

가 AgrEvo

94 2.4%, 2979 3406 12.5% 2533 93 2594 7586
 5020 93 4236 18.5% 가
 2150 93 12.0% 가 3356
 10.1% 10119 38.5%, 7999 30.4%, 5506 21.0%, 2658
 가 4.7%, 가 4.5% 가
 9.7%
 94 4932 93 4330 13.9% 가 4768
 15.3% 가 164 15.2% 12%,
 12%, 11%, 7%, 6% 20
 25%가
 , LG ,
 94 1495 6.8% 가 1596 358
 310 15.3%가 1 4600
 1 4000 3.7% 4500 5500 21% 가

(: MT, 100 , %)												
		1990		1991		1992		1993		1994		가
		22,556	24,658	9.3	21,044	14.7	21,174	0.6	19,698	7.0	3.3	
		10,308	12,439	20.7	13,906	11.8	14,606	5.0	14,064	3.7	8.1	
		3,877	4,113	6.1	3,535	14.1	4,508	27.5	5,485	21.7	9.1	
		28,987	32,966	13.7	30,560	7.3	31,272	2.3	28,187	9.9	0.7	
		35.6	37.7	6.1	45.5	20.6	46.7	2.6	49.9	6.9	8.8	
		128,458	140,792	9.6	136,860	2.8	137,636	0.6	137,194	3.2	0.9	
		82,188	118,749	44.5	140,706	18.5	158,983	13.0	162,860	2.4	18.6	
		21,396	26,394	23.4	27,189	27.1	33,429	23.0	37,458	12.1	15.0	
		189,250	233,147	23.2	250,377	7.4	263,190	5.1	258,596	1.7	8.1	
		43.4	50.9	17.3	56.2	10.3	60.4	7.5	63.0	4.3	9.7	

) , 1995

Benzenoid Dithiocarbamate , Azole 가

Dithiocarbamate 가

EBI(Ergostrol Biosynthesis Inhibitor)

가가

Azole

Benzenoid

가

-45,

QSAR

가

가

가

94

가

93

94 114 25 93
7900 39% 5 2700 4 9
3 7700 2 2700

가 가

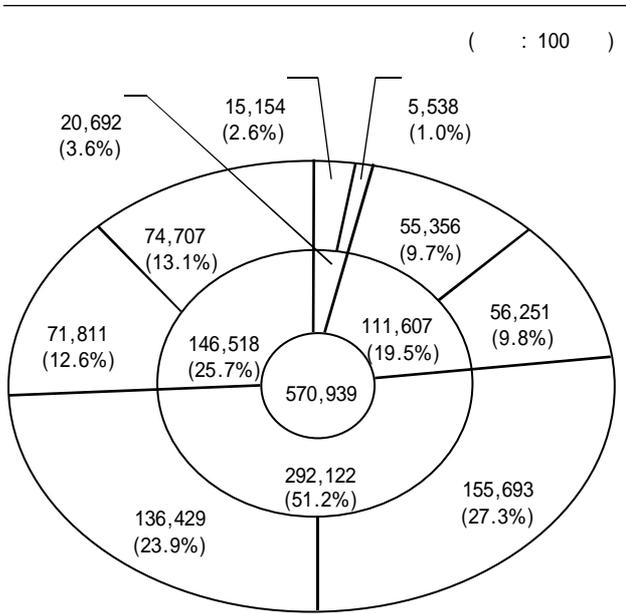
Ciba-Geigy 85

94 Thiuram 25 93 139 82%가
93 122 94 9
3 16
Thiuram

가

94 가

가



		()		(: 100 , %)				
		1991	1992	1993	1994			
		133,899	152,000	13.5	217,703	43.2	215,949	0.8
		30,546	44,736	46.5	59,083	32.1	62,294	5.4
		46,186	48,000	3.9	54,068	12.6	52,525	2.9
		76,732	92,736	20.9	113,151	22.0	114,819	1.5
		39.8	48.2	21.2	52.2	8.3	54.3	4.0
		186,160	220,000	18.2	187,149	14.9	191,731	2.4
		46,154	58,336	16.4	49,206	15.7	49,280	0.2
		62,388	65,000	4.2	55,562	14.5	55,424	0.2
		108,542	123,336	13.6	104,768	15.1	104,704	0.0
		42.5	47.3	11.2	47.0	0.6	47.1	0.2
		140,177	136,000	3.0	142,477	4.8	145,471	2.1
		39,262	51,049	30.0	37,300	26.9	41,117	10.2
		30,488	35,000	14.8	26,174	25.2	24,369	6.9
		69,750	86,049	23.4	63,474	26.2	65,486	3.2
		56.3	59.3	5.4	58.8	0.8	62.8	6.8
		11,997	15,000	25.0	19,076	27.2	21,835	14.5
		1,103	3,342	203.1	1,964	41.2	2,791	42.1
		1,730	2,100	21.4	1,832	12.8	876	52.2
		2,833	5,442	92.1	3,796	30.2	3,667	3.4
		38.9	61.4	57.8	51.7	15.8	76.2	47.4
		472,233	523,000	10.8	566,405	8.3	574,986	1.5
		117,065	157,463	34.5	147,553	6.3	155,482	5.4
		140,792	150,100	6.6	137,636	8.3	133,194	3.2
		257,857	307,563	19.3	285,189	7.3	288,676	1.2
		45.4	51.2	12.8	51.7	1.0	53.9	4.3

) +

가
 50 가
 IGR(Insect Growth Regulator) 가
 . IGR CSI
 94 , 가 100
 94 145 93 234 38%
 94 407 93 310
 31%
 LG 91 4 , 92 7 , 93 10
 가 ICI

(G7) (1994) (:100)			
Benzenoid	350	104	454
	200	50	250
Oxime	200	50	250
	280	70	350
Sulfonylurea	150	150	300
	1,180	424	1,604

Diazinon 91 1090 92 540 , 93 500 , 94 400
 가

Diazinon
 40%, 35%, 25%
 Imidacloprid Chloronicotinyl
 93 Admire

Bayer
 93 180 94 550 3 가
 1

() (: MT, 100)												
	1990		1991		1992		1993		1994		가	
P G R	5,927	45,563	6,123	46,186	5,022	43,321	6,976	54,068	6,788	52,525	3.4	3.6
	8,535	53,928	9,496	62,388	9,205	68,096	6,929	55,562	6,349	59,424	7.1	2.5
	7,875	26,870	8,591	30,488	6,692	23,994	7,054	26,174	6,476	24,369	4.8	2.4
	93	1,805	165	1,450	95	1,275	173	1,589	33	575	22.8	24.9
	126	292	283	280	30	174	42	243	52	301	19.8	0.8
	22,556	128,458	24,658	140,792	21,044	136,860	21,174	137,636	19,698	137,194	3.3	1.7

) , 1995

92 304 93 205 32.6% 가

93 가 216 , 6 , 51
93 92 5 2
2~3

가

93 가 100 92 168 41%
Pyrethroid 93 , 93 LG 45 6500 92
68.4% 93 77 92 117 34.3%
, Pyrethroid

가

가

가

가

Dupont Nissan Sulfonyl Urea 60%
Londax NC-311
Schering

Hoechst 가
Hoechst가

80

Sulfonyl Urea

94 Sulfonyl Urea 가 2 5000 91 1000 , 92 6000 , 93
1 94 가

Sulfonyl Urea 95 Cinosulfuron , 96 Imazosulfuron, 97 Ethoxysulfuron

Ciba-Geigy, Takeda, Hoechst

Sulfonyl Urea , Bensulfuron- methyl 91 3 4650Kg, 92 2 5600Kg, 93 2
5000Kg , Pirazosulfuronethyl 91 4100Kg, 92 5300Kg 93 6000Kg

가
Dupont Londax 가 97

가

가가

가

94

93

4% 가 7000

93

3500

1

1630 ,

400 ,

가

가

가

가

가 Kg 12 6~8 가 91 160
, 92 184 , 93 254 , 94 295 가 가 .

3~4

가 가

93 914 92 719 16% , 92 91 547
45% 가 .

R&D

10.6%

2%

가

87

가 Pyrethroid , Pyrezolate Urea
Benzenoid 가 가 G7 가

GLP

UR

2000

20~30%

가

95

가

97

7000