



HOKKO

2012

Company Information and Market Report of Agrochemicals in Japan

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Part I. COMPANY INFORMATION

1. Briefings (As of November 30, 2011)

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%
	Nomura Holdings, Inc. 4.6%
	Resona Bank, Limited. 4.5%
	The Norinchukin Bank 2.9%
	National Federation of Agricultural Cooperative Associations(ZEN-NOH) 2.7%
Employees:	690



Central Research Laboratories



Okayama Factory

2. Organization (As of February 24, 2012)

Board of Directors:

Chairman	Takao Maruyama
President	Yoshikatsu Nakashima
Director, Senior Managing Executive Officer	Motoo Abe
Director, Managing Executive Officer	Junichi Kobayashi
	Yuji Ogawa
	Tsugio Uchiyama
	Masayuki Ooba

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)

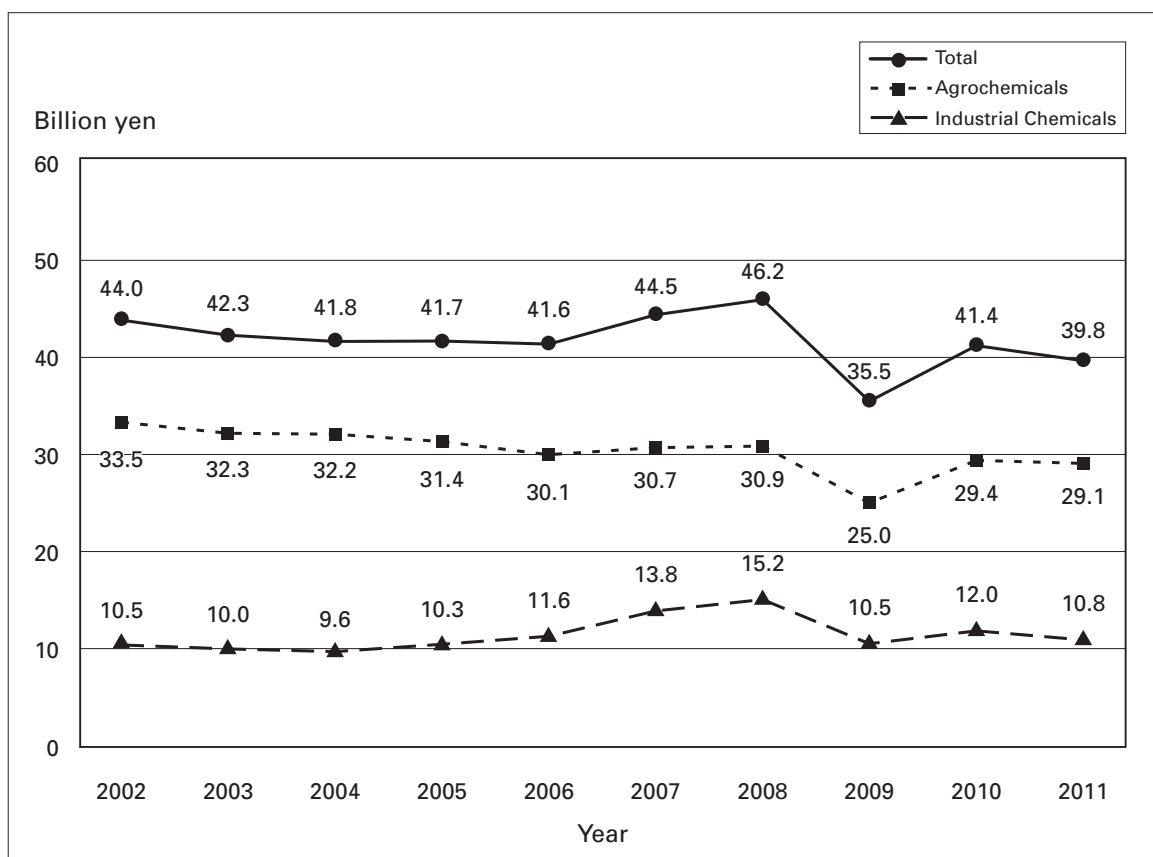
3. 2011 Business Report (As of November 30, 2011)

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

Value: Million yen

	2010		2011		
	Value	Share(%)	Value	Share(%)	Growth(%)
Agrochemicals					
Insecticides	6,645	16.0	6,684	16.8	100.6
Fungicides	7,433	17.9	7,427	18.6	99.9
I/F Combinations	7,599	18.3	6,900	17.3	90.8
Herbicides	7,367	17.8	7,638	19.2	103.7
Others	400	1.0	428	1.1	107.0
Subtotal	29,444	71.1	29,077	73.0	98.8
Industrial Chemicals	11,974	28.9	10,756	27.0	89.8
Total	41,418	100	39,833	100	96.2
Export (Included in Total Sales)					
Agrochemicals	1,365	3.3	1,392	3.5	102.0
Industrial Chemicals	1,873	4.5	1,705	4.3	91.0

3-2. Annual Progress of Business Turnover(2002-2011)



4. Hokko's Leading Products in 2011

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-Starkle	probenazole+ dinotefuran	Rice	Blast, Various pests
Dr.Oryze-Dantotsu	probenazole+ clothianidin	Rice	Blast, Various pests
Imotiace Starkle	metominostrobin+ dinotefuran	Rice	Blast, Stinkbugs
Builder-Prince-Greatam	probenazole+ fipronil+ thifluzamide	Rice	Blast, Various pests
Rabcide-Starkle	dinotefuran+ phthalide	Rice	Blast, Stinkbugs
Bulider-Prince	fipronil+ probenazole	Rice	Blast, Planthoppers, Rice stem borer
Blasin-Joker	ferimzone+ phthalide+ silafuofen	Rice	Blast, Stinkbugs, Planthoppers, Leafhoppers
Doublecut Trebon	kasugamycin+ tricyclazole+ ethofenprox	Rice	Blast, Planthoppers

4-4. HERBICIDE

Product Name	Active Ingredient	Crop	Weed, Use
Mr.Homerun	oxaziclomefone+clomeprop+ bensulfuron-methyl	Rice	One shot application
Gouwan	oxaziclomefone+bromobutide+ clomeprop+bensulfuron-methyl	Rice	One shot application
Clincher	cyhalofop-butyl	Rice	Grassweed
Puncher	fentrazamide+benzofenap+ benfuresate	Rice	One shot application
Yuniherb	benzofenap+pretilachlor	Rice	Soil treatment
Dash one	pentoxazone+daimuron	Rice	Early application
Basagran	bentazon	Rice, Beans, Wheats	Post treatment
Lenapac	lenacil+chloridazon	Sugar beet	Early post treatment
A-one	oxaziclomefone+tefuryltrione	Rice	One shot application
Longkick	clomeprop+fentrazamide+ bensulfuron-methyl	Rice	One shot application

5. Hokko's Products for Export

5-1. FUNGICIDE

Product Name	Active Ingredient	Formulation
Kasumin	kasugamycin	SL, WP, GR
Kasumin-Bordeaux (KASURAN)	kasugamycin +copper oxychloride	WP
Manage	imibenconazole	WP, WDG, EC
Hokko Bordeaux	copper oxychloride	WP

Formulation

GR / granule

EC / emulsifiable concentrate

WP / wettable powder

SL / soluble liquid

WDG / water dispersible granule

KASUMIN and KASUMIN-BORDEAUX

Original fungicides most reputed widely for effective control of various kinds of fungal and bacterial diseases on rice, vegetables, beans, fruit, 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 with the existing triazole fungicide

HOKKO BORDEAUX

A contact fungicide having high preventive activities and low phytotoxicity

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>Ustilagoidea virens</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 campestris</i> pv. <i>cucurbitae</i>)	⊙	⊙
Tomato	Leaf mold (<i>Cladosporium fulvum</i>)	⊙	⊙
	Bacterial canker(<i>Clavibacter michiganensis</i>)	⊙	⊙
	Bacterial spot(<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i>)		⊙
Onion	Bacterial soft rot(<i>Erwinia carotovora</i>)	⊙	⊙
Potato	Bacterial soft rot(<i>Erwinia carotovora</i>)	⊙	⊙
Paprika Sweet pepper Chile	Bacterial spot(<i>Xanthomonas campestris</i> pv. <i>vesicatoria</i>)	⊙	⊙
	Anthracnose(<i>Colletotrichum capsici</i>)	⊙	⊙
Green beans	Halo blight(<i>Pseudomonas syringae</i> pv. <i>phaseolicola</i>)	⊙	⊙
Apple, Pear	Fire blight(<i>Erwinia amylovora</i>)	⊙	
Kiwifruit	Canker(<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i>)	⊙	⊙
	Bacterial blossom rot (<i>Pseudomonas marginalis</i> pv. <i>marginalis</i>)	⊙	⊙
Citrus	Canker(<i>Xanthomonas campestris</i> pv. <i>citri</i>)	⊙	⊙
Coffee	Black spot(<i>Pseudomonas syringae</i>)	⊙	⊙
Tea	Gray blight(<i>Pestalotiopsis longisetata</i>)	⊙	⊙
	Bacterial shoot blight(<i>Pseudomonas syringae</i> pv. <i>theae</i>)	⊙	⊙

※also effective for control of various fungal and bacterial diseases on cabbage, lettuce, eggplant, passion fruits, agave, etc.

MANAGE

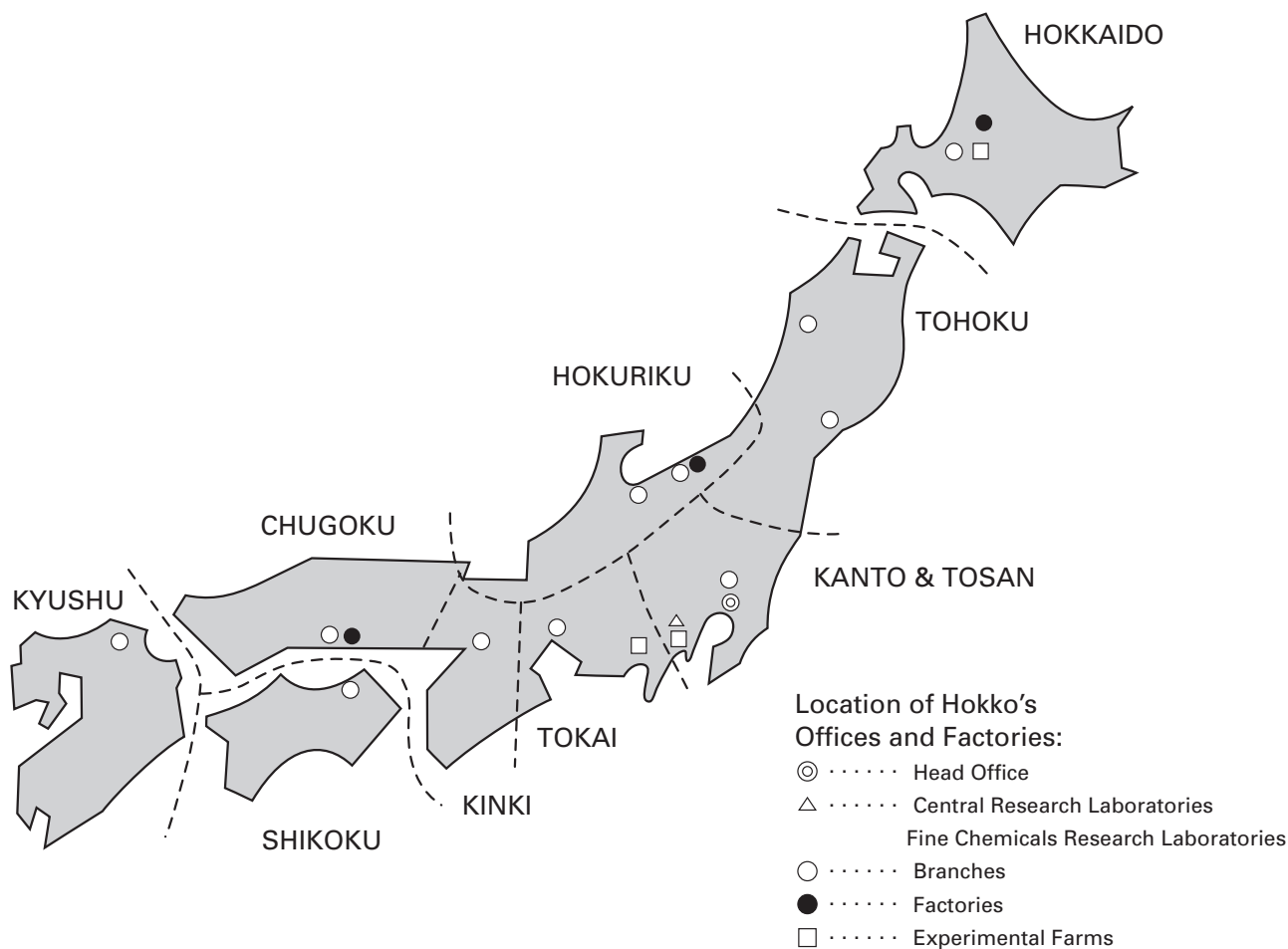
Triazole fungicide originally developed and well accepted for wide use of crop protection from various kinds of fungal diseases

Crop	Disease(Pathogen)
Citrus	Scab(<i>Elsinoe fawcetti</i>)
Grape	Anthracnose(<i>Elsinoe ampelina</i>) Powdery mildew(<i>Uncinula necator</i>) Pestalotia-tsurugare-byo(<i>Pestalotiopsis menezesiana</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>)
Melon and Water melon	Powdery mildew(<i>Sphaerotheca fuliginea</i>)
Groundnut	Brown leaf spot(<i>Cercospora arachidicola</i>)
Soybean	Purple stain(<i>Cercospora kikuchii</i>)
Tea	Anthracnose(<i>Colletotrichum theae-sinensis</i>) Blister blight(<i>Exobasidium vexans</i>) Brown round spot(<i>Pseudocercospora ocellata</i>)
Banana	Black sigatoka(<i>Mycosphaerella fijiensis</i>)
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 chrysanthemi</i>)
Japanese spindle tree	Powdery midew(<i>Oidium euonymi-japonicae</i>)
Crape Myrtle	Powdery mildew(<i>Uncinula australiana</i>)
Tobacco	Powdery mildew(<i>Erysiphe cichoracearum</i>)

※also effective for control of Brown rot (Apricot) and Rust (Japanese quince).

Part II. MARKET REPORT OF AGROCHEMICALS IN JAPAN

1. Map of Japan by Agricultural Region



2. Area of Main Crops by Agricultural Region in 2011

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

Unit: 1,000ha.

Region	Crop										
	Paddy rice	Wheat/Barley	Potato*	Soybean	Citrus	Apple	Pear	Grape	Cucumber	Cabbage*	Tea
HOKKAIDO	112.9	121.3	54.1	26.4	0.0	0.6	0.1	1.2	0.2	1.3	0.0
TOHOKU	389.0	9.9	4.6	35.2	<0.1	29.8	3.2	3.1	2.4	2.6	—
HOKURIKU	208.8	9.7	1.6	14.0	<0.1	0.2	1.0	0.5	0.7	0.8	<0.1
KANTO & TOSAN	298.0	42.9	7.0	12.4	2.0	9.0	6.0	7.8	4.0	12.8	2.4
TOKAI	102.4	15.7	1.6	11.6	10.7	0.1	0.9	0.7	0.6	6.3	23.4
KINKI	109.3	10.5	1.2	9.3	11.5	<0.1	0.4	1.1	0.7	1.9	3.2
CHUGOKU	115.1	4.7	1.5	5.2	5.6	0.2	1.7	2.0	0.7	1.4	0.5
SHIKOKU	56.2	4.5	0.7	0.7	21.1	<0.1	0.5	0.5	0.6	0.8	1.0
KYUSHU	184.4	56.6	10.2	22.0	25.0	—	2.0	2.0	1.9	5.3	15.6
Total	1,576.0	275.8	82.5	136.7	76.0	40.1	15.9	18.8	11.7	33.3	46.2
Comparison with Previous Year (100%)	97	102	99	99	98	99	98	99	97	100	99

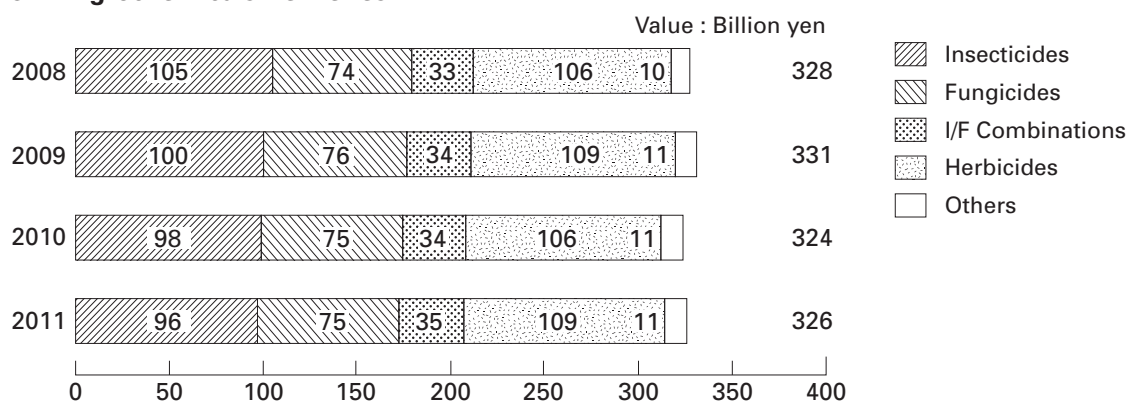
*; Data from 2010

—; not available

3. Agrochemicals Business by the member companies of JCPA* in 2011

(*Japan Crop Protection Association)

3-1 Agrochemicals Deliveries

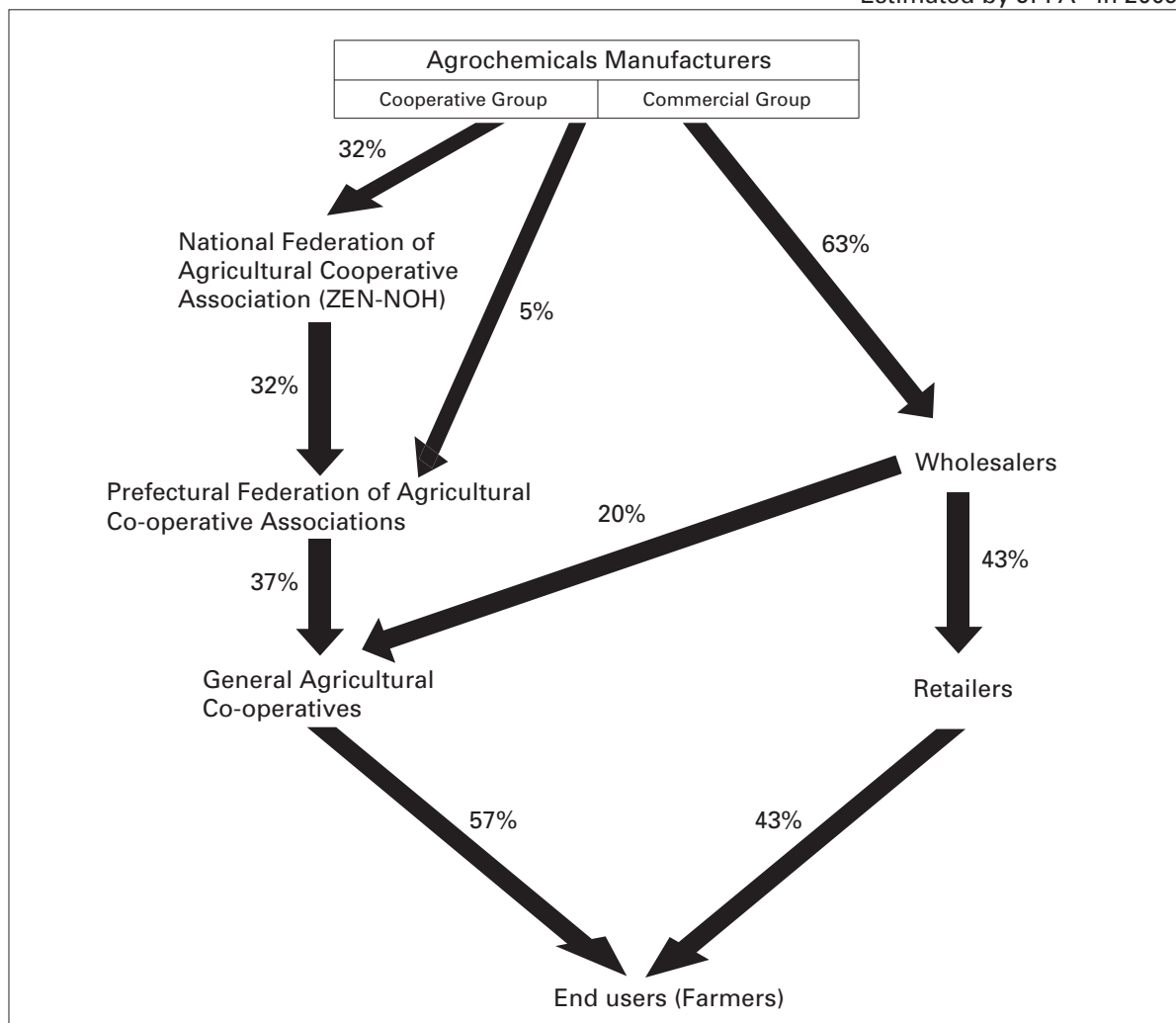


3-2 Agrochemicals Value by Crop

Sector	Agrochemicals group	Value		Comparison with 2010 (100%)
		Billion yen	%	
Paddy rice	Insecticides	13.6	4	103%
	Fungicides	12.4	4	101%
	I/F Combinations	32.3	10	104%
	Herbicides	63.5	19	103%
	Subtotal	121.9	37	103%
Fruit trees	Insecticides	22.3	7	100%
	Fungicides	19.2	6	102%
	I/F Combinations	0.3	0	120%
	Herbicides	8.0	2	114%
	Subtotal	49.9	15	103%
Vegetables, potatoes, beans etc.	Insecticides	55.0	17	97%
	Fungicides	39.1	12	100%
	I/F Combinations	1.8	1	80%
	Herbicides	19.4	6	102%
	Subtotal	115.2	35	99%
Others	Insecticides	5.3	2	89%
	Fungicides	4.7	1	96%
	I/F Combinations	0.3	0	28%
	Herbicides	18.5	6	102%
	Subtotal	28.9	9	96%
(Total)	Insecticides	96.3	30	98%
	Fungicides	75.4	23	101%
	I/F Combinations	34.7	11	101%
	Herbicides	109.4	34	103%
	Others	10.5	3	96%
Grand total		326.3	100	101%

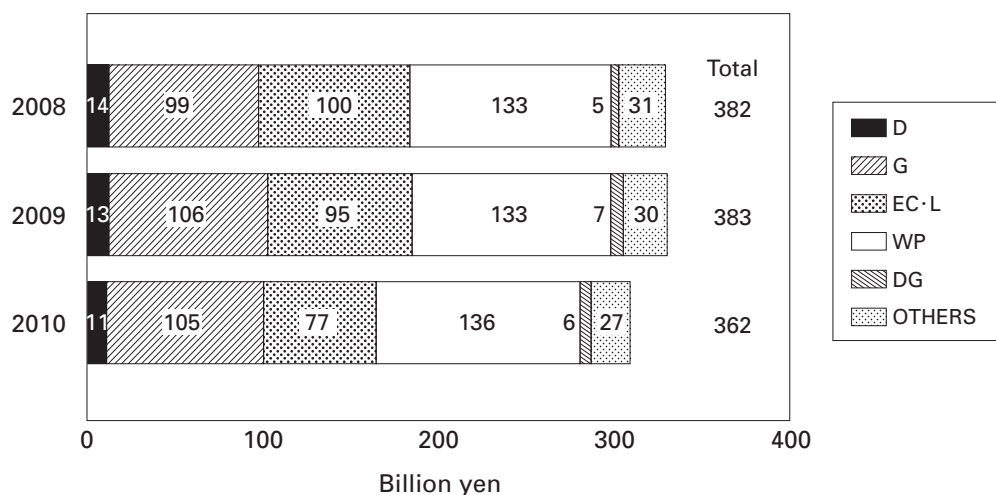
4. Distribution System of Agrochemicals

Estimated by JPPA* in 2009



(*JPPA/Japan Plant Protection Association)

5. Agrochemicals Production by Formulation(2008-2010)



6. Pest Infestation and Agrochemical Treatment in 2010(Source; JPPA)

Crop (Planted Area) (1,000ha)	Pests and diseases	Net treated area (1,000ha)	Total treated area	
			Area (1,000ha)	Comparison with 2009 (100%)
Rice (1,626)	Seedling blight	1,070	1,208	95%
	Blast(leaf)	1,063	1,450	104%
	Blast(neck & ear)	1,016	1,575	108%
	Sheath blight	644	735	94%
	"Bakanae" disease	1,007	1,007	84%
	Rice stem borer(2nd generation)	189	197	80%
	White-backed planthopper	794	1,261	88%
	Brown rice planthopper	592	1,040	107%
	Small brown planthopper	797	1,384	100%
	Green rice leafhopper	664	1,092	105%
	Rice leaf beetle	744	782	104%
	Rice stink bug	1,104	1,689	106%
	Rice leafroller	363	507	103%
	Rice water weevil	962	976	99%
Wheat & Barley (270)	Powdery mildew	141	257	101%
	Scab	231	497	100%
	Snow rots	83	86	93%
Potato (122)	Late blight	63	507	114%
	Twenty-eight-spotted ladybird	4	8	100%
Soybean (138)	Purple stain	72	110	117%
	Soybean pod borer	76	124	99%
	Stink bugs	75	114	96%
Citrus (77)	Scab	37	74	99%
	Melanose	63	228	109%
	Arrowhead scale	42	75	99%
	Citrus red mite	65	173	97%
Apple (41)	Blossom blight	28	57	97%
	Alternaria leaf spot	40	317	100%
	Scab	40	249	108%
	Peach fruit moth	39	168	98%
	Apple leafminer	40	85	98%
	Mites	40	122	96%
Pear (16)	Black spot	3	38	97%
	Scab	13	138	105%
Vine (19)	Ripe rot	15	46	107%
	Rust	12	32	100%
	Leaf spot	13	42	117%
	Anthracnose	12	24	92%
	Downy mildew	15	61	100%
	Gray mold	12	30	97%
	Thrips	15	38	95%

Crop (Planted Area 1,000ha)	Pests and diseases	Net treated area (1,000ha)	Total treated area	
			Area (1,000ha)	Comparison with 2009 (100%)
Tea (47)	Anthracnose	40	82	99%
	Smaller tea tortrix	31	62	124%
	Oriental tea tortrix	30	62	97%
	Tea leafroller	41	107	122%
	Tea green leafhopper	34	78	124%
	Kanzawa spider mite	41	90	92%
	Thrips	33	97	97%
Cucumber (12)	Downy mildew	8	37	100%
	Anthracnose	2	10	100%
	Powdery mildew	8	33	103%
	Bacterial spot	3	8	100%
	Aphids	7	27	96%
Cabbage (33)	Black rot	17	30	94%
	Diamondback moth	18	51	93%

7. Herbicide Application in Rice Field

Crop	Application method	2011		
		Volume (t)	Value (million yen)	Estimated Area (1,000ha)
Rice	One-shot application	15,824	41,573	1,720
	Pre- and early post-emergence application	4,643	6,625	613
	Post-emergence application	7,385	9,665	572
	Total	27,853	57,863	2,904

(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

	2006	2007	2008	2009	2010
Agriculture	1,228	1,195	1,082	1,042	1,223
Non-agriculture	2,072	1,936	1,858	1,685	1,610
Others (Annuity etc.)	1,689	1,701	1,712	1,833	1,820
Total income	4,994	4,836	4,657	4,566	4,660

8-2. Average Agricultural Expenditure by Crop in 2010

Unit: yen/10a

	Rice		Wheat		Potato		Sugar beet		Soybean	
Seed & Seedling	3,396	3%	2,651	5%	12,225	18%	2,361	3%	2,758	6%
Fertilizers	9,388	8%	9,117	18%	10,640	16%	22,755	25%	4,948	10%
Agrochemicals	7,413	6%	4,452	9%	8,413	12%	10,989	12%	4,659	9%
Fuel	4,059	3%	1,724	3%	3,065	5%	3,389	4%	1,729	3%
Rent & Charge	11,623	10%	12,590	26%	712	1%	3,361	4%	9,179	19%
Buildings cost	6,852	6%	1,097	2%	1,452	2%	2,199	2%	1,231	2%
Agricultural machinery	27,218	23%	8,061	16%	12,318	18%	14,495	16%	8,554	17%
Labor	36,707	31%	5,695	12%	13,654	20%	23,466	26%	11,913	24%
Total	119,968	100%	49,313	100%	67,324	100%	91,515	100%	49,559	100%

9. Rice Production (Source; MAFF)

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

Unit: 1,000ha

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Cultivated Area(1,000ha)	2,607	2,592	2,575	2,556	2,543	2,530	2,516	2,506	2,496	2,474
Planted Area (1,000ha)	1,688	1,665	1,701	1,706	1,688	1,673	1,627	1,624	1,628	1,576
Set-aside*1 (%)	35	36	34	33	34	34	35	35	35	36

*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	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Yield (t/ha)	5.27	4.69	5.14	5.32	5.07	5.22	5.43	5.22	5.22	5.33
Normal Yield (t/ha)*1	5.22	5.24	5.25	5.27	5.29	5.29	5.30	5.30	5.30	5.30
Index number of Rice Yield*2	101	90	98	101	96	99	102	98	98	101
Total Production (million ton)	8.9	7.8	8.7	9.1	8.5	8.7	8.8	8.5	8.5	8.4

*1; Determined by MAFF

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



HOKKO CHEMICAL INDUSTRY CO., LTD.

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the date of issue : August, 2012

