe (*Acidovorax avenau* subsp. *avenae*)	◎	
	Bacterial leaf blight (*Xanthomonas oryzae* pv. *oryzae*)	◎	
Sugar beet	Cercospora leaf spot (*Cercospora beticola*)	◎	◎
Cucumber Melon, Watermelon	Angular leaf spot (*Pseudomonas syringae* pv. *lachrymans*)	◎	◎
	Bacterial spot (*Xanthomonas cucurbitae*)	◎	◎
	Anthracnose (*Colletorichum orbiculare*)	◎	
	Powdery mildew (*Podosphaera xanthii*)		◎
	Downy mildew (*Pseudoperonospora cubensis*)		◎
Tomato	Leaf mold (*Passalora fulva*)	◎	◎
	Bacterial canker (*Clavibacter michiganensis* subsp. *michiganensis*)	◎	◎
	Bacterial spot (*Xanthomonas vesicatoria*)		◎
	Late blight (*Phytophthora infestans*)		◎
Onion	Bacterial soft rot (*Pectobacterium carotovorum*)	◎	◎
Potato	Bacterial soft rot (*Pectobacterium carotovorum*)	◎	◎
Paprika Sweet pepper Chile	Bacterial spot (*Xanthomonas vesicatoria*)	◎	◎
	Anthracnose (*Colletotrichum capsici*)	◎	◎
	Powdery mildew (*Leveillula taurica*)		◎
Green beans	Halo blight (*Pseudomonas savastanai* pv. *phaseolicola*)	◎	◎
Apple, Pear	Fire blight (*Erwinia amylovora*)	◎	
Kiwifruit	Bacterial canker (*Pseudomonas syringae* pv. *actinidiae*)	◎	◎
	Bacterial blossom blight (*Pseudomonas marginalis* pv. *marginalis*)	◎	◎
Citrus	Canker (*Xanthomonas citri* subsp. *citri*)	◎	◎
Coffee	Black spot (*Pseudomonas syringae* pv. *garcae*)	◎	◎
Tea	Gray blight (*Pestalotiopsis longiseta*)	◎	◎
	Bacterial shoot blight (*Pseudomonas syringae* pv. *theae*)	◎	◎
Egg plant	Leaf mold (*Mycovellosiella nattrassii*)	◎	
Celery	Early blight (*Cercospora apii*)	◎	
Carrot	Bacterial soft rot (*Pectobacterium carotovorum*)	◎	
Cherry	Bacterial blast (*Pseudomonas syringae* pv. *syringae*)	◎	
	Bacterial canker (*Pseudomonas syringae* pv. *syringae*)	◎	
Walnut	Walnut blight (*Xanthomonas campestris* pv. *juglandis*)	◎	

Crop	Disease (Pathogen)	KASUMIN	KASUMIN-BORDEAUX
Cabbage	Black rot (*Xanthomonas campestris* pv. *campestris*) Bacterial soft rot (*Pectobacterium carotovorum*)		◎ ◎
Lettuce	Bacterial rot (*Pseudomonas cichorii, Pseudomonas marginalis* pv. *martinalis, Pseudomonas viridiflava*) Bacterial spot (*Xanthomonas axonopodis* pv. *vitians*)		◎ ◎
Rose	Powdery mildew (*Podosphaera pannosa*)		◎

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

MANAGE

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

Crop	Disease (Pathogen)
Turf	Rust (*Puccinia zoysiae*)
Rose	Black spot (*Diplocarpon rosae*) Powdery mildew (*Erysiphe Simulans*)
Chrysanthemum	White Rust (*Puccinia horiana*) Rust (*Puccinia tanaceti* var. *tanaceti*)
Japanese spindle tree	Powdery mildew (*Erysiphe euonymicola*)
Crape Myrtle	Powdery mildew (*Erysiphe australiana*)
Poplar	Powdery mildew (*Uncinula adunca* var. *mandshurica*) Marssonina leaf blight (*Marssonina brunnea*)
Tobacco	Powdery mildew (*Erysiphe cichoracearum*)

HEALTHIED

Crop	Disease(Pathogen)	Application
Rice	Bakanae disease (*Gibberella fujikuroi*)	Seed treatment
Cyclamen (greenhouse)	Anthracnose (*Colletotrichum gloeosporioides*)	Spray

5-2. HERBICIDE

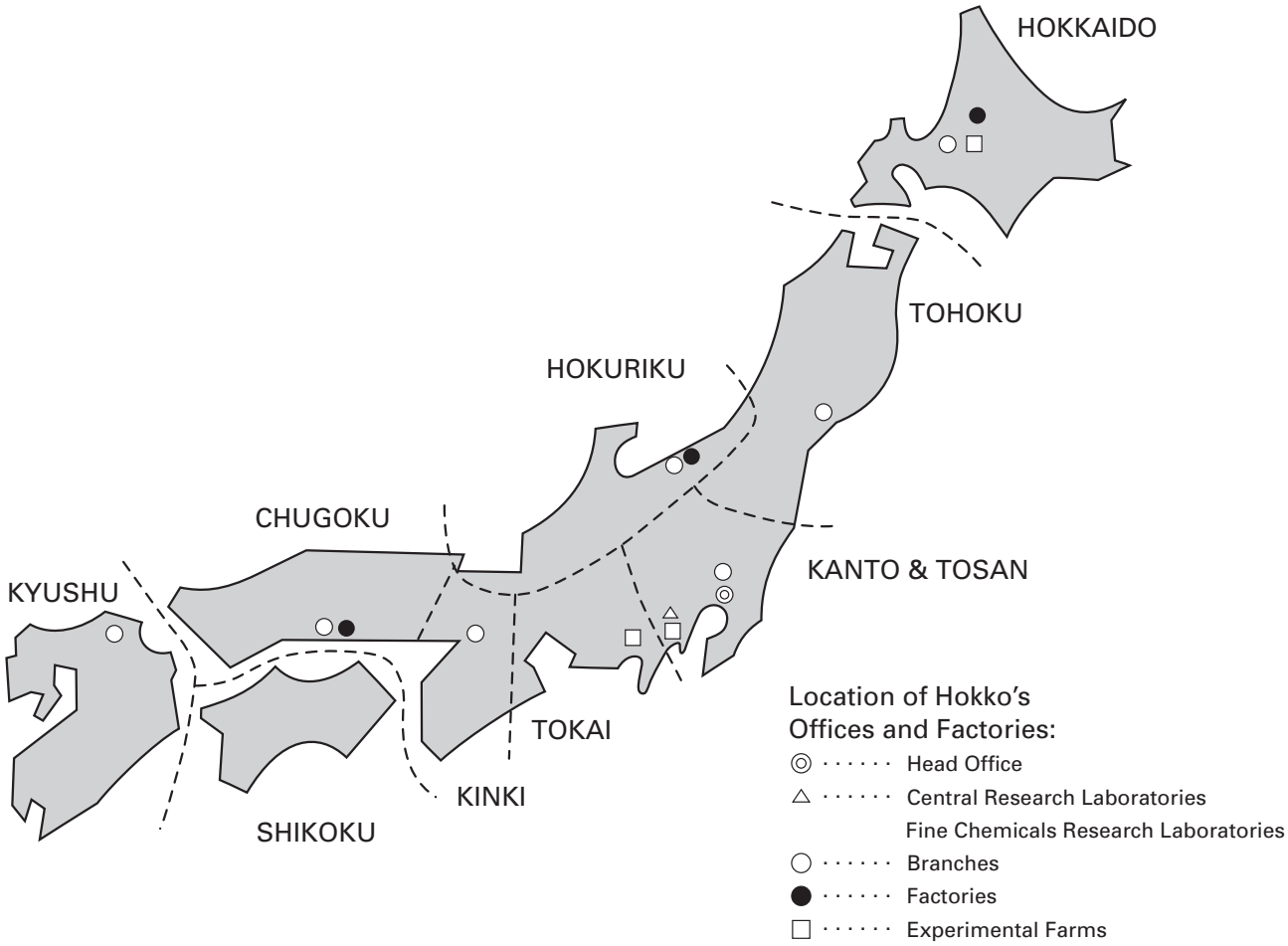
HOKUTO

An azolyl-carboxamides 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, Echinochloa crus-galli, Leptochloa chinensis, Ischaemum rugosum, Fimbristylis miliacea, Cyperus difformis, Schoenoplectiella juncoides, Lindernia procumbens, Monochoria vaginalis, Cyperus rotundus, 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 2021

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

Unit: 1,000ha.

Crop / Region	Rice	Wheat/Barley	Potato	Soybean	Citrus	Apple	Pear	Grape	Cucumber	Cabbage	Tea
HOKKAIDO	96.1	128.3	47.1	42.0	—	0.5	—	1.1	0.2	1.0	—
TOHOKU	363.0	7.8	2.1	35.6	—	26.6	2.2	2.7	2.0	1.5	—
HOKURIKU	201.8	10.0	—	11.7	—	0.1	0.8	0.4	0.5	0.0	—
KANTO & TOSAN	253.1	37.5	3.6	9.7	1.1	7.4	4.5	6.3	3.3	9.7	0.6
TOKAI	89.6	17.4	0.7	12.2	7.0	0.1	0.4	0.4	0.4	1.6	15.4
KINKI	99.3	10.4	—	9.3	7.5	—	0.2	0.7	0.5	0.6	1.3
CHUGOKU	98.8	6.7	0.5	4.3	2.3	0.1	0.9	1.7	0.5	0.5	0.0
SHIKOKU	45.9	5.3	—	0.5	7.4	—	0.2	0.3	0.5	0.3	0.0
KYUSHU	155.7	59.5	7.3	21.0	11.1	—	1.3	1.1	1.6	2.0	8.0
Total	1404.0	283.0	68.5	146.2	37.0	35.3	11.7	16.5	9.9	19.4	25.3
Comparison with Previous Year (100%)	96	102	92	103	57	95	94	93	98	56	65

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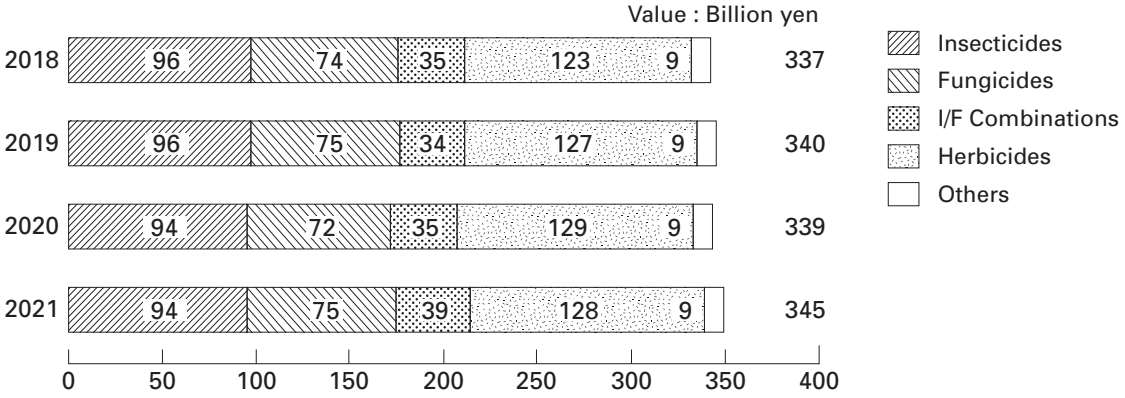
3. Agrochemicals Business by the member companies of JCPA* in 2021

(*Japan Crop Protection Association)

3-1 Agrochemicals Deliveries

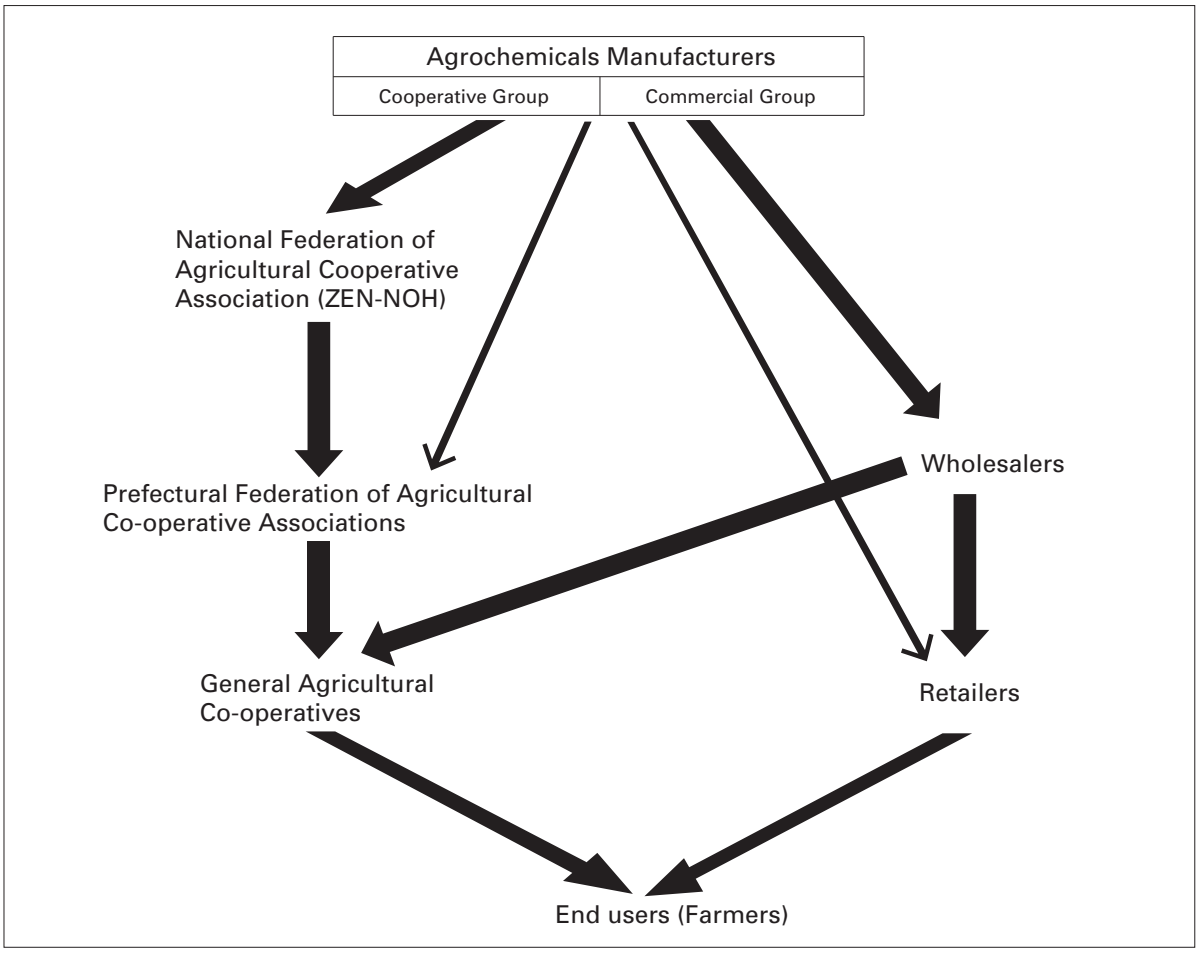


3-2 Agrochemicals Value by Crop

Sector	Agrochemicals group	Value		Comparison with 2020 (100%)
		Billion yen	%	
Paddy rice	Insecticides	12.7	4	103%
	Fungicides	10.1	3	108%
	I/F Combinations	33.8	10	112%
	Herbicides	62.5	18	96%
	Subtotal	**119.1**	**34**	**102%**
Fruit trees	Insecticides	18.9	5	97%
	Fungicides	18.5	5	104%
	I/F Combinations	0.3	0	106%
	Herbicides	9.1	3	102%
	Subtotal	**46.9**	**14**	**101%**
Vegetables, potatoes, beans etc.	Insecticides	55.8	16	98%
	Fungicides	40.2	12	102%
	I/F Combinations	3.0	1	104%
	Herbicides	23.7	7	106%
	Subtotal	**122.7**	**36**	**101%**
Others	Insecticides	6.3	2	106%
	Fungicides	5.8	2	103%
	I/F Combinations	1.9	1	103%
	Herbicides	33.4	10	105%
	Subtotal	**47.4**	**14**	**105%**
(Total)	Insecticides	93.7	27	99%
	Fungicides	74.6	22	103%
	I/F Combinations	39.0	11	111%
	Herbicides	128.7	37	100%
	Others	**9.2**	**3**	**104%**
Grand total		**345.3**	**100**	**102%**

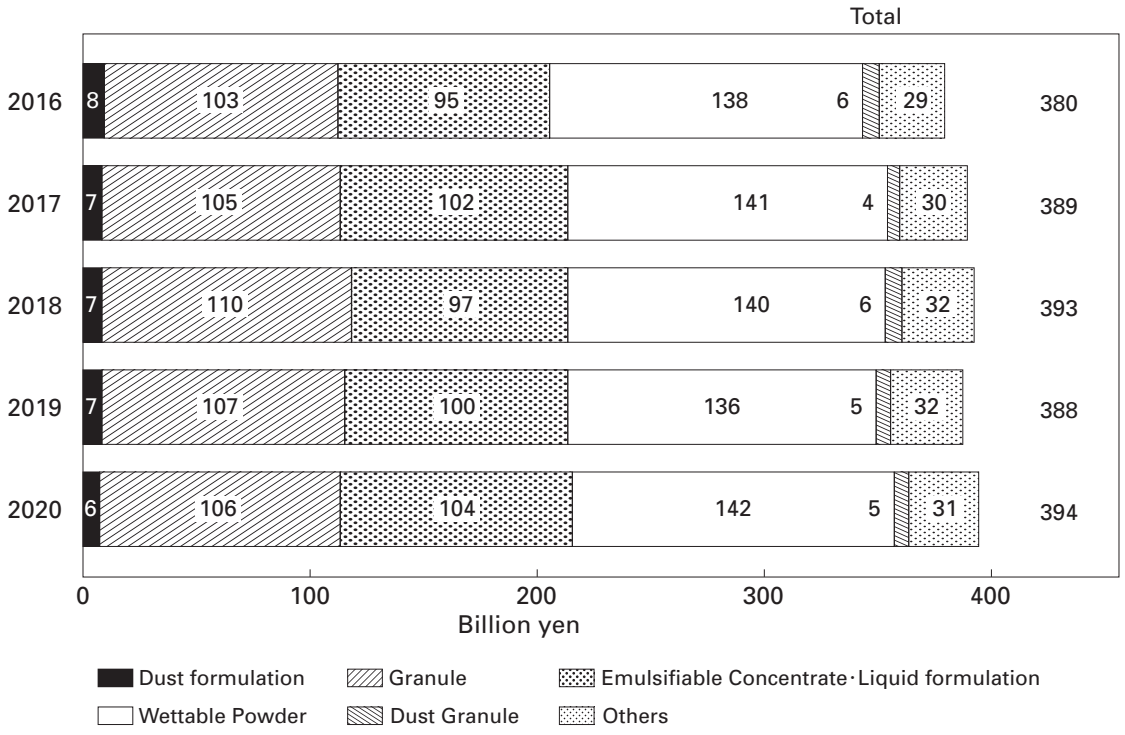
4. Distribution System of Agrochemicals

JPPA* in 2021



(*JPPA/Japan Plant Protection Assosiation)

5. Agrochemicals Production by Formulation (2016-2020) (Source; JPPA)



6. Pest Infestation and Agrochemical Treatment in 2020 (Source; JPPA)

Crop (Planted Area 1,000ha)	Pests and diseases	Net treated area (1,000ha)	Total treated area	
			Area (1,000ha)	Comparison with 2019 (100%)
Rice (1,463)	Seedling blight	767	813	106%
	Blast (leaf)	1,089	1,393	106%
	Blast (neck & ear)	928	1,275	114%
	Sheath blight	615	680	104%
	Bakanae disease	849	861	92%
	Rice stem borer (2nd generation)	157	170	102%
	White-backed planthopper	818	1,296	110%
	Brown rice planthopper	547	1,016	114%
	Small brown planthopper	864	1,379	111%
	Green rice leafhopper	667	1,058	108%
	Rice leaf beetle	609	614	104%
	Rice stink bug	1,086	1,595	105%
	Rice leafroller	381	500	116%
	Rice water weevil	786	835	103%
Wheat & Barley (274)	Powdery mildew	159	329	100%
	Scab	217	508	102%
	Snow rots	95	95	101%
Potato (69)	Late blight	54	380	98%
	Twenty-eight-spotted ladybird	4	7	100%
Soybean (142)	Purple stain	60	92	97%
	Soybean pod borer	81	144	99%
	Stink bugs	59	79	107%
Citrus (37)	Scab	39	72	91%
	Melanose	52	196	97%
	Arrowhead scale	37	78	103%
	Citrus red mite	53	145	95%
Apple (37)	Blossom blight	25	43	86%
	Alternaria leaf spot	36	322	99%
	Scab	36	365	101%
	Peach fruit moth	35	174	94%
	Apple leafminer	36	66	94%
	Mites	14	42	102%
Pear (12)	Black spot	4	39	95%
	Scab	10	115	97%
Vine (18)	Ripe rot	12	43	100%
	Rust	10	27	100%
	Leaf spot	8	28	100%
	Anthracnose	9	28	140%
	Downy mildew	12	59	100%
	Gray mold	12	31	100%
	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 2019 (100%)
Tea (39)	Anthracnose	34	75	97%
	Smaller tea tortrix	33	73	96%
	Oriental tea tortrix	27	55	96%
	Tea leafroller	34	62	97%
	Tea green leafhopper	33	83	99%
	Kanzawa spider mite	33	73	99%
	Thrips	33	87	104%
Cucumber (10)	Downy mildew	6	28	93%
	Anthracnose	2	8	100%
	Powdery mildew	6	25	93%
	Bacterial spot	2	6	100%
	Aphids	6	20	95%
Cabbage (19)	Black rot	17	25	100%
	Diamondback moth	20	49	109%

7. Herbicide Application in Rice Field

Crop	Application method	2021		
		Volume (t)	Value (million yen)	Estimated Area (1,000ha)
Rice	One-shot application	12,418	40,168	1,654
	Pre- and Early post-emergence application	4,087	5,783	584
	Post-emergence application	5,846	12,258	648
	Total	22,352	58,210	2,886

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

8. Average Agricultural Expenditure by Crop in 2020 (Source; MAFF)

Unit: yen/10a

	Rice		Wheat		Potato		Sugar beet		Soybean	
Seed & Seedling	3,542	3%	3,474	6%	15,637	19%	3,679	4%	3,896	7%
Fertilizers	9,030	8%	10,061	17%	10,943	13%	23,608	25%	6,243	11%
Agrochemicals	7,774	7%	5,549	9%	11,023	13%	13,178	14%	6,506	12%
Fuel	4,517	4%	1,988	3%	2,961	4%	3,234	3%	2,207	4%
Rent & Charge	11,147	10%	15,646	26%	2,293	3%	2,299	2%	8,525	15%
Buildings cost	3,834	3%	1,087	2%	1,526	2%	1,993	2%	1,183	2%
Agricultural machinery	25,304	22%	10,085	17%	17,780	21%	16,543	18%	11,487	21%
Labor	34,729	31%	6,281	11%	15,386	18%	20,628	22%	10,906	20%
Others	12,629	11%	4,921	8%	5,711	7%	9,128	10%	4,635	8%
Total	112,506	100%	59,092	100%	83,260	100%	94,290	100%	55,588	100%

9. Rice Production (Source; MAFF)

9-1. Transition of Rice Acreage for 10 years

Unit: 1,000ha

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**
Cultivated Area	2,469	2,326	2,320	2,310	2,296	2,284	2,273	2,261	2,248	**2,236**
Planted Area	1,581	1,599	1,575	1,506	1,479	1,466	1,470	1,470	1,462	**1,404**
Set-aside*1 (%)	36	31	32	35	36	36	35	35	35	**37**

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

9-2. Transition of Rice Production for 10 years

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	**2021**
Yield (t/ha)	5.40	5.39	5.36	5.31	5.44	5.34	5.29	5.28	5.31	**5.39**
Normal Yield (t/ha)*1	5.30	5.30	5.30	5.31	5.31	5.32	5.32	5.33	5.35	**5.35**
Index number of Rice Yield*2	102	102	101	100	102	100	99	99	99	**101**
Total Production (million ton)	8.5	8.6	8.4	8.0	8.0	7.8	7.8	7.8	7.8	**7.6**

*1; Determined by MAFF

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

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