HOKKO

2023

Company Information and Market Report of Agrochemicals in Japan

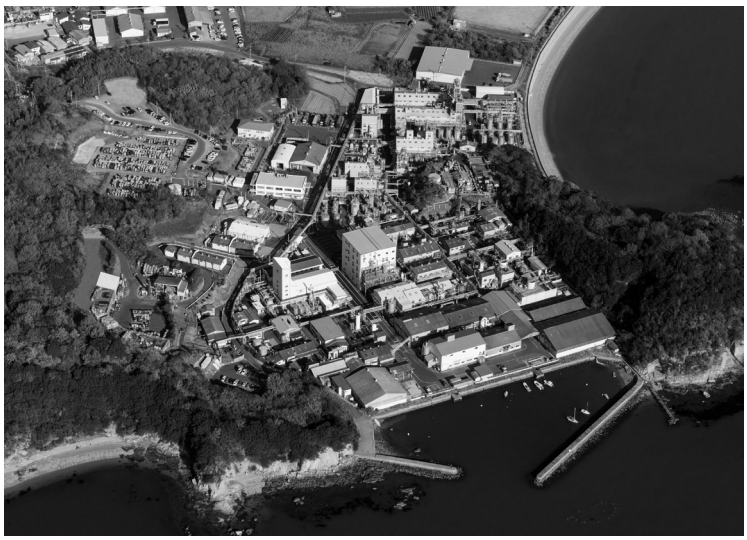
CONTENTS

Part Ⅰ. COMPANY INFORMATION

1. Briefings (As of November 30, 2022)

Foundation:	February 27, 1950	
Paid-in Capital:	¥3.2 billion	
Main stock holders		
	The Master Trust Bank of Japan Ltd.(trust)	10.0%
	Nomura Shokusan Co., Ltd.	7.8%
	Sumitomo Chemical Co., Ltd.	7.3%
	Custody Bank of Japan, Ltd.(trust)	5.8%
	Resona Bank, Limited.	5.0%
	BNP PARIBAS SECURITIES SERVICES LUXEMBOURG/JASDEC/FIM/ LUXEMBOURG FUNDS/UCITS ASSETS	4.2%
	Hokko Chemical Industry Employee Shareholding Association	3.8%
	The Norinchukin Bank	3.2%
	Nomura Holdings, Inc.	3.1%
	National Federation of Agricultural Cooperative Associations(ZEN-NOH)	3.0%
Employees:	636	

Central Research Laboratories



Okayama Factory

2. Organization (As of February 22, 2023)

Board of Directors:

President	Ken-ichi Sano
Director, Managing Executive Officer	Shin-ichi Hayakawa
	Takayuki Torii
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, West Japan, 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)

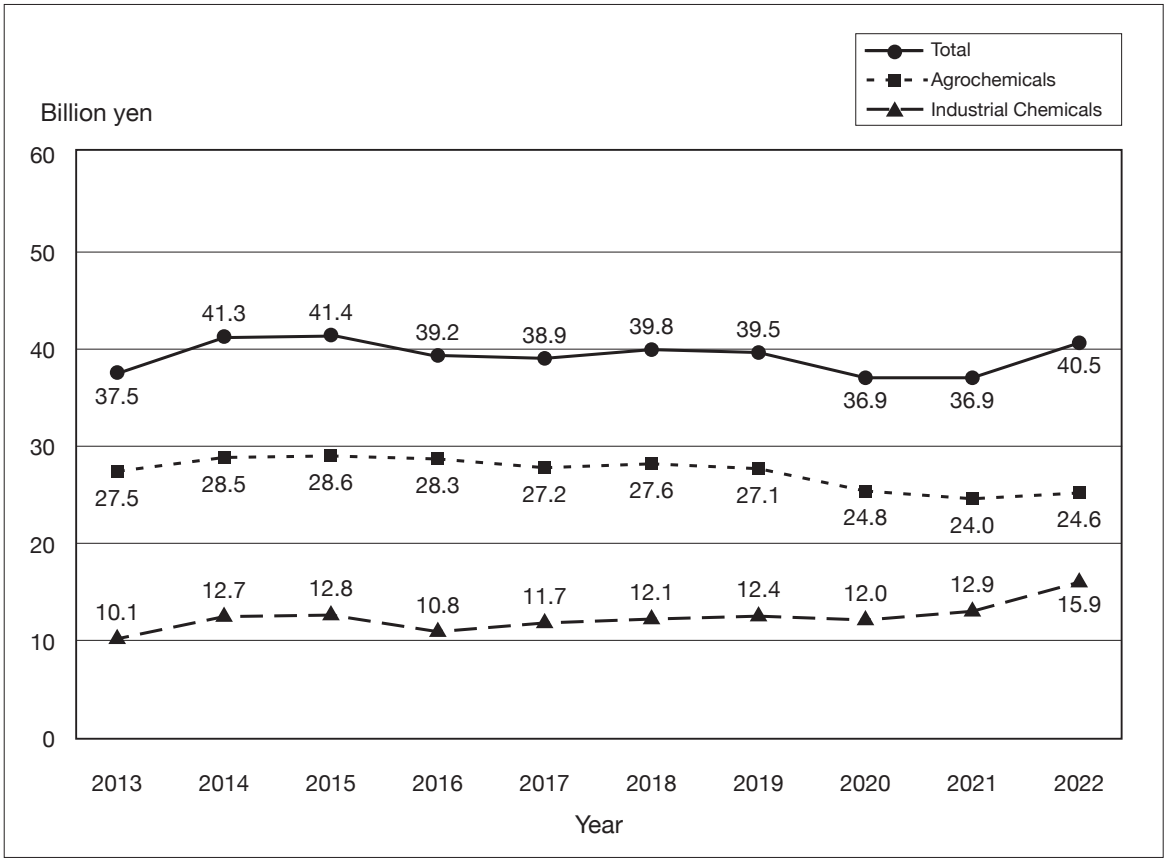
3. 2022 Business Report (As of November 30, 2022)

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

Value: Million yen

	2021		2022		
	Value	Share(%)	**Value**	**Share(%)**	**Growth(%)**
Agrochemicals					
Insecticides	5,494	14.9	**5,172**	**12.8**	**94.1**
Fungicides	7,158	19.4	**7,390**	**18.3**	**103.2**
I/F Combinations	4,955	13.4	**4,889**	**12.1**	**98.7**
Herbicides	6,024	16.3	**6,748**	**16.7**	**112.0**
Others	401	1.1	**389**	**1.0**	**97.0**
Subtotal	24,032	65.1	**24,588**	**60.7**	**102.3**
Industrial Chemicals	12,861	34.9	**15,896**	**39.3**	**123.6**
Total	36,893	100	**40,485**	**100**	**109.7**
Export (Included in Total Sales)					
Agrochemicals	2,711	7.3	**3,669**	**9.1**	**135.4**
Industrial Chemicals	2,649	7.2	**4,360**	**10.8**	**164.6**

3-2. Annual Progress of Business Turnover (2013-2022)



4. Hokko's Leading Products in 2022

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
Dr.Oryze-Lydia	probenazole + flupirimin	Rice	Blast, Various pests
Scrum	chlorantraniliprole + triflumezopyrim + penflufen + isothianil	Rice	Blast, Various pests, Sheath blight
Doublecut K	kasugamycin + tricyclazole + ethiprole	Rice	Blast, Stink bugs
Topsin Starkle	dinotefuran + thiophanate-methyl	Rice	Blast, Stink bugs, Planthoppers
Rabcide-Starkle	dinotefuran + fthalide	Rice	Blast, Stink bugs
Gouketsu-buster	dinotefuran + tolprocarb	Rice	Blast, Stink bugs, Various pests
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 + propyrisulfuron	Rice	One shot application
Winningrun	ipfencarbazone + bromobutide + bensulfuron-methyl	Rice	One shot application
Meteor	pentoxazone	Rice	Annual weed, Pre-emergence application
Yuniherb	benzofenap + pretilachlor	Rice	Annual weed, 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 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 (*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 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

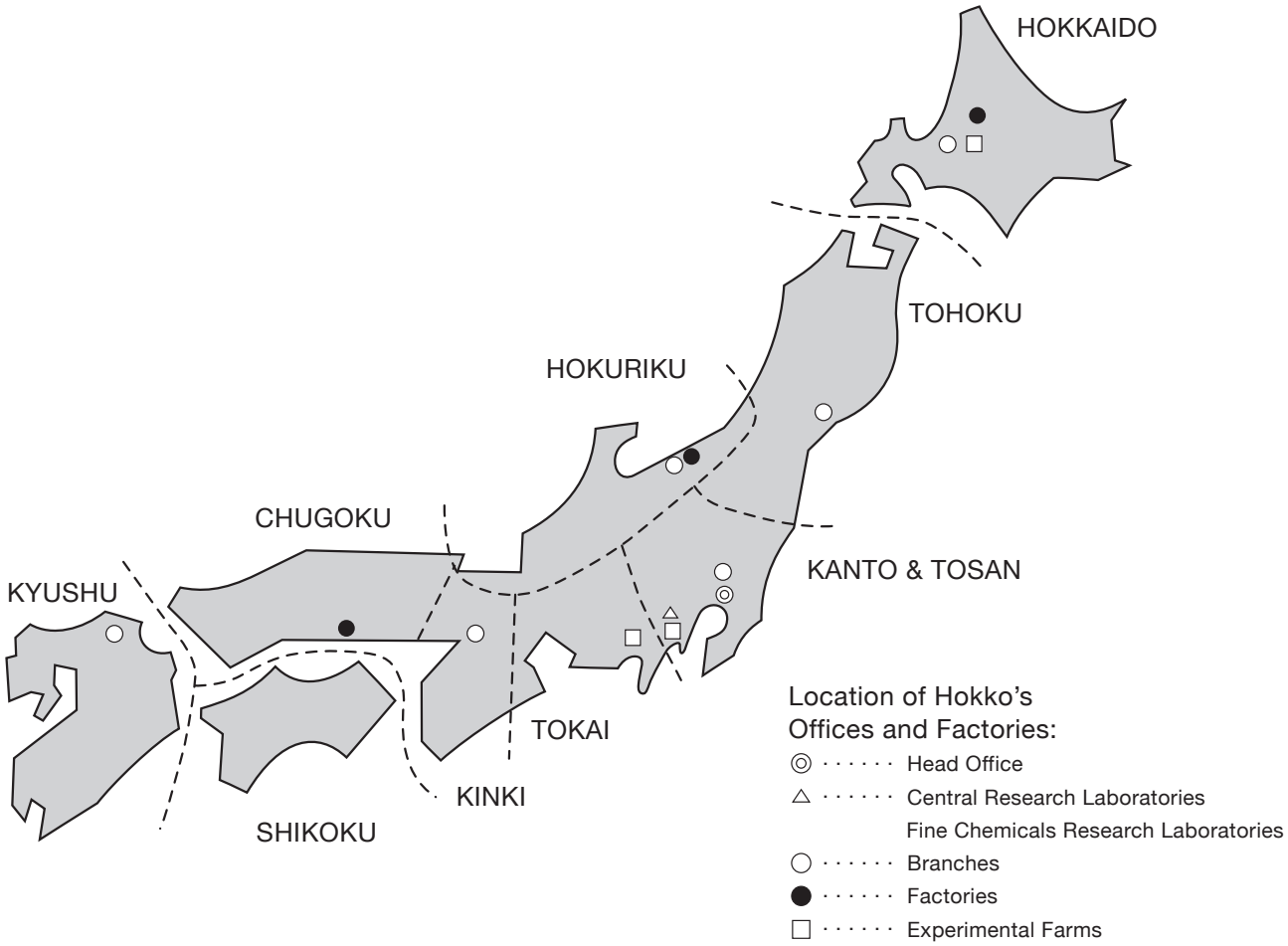
HOKUTO

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 2022

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

Unit: 1,000ha.

Crop / Region	Rice	Wheat/Barley	Potato	Soybean	Citrus*	Apple	Pear	Grape	Cucumber	Cabbage	Tea
HOKKAIDO	93.6	132.4	48.5	43.2	—	0.5	—	1.1	0.1	1.0	—
TOHOKU	348.3	7.9	3.1	37.8	—	26.4	2.2	2.6	2.0	1.8	—
HOKURIKU	198.2	10.7	1.1	12.4	—	0.1	0.8	0.4	0.6	0.4	—
KANTO & TOSAN	240.1	38.0	5.6	10.1	1.2	7.3	4.3	6.4	3.3	9.6	0.5
TOKAI	87.1	17.9	1.1	12.3	8.9	0.1	0.4	0.4	0.5	1.7	14.6
KINKI	96.4	11.0	0.9	9.8	10.1	—	0.2	0.7	0.6	0.7	1.4
CHUGOKU	95.8	6.6	0.9	4.5	3.7	0.1	0.9	1.7	0.5	0.7	—
SHIKOKU	44.6	5.3	0.4	0.5	18.0	—	0.2	0.3	0.5	0.4	—
KYUSHU	150.7	60.8	7.6	21.0	17.6	—	1.3	1.1	1.7	2.5	11.3
Total	1355.0	290.6	69.1	151.6	63.2	35.1	11.5	16.4	9.8	18.9	27.8
Comparison with Previous Year (100%)	97	103	101	104	98	99	98	99	99	97	97

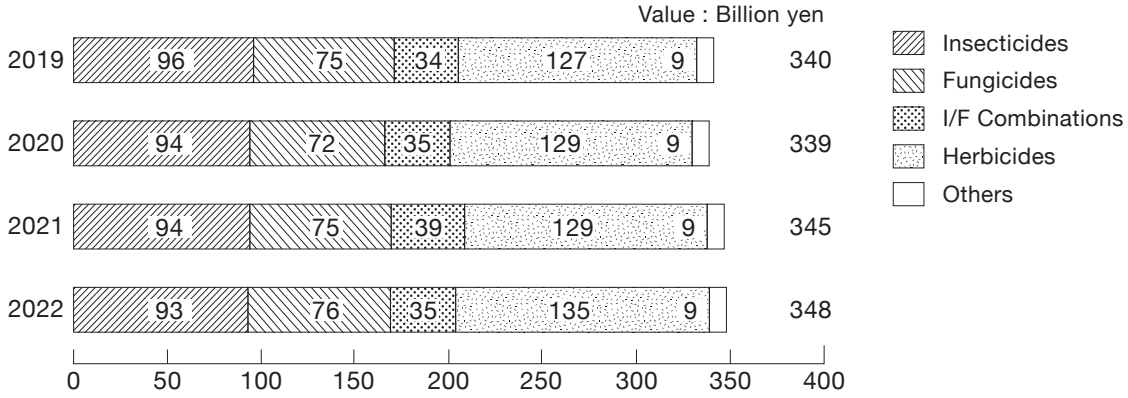
*; Data from 2021

—; not available

3. Agrochemicals Business by the member companies of JCPA* in 2022

(*Japan Crop Protection Association)

3-1 Agrochemicals Deliveries

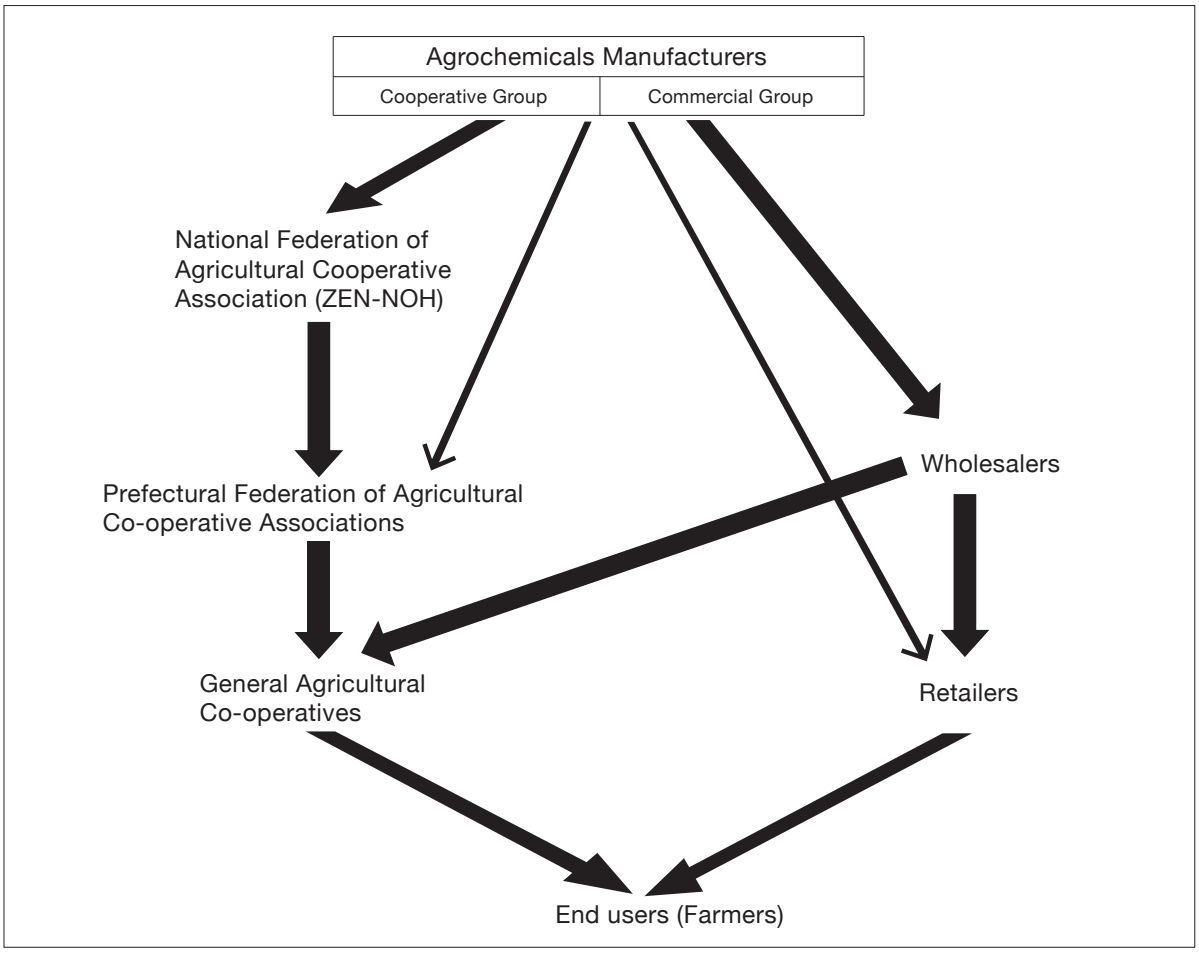


3-2 Agrochemicals Value by Crop

Sector	Agrochemicals group	Value		Comparison with 2021 (100%)
		Billion yen	%	
Paddy rice	Insecticides	11.6	3	91%
	Fungicides	9.0	3	90%
	I/F Combinations	29.8	9	88%
	Herbicides	64.5	19	103%
	Subtotal	**114.9**	**33**	**96%**
Fruit trees	Insecticides	19.1	5	101%
	Fungicides	18.7	5	101%
	I/F Combinations	0.3	0	94%
	Herbicides	10.6	3	116%
	Subtotal	**48.7**	**14**	**104%**
Vegetables, potatoes, beans etc.	Insecticides	56.2	16	101%
	Fungicides	42.0	12	104%
	I/F Combinations	3.2	1	106%
	Herbicides	24.4	7	103%
	Subtotal	**125.8**	**36**	**103%**
Others	Insecticides	6.3	2	100%
	Fungicides	6.1	2	105%
	I/F Combinations	1.9	1	99%
	Herbicides	35.3	10	106%
	Subtotal	**49.6**	**14**	**105%**
(Total)	Insecticides	93.2	27	99%
	Fungicides	75.7	22	102%
	I/F Combinations	35.2	10	90%
	Herbicides	134.8	39	105%
	Others	**9.4**	**3**	**101%**
Grand total		**348.3**	**100**	**101%**

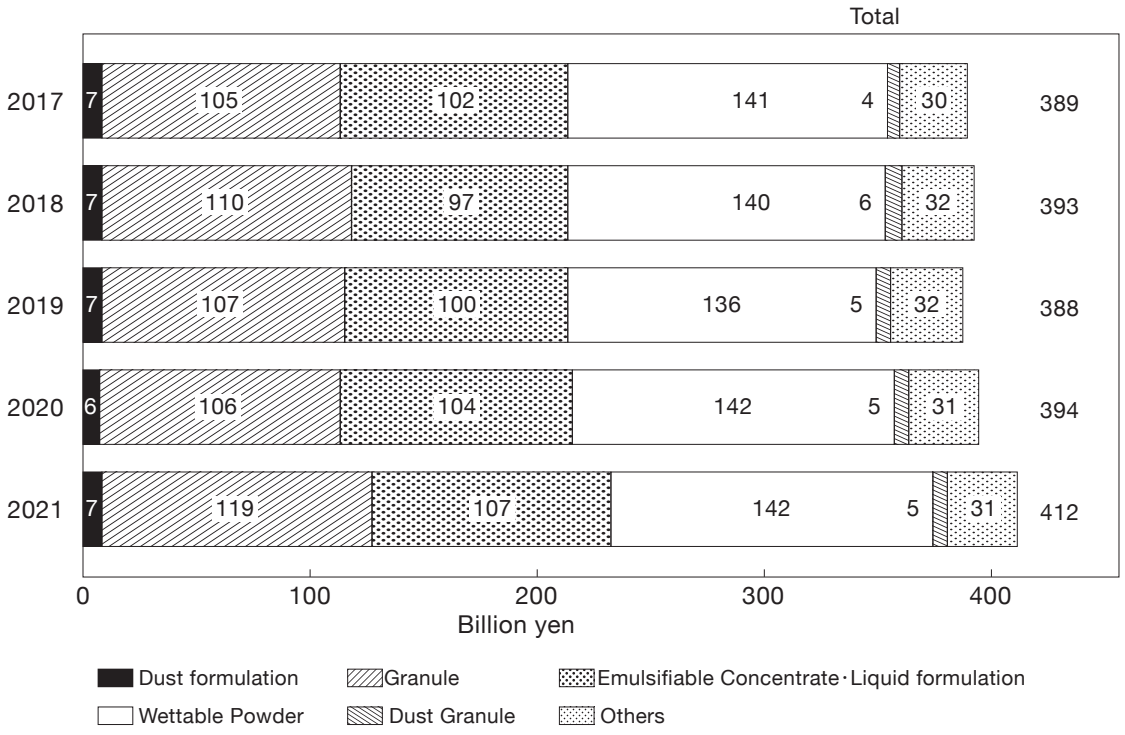
4. Distribution System of Agrochemicals

JPPA* in 2022



(*JPPA/Japan Plant Protection Assosiation)

5. Agrochemicals Production by Formulation (2017-2021) (Source; JPPA)



6. Pest Infestation and Agrochemical Treatment in 2021 (Source; JPPA)

Crop (Planted Area 1,000ha)	Pests and diseases	Net treated area (1,000ha)	Total treated area	
			Area (1,000ha)	Comparison with 2020 (100%)
Rice (1,404)	Seedling blight	855	900	111%
	Blast (leaf)	1,068	1,389	100%
	Blast (neck & ear)	970	1,301	102%
	Sheath blight	662	763	112%
	Bakanae disease	853	858	100%
	Rice stem borer (2nd generation)	130	143	84%
	White-backed planthopper	853	1,320	102%
	Brown rice planthopper	605	1,010	99%
	Small brown planthopper	896	1,396	101%
	Green rice leafhopper	714	1,093	103%
	Rice leaf beetle	638	664	108%
	Rice stink bug	1,142	1,643	103%
	Rice leafroller	405	497	99%
	Rice water weevil	838	890	107%
Wheat & Barley (280)	Powdery mildew	158	334	102%
	Scab	232	524	103%
	Snow rots	97	97	102%
Potato (69)	Late blight	54	364	96%
	Twenty-eight-spotted ladybird	4	19	271%
Soybean (146)	Purple stain	65	93	101%
	Soybean pod borer	82	150	104%
	Stink bugs	60	79	100%
Citrus (37)	Scab	40	69	96%
	Melanose	52	196	100%
	Arrowhead scale	36	75	96%
	Citrus red mite	52	134	92%
Apple (36)	Blossom blight	25	48	112%
	Alternaria leaf spot	36	291	90%
	Scab	36	371	102%
	Peach fruit moth	35	140	80%
	Apple leafminer	35	57	86%
	Mites	14	39	93%
Pear (12)	Black spot	4	38	97%
	Scab	10	108	94%
Vine (16)	Ripe rot	13	43	100%
	Rust	10	27	100%
	Leaf spot	11	32	114%
	Anthracnose	10	29	104%
	Downy mildew	13	60	102%
	Gray mold	12	32	103%
	Thrips	11	30	100%

Crop (Planted Area 1,000ha)	Pests and diseases	Net treated area (1,000ha)	Total treated area	
			Area (1,000ha)	Comparison with 2020 (100%)
Tea (32)	Anthracnose	33	73	97%
	Smaller tea tortrix	32	70	96%
	Oriental tea tortrix	27	53	96%
	Tea leafroller	33	61	98%
	Tea green leafhopper	32	80	96%
	Kanzawa spider mite	33	71	97%
	Thrips	32	84	97%
Cucumber (10)	Downy mildew	6	27	96%
	Anthracnose	2	8	100%
	Powdery mildew	6	24	96%
	Bacterial spot	2	5	83%
	Aphids	6	19	95%
Cabbage (19)	Black rot	17	25	100%
	Diamondback moth	21	45	92%

7. Herbicide Application in Rice Field

Crop	Application method	2022		
		Volume (t)	Value (million yen)	Estimated Area (1,000ha)
Rice	One-shot application	12,222	39,951	1,662
	Pre- and Early post-emergence application	4,078	5,686	581
	Post-emergence application	5,376	12,281	576
	Total	21,676	57,918	2,818

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

8. Average Agricultural Expenditure by Crop in 2021 (Source; MAFF)

Unit: yen/10a

	Rice		Wheat		Potato		Sugar beet		Soybean	
Seed & Seedling	3,788	3%	3,650	6%	16,287	19%	4,186	4%	3,945	7%
Fertilizers	9,091	8%	9,532	16%	10,738	12%	23,282	24%	5,800	11%
Agrochemicals	7,864	7%	5,422	9%	10,659	12%	12,727	13%	6,242	12%
Fuel	5,101	5%	2,204	4%	3,870	4%	3,910	4%	2,582	5%
Rent & Charge	11,407	10%	16,449	28%	1,973	2%	2,855	3%	8,611	16%
Buildings cost	4,009	4%	1,077	2%	1,609	2%	2,144	2%	1,151	2%
Agricultural machinery	24,130	22%	10,448	17%	19,559	23%	18,466	19%	10,946	20%
Labor	33,506	30%	5,959	10%	15,928	18%	18,458	19%	10,179	19%
Others	12,564	11%	4,997	8%	6,284	7%	10,152	11%	4,728	9%
Total	111,460	100%	59,738	100%	86,907	100%	96,180	100%	54,184	100%

9. Rice Production (Source; MAFF)

9-1. Transition of Rice Acreage for 10 years

Unit: 1,000ha

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**
Cultivated Area	2,326	2,320	2,310	2,296	2,284	2,273	2,261	2,248	2,236	**2,223**
Planted Area	1,599	1,575	1,506	1,479	1,466	1,470	1,470	1,462	1,404	**1,355**
Set-aside*1 (%)	31	32	35	36	36	35	35	35	37	**39**

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

9-2. Transition of Rice Production for 10 years

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	**2022**
Yield (t/ha)	5.39	5.36	5.31	5.44	5.34	5.29	5.28	5.31	5.39	**5.36**
Normal Yield (t/ha)*1	5.30	5.30	5.31	5.31	5.32	5.32	5.33	5.35	5.35	**5.36**
Index number of Rice Yield*2	102	101	100	102	100	99	99	99	101	**100**
Total Production (million ton)	8.6	8.4	8.0	8.0	7.8	7.8	7.8	7.8	7.6	**7.3**

*1; Determined by MAFF

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

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