

「 가 」 「 가 」 (2 4).
「 (72 6)
가 .

(1995 7)				
가				
5	20	10	34	64
	69			

가 , , 가 ,
가 15~17% , 가
가

1911 4 가 (牛疫血清) , ,
(牛疫)
1918 (獸疫) 1942 가 가

(1995 7)			
가			OMC
44	1	11	34
90			

60 가 가 가
가
1962 ()
()가
(PC) 가 2A
65 가
가
94 69 , 2557
3050 90 , 784 320
3370

가 88 4889 7000 91 9814 5000 3 2
가 . 가 3 ,
가 92 35% 93
30%, 94 26% .

(: 1000)						
1988	48,897	-	-	-	-	-
1989	59,350	-	-	-	-	-
1990	66,032	55,223	8,318	2,034	457	10,809
1991	98,145	72,527	21,295	3,817	506	25,618
1992	109,759	89,024	15,625	4,604	506	20,735
1993	100,657	81,195	14,712	3,951	800	19,463
1994	128,943	99,150	20,911	6,455	2,427	29,793

(: 1000)					
1990	37,343,609	36,627,972	648,614	67,023	715,637
1991	42,134,556	41,290,567	789,507	54,482	843,989
1992	40,656,385	39,079,958	1,436,735	139,692	1,576,427
1993	43,439,970	41,751,975	1,214,527	473,468	1,687,995
1994	64,427,630	62,397,118	1,665,564	364,948	2,030,512

가
가 .
가 30 ,
가 .
93 ,
94 ,
93 가

가 (1994)			
	282	132	414
	289	652	2,925
	565		
	443		
	587		
	38		
	163		
	14		
	129		
	47		
	2,557	784	3,339

(: 1000)					
1990	186,981,155	66,422,026	113,309,568	7,249,561	120,559,129
1991	226,609,712	79,201,127	138,534,432	8,874,153	147,408,585
1992	250,531,400	91,140,226	148,062,198	11,328,976	159,391,174
1993	262,046,408	89,008,680	163,213,908	9,823,820	173,037,728
1994	304,808,667	107,245,087	187,375,166	10,188,414	197,563,580
	32,168,534	1994			
	336,977,201	1994 (,)			

가 , 93 ,
66%, 53%, 150% 가
90 .
92 406 5638 93 434
3997 , 94 644 2763 .

L-Lycine

97%

가

가

가

(: 1000)										
NO		1992			1993			1994		
1		847,808	17,200	865,008	790,825	32,948	823,773	1,038,773	18,954	1,057,497
2		10,793,166	236,817	11,029,983	11,072,106	295,001	11,367,107	13,011,633	284,673	13,296,306
3		27,837,222	144,857	27,982,079	28,839,440	273,725	29,113,165	33,067,959	451,446	33,519,405
4		20,975,816	387,465	21,363,281	21,863,384	363,024	22,226,408	26,039,479	111,396	26,150,875
5		43,666,758	427,293	44,094,051	44,103,109	360,630	44,463,739	50,374,053	473,152	50,847,205
6		11,189,284	139,692	11,328,976	9,316,373	507,447	9,823,820	9,823,466	364,948	10,188,414
7		7,007,339	106,460	7,113,799	6,512,298	57,822	6,570,120	7,030,397	71,574	7,101,971
8		0	0	0	1,186,291	0	1,186,291	1,615,304	0	1,615,304
9		42,060,268	39,079,958	81,140,226	42,691,223	46,317,457	89,008,680	44,847,969	62,397,118	107,245,087
10		1,933,927	81,718	2,015,645	47,343,240	120,065	47,463,305	53,532,234	254,369	53,786,603
11	가	43,563,427	34,925	43,598,352	45,550,484	39,651	45,590,135	51,927,204	84,056	52,011,260
		209,899,015	40,656,385	250,531,400	213,718,289	48,328,119	262,046,408	240,381,037	64,427,630	304,808,667

94

가

2557

38

289

565

1030

129

47

가

784

132

652

93 2620

94 3048

93 16%

93

16%

가

4%

GMP

Good Manufacturing Practice(GMP)

GMP

(Quality Assurance, QA)

(1994) (: Kg, 1000)								
	4,003	47,785	2,061	33,337	-	-	2,061	33,337
	7,911	198,718	4,737	188,455	-	-	4,737	188,455
A	4,469	125,783	5,480	172,620	-	-	5,480	172,620
B ₁	120	4,320	120	4,800	-	-	120	4,800
D ₃	1,938	27,907	1,900	29,720	-	-	1,900	29,720
	444,190	2,407,880	305,390	2,192,509	101,400	506,163	406,790	2,698,672
	41,270	217,745	5,820	104,152	25,600	123,380	31,420	227,532
E	435,560	6,493,225	319,670	5,488,331	15,000	203,083	334,670	5,691,414
	10,748,985	7,967,099	7,924,715	6,766,791	2,234,490	1,497,428	10,159,205	8,264,219
	110,859	5,846,757	16,543	1,283,301	97,360	4,821,497	113,903	6,104,798
	7,187	35,919	-	-	6,000	35,285	6,000	35,285
	9,497	330,357	8,844	238,113	-	-	8,844	238,113
	1,606,180	724,709	1,514,130	706,267	8,000	2,045	1,549,130	708,312
	1,626,680	2,540,234	1,350,924	2,389,410	136,000	162,806	1,486,924	2,552,216
	4,454,420	3,356,044	2,346,325	2,015,299	1,768,200	636,457	4,114,525	2,651,756
	2,386,660	1,084,306	2,221,743	850,844	208,000	18,500	2,429,743	869,344
	36,725,625	73,160,661	8,229,644	17,986,216	28,086,080	54,389,720	36,315,724	72,375,936
,	86,840	-	-	-	-	-	-	-
	41,800	91,960	36,700	93,480	-	-	36,700	93,480
	-	-	411	4,110	-	-	411	4,110
	250	2,000	-	-	-	-	-	-
	11,450	435,100	11,700	424,460	-	-	11,170	424,460
	10,500	126,000	8,900	106,800	-	-	8,900	106,800
	135	4,320	135	4,320	-	-	135	4,320
	104	60,612	65	45,500	-	-	65	45,500
	52	23,432	15	9,750	-	-	15	9,750
	4,455	374,440	4,315	363,240	-	-	4,315	363,240
	2,984	111,149	2,945	108,241	-	-	2,945	108,641
	525	21,797	625	22,500	-	-	625	22,500
	13,292	270,812	13,378	299,794	-	-	13,378	299,794
	42,500	1,445,000	40,125	982,060	-	-	40,125	982,060
	3,410	318,835	3,000	275,296	-	-	3,000	275,296
	1,070	294,250	875	240,625	-	-	875	240,625
	165	19,800	300	36,000	-	-	300	36,000
	7,375	623,400	7,675	649,600	-	-	7,675	649,600
	3,000	138,703	2,500	140,000	-	-	2,500	140,000
	522	6,118	4,000	6,400	-	-	400	6,400
	5,500	258,570	5,500	258,570	-	-	5,500	258,570
	80	5,600	80	5,600	-	-	80	5,600
	60,350	238,955	56,615	241,468	-	-	56,615	241,468
	400	543	-	-	500	754	500	754
	58,912,313	109,440,845	24,457,375	44,767,979	32,686,630	62,397,118	57,167,405	107,165,497

(異種)

(Quality Control, QC)

(Quality Assurance, QA)

QI)

(Quality Improvement,

가

10				
	(1994)		(1990)	
		(100)		(100)
1	- ()	72,376	Ivomec(MSD Agvet)	495
2	2%()	6,105	Terramycin(Pfizer)	220
3	50%()	4,446	Coxistac/Sacox(Kaken)	132
4	50%()	3,745	Tylan(Elanco)	130
5	50%()	3,042	Aureomycin(American Cyanamid)	103
6	()	2,744	Lincomix(Upjohn)	75
7	75%()	2,528	Coban(Elanco)	70
8	()	2,296	Avatec/Bovatec(Roche)	69
9	50 ()	2,137	FMD Vaccine(Rhone-Merieux)	67
10	()	1,961	Stafac/Eskalin(SmithklineBeecham)	66

(가)

1960

가 (10~15) 가

(generic product)

(FDA/CVM) 94
product
가

(rBST) generic
가

(drug delivery system)

가 , 가
가 , 가
가 ()

80 가 가 (rBST) 70 가
가 가 10

94

(FDA/CVM)

가

가

가

가

()

()

가가

10% 가 90 (1000 94) 2~3 321 가

가

가

가

가

가

가

()

가

가

가 (假定)

가

가 가

30

가 , 가

가

GMP