



CATTLE SECTOR IN TURKEY

ÇAGLA YÜKSEL KAYA

VETERINARIAN

CATTLE BREEDERS' ASSOCIATION OF TURKEY

CATTLE SECTOR

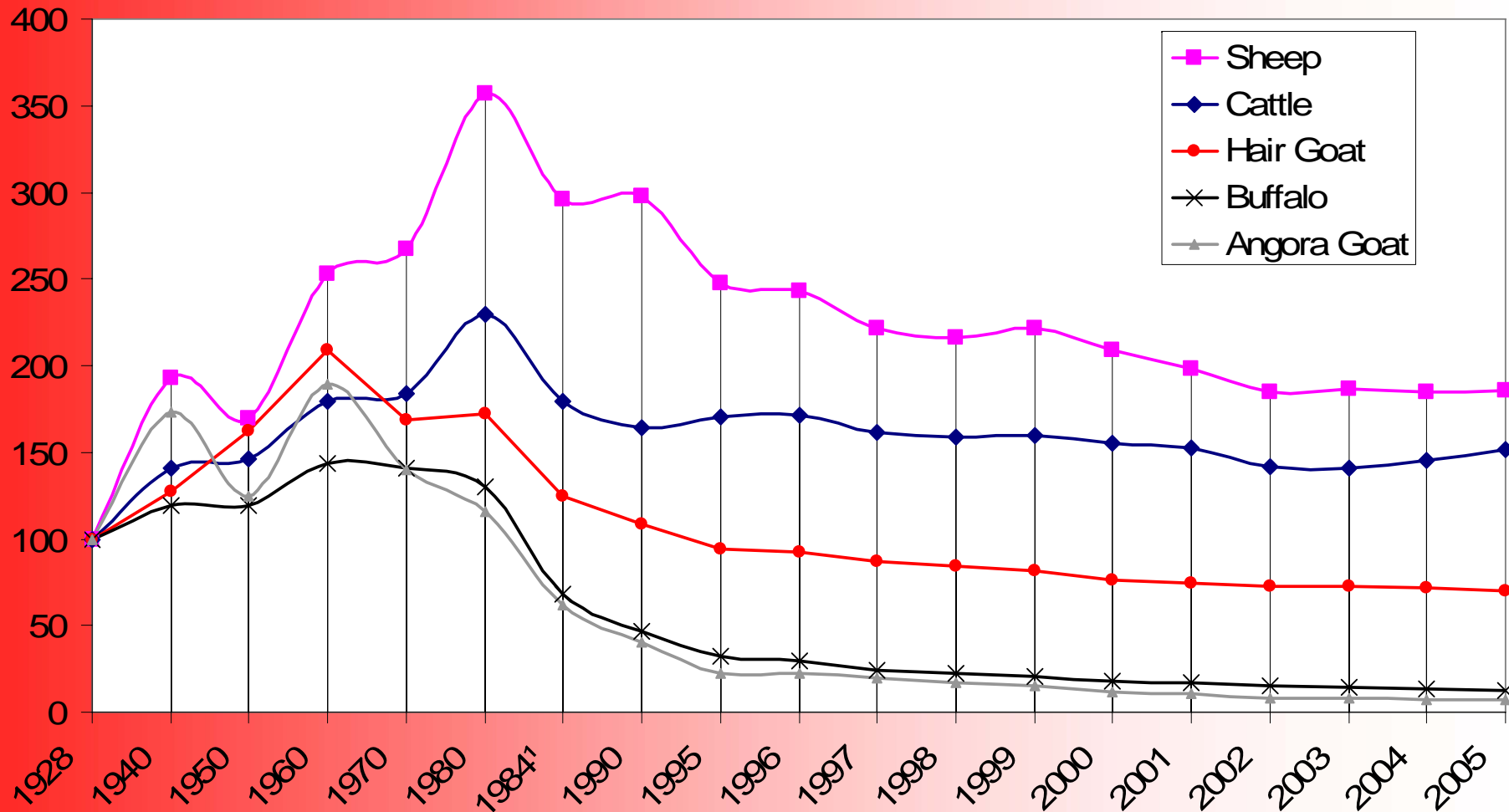
- ITS VALUE SHARED IN 2004
 - IN EU-25
 - NEARLY 23% OF THE TOTAL VALUE OF AGRICULTURAL PRODUCTION AND
 - 56% OF THE TOTAL VALUE OF ANIMAL PRODUCTION
 - IN TURKEY
 - 14% OF THE TOTAL VALUE OF AGRICULTURAL PRODUCTION AND
 - 56% OF THE TOTAL VALUE OF ANIMAL PRODUCTION

NUMBER OF DIFFERENT SPECIES

Years	Cattle	Sheep	Angora Goat	Anatolian Black Goat	Buffalo
1928	6934	13632	3170	8936	795
1940	9759	26272	5501	11395	947
1950	10123	23083	3966	14498	948
1960	12435	34463	5995	18636	1140
1970	12756	36471	4443	15040	1117
1980	15894	48638	3658	15385	1031
1984	12410	40391	1973	11127	544
1990	11377	40553	1279	9698	371
1995	11789	33791	714	8397	255
2000	10761	28492	373	6828	146
2005	10526	25304	233	6285	105
%TAV 2005/1928	0.54	0.81	-3.33	-0.46	-2.59

NUMBER OF DIFFERENT SPECIES BY YEARS (1 000 HEADS) (AKMAN ET AL. 2000,
[HTTP://WWW.TUIK.GOV.TR/ALTKATEGORI.DO?UST_ID=13&UST_ADI=TAR%FDM](http://www.tuik.gov.tr/altkategori.do?ust_id=13&ust_adi=TAR%FDM), 2006)
 AND THE ANNUAL RATE OF CHANGE (%TAV 2005/1928)

CHANGE IN LIVESTOCK NUMBERS



CHANGE IN LIVESTOCK NUMBERS BY DECADES (1928=100) (AKMAN ET AL. 2000,

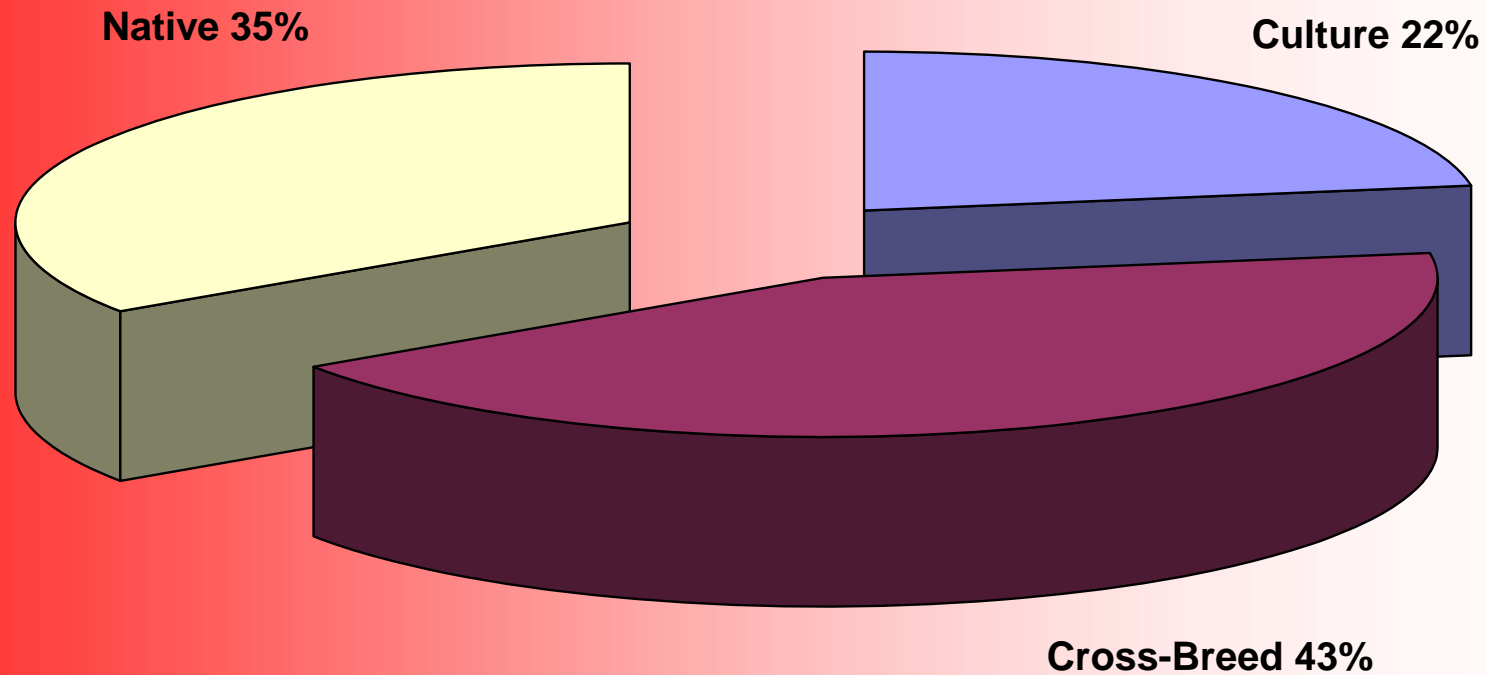
[HTTP://WWW.TUIK.GOV.TR/ALTKATEGORI.DO?UST_ID=13&UST_ADI=TAR%FDM](http://www.tuik.gov.tr/ALTKATEGORI.DO?UST_ID=13&UST_ADI=TAR%FDM), 2006)

GENOTYPICAL CLASSIFICATION

CATTLE BREEDS IN TURKEY ARE CLASSIFIED UNDER
3 MAIN CATEGORIES;

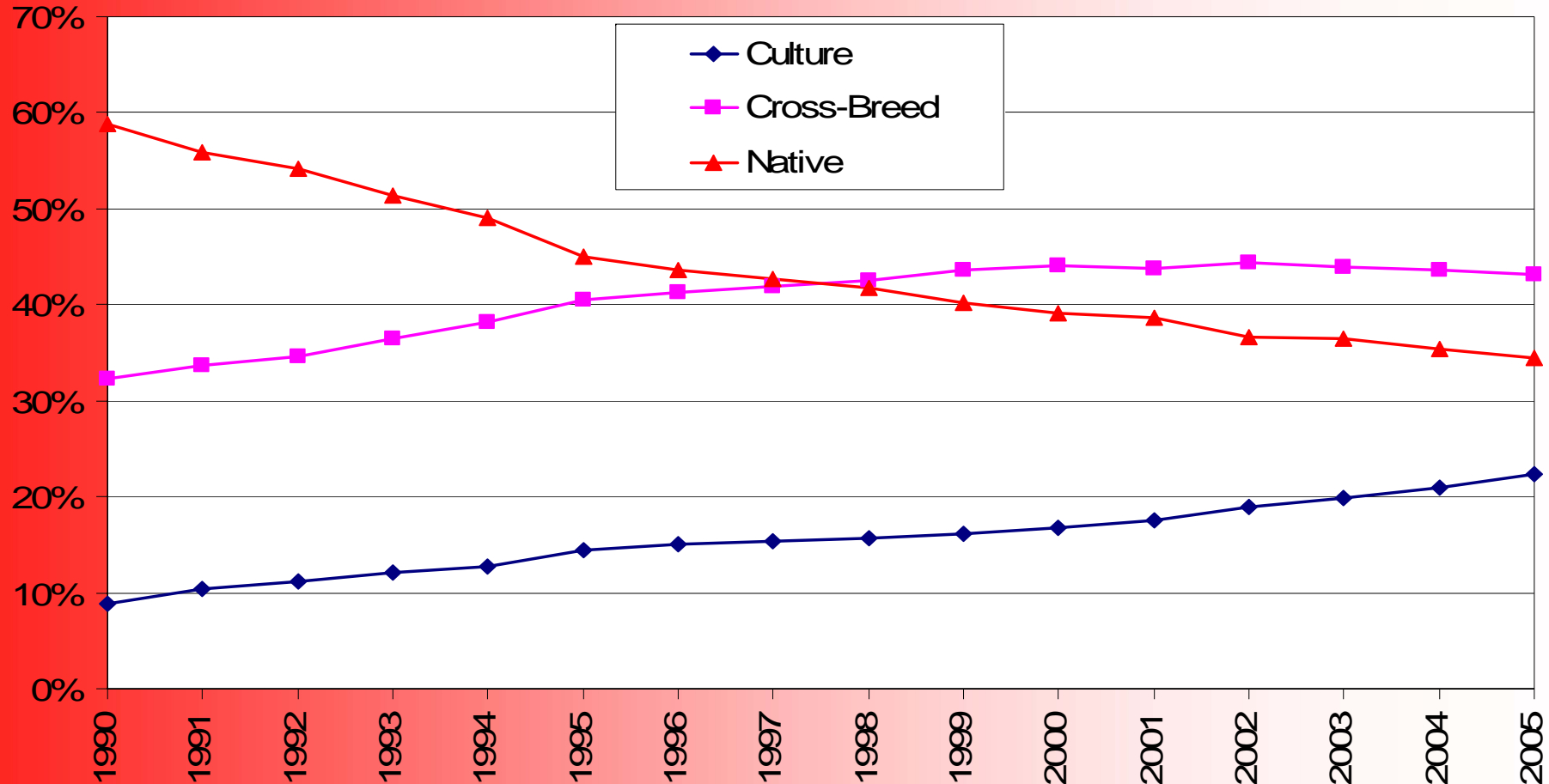
- CULTURE BREEDS (HOLSTEIN-FRIESIAN, SIMMENTAL, BROWN SWISS AND JERSEY...ETC.),
- CROSS-BREEDS,
- NATIVE BREEDS (ANATOLIAN BLACK, TURKISH GREY, EAST ANATOLIAN RED, SOUTH ANATOLIAN RED).

3 GENOTYPIC CLASSIFICATIONS



DISTRIBUTION OF CATTLE POPULATION AMONG THREE GENOTYPIC CLASSIFICATIONS IN 2005 ([http://www.tuik.gov.tr/ALTKATEGORI.DO?UST_ID=13&UST_ADI=TAR%FDM,](http://www.tuik.gov.tr/ALTKATEGORI.DO?UST_ID=13&UST_ADI=TAR%FDM) 2006)

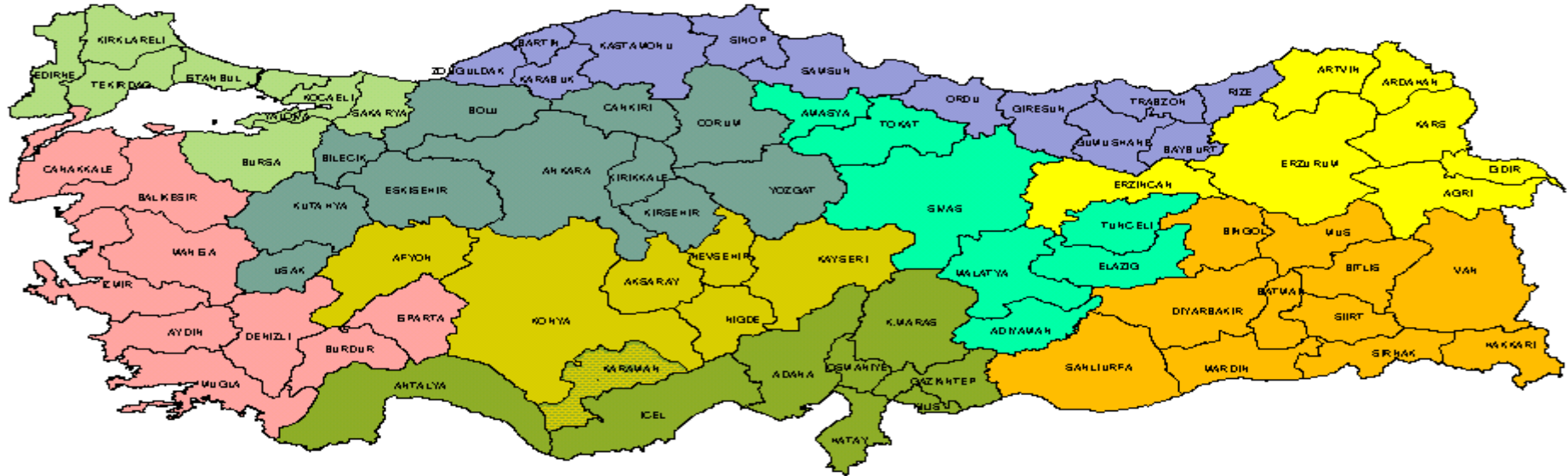
CHANGE OF SHARE OF 3 GENOTYPE CLASSES












CHANGE OF THE SHARE OF EACH GENOTYPE CLASS IN THE CATTLE POPULATION IN THE LAST 15 YEARS (http://www.tuik.gov.tr/ALTKATEGORI.DO?UST_ID=13&UST_ADI=TAR%FDM

2006)
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AGRICULTURAL REGIONS



	1. Region Central North		6. Region South East
	2. Region Aegean		7. Region Black Sea
	3. Region Marmara		8. Region Central East
	4. Region Mediterranean		9. Region Central South
	5. Region North East		

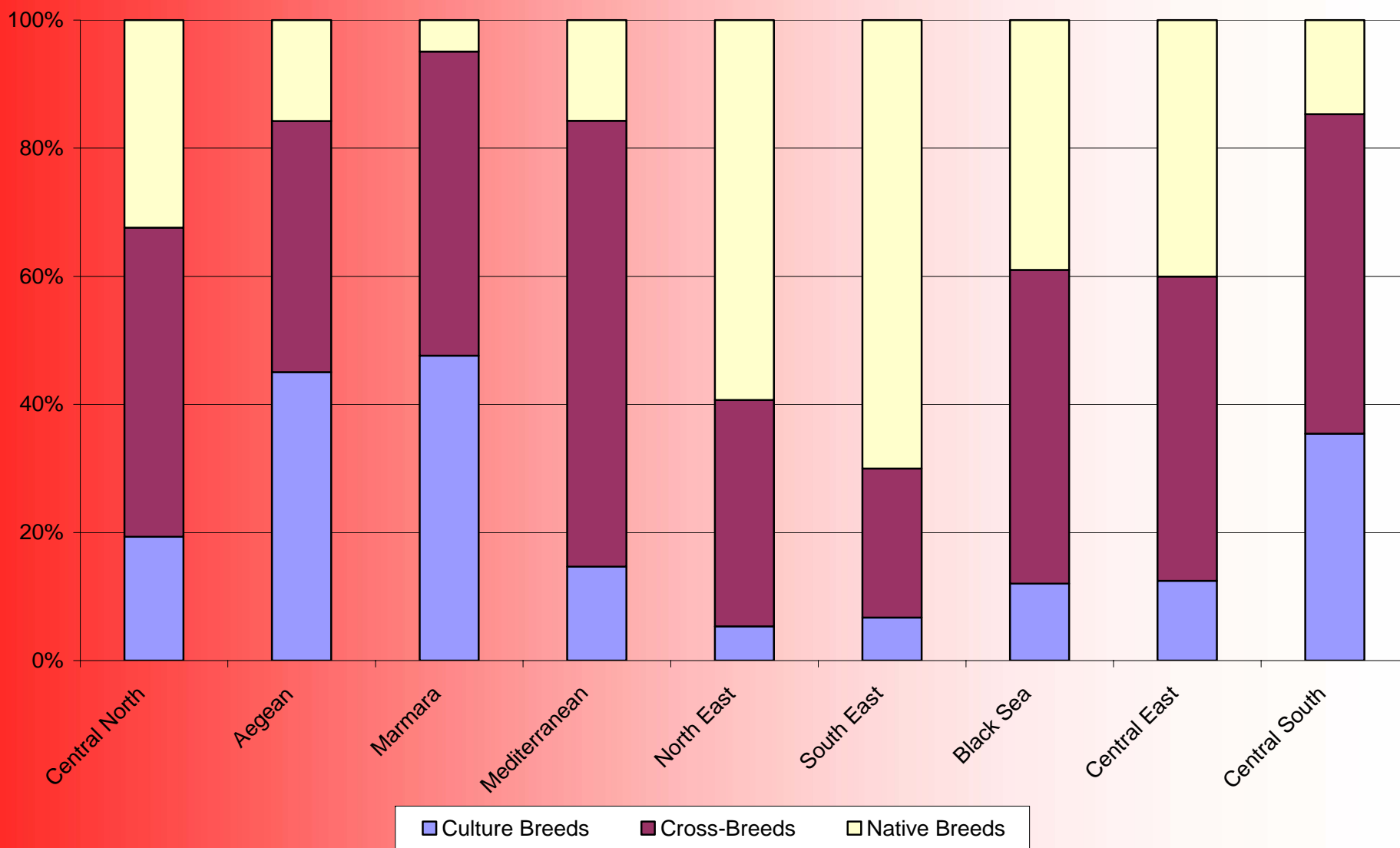
1. Ankara, Bilecik, Bolu, Çankırı, Çorum, Eskişehir, Kırşehir, Kütahya, Uşak, Yozgat, Kırıkkale, Düzce
2. Aydın, Balıkesir, Burdur, Çanakkale, Denizli, Isparta, İzmir, Manisa, Muğla
3. Bursa, Edirne, İstanbul, Kırklareli, Kocaeli, Sakarya, Tekirdağ, Yalova
4. Adana, Antalya, Gaziantep, Hatay, İçel, Kahramanmaraş, Kilis, Osmaniye
5. Ağrı, Artvin, Erzincan, Erzurum, Kars, Ardahan, Iğdır
6. Bingöl, Bitlis, Diyarbakır, Hakkari, Mardin, Muş, Siirt, Şanlıurfa, Van, Batman, Şırnak
7. Giresun, Gümüşhane, Kastamonu, Ordu, Rize, Samsun, Sinop, Trabzon, Zonguldak, Bayburt, Bartın, Karabük
8. Adıyaman, Amasya, Elazığ, Malatya, Sivas, Tokat, Tunceli
9. Afyonkarahisar, Kayseri, Konya, Nevşehir, Niğde, Aksaray, Karaman

SHARE OF AGRICULTURAL REGIONS IN CATTLE POPULATION

AGRICULTURAL REGIONS		Culture Breeds	Cross-Breeds	Native Breeds	TOTAL CATTLE
1	Central North	11.21	13.43	11.12	12.15
2	Aegean	30.83	12.87	6.39	14.34
3	Marmara	15.71	7.52	0.96	6.91
4	Mediterranean	4.47	10.18	2.83	6.38
5	North East	4.11	13.14	27.19	16.22
6	South East	3.47	5.78	21.43	10.83
7	Black Sea	7.83	15.31	15.05	13.65
8	Central East	5.76	10.52	10.94	9.67
9	Central South	16.63	11.25	4.09	9.84
	TURKEY	100			

SHARE OF AGRICULTURAL REGIONS IN CATTLE POPULATION IN 2004 (%)

SHARE OF GENOTYPES IN REGIONS



SHARE OF GENOTYPES IN REGIONAL CATTLE POPULATIONS IN 2004 (%)

NUMBER OF HOLDINGS

	1991	2001 ^[1]	Change (2001/1991)
<i>Total Agricultural Holdings</i>	4,091,530	3,076,650	-24.80%
Mixed Cropping-Livestock Holdings	3,943,340	2,074,439	-47.39%
Livestock Holdings	148,190	72,629	-50.99%

[1] According to the provisional results of agricultural census of 2001, there are 4.106.983 house holds dealing with agriculture found at all of the villages and the provinces and districts where the population is less than 25000.

NUMBER OF HOLDINGS IN 1991 AND 2001 (KAYA ET AL. 2004,

[HTTP://WWW.TUIK.GOV.TR/ALTKATEGORI.DO?UST_ID=13&UST_ADI=TAR%FDM](http://www.tuik.gov.tr/ALTKATEGORI.DO?UST_ID=13&UST_ADI=TAR%FDM), 2006)

CATTLE HUSBANDRY

- CATTLE BREEDING IN TURKEY INCLUDES MOSTLY THE DAIRY CATTLE HUSBANDRY SINCE THERE ISN'T SPECIALIZED BEEF CATTLE PRODUCTION .
- MEAT IS OBTAINED FROM THE DAIRY CULTURE BREEDS, CROSSBREEDS AND NATIVE BREEDS.
- HERD SIZE IS RELATIVELY VERY SMALL
- AVERAGE HERD SIZE IS 5.2 HEADS OF CATTLE IN GENERAL (2001) .
- 84% OF THE CATTLE FARMS < 5 HEADS

EU-10 AVERAGE HERD SIZE

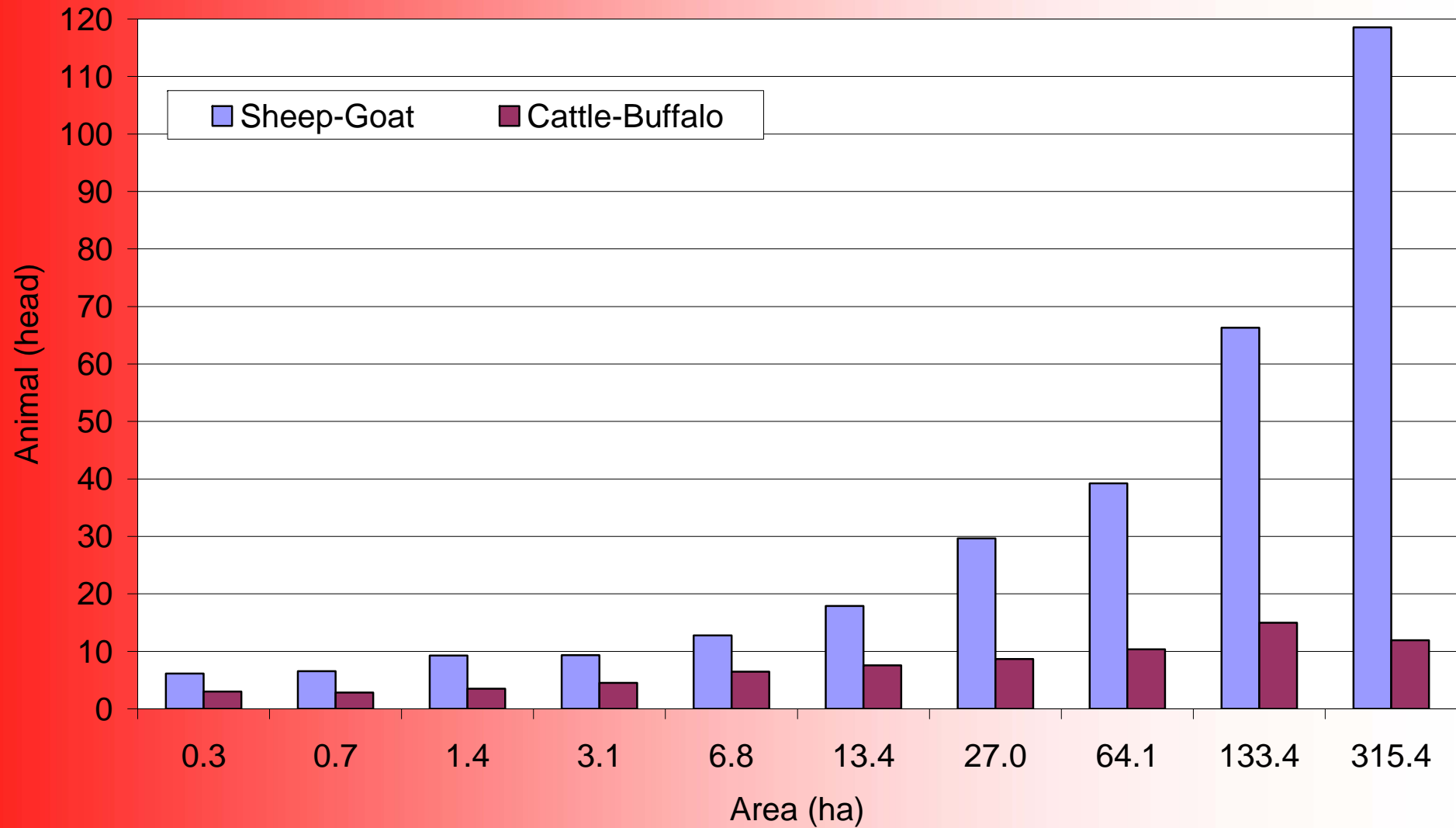
	Nb. of cattle farms	Average Herd Size (cattle/farm)	% of farms with 1-9 cattle
Czech Republic	24,000	62.1	70.2
Estonia	15,000	18.8	82.8
Hungary	65,000	22.9	81.9
Latvia	210,000	5.8	91.1
Lithuania	32,000	3.9	93.3
Poland	846,000	6.5	82.8
Slovak Republic	23,000	25.9	-
Slovenia	46,000	9.8	70.6
<i>Bulgaria</i>	<i>214,000</i>	<i>3.4</i>	95.2

[HTTP://EC.EUROPA.EU/AGRICULTURE/AGRISTA/2005/TABLE_EN/INDEX.HTM](http://ec.europa.eu/agriculture/agrista/2005/table_en/index.htm), 2006

AREA SIZE

- 6.1 HA IN GENERAL
- THE AVERAGE SIZE OF AREA IS 6.4 HA
AT THE MIXED CROPPING – LIVESTOCK
HOLDINGS,
- 2.4 HA AT THE LIVESTOCK HOLDINGS

HERD AND FLOCK SIZE PER HOLDING



HERD AND FLOCK SIZE PER HOLDING ACCORDING TO THE AREA IN 2001

NUMBER OF HOLDINGS, AVERAGE AREA AND HERD SIZE OF REGIONS

		Holdings		Per Holding		
		Number	%	Area, ha	Cattle- Buffalo	Sheep-Goat
1	Central North	240,207	12	9.3	6.0	11.3
2	Aegean	354,692	17	4.2	5.2	10.9
3	Marmara	154,019	7	6.5	5.7	10.6
4	Mediterranean	206,529	10	5.0	3.3	10.5
5	North East	152,515	7	7.9	8.9	12.8
6	South East	221,958	11	9.3	4.2	25.2
7	Black Sea	367,564	18	3.5	4.9	4.2
8	Central East	204,834	10	6.2	5.8	10.7
9	Central South	171,282	8	103.9	4.0	19.5

NUMBER OF HOLDINGS, AVERAGE AREA AND HERD SIZE OF AGRICULTURAL REGIONS IN 2001

CARCASS AND MILK YIELDS

Years	Carcass Weight	Milk Yield
1961	69.6	1300
1970	60.2	1300
1980	59.6	1300
1990	118.6	1351
2000	168.7	1654
2001	179.9	1669
2002	184.7	1705
2003	182.6	1888
2004	180.0	1971
2005	179.9	1900

CARCASS WEIGHT AND MILK YIELD PER CATTLE (KG) (FAO, [HTTP://FAOSTAT.FAO.ORG/](http://faostat.fao.org/), 2006)

NUMBER OF COWS AND AVERAGE MILK YIELDS

Genotypes	1998			2005		
	Yield Coefficients	Number of Cows	Average Milk Yields	Yield Coefficients	Number of Cows	Average Milk Yields
Culture	5	879,841	3223	6	925,618	4656
Crossbreeds	3	2,346,093	1934	3.5	1,717,309	2716
Native	1	2,263,109	645	1	1,355,170	776
TOTAL		5,489,043	1609		3,998,097	2508

NUMBER OF COWS (HEAD) AND AVERAGE MILK YIELDS (KG/YEAR) OF 3 GENOTYPE CLASSES IN 1998 AND IN 2005

AVERAGE CARCASS WEIGHT

	1991	2003
CULTURE	200	235
CROSSBREEDS	160	203
NATIVE	124	150

AVERAGE CARCASS WEIGHT (KG/HEAD) IN 1991 AND 2003 (AKMAN ET AL. 2005)

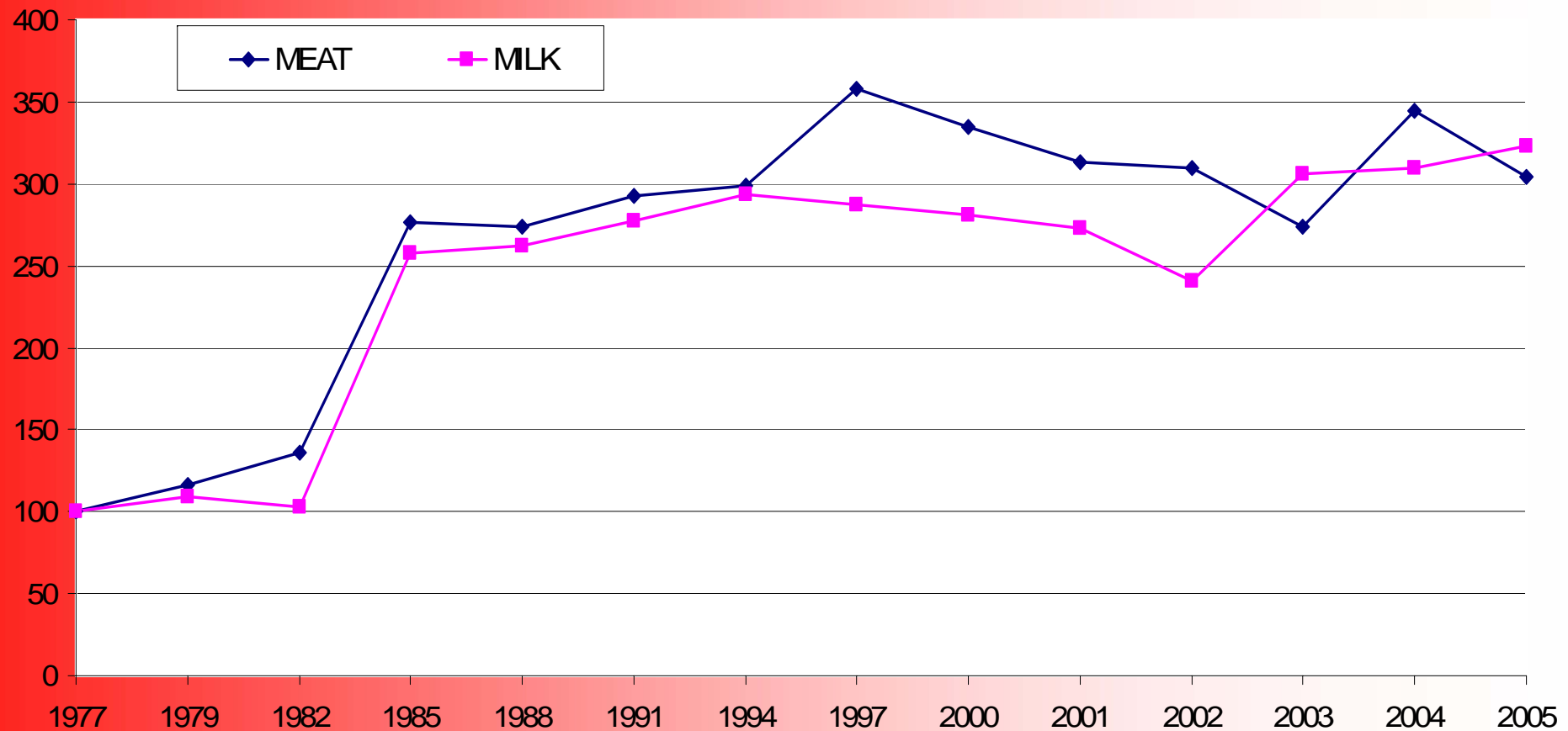
PRODUCTION (1977-2005)

YEARS	MEAT	COW MILK
1977	105,905	3,106,570
1985	292,515	7,994,269
1994	316,585	9,128,825
2001	331,590	8,489,082
2002	327,630	7,490,633
2003	290,456	9,514,138
2004	364,999	9,609,325
2005	321,681	10,026,202

PRODUCTION OF MEAT AND MILK (T) (1977-2005)

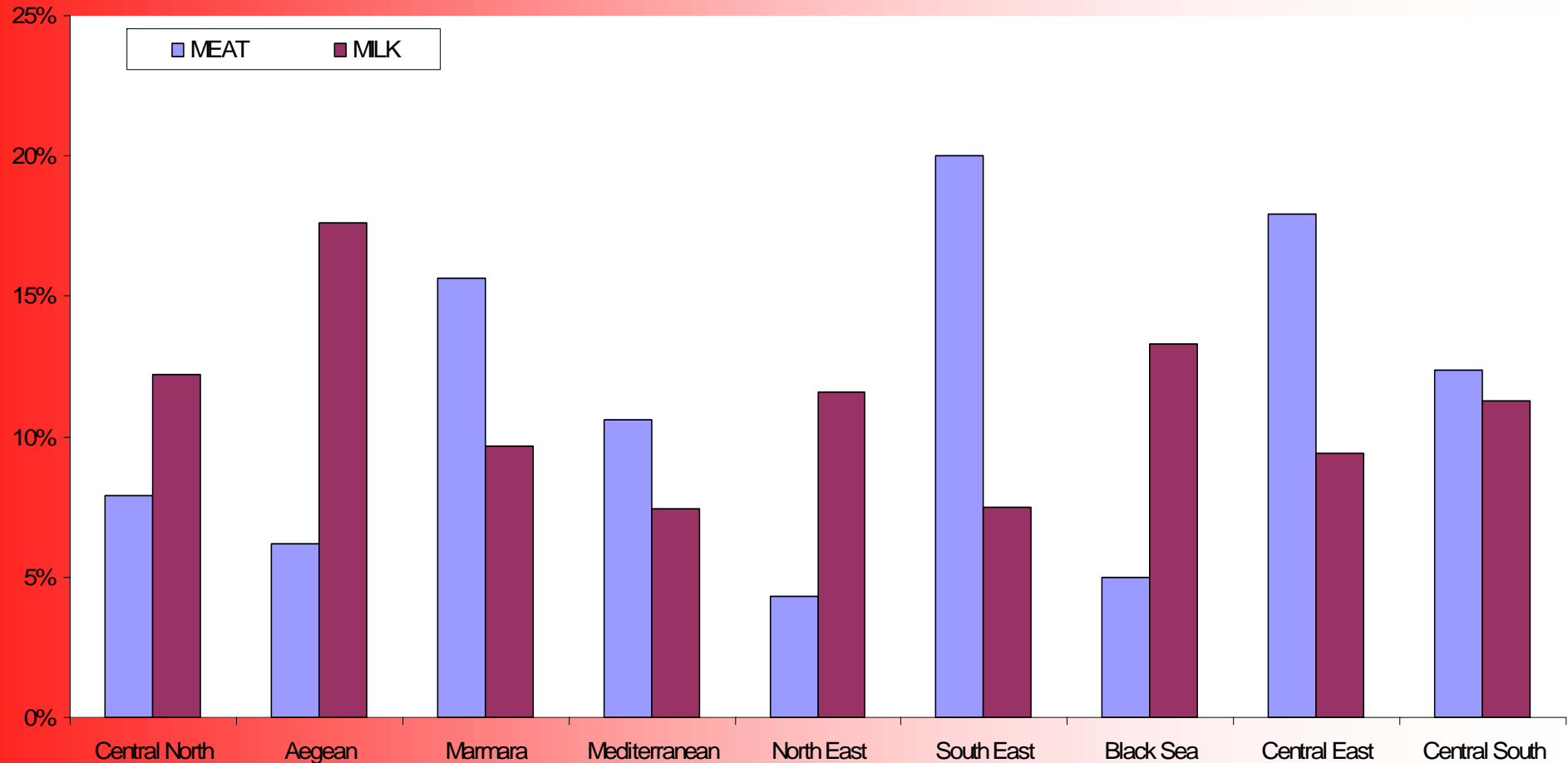
([HTTP://WWW.TUIK.GOV.TR/ALTKATEGORI.DO?UST_ID=13&UST_ADI=TAR%FDM](http://www.tuik.gov.tr/altkategori.do?ust_id=13&ust_adi=TAR%FDM),2006)

EVOLUTION OF PRODUCTION



EVOLUTION OF MEAT AND MILK PRODUCTIONS BETWEEN 1977 – 2005

SHARE OF EACH REGION IN NATIONAL PRODUCTION

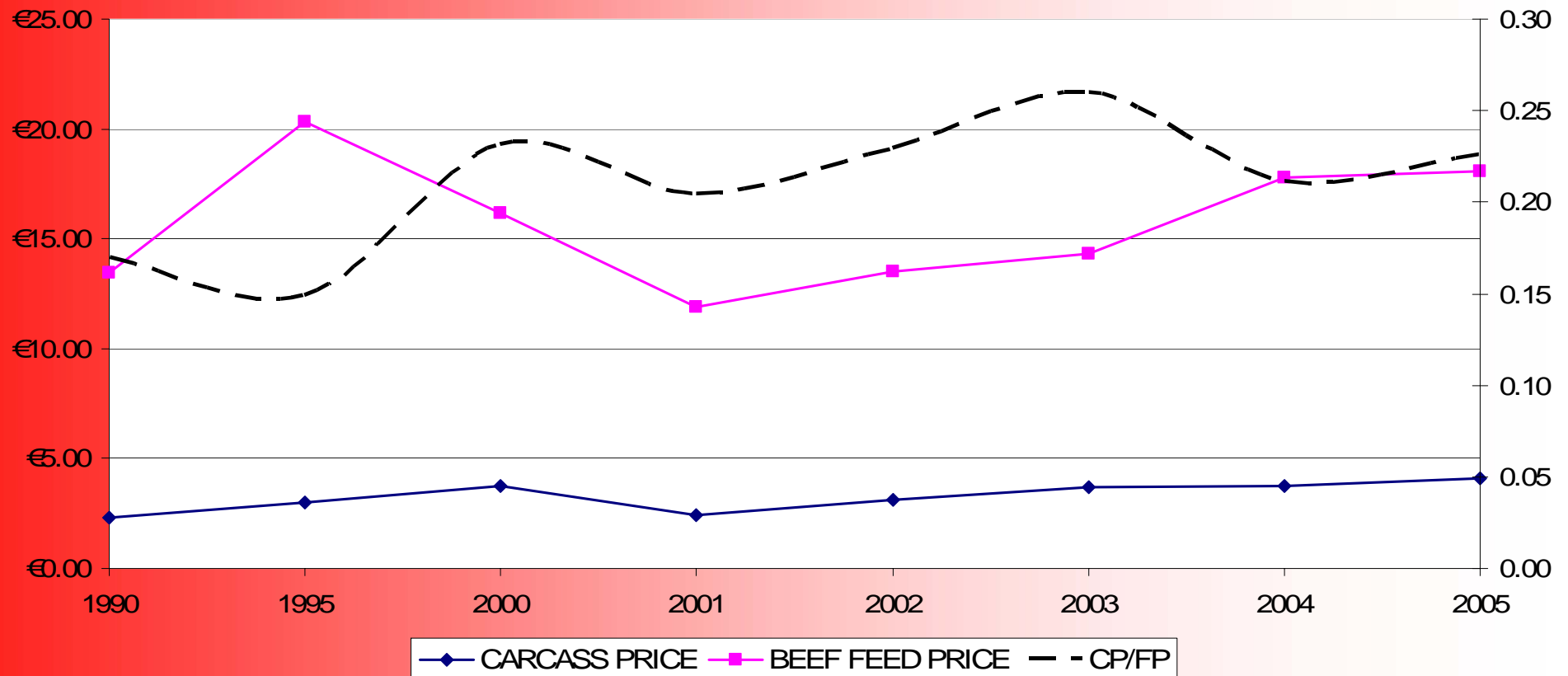


SHARE OF EACH AGRICULTURAL REGION IN THE NATIONAL PRODUCTION OF MEAT AND MILK

IN 2004

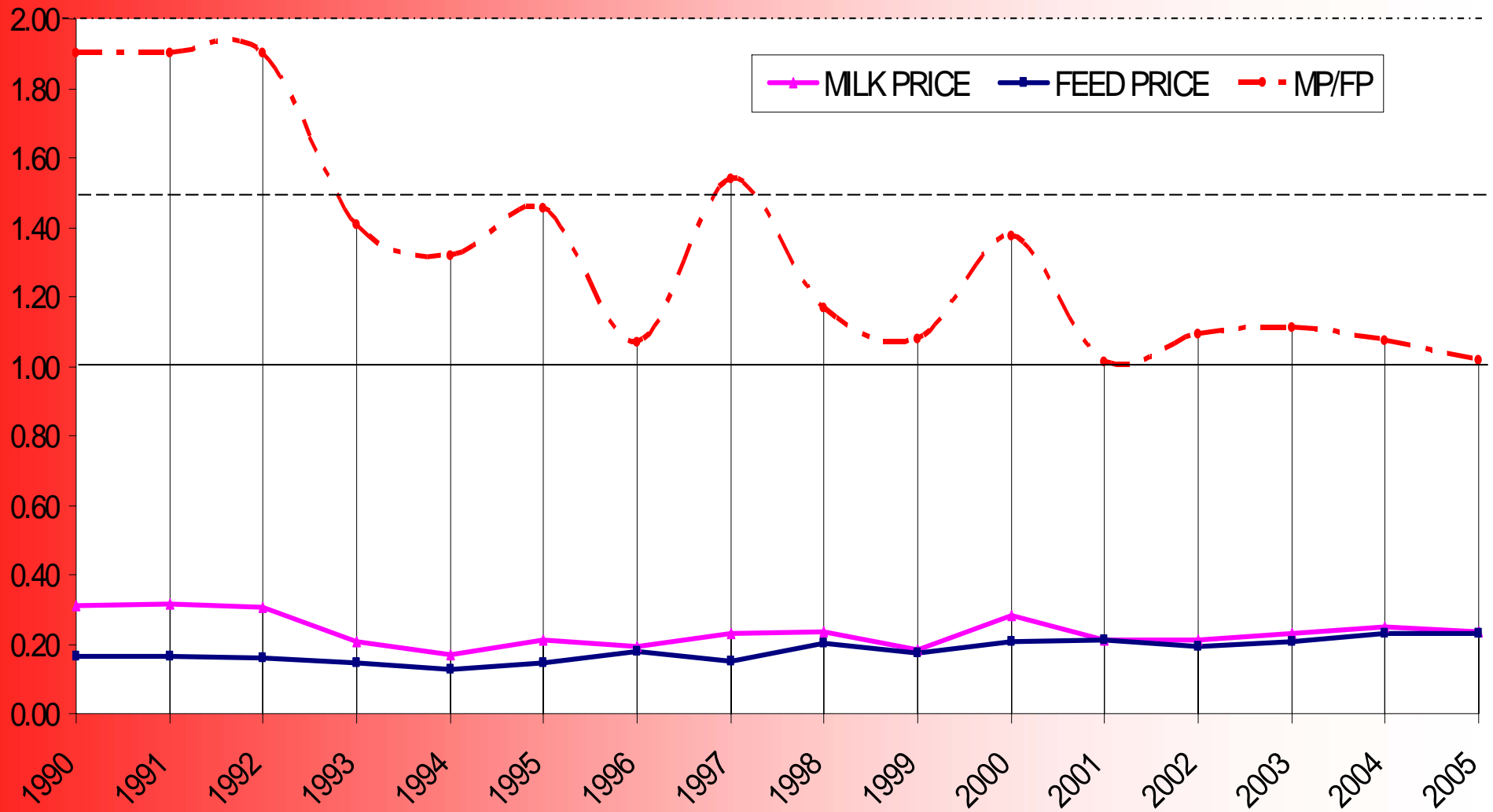
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CHANGE IN CARCASS AND FEED PRICES



CHANGE IN THE BEEF AND VEAL CARCASS (€/KG), AND BEEF FEED PRICES (€/100 KG) AND THEIR RATIO BETWEEN 1990-2005 (RIGHT AXIS) (http://www.tarim.gov.tr/arayuz/9/icerik.asp?eFl=sanal_kutuphane/sanal_kutuphane.htm&curdir=\sanal_kutuphane&fl=tarimsal_veriler_kitabi/tarimsal_veriler_index.htm, 2006)

CHANGE IN MILK AND FEED PRICES



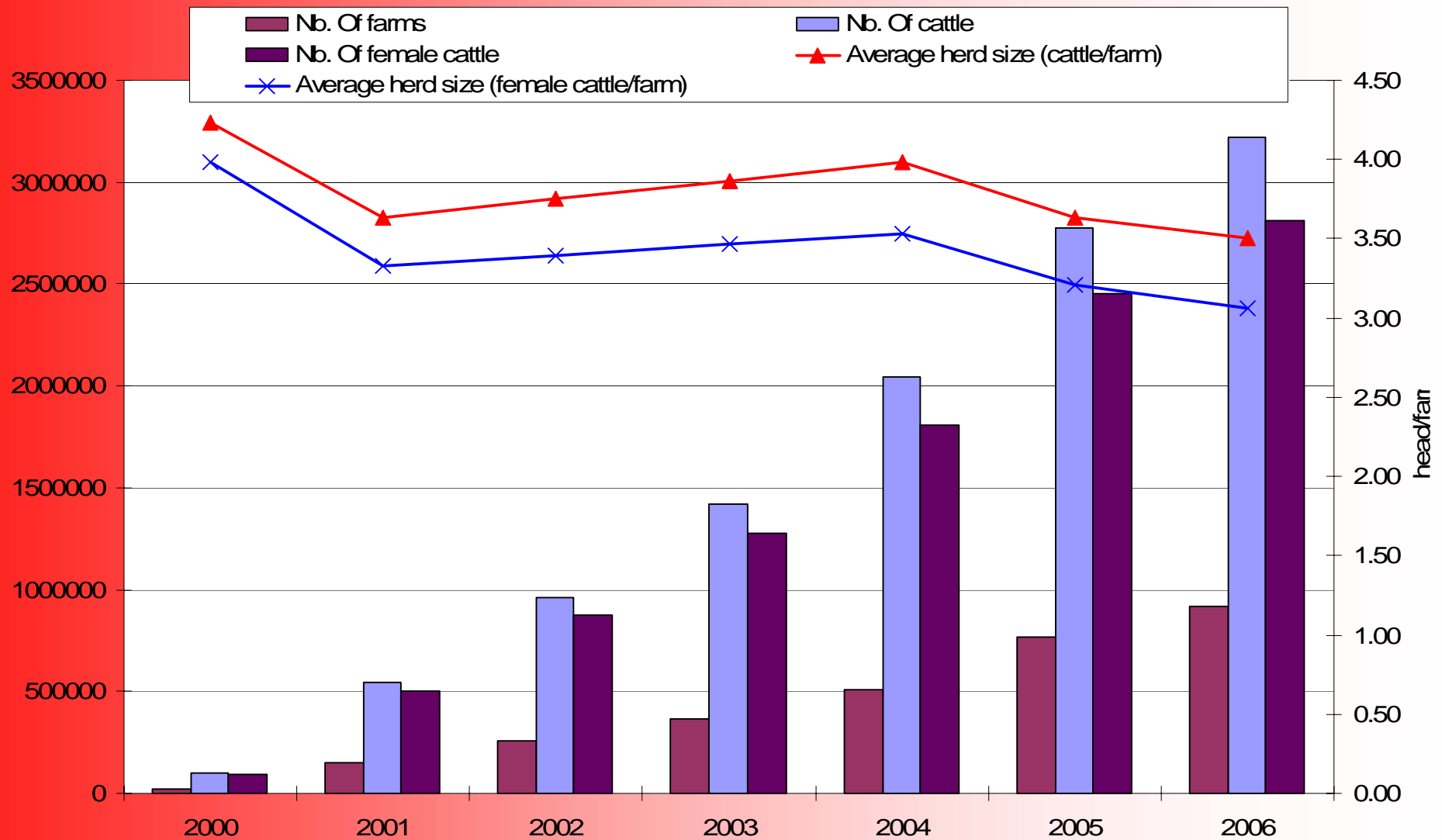
CHANGE IN MILK AND FEED PRICES (€/KG) AND MILK PRICE:FEED PRICE RATIO BETWEEN 1990-2005

PREHERDBOOK STATISTICS

YEARS	Nb. of Provinces	Nb. of Farms	Nb. of Cattle	Nb. of Female Cattle	Average Herd Size (head female cattle/farm)
2000	65	23,783	100,730	94,654	3.98
2001	76	150,189	546,354	500,155	3.33
2002	77	257,002	964,125	872,620	3.40
2003	79	367,550	1,419,459	1,273,491	3.46
2004	79	512,583	2,042,958	1,809,097	3.53
2005	79	764,857	2,778,291	2,455,479	3.21
2006	80	917,990	3,217,378	2,809,565	3.06

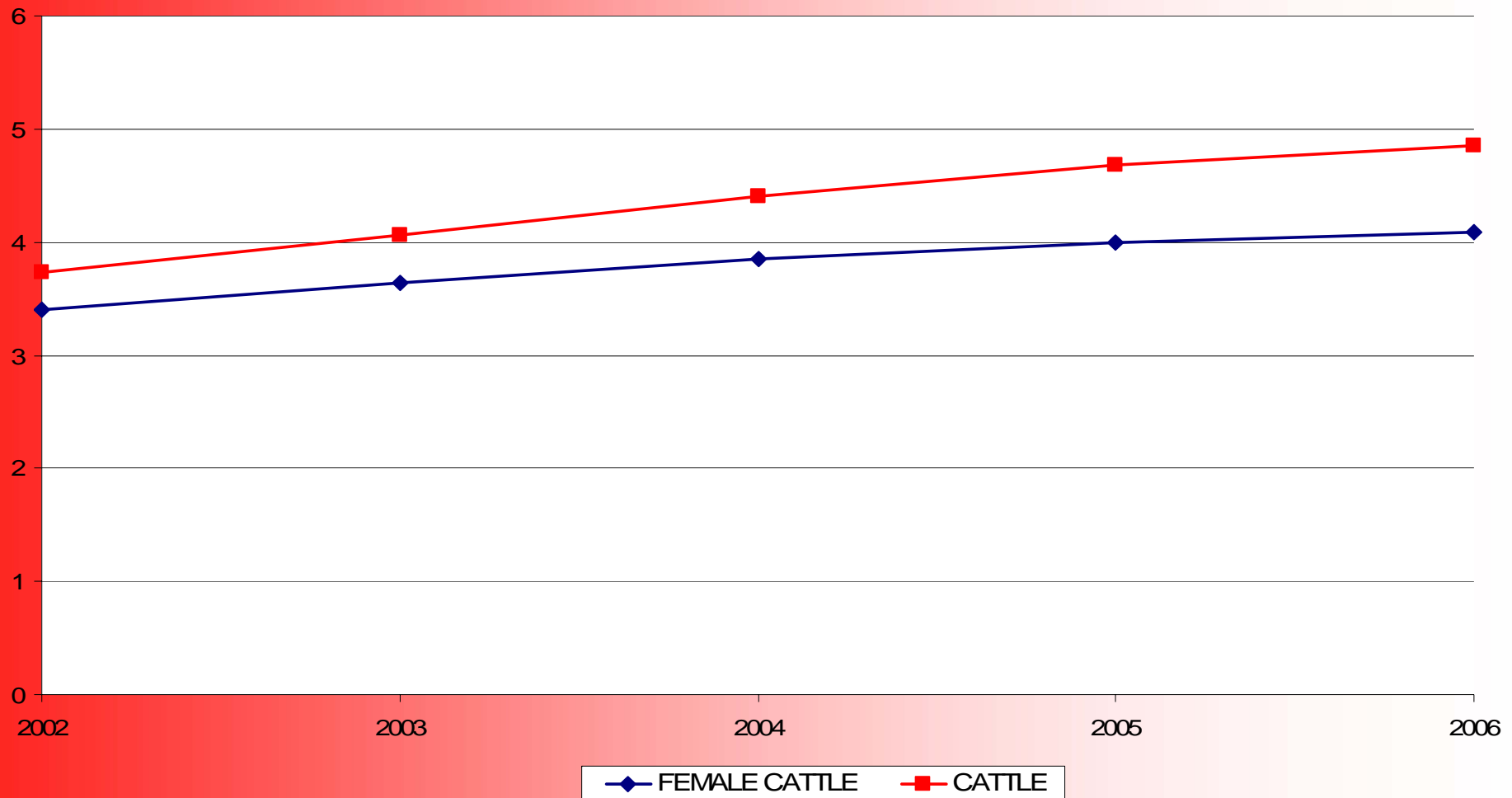
NUMBER OF PROVINCES FROM WHERE THE SYSTEM HAD RECORDS, NUMBER OF FARMS, CATTLE AND FEMALE CATTLE RECORDED IN THE PRE-HERDBOOK SYSTEM AND AVERAGE HERD SIZES BY YEARS

PREHERDBOOK STATISTICS-2



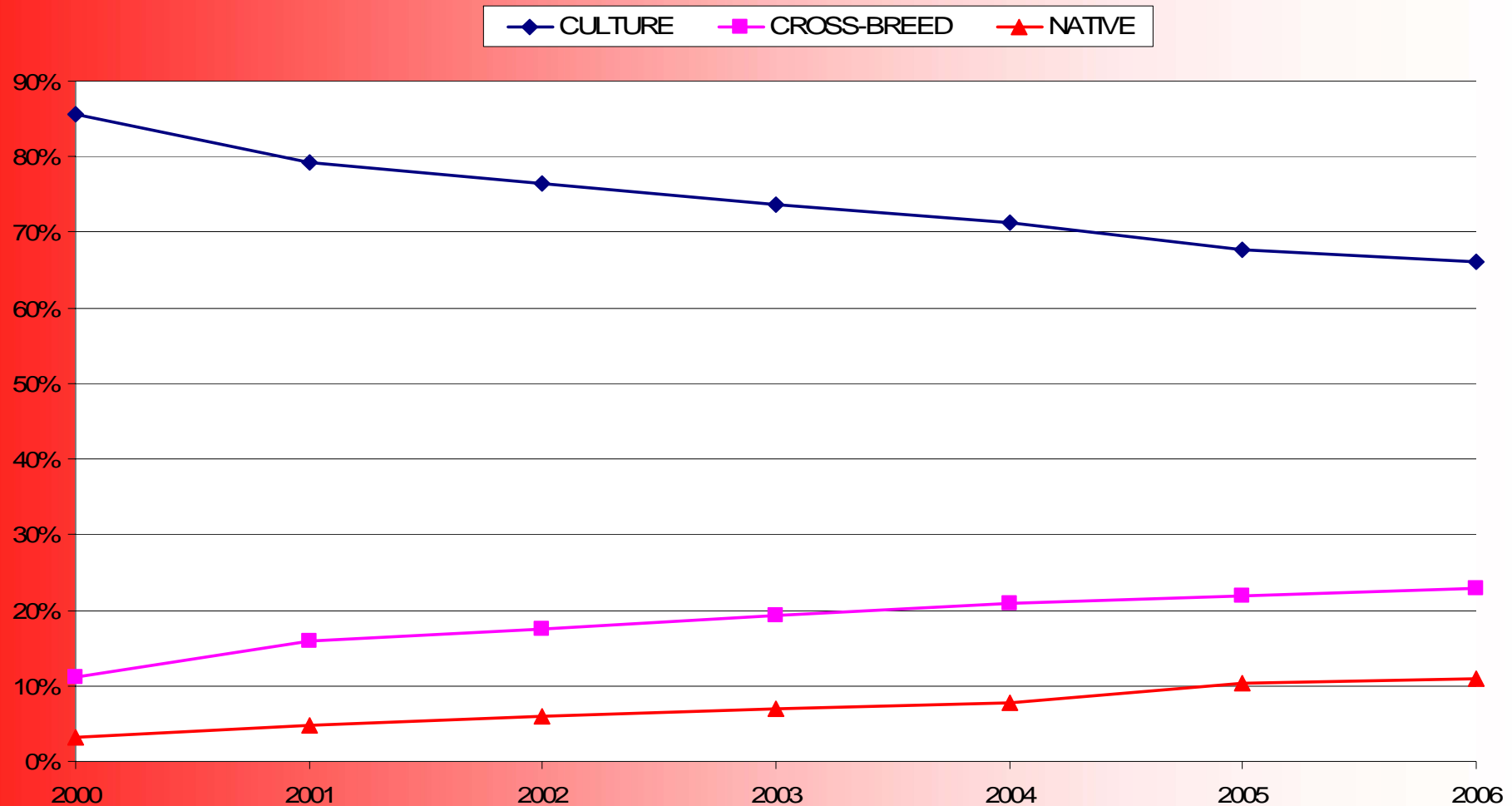
CHANGE IN THE NUMBER OF FARMS AND CATTLE IN THE PRE-HERDBOOK SYSTEM BY YEARS

AVERAGE HERD SIZE IN PREHERDBOOK



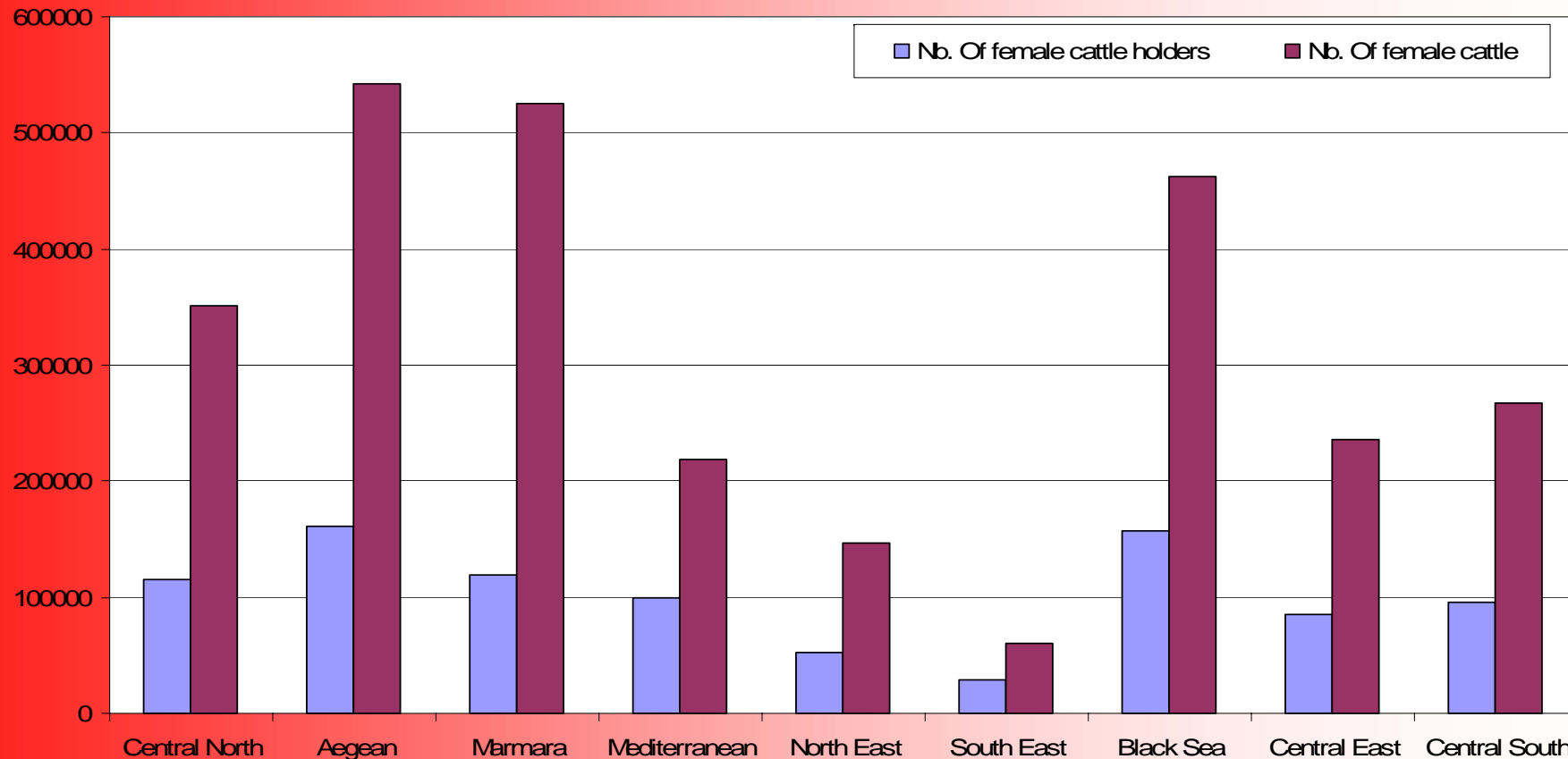
CHANGE IN THE AVERAGE HERD SIZES FOR CATTLE IN TOTAL AND FEMALE CATTLE PER FARM
RECORDED IN THE PRE-HERDBOOK SYSTEM SINCE 2002

SHARE OF GENOTYPES IN PREHERDBOOK



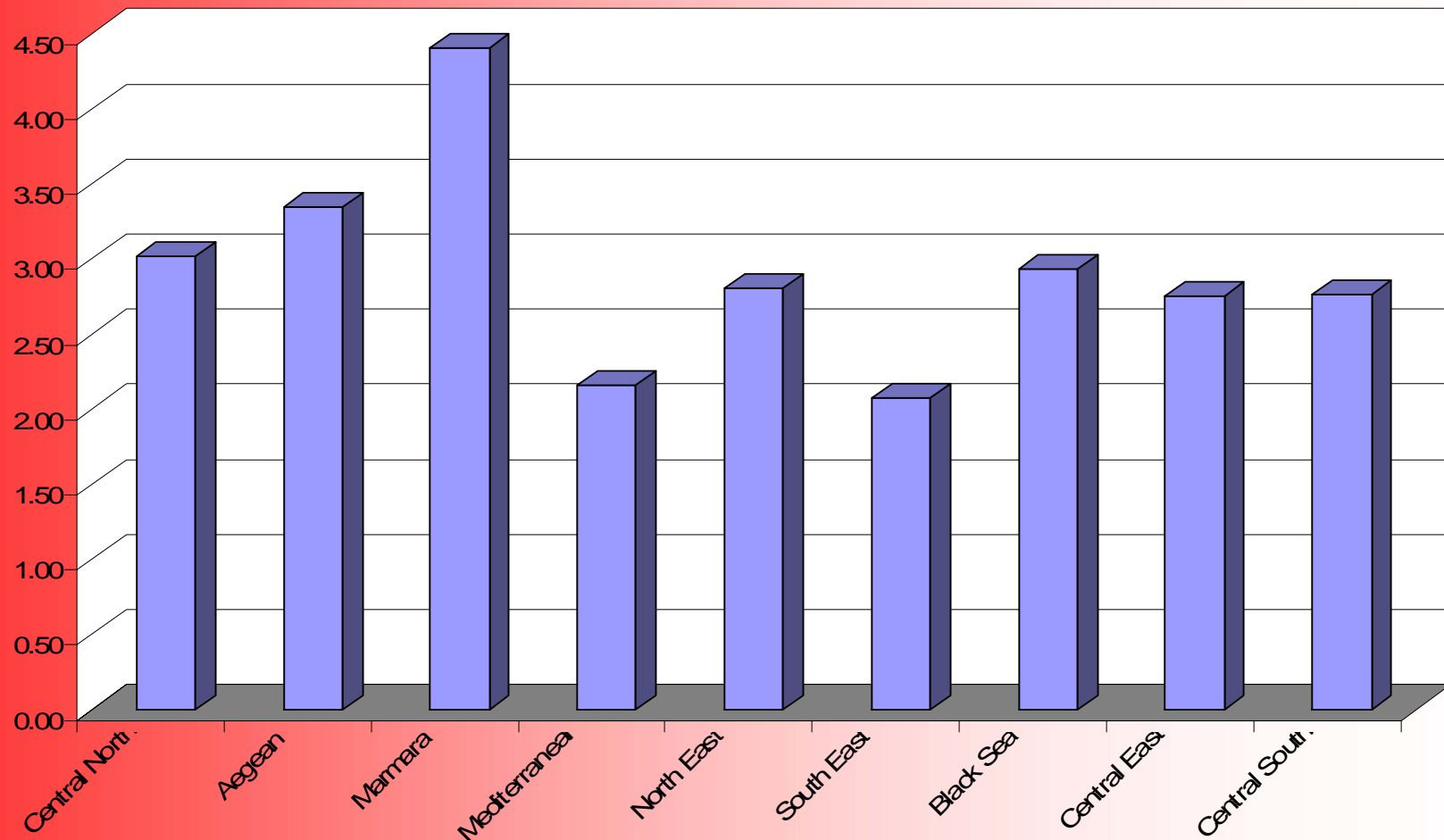
SHARE OF THREE GENOTYPES IN THE REGISTERED CATTLE POPULATION IN THE PRE-HERDBOOK SYSTEM BY YEARS

REGIONAL DISTRIBUTION OF FARMS AND FEMALE CATTLE IN PREHERDBOOK



DISTRIBUTION OF THE FEMALE CATTLE HOLDERS AND FEMALE CATTLE REGISTERED TO THE PRE-HERDBOOK SYSTEM AMONG 9 AGRICULTURAL REGION IN 2006

AVERAGE HERD SIZE IN PREHERDBOOK



AVERAGE FEMALE CATTLE PER FARM REGISTERED TO THE PRE-HERDBOOK SYSTEM IN 9
AGRICULTURAL REGIONS IN 2006

SHARE OF AGRICULTURAL REGIONS PER BREED

AGRICULTURAL REGIONS		Culture Breeds	Cross- Breeds	Native Breeds	TOTAL CATTLE
1	Central North	10.81	16.23	11.94	12.18
2	Aegean	27.65	7.20	6.55	20.65
3	Marmara	25.94	7.95	5.73	19.60
4	Mediterranean	6.39	12.02	3.38	7.35
5	North East	1.42	8.82	23.68	5.55
6	South East	1.02	2.50	6.90	2.00
7	Black Sea	8.55	27.71	28.56	15.14
8	Central East	6.74	11.04	11.00	8.19
9	Central South	11.48	6.52	2.27	9.34

SHARE OF AGRICULTURAL REGIONS PRE BREED IN REGISTERED CATTLE POPULATION IN
2006, IN THE PRE-HERDBOOK SYSTEM (%)

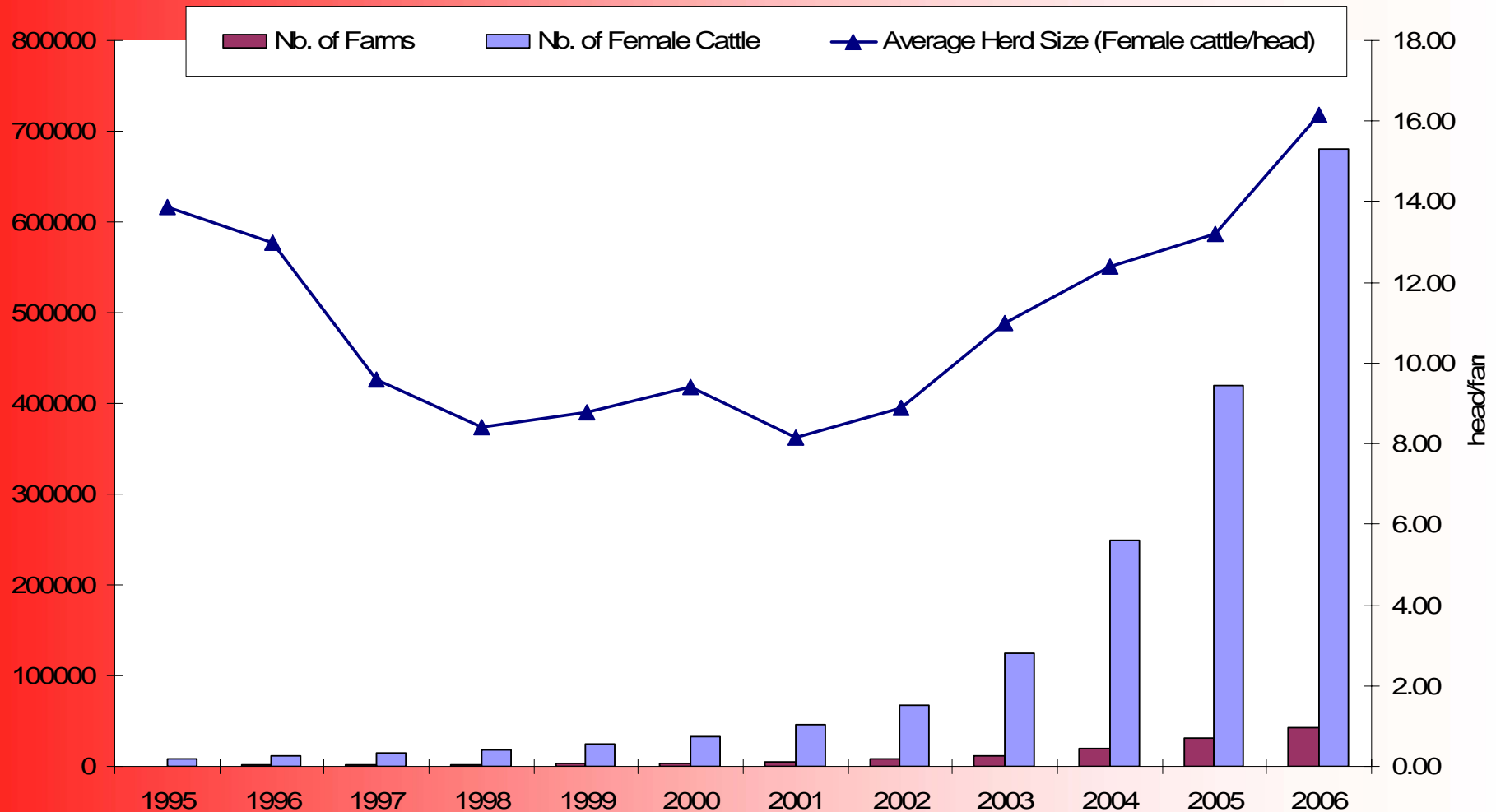
HERDBOOK DATA

YEARS	Nb. of Provinces	Nb. of Farms	Nb. of Cattle	Nb. of Female Cattle	Average Herd Size (Cattle/head)	Average Herd Size (Female cattle/head)
1995	18	564	13,894	7,821	24.63	13.87
1997	21	1,451	22,138	13,935	15.26	9.60
1999	25	2,757	34,818	24,210	12.63	8.78
2001	28	5,669	64,361	46,280	11.35	8.16
2003	38	11,357	179,450	124,831	15.80	10.99
2004	48	20,028	346,175	248,568	17.28	12.41
2005	56	31,822	574,134	419,856	18.04	13.19
2006	68	42,090	922,886	679,926	21.93	16.15

NUMBER OF PROVINCES FROM WHERE THE SYSTEM HAD RECORDS, NUMBER OF FARMS, CATTLE AND FEMALE CATTLE RECORDED IN THE HERDBOOK SYSTEM AND AVERAGE HERD

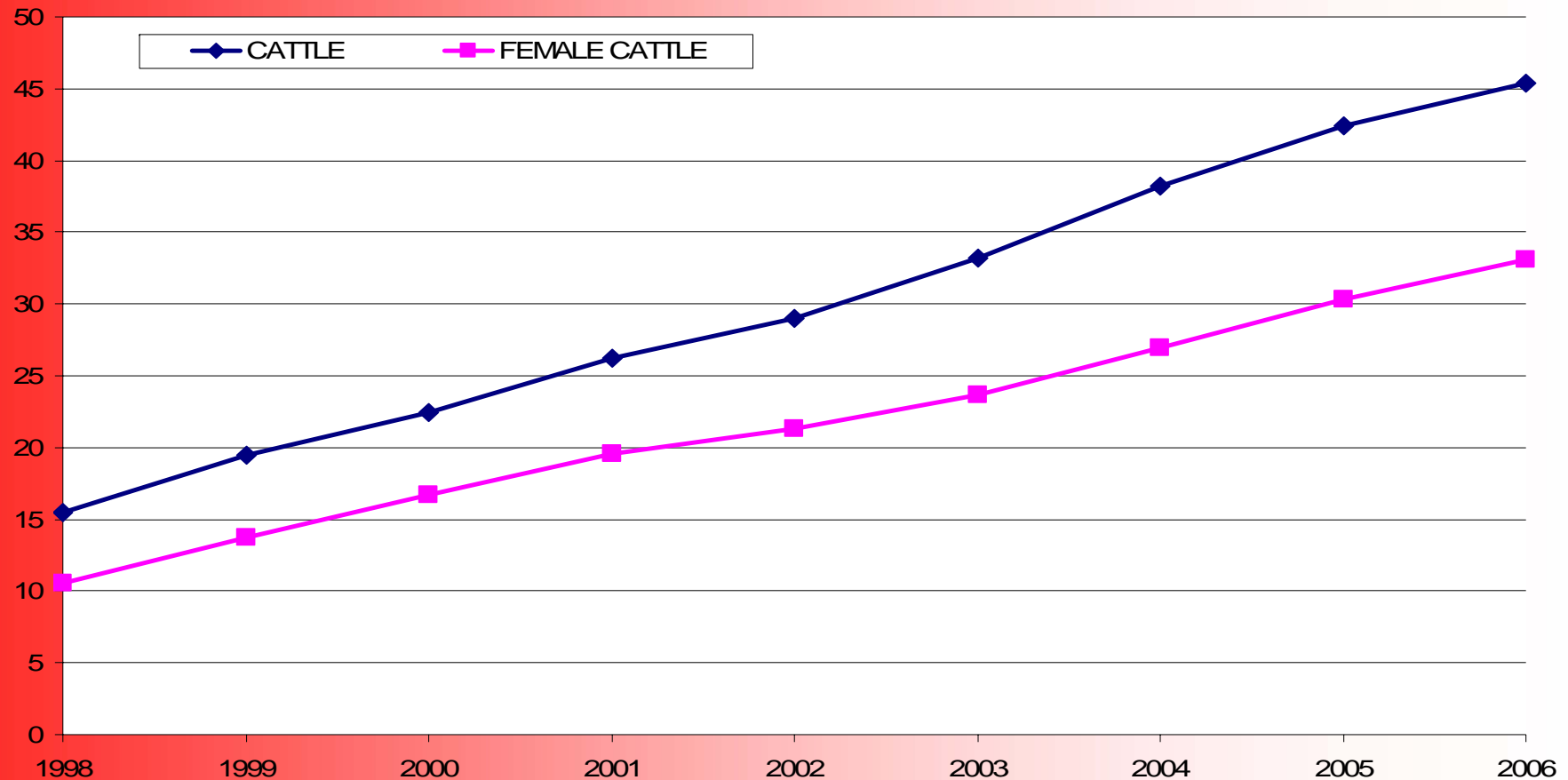
SIZES BY YEARS

CHANGE IN HERDBOOK DATA



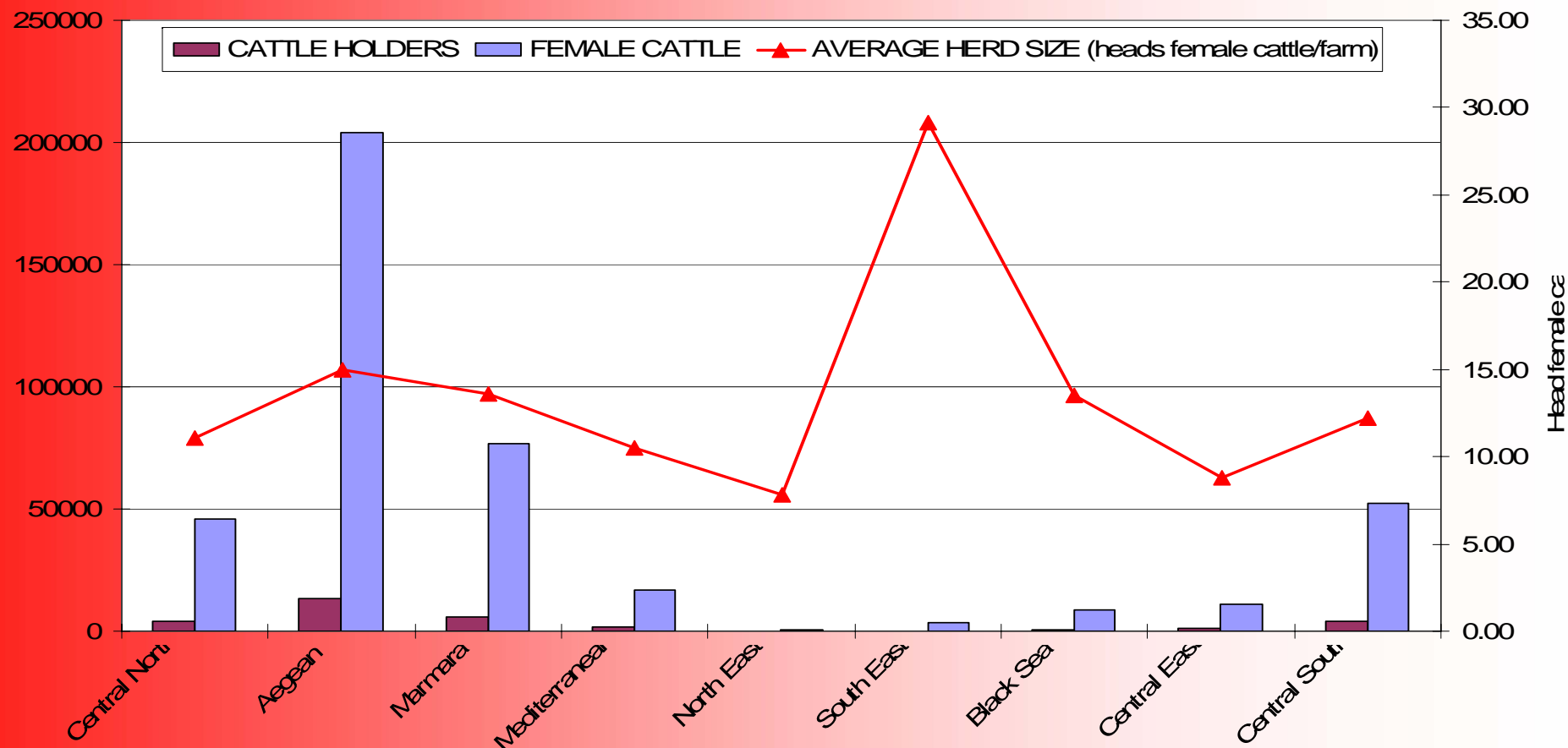
CHANGE IN THE NUMBER OF HERDBOOK FARMS, FEMALE CATTLE AND AVERAGE HERD SIZE (HEAD FEMALE CATTLE/FARM) BY YEARS

TREND OF THE AVERAGE HERD SIZE



TREND OF THE AVERAGE HERD SIZES (HEADS OF CATTLE AND FEMALE CATTLE PER FARM) OF THE 1075 FARMS REGISTERED IN THE HERDBOOK SYSTEM SINCE 1998

REGIONAL DISTRIBUTION OF HERDBOOK FARMS



DISTRIBUTION OF THE FEMALE CATTLE HOLDERS AND FEMALE CATTLE REGISTERED TO THE HERDBOOK SYSTEM AND THE AVERAGE HERD SIZE (HEADS FEMALE CATTLE/FARM) AMONG 9 AGRICULTURAL REGION IN 2005

SHARE OF REGIONS PER BREED

AGRICULTURAL REGIONS		Culture Breeds	Cross-Breeds	Native Breeds	TOTAL CATTLE
1	Central North	10.78	22.95	14.17	11.30
2	Aegean	50.16	23.33	8.96	48.81
3	Marmara	18.96	9.47	6.37	18.49
4	Mediterranean	2.79	4.42	1.96	2.85
5	North East	0.31	6.72	52.03	0.88
6	South East	0.48	0.51	2.42	0.49
7	Black Sea	1.84	2.66	3.32	1.88
8	Central East	1.64	6.48	6.33	1.87
9	Central South	13.05	23.46	4.43	13.43

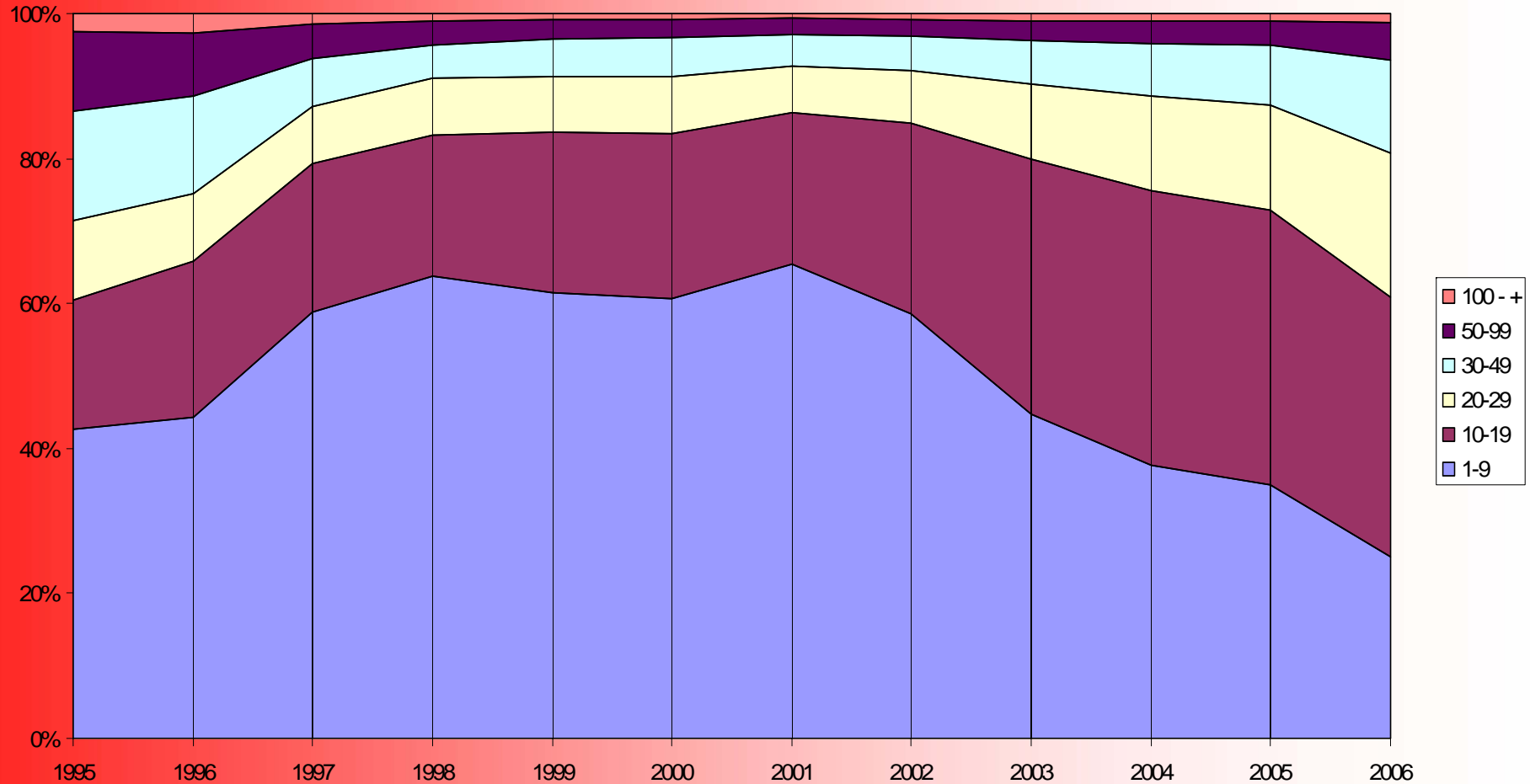
SHARE OF AGRICULTURAL REGIONS IN REGISTERED CATTLE PER BREED IN 2005, IN THE HERDBOOK SYSTEM (%)

NUMBER OF FARMS PER HERD SIZE CLASS

	AT	CZ	EE	ES	GR	HU	IT	LT	PL	PT	SI	BG	TR
1-9	30.7	70.2	82.8	40.3	45.8	81.9	42.9	93.3	82.8	73.0	70.6	95.2	44.8
10-19	24.9	10.0	7.2	18.8	17.5	9.5	18.0	5.1	10.5	10.4	17.2	3.0	35.1
20-29	16.8	4.5	3.1	9.0	9.8	2.7	9.4	0.8	3.6	4.3	6.3	0.9	10.4
30-49	17.4	3.9	2.6	12.2	7.6	2.1	10.5	0.4	2.4	4.6	4.0	0.6	5.9
50-99	9.0	2.8	1.7	10.7	11.8	1.3	10.0	0.2	0.6	4.2	1.6	0.2	2.9
100 - +	1.2	8.6	2.6	9.0	7.5	2.5	9.1	0.1	0.2	3.4	0.3	0.1	1.0

NUMBER OF FARMS PER HERD SIZE CLASS FOR CATTLE IN THE MEMBER STATES AND TURKEY
IN 2003 (%)

CHANGE IN THE SHARE OF DIFFERENT HERD SIZE CLASSES

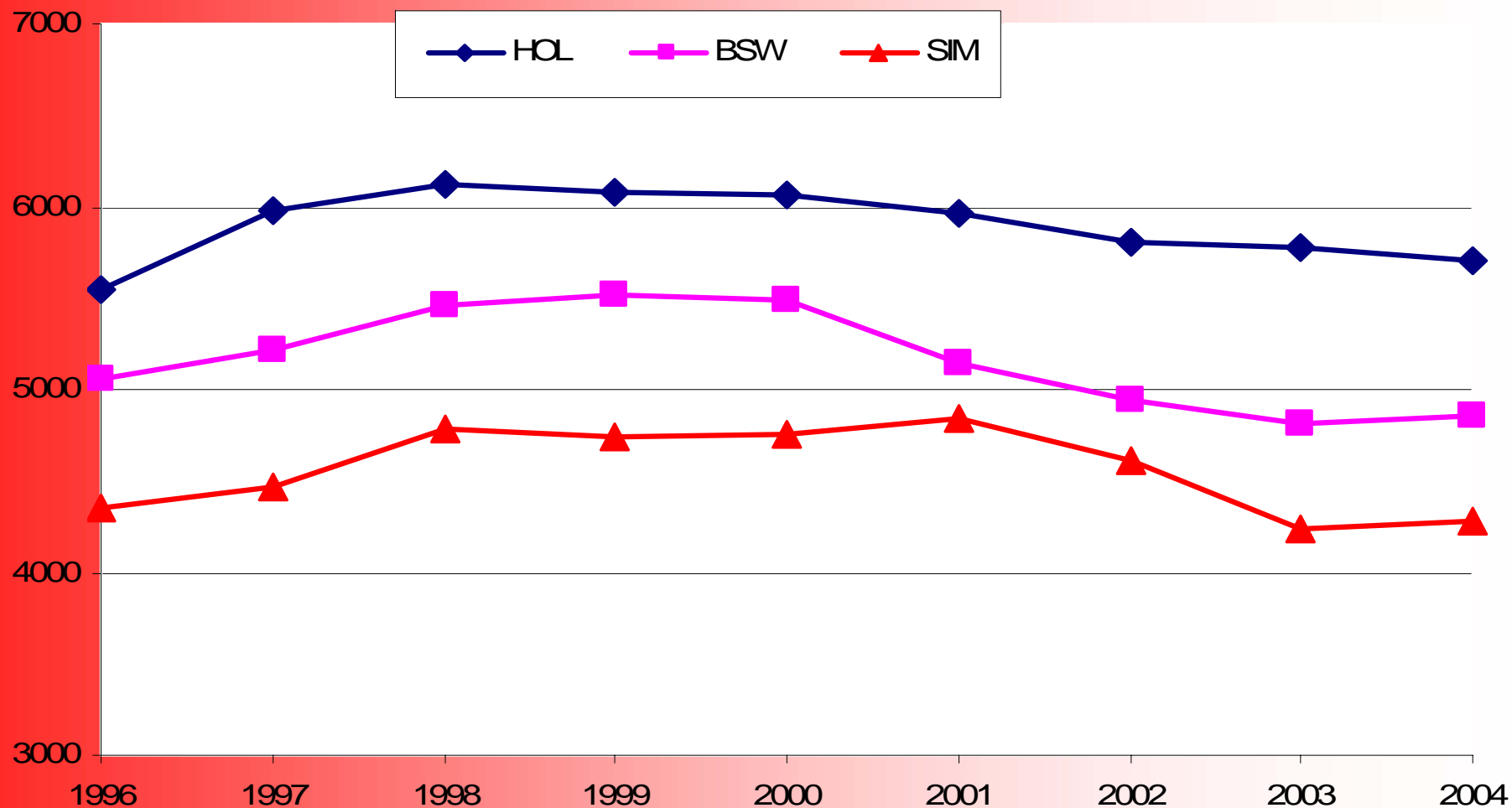


CHANGE IN THE SHARE OF DIFFERENT HERD SIZE CLASSES OF HERDBOOK FARMS BY

YEARS (%)

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AVERAGE MILK YIELDS



MILK YIELDS OF 3 MAIN BREEDS REGISTERED TO THE HERDBOOK SYSTEM IN 305 DAYS BY YEARS

CONCLUSIONS

- ACCURATE INFORMATION/DATA
- INCREASING HERD SIZES IN PARALLEL WITH DECREASING FARM NUMBERS
- MILK MARKET STABILISATION
- PROGRESS IN GENOTYPIC STRUCTURE OF HERDS

CONCLUSIONS-2

- DEVELOPMENT OF FARM STRUCTURES
- INCREASE IN PRODUCTION HYGIENE
AND PRODUCT QUALITY AWARENESS
- PRODUCTION YIELDS TEND TO
INCREASE
- ORGANISED PRODUCERS



THANK YOU...