



HOKKO

2014

Company Information and Market Report of Agrochemicals in Japan

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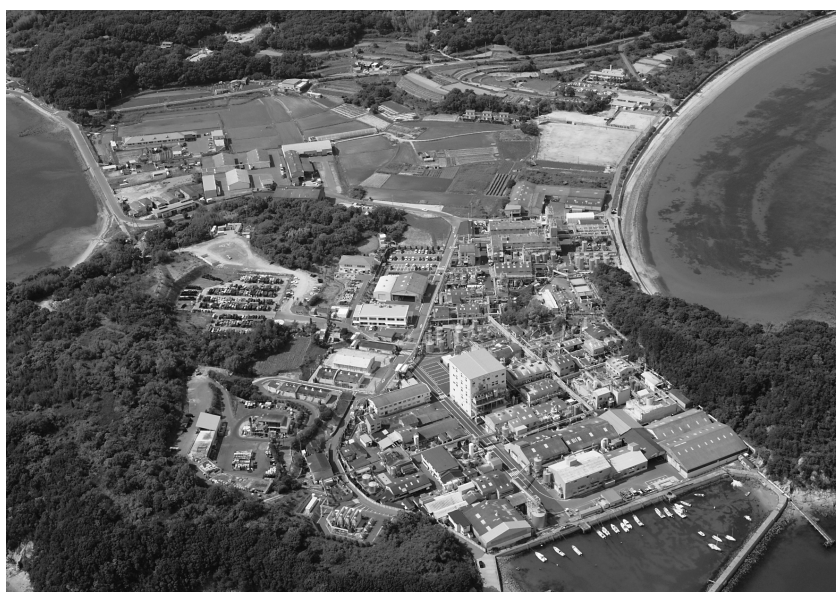
Part I. COMPANY INFORMATION

1. Briefings (As of November 30, 2013)

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%
	Hokko Chemical Industry Employee Shareholding Association 4.6%
	Resona Bank, Limited. 4.5%
	The Norinchukin Bank 2.9%
	Nomura Holdings, Inc. 2.8%
	National Federation of Agricultural Cooperative Associations(ZEN-NOH) 2.7%
Employees:	672



Central Research Laboratories



Okayama Factory

2. Organization (As of February 26, 2014)

Board of Directors:

President Yoshikatsu Nakashima

Director, Senior Managing Executive Officer
Yuji Ogawa

Director, Managing Executive Officer
Tsugio Uchiyama
Nobuyoshi Kamaki

Head Office: Mitsui Building No.2
4-20, Nihonbashi Hongoku-cho, 4 chome, Chuo-ku
Tokyo 103-8341, Japan

Branches: Sapporo, Akita, Sendai, Tokyo, Niigata, Toyama, Nagoya,
Osaka, Okayama, Takamatsu, Fukuoka (11 Branches)

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)

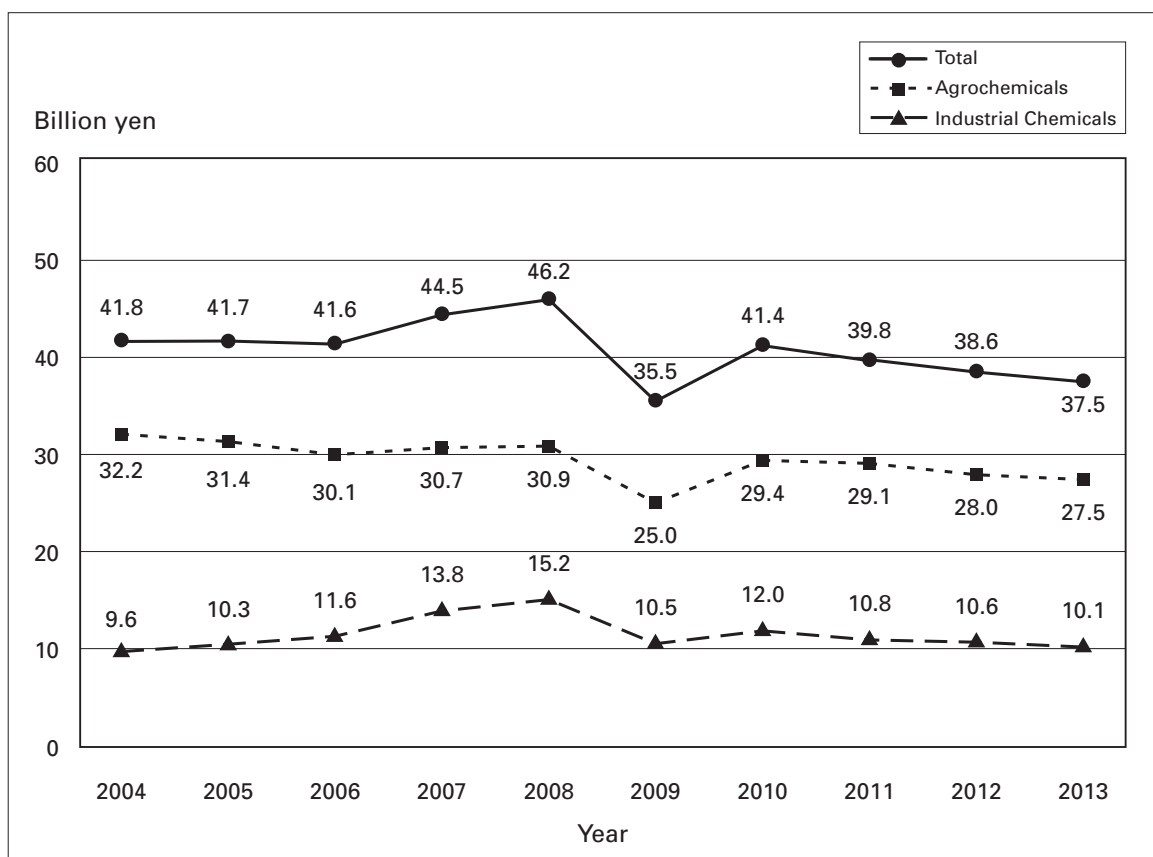
3. 2013 Business Report (As of November 30, 2013)

3-1. Sales splits of crop protection products(fiscal year)

Value: Million yen

	2012		2013		
	Value	Share(%)	Value	Share(%)	Growth(%)
Agrochemicals					
Insecticides	6,382	16.5	6,546	17.4	102.6
Fungicides	6,986	18.1	7,069	18.8	101.2
I/F Combinations	7,228	18.7	7,136	19.0	98.7
Herbicides	6,974	18.1	6,334	16.9	90.8
Others	415	1.1	384	1.0	92.6
Subtotal	27,984	72.5	27,469	73.2	98.2
Industrial Chemicals	10,620	27.5	10,062	26.8	94.7
Total	38,604	100	37,531	100	97.2
Export (Included in Total Sales)					
Agrochemicals	1,426	3.7	1,663	4.4	116.7
Industrial Chemicals	1,852	4.8	2,076	5.5	112.1

3-2. Annual Progress of Business Turnover(2004-2013)



4. Hokko's Leading Products in 2013

4-1. INSECTICIDE

Product Name	Active Ingredient	Crop	Pest
Ortran	acephate	Fruit, Vegetables	Thrips, Aphids, Lepidopteran pests
Starkle	dinotefuran	Rice, Vegetables, Fruit	Stinkbugs, Planthoppers, Leafhoppers, Leafminer, Aphids
Lannate	methomyl	Vegetables, Tea	Lepidopteran pests
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.
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
Imotiace	metominostrobin	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>
Blasin	ferimzone+phtalide	Rice	Blast
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
Mr.Homerun	oxaziclomefone+clomeprop+bensulfuron-methyl	Rice	One shot application
Clincher	cyhalofop-butyl	Rice	Grassweed
Clincher Bas	cyhalofop-butyl+bentazon	Rice	Post application
Puncher	fentrazamide+benzofenap+benfuresate	Rice	One shot application
Yuniherb	benzofenap+pretilachlor	Rice	Soil application
Basagran	bentazon	Rice, Beans, Wheats	Post application
Lenapac	lenacil+chloridazon	Sugar beet	Early post application
A-one	oxaziclomefone+tefuryltrione	Rice	One shot application
Casoron	dichlobenil	Orchard	Non Selective
Longkick	clomeprop+fentrazamide+bensulfuron-methyl	Rice	One shot application

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, 5% SC

Formulation

GR / granule

EC / emulsifiable concentrate

WP / wettable powder

SL / soluble liquid

WDG / water dispersible granule

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 grisea</i>)	⊙	⊙
	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>)	⊙	⊙
Cucumber Melon, Water melon	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 fuliginea</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 acutatum</i>)	⊙	⊙
	Powdery mildew (<i>Levellula taurica</i>)		⊙
Green beans	Halo blight (<i>Pseudomonas savastanae</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 vesicatoria</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 passosa</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>Phrsopella ampelop sidis</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 Water melon	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>)
Japanese spindle tree	Powdery mildew (<i>Uncinuliella australiana</i>)
Crape Myrtle	Powdery mildew (<i>Uncinula australiana</i>)
Poplar	Powdery mildew (<i>Uncinula adunca</i> var. <i>mandshurica</i>) Massoning leaf blight (<i>Massonina 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

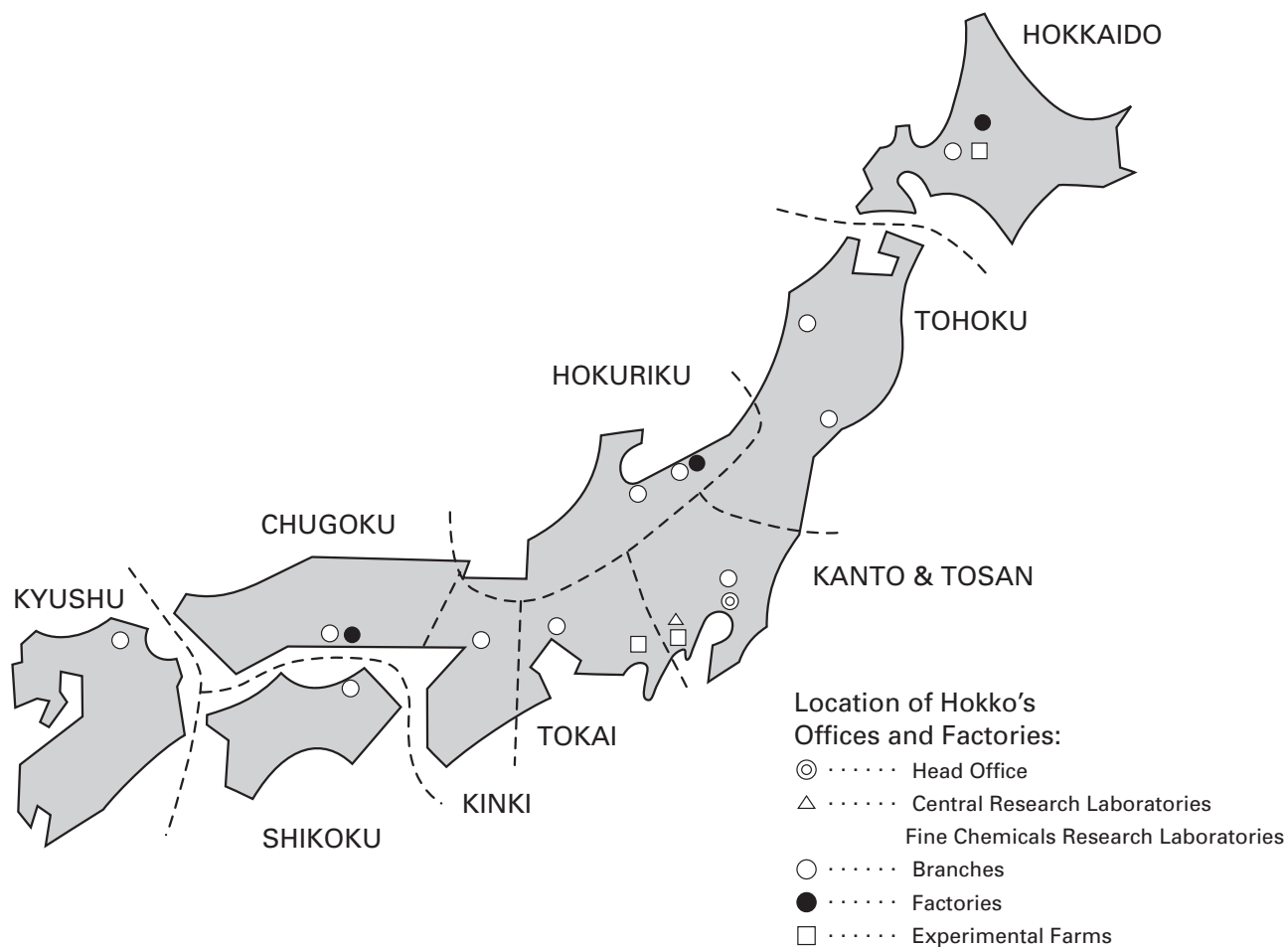
FIGHTER

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

- Target weeds: *Echinochloa oryzicola*, *Cyperus difformis*, *Scirpus 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 2013

(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	112.0	123.8	53.4	26.8	0.0	0.6	0.1	1.1	0.2	1.3	0.0
TOHOKU	406.2	8.9	4.0	32.2	<0.1	29.1	3.0	3.0	2.3	2.6	—
HOKURIKU	212.7	9.9	1.5	12.6	<0.1	0.2	1.0	0.5	0.7	0.8	<0.1
KANTO & TOSAN	300.6	42.3	6.9	10.6	2.0	8.8	5.8	7.7	3.9	13.0	2.3
TOKAI	102.3	15.4	1.5	11.7	10.5	0.1	0.9	0.7	0.6	6.5	23.0
KINKI	109.4	10.0	1.1	9.1	11.4	<0.1	0.3	1.1	0.7	1.9	3.1
CHUGOKU	115.2	4.8	1.5	4.8	5.3	0.2	1.6	2.0	0.6	1.4	0.5
SHIKOKU	56.4	4.3	0.7	0.6	20.7	<0.1	0.5	0.5	0.6	0.8	1.0
KYUSHU	184.4	55.4	10.6	20.4	23.9	—	2.0	1.9	1.9	5.7	15.5
Total	1,599.0	274.9	81.2	128.8	73.8	39.2	15.2	18.5	11.4	34.1	45.4
Comparison with Previous Year (100%)	101	101	100	98	99	99	98	99	98	101	99

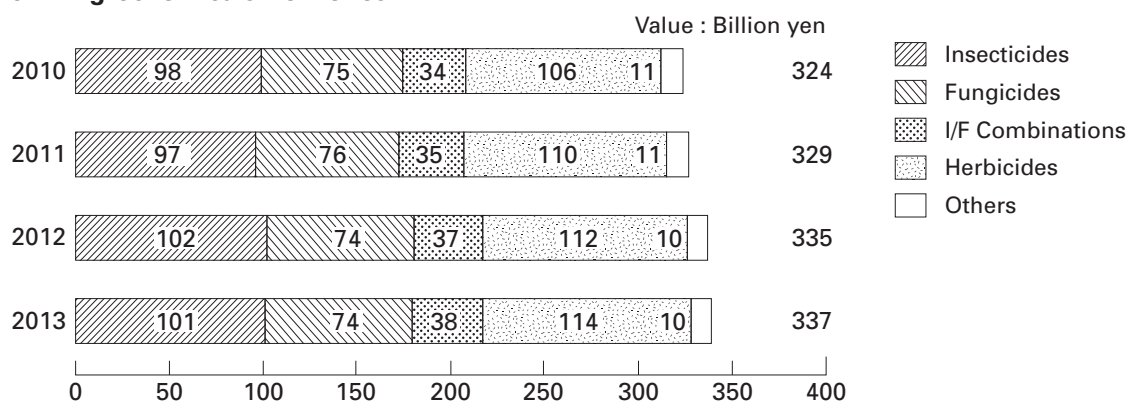
*; Data from 2012

—; not available

3. Agrochemicals Business by the member companies of JCPA* in 2013

(*Japan Crop Protection Association)

3-1 Agrochemicals Deliveries

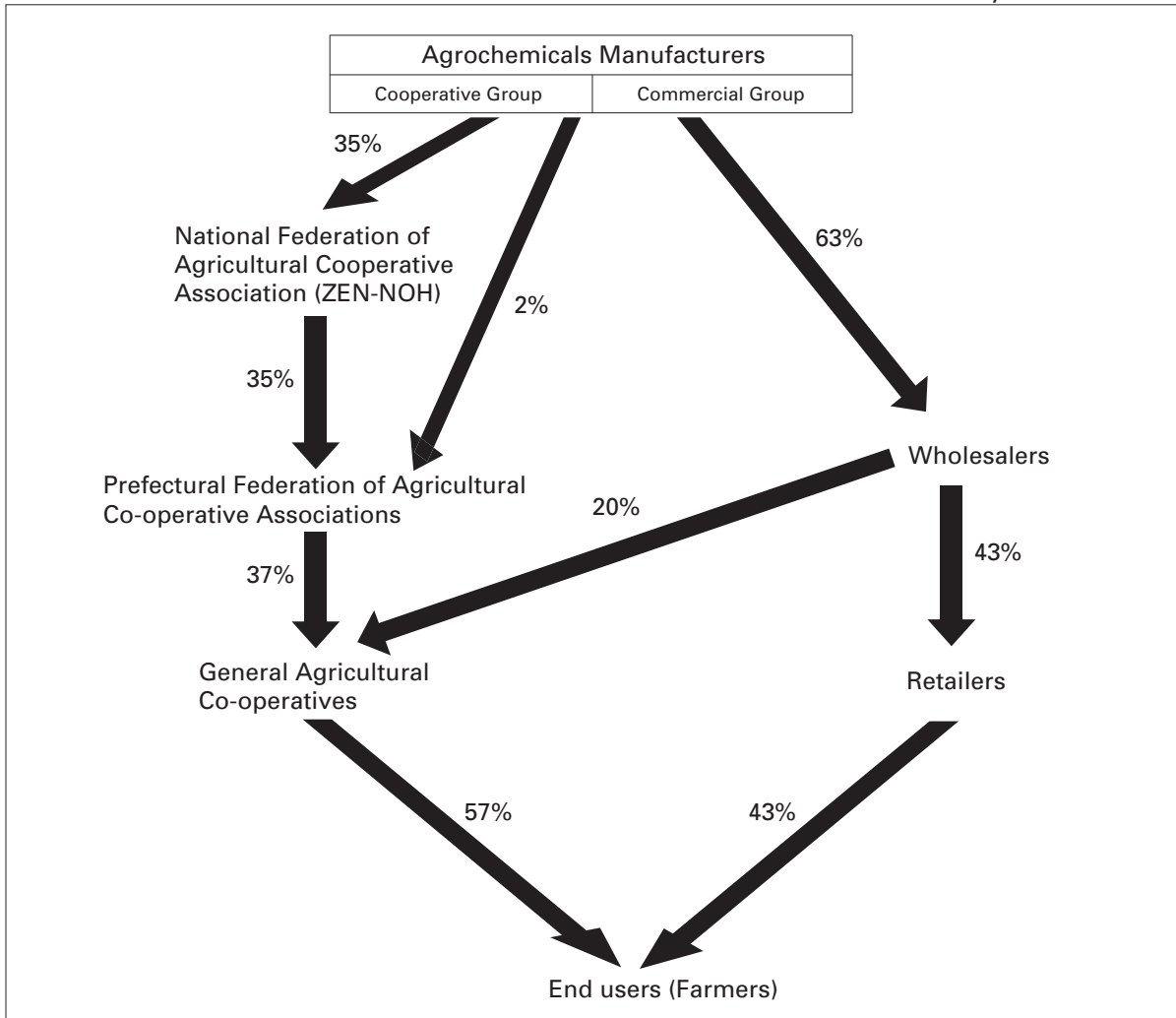


3-2 Agrochemicals Value by Crop

Sector	Agrochemicals group	Value		Comparison with 2012 (100%)
		Billion yen	%	
Paddy rice	Insecticides	14.1	4	109%
	Fungicides	10.8	3	98%
	I/F Combinations	33.4	10	103%
	Herbicides	65.8	20	103%
	Subtotal	124.2	37	103%
Fruit trees	Insecticides	23.0	7	99%
	Fungicides	19.4	6	105%
	I/F Combinations	0.3	0	99%
	Herbicides	7.5	2	89%
	Subtotal	50.2	15	100%
Vegetables, potatoes, beans etc.	Insecticides	56.5	17	97%
	Fungicides	38.8	11	99%
	I/F Combinations	2.9	1	136%
	Herbicides	19.6	6	100%
	Subtotal	117.8	35	99%
Others	Insecticides	7.1	2	101%
	Fungicides	5.2	2	93%
	I/F Combinations	1.6	0	96%
	Herbicides	21.2	6	106%
	Subtotal	35.1	10	102%
(Total)	Insecticides	100.7	30	99%
	Fungicides	74.2	22	100%
	I/F Combinations	38.2	11	105%
	Herbicides	114.1	34	102%
	Others	10.0	3	97%
Grand total		337.2	100	101%

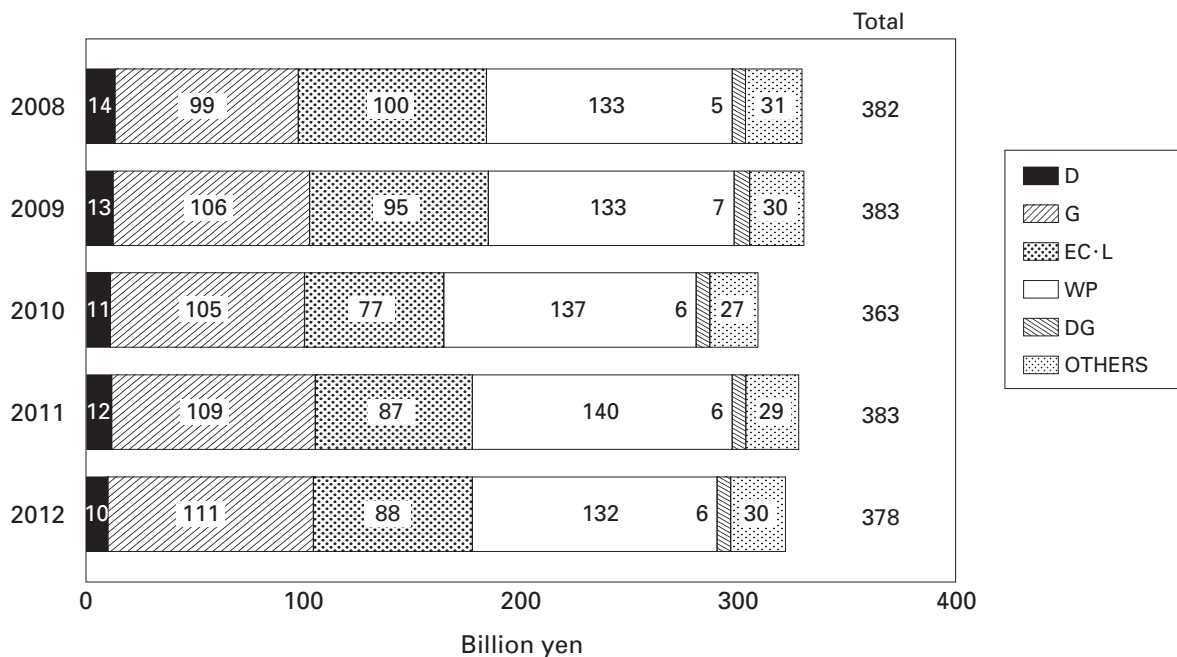
4. Distribution System of Agrochemicals

Estimated by JPPA* in 2011



(*JPPA/Japan Plant Protection Association)

5. Agrochemicals Production by Formulation(2008-2012) (Source; JPPA)



6. Pest Infestation and Agrochemical Treatment in 2012(Source; JPPA)

Crop (Planted Area) (1,000ha)	Pests and diseases	Net treated area (1,000ha)	Total treated area	
			Area (1,000ha)	Comparison with 2011 (100%)
Rice (1,581)	Seedling blight	1,104	1,141	96%
	Blast(leaf)	1,055	1,460	102%
	Blast(neck & ear)	884	1,343	91%
	Sheath blight	617	730	98%
	"Bakanae" disease	971	971	96%
	Rice stem borer(2nd generation)	226	240	124%
	White-backed planthopper	912	1,381	102%
	Brown rice planthopper	646	1,047	105%
	Small brown planthopper	807	1,319	93%
	Green rice leafhopper	664	991	96%
	Rice leaf beetle	775	809	103%
	Rice stink bug	1,113	1,633	98%
	Rice leafroller	385	490	98%
	Rice water weevil	871	892	97%
Wheat & Barley (272)	Powdery mildew	115	235	97%
	Scab	246	594	115%
	Snow rots	100	102	107%
Potato (81)	Late blight	61	415	99%
	Twenty-eight-spotted ladybird	5	9	100%
Soybean (131)	Purple stain	64	94	90%
	Soybean pod borer	71	119	110%
	Stink bugs	66	96	94%
Citrus (75)	Scab	41	80	98%
	Melanose	62	225	100%
	Arrowhead scale	44	81	119%
	Citrus red mite	63	182	100%
Apple (40)	Blossom blight	28	57	100%
	Alternaria leaf spot	39	309	99%
	Scab	39	244	100%
	Peach fruit moth	36	159	97%
	Apple leafminer	17	44	54%
	Mites	39	118	84%
Pear (15)	Black spot	5	43	113%
	Scab	13	142	104%
Vine (19)	Ripe rot	13	43	98%
	Rust	12	29	100%
	Leaf spot	13	42	100%
	Anthraxnose	12	31	100%
	Downy mildew	14	59	86%
	Gray mold	11	33	94%
	Thrips	13	37	80%

Crop (Planted Area (1,000ha))	Pests and diseases	Net treated area (1,000ha)	Total treated area	
			Area (1,000ha)	Comparison with 2011 (100%)
Tea (46)	Anthracnose	38	82	103%
	Smaller tea tortrix	38	76	119%
	Oriental tea tortrix	34	61	88%
	Tea leafroller	39	66	99%
	Tea green leafhopper	39	92	107%
	Kanzawa spider mite	38	77	90%
	Thrips	38	95	110%
Cucumber (12)	Downy mildew	6	31	91%
	Anthracnose	2	9	90%
	Powdery mildew	6	29	91%
	Bacterial spot	2	6	75%
	Aphids	6	24	92%
Cabbage (34)	Black rot	17	30	115%
	Diamondback moth	20	46	115%

7. Herbicide Application in Rice Field

Crop	Application method	2013		
		Volume (t)	Value (million yen)	Estimated Area (1,000ha)
Rice	One-shot application	15,409	42,277	1,760
	Pre- and early post-emergence application	4,703	6,491	624
	Post-emergence application	8,089	12,092	670
	Total	28,201	60,860	3,054

(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

	2008	2009	2010	2011	2012
Agriculture	1,082	1,042	1,223	1,196	1,347
Non-agriculture	1,858	1,685	1,610	1,604	1,553
Others (Annuity etc.)	1,712	1,833	1,820	1,825	1,853
Total income	4,657	4,566	4,660	4,663	4,762

8-2. Average Agricultural Expenditure by Crop in 2012

Unit: yen/10a

	Rice		Wheat		Potato		Sugar beet		Soybean	
Seed & Seedling	3,523	3%	2,618	5%	12,767	18%	2,347	2%	2,807	6%
Fertilizers	9,339	8%	9,235	18%	10,718	15%	22,697	24%	4,933	10%
Agrochemicals	7,530	6%	4,277	8%	9,616	13%	11,717	12%	4,597	9%
Fuel	4,556	4%	2,007	4%	3,494	5%	4,055	4%	2,041	4%
Rent & Charge	11,872	10%	14,680	28%	845	1%	3,419	4%	9,364	18%
Buildings cost	7,319	6%	1,017	2%	1,517	2%	2,554	3%	1,243	2%
Agricultural machinery	27,676	23%	8,654	16%	13,509	19%	15,559	16%	9,121	18%
Labor	36,276	30%	6,061	12%	14,490	20%	23,720	25%	12,203	24%
Others	13,630	11%	3,994	8%	4,953	7%	9,382	10%	4,613	9%
Total	121,721	100%	52,543	100%	71,909	100%	95,450	100%	50,922	100%

9. Rice Production (Source; MAFF)

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

Unit: 1,000ha

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Cultivated Area(1,000ha)	2,575	2,556	2,543	2,530	2,516	2,506	2,496	2,474	2,469	2,326
Planted Area (1,000ha)	1,701	1,706	1,688	1,673	1,627	1,624	1,628	1,576	1,581	1,599
Set-aside*1 (%)	34	33	34	34	35	35	35	36	36	31

*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	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Yield (t/ha)	5.14	5.32	5.07	5.22	5.43	5.22	5.22	5.33	5.40	5.39
Normal Yield (t/ha)*1	5.25	5.27	5.29	5.29	5.30	5.30	5.30	5.30	5.30	5.30
Index number of Rice Yield*2	98	101	96	99	102	98	98	101	102	102
Total Production (million ton)	8.7	9.1	8.5	8.7	8.8	8.5	8.5	8.4	8.5	8.6

*1; Determined by MAFF

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



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