

DEVELOPMENT DIRECTION OF STOCKBREEDING SECTOR IN TURKEY (TOKAT CITY EXAMPLE)

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Abstract

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In this study, present status of animal existence in the Tokat and Turkey has been investigated and the changes in the numbers of bovine and caprine animals which occurred in respect of years, present problems of stockbreeding sector and suggestions for the solution have been exhibited. Time series analysis has been used to determine the direction of regarding changes. The policies followed the implementations which have been done and result of these has been showed.

On the other hand, index values have been calculated in terms of varied criterions to state the present status of stockbreeding sector. SWOT analysis (Weak-Strong Sides – Opportunities – Threats), aiming to increase competitiveness and development of sector, established to state existing and possible sides of the sector.

There is not a specific stockbreeding sector policy that has continuity and determined aims in Tokat. It is necessary to establish the stockbreeding sector policy including continuity and specific aims.

Key words: Animal husbandry sector, pursued policies, Turkey

Introduction

Agriculture consistently maintains its importance both in the world and Turkey because it provides employment and extensive degree of trade, supports many industry branches through producing raw material and is primary base for human nourishment.

At present 30% of Turkey's population are employed in agriculture. 75% of the raw materials required for the industry are produced in agricultural activities. 35% of the incomes that is based on exports is supplied from the

industry basing on agriculture. The Contribution of agriculture to Turkey's employment rate is at the level of 34% (Karakoyunlu, 2007).

In Turkey; where some development is supplied in economical means, there has seen a relatively diminishing trend regarding the importance of agricultural, year after year since 1920, through which agricultural sector in fact had an overwhelming share in Turkey's GNP. It can be seen that diminishing trend of agricultural sector's share in economy continues term by term too. While the share of Agriculture in GNP has been 15.7% during 1994, this ratio dropped to 11.7%

in 2004 (Demirbas, 2005). It is also viewed that it has dropped back to 9.2% in year 2006 (Turkish Statistical Institute, 2008).

Agricultural production and live stock breeding has always been one of the oldest occupations and income sources of human being and it maintains its status just the same even today (Akman et al., 1997).

A certain degree of live stock animal breeding must be maintained in agricultural holdings in order to provide that Agricultural Enterprises effectively make use of the labour, capital and land and increase effectiveness while using their sources (Tanrıvermiş et al., 1993).

Livestock breeding provides a sufficient potential for nourishment and development of countries, for increase in internal sales, for supplying raw material to industry, for ensuring balanced development in terms of sectors and regions and for providing stable development for them, for preventing hidden unemployment in rural areas, for creating new employment fields in service sectors and industry, for basing development finance on equity capital (Tuzun and Yenigün, 2003).

Additionally, livestock sector has a vital socioeconomic function for preventing migration from rural areas to cities in Turkey. Turkey, taking account of its current socioeconomic and geographic features, has a huge potential and suitable environment to produce every kind of animal product. It is a good indicator regarding this circumstance that live stock breeding takes %6 shares in GDP. However, it is not possible to say that the potential is used in an efficient and rationalist way. Especially, some implemented macroeconomic policies have lead to difficult situation for livestock breeding, it even lead to start of a regression and even to disappearing. However, while bovine and caprine animal population has been increasing continuously following the foundation of Turkish Republic, the population in Turkey sharply decreased after 1980. Although production per a animal head has increased,

live stock breeding is still underdeveloped and it is incomparable with the developed countries (Babacan, 2006).

Live stock breeding covers 40% of world agricultural gross revenue, employs 1.3 million people and provides more than 30% share in world's daily protein consumption (Oruc, 2008).

Material and Method

In this study, by regarding the importance of live stock breeding the situation of cattle, sheep and goat breeding in Tokat city is evaluated. Trend analysis was implemented in order to determine the course of the trend regarding the changes occurring in live stock breeding in Tokat city. Pro rata changes in values during a time period were obtained and interpreted by way of index calculations. Additionally, with the aim of competitiveness increase and sector improvement, current and possible features of the sector was tried to be presented by way of SWOT Analysis.

In this study, records and web sites of Tokat Agricultural Directorate and other agricultural establishments, reports of TURKSTAT (Turkish Statistical Institute) and other statistical establishments, publications and researches which were made about the relevant subject and journals, books, statistics and reports of several establishments were benefited as a material.

Results and Discussion

The Present Status of Live Stock Breeding in Turkey

In Table 1, Turkey bovine animal amount in terms of animal is presented. It can be seen from Table 1 that between 1991 and 2007 period, culture beef race amount increased to 3 295 678 from 1 253 865 hybrid beef amount increased to 4 465 350 from 4 033 375, domestic beef amount decreased to 3 275 725 from 6 685 683, water buffalo amount decreased to 84 705 from 366 150 According to these information, it can be said that culture and

Table 1
Turkey bovine animal amount in terms of animal races

Years	Beef (Culture)	Beef (Hybrid)	Beef (Local)	Buffaloes
1991	1 253 865	4 033 375	6 685 683	366 150
1992	1 337 410	4 131 507	6 481 990	352 410
1993	1 442 000	4 342 000	6 126 000	316 000
1994	1 512 000	4 543 000	5 846 000	305 000
1995	1 702 000	4 776 000	5 311 000	255 000
1996	1 795 000	4 909 000	5 182 000	235 000
1997	1 715 000	4 690 000	4 780 000	194 000
1998	1 733 000	4 695 000	4 603 000	176 000
1999	1 782 000	4 826 000	4 446 000	165 000
2000	1 806 000	4 738 000	4 217 000	146 000
2001	1 854 000	4 620 000	4 074 000	138 000
2002	1 859 786	4 357 549	3 586 163	121 077
2003	1 940 506	4 284 890	3 562 706	113 356
2004	2 109 393	4 395 090	3 564 863	103 900
2005	2 354 957	4 537 998	3 633 485	104 965
2006	2 771 818	4 694 197	3 405 349	100 516
2007	3 295 678	4 465 350	3 275 725	84 705

Source: www.turkstat.gov.tr, 2008.

hybrid beef types among cattle races have been tried to be increased in Turkey.

In Table 2, Turkey caprine animal amount in terms of animal races is presented. It can be seen from Table 2 that between 1991 and 2007 period, domestic sheep amount decreased to 24 504 211 from 39 590 493, merino sheep amount increased to 971 082 from 841 847, hair goat amount decreased to 6 095 292 from 9 579 256, angora goat amount decreased to 191 066 from 1 184 942 efforts have seen to breed up more qualified animal in goat or sheep like in cattle too.

Incentives to Live Stock Breeding in Turkey

Turkey agriculture has been supported in different ways. Providing cheap input by way of interference to input prices, intervention purchases by way of using determined prices,

providing credits with low interest rates, incentive and premium implementations, protectionism in foreign trade aiming to support domestic production are generally the ways of supporting agriculture in Turkey.

Animal husbandry supports in developed countries are more than those that are presently granted in Turkey. Supports given in Turkey area as follows:

As milk production is an important aim in cattle breeding, milk support is a crucial element of animal husbandry supports. Milk incentive premium decreased to 8.7% of milk price and 10.6% of feed price in 2004 fluctuating between one year to another, when it covered 25.9% of milk price and 24.1% of feed price in 1987 which was the beginning year of milk supports. 2005/8503 Ministers' Board Decision on live stock breeding supports 2005-2010 has been in force, it was

Table 2
Turkey caprine animal amount in terms of animal races

Years	Sheep (Local)	Sheep (Merino)	Goat (Hair)	Goat (Angora)
1991	39 590 493	841 847	9 579 256	1 184 942
1992	38 575 828	840 110	9 439 600	1 014 340
1993	36 709 000	832 000	9 192 000	941 000
1994	34 823 000	823 000	8 767 000	797 000
1995	32 985 000	806 000	8 397 000	714 000
1996	32 234 000	838 000	8 242 000	709 000
1997	29 376 000	862 000	7 761 000	615 000
1998	28 560 000	875 000	7 523 000	534 000
1999	29 425 000	831 000	7 284 000	490 000
2000	27 719 000	773 000	6 828 000	373 000
2001	26 213 000	759 000	6 676 000	346 000
2002	24 473 826	699 880	6 519 332	260 762
2003	24 689 169	742 370	6 516 088	255 587
2004	24 438 459	762 696	6 379 900	230 037
2005	24 551 972	752 353	6 284 498	232 966
2006	25 801 481	815 431	6 433 744	209 550
2007	24 504 211	971 082	6 095 292	191 066

Source: www.turkstat.gov.tr, 2008.

published on 24 February 2005 with number 25737 on official gazette. If the differences between this legal decision and the formal legal decision nr. 2000/467 are viewed in terms of milk aimed animal husbandry, it can be seen that the latter included an arrangement to directly meet 25% of cost in certified feed crop seed planting activity. If a producer invest in stable milking unit and in cooling tank by using his/her own resources to provide a certain quality and hygiene criteria in milk which will be delivered to industry, 40% of the investment cost can be paid as a government support. Farmers can take support payment per head for identification and registration of their animals, aiming to improve animal identification system. Within the framework of activities against animal disease at determined regions by Ministry of Agriculture and Rural Affairs, operators can take support payment for operating annually prog-

rammed vaccinations. Farmers, participating into animal gene resources protection program which is implemented by the Ministry, can receive direct payments per head, which is differentiated in terms of bovine and caprine animals.

In order to form up an establishment, grant of a compensation for each live stock at those establishments where diseases came up was decided first of all in Trakia and it was decided to spread this application in all cities starting from 2006. When the support items of year 2005 are viewed, if we do not regard the support premium assigned from year 2004, we can see that the biggest piece of the cake is given to feed crop with a ratio of 24.0%, and milk incentive and the market regulation follows this respectively. It is seen that the smallest share is given to live stock that has breeding certificate (0.8) which is in fact the most important issues of the livestock breeding of the country and to milk

run off hygiene and milk quality (1.0%) and food safety and official veterinary supports (Hekimoglu and Altindeger, 2006).

The live stock sector, which has gone through a great collapse in early 1980 started to liven up again through the incentives supplied in recent years. The live stock animal establishments have increased their capacities by means of such supports and increased the number of the investments coming out of the sector itself. The live stock breeding support which has been 83 million TL in 2002 reached 107 millions in 2003, 248 millions in 2004, 352 millions in 2005, and 7000 millions in 2006. Even though 750 million TL was anticipated for live stock breeding in 2007, it is viewed that the total of the supports have reached 1.2 billion YTL (Yildirim, 2008).

The Existing Status of the Sheep and Cattle Breeding in Tokat City

The 2.7% of the Beef Cattle, 10.6% of the Cow, 0.2% of the sheep, 0.4% of the goat, and the 0.2% of the winged animal in Turkey are in Tokat City (Tokat Province Agriculture Directorate, 2007a).

The 13.2% of the Tokat's land are meadows, and among the reable area 1.6% is for feed crop. The eligibility of the land for the growth of feed crop and the as a result of the developments in genotypes the increase of the hybrid animals is observed.

The number of the establishments for milk cattle are 915, the number of the establishments for combined cattle breeding is 36 571, and the number

of the establishments for combined live stock breeding is 4 618 in Tokat city the total number of the establishments for milt is 10 approximately 60 000 tones of milk in processed in the Industry per annum (Tokat Province Agriculture Directorate, 2007a).

In meat and meat products the number of the establishments for breeding live stock is 312, the number of the establishments for combined cattle is 36 571, and the number of the establishments for combined animal breeding is 4 618. The contribution of the breeding cattle to the economy of the city is 377 700 000 TL (Tokat Province Agriculture Directorate, 2007a).

In Tokat city when the support to live stock is viewed, during the term of 2000-2002, it is 5 trillions and 108 billions TL, during the term of 2003-2007 it is 59 521 890 00 TL.

In Tokat city various activities are being done in order to develop the live stock breeding.

Regarding The Genealogy and primary genealogy project; the purpose of the project is the efficiency increase of the culture race animals, improvement of local and hybrid animals and the efficiency related to those genealogy establishments which are taken under registry, and to provide the record keeping of the pedigree.

In the system there are 36 171 establishments and in these establishments there are 102 417 recorded cattle size live stocks.

The artificial insemination activities: In the city the artificial insemination activities are privatized fully.

Table 3

The artificial insemination activities for cattle size live stock in Tokat city

Years	2003	2004	2005	2006	2007
Artificial Insemination Amount (Head)	14 905	14 491	23 070	34 751	36 946

Source: Tokat Province Agriculture Directorate, Project ve Statistics Branch Records, Animal Health Department(2007a).

In Table 3, artificial insemination activities for cattle size live stock in Tokat are presented.

The works for description, registry and monitoring of cow type animals

Ever since its starts 723 000 earrings are taken, and approximately 700 000 of these are implanted on animals, and they were registered to the country data base. As of the year end in 43

189 establishments 339 000 animals are registered. The other animals are erased from the system data base as they were transferred to other cities or as they were for sacrificial rituals.

In year 2007, the controls of 72 550 bovine and caprine livestock, 285 700 poultry livestock and 48 344 bee hives were done and they were transferred out of the city. Additionally, 1 269 15 kg of meat and 39 377 animal leathers, 14 300 kg

Table 4

The numbers of the small and big live stock in tokat city as per years

Years	Caprine animals	Caprine animals index value	Bovine animals	Bovine animals index value
1984	590 058	100	342 759	100
1985	580 559	98.4	346 162	101
1986	581 424	98.5	350 160	102.2
1987	587 229	99.5	381 953	111.4
1988	667 741	113.2	376 122	109.7
1989	616 552	104.5	356 322	104
1990	587 075	99.5	350 258	102.2
1991	606 314	102.8	386 741	112.8
1992	579 917	98.3	346 336	101
1993	589 191	99.9	393 592	114.8
1994	572 380	97	389 076	113.5
1995	438 895	74.4	354 633	103.5
1996	430 953	73	350 599	102.3
1997	367 654	62.3	350 447	102.2
1998	381 265	64.6	325 766	95
1999	365 076	61.9	324 446	94.7
2000	313 024	53	318 932	93
2001	268 684	45.5	295 011	86.1
2002	244 785	41.5	257 102	75
2003	213 999	36.3	234 934	68.5
2004	218 815	37.1	235 333	68.7
2005	222 812	37.8	237 056	69.2
2006	221 363	37.5	237 997	69.4
2007	241 600	40.9	225 670	65.8

Source: Tokat Province Agriculture Directorate, Project ve Statistics Branch Records, Animal Health Department(2007a).

honey, 14 014 kg animal organs, 21 600 kg bowels were shipped.

In Table 4, the numbers of the small and big live stock in Tokat city as per years are seen (Table 4). When the index values of the caprine livestock in Tokat are viewed, it can be seen that there is a constant drop. It is viewed that the most increase in the number of the live stock is in 1988 with 13.2 %. When year 1984 is taken as a basis, the greatest decrease has happened in year 2003 by 63.7%. In year 2007 it is viewed that a drop by 59.1% has occurred.

When the index values are regarded and year 1984 is taken as a basis, regarding the number of the bovine animals in Tokat city, the greatest increase is in year 1993 by 14.8%. It is viewed that there is a constant decrease starting from 1998 until the recent years. In 2007 a drop by 34.2% is observed.

In Table 5, distribution of the big live stock animals as per their races is given. In Table 5, when the distribution of the number of the bovine animals is viewed as per their races, it is observed that the domestic races are at first place in 2006 by 52%, the hybrid races are in second place by 36.68%. It is observed that the culture races take the last place by 11%.

In Table 6, slaughter house table over Tokat city and districts is given. In Table 6 the total

number of the slaughtered bovine livestock per year is 14.285, and the obtained meat production is 2 237 451 kg. As the assets of bovine livestock is generally formed up of the local races, it is seen that the overall efficiency in meat is low the number of the slaughtered caprine animals is 28 553, and the obtained meat production per year is 465 743 kg.

The trend analysis of the small livestock animal assets (piece) is given. Linear method is used for the trend analysis of the caprine livestock assets. $Y_t = 706435 - 21556.9 * t$ equation is used. The tendency of the trend equation of the caprine livestock assets is negative and the average ratio change per year is 6.10%.

The Trend analysis of big live stock assets (piece) is presented. Linear method is used for the trend analysis of the bovine livestock assets. $Y_t = 404316 - 6453.91 * t$ equation is used. The tendency of the trend equation of the bovine livestock assets is negative and the average ratio change per year is 3.2%.

In Table 7, animal products production quantities are given. In Table 7, when the animal products production quantities are viewed it is observed that the milk production is 188.871.295 kg and the contribution of milk production to Tokat City economy is 179 000 000 TL.

In Table 8, number of establishments for meat

Table 5
Distribution of the big live stock animals as per their races

Years	Local	%	Hybrid	%	Culture	%	Total	Buffalo	%
2000	194 732	64.21	80 937	26.69	27 590	9.1	303 259	15 773	4.94
2001	163 701	58.39	90 124	32.14	26 546	9.47	280 371	14 660	4.97
2002	137 699	55.9	85 505	34.71	23 118	9.39	246 322	10 880	4.23
2003	123 690	54.79	79 963	35.42	22 084	9.78	225 737	9 197	3.91
2004	120 652	53.41	81 010	35.86	24 217	10.72	225 879	9 454	4.02
2005	121 194	52.95	84 984	37.13	22 702	9.92	228 880	8 176	3.45
2006	119 378	51.9	84 372	36.68	26 250	11.41	230 000	7 997	3.36

Source: Tokat Province Agriculture Directorate Briefing, 2007

Table 6
Slaughter house table over Tokat city and districts

District	Beef		Buffalo		Sheep		Goat	
	Slaugh- htered, Head	Annual Meat Production, Kg	Slaugh- htered, Head	Annual Meat Production, Kg	Slaugh- htered, Head	Annual Meat Production, Kg	Slaughtered, Head	Annual Meat Production, Kg
Center	1 773	221 500	40	5 770	6 456	116 428	214	4 280
Almus	534	72223	81	10568	1950	29685	149	2960
Artova	0	0	0	0	0	0	0	0
Basciftlik	0	0	0	0	0	0	0	0
Erbaa	512	82 030	76	9 960	1151	16 584	818	11 229
Niksar	1 698	305 640	185	29 600	8 768	126 658	1 260	18 288
Pazar			0	0				
Resadiye	0	0	0	0	0	0	0	0
Sulusaray	0	0	0	0	0	0	0	0
Turhal	7 048	1 005 760	163	24 776	2 288	43 550	123	1 665
Yesilyurt	722	123 444	0	0	896	17 024	0	0
Zile	1 378	332 180	75	14 000	4 032	68 432	448	8 960
Total	13 665	2 142 777	620	94 674	25 541	418 361	3 012	47 382

Source: Tokat Province Agriculture Directorate Briefing, 2007.

processing is shown. In Table 8, when the facilities for meat processing are observed it is seen that the meat combines and 3rd class slaughter houses have the largest number.

Present Issues of Live Stock in Tokat City

As per the statistics in Tokat city the number of livestock holdings is high. However their capacities are low and they are family owned holdings. Great part of the animal products production is of small scale and conventional type of facilities. The small scale of the facilities causes low efficiency per each animal.

The Breeders view the live stock breeding as a sub-activity. They perceive the main activity field as plant breeding this is causing a negativity in the development of animal breeding.

As the facilities are of small scale and the

breeders are not well aware they are not able to fight against the diseases and the pests. In small scale facilities the breeding spaces are closed, not well ventilated, they do not have a space where animals can move freely and they do not have separate departments for the sick animals. They lack technological equipments such as automatic watering, feeding, and milking machinery. Some of the shelters do not comply with health and hygiene conditions. Still wooden and adobe brick shelters can be observed.

A big portion of the population is formed up of the local and hybrid races. The number of the culture races is low. Due to the high prices it is difficult to obtain insemination breeding animals. However hybrid races are obtained by artificial insemination at hand. The hybrid race obtainment is done by the look of the existing

Table 7
Animal products production quantities

Production kind	Quantity	Unit
Milk	188 871 295	Kg
Wool	260 828	Kg
Hair	18 858	Kg
Meat (slaughterhouse slaughterings)	2 238 727	Kg
Honey	608,97	Ton
Wax	31,93	Ton
Egg	42 134 538	

Source: Tokat Province Agriculture Directorate Briefing, 2007

bulls and this causes the formation of inefficient generations. Additionally, the use of the bulls at hand before running the tests for brucella remains as a handicap.

In the holdings gathered existence of different type of animals on regional, cit, district, village basis is observed. When the variety is decreased to a single race higher efficiency is obtained, however existence of different races makes the breeding activity much difficult in addition to the decrease in the efficiency.

It is rarely seen that animals are insured apart from those insemination heifers which are obtained through importation. The imported animals should be insured as an obligation. As the insurance cost is high the producers do not preferred to buy imported animals.

As the animal movement in the city is rather high and as a result of the fact that the records of the TUKVET do not work in a healthy manner, the records in the holdings are not kept healthily.

The most important animal product of the region is milk. The purchase of milk is done by private companies. The problem which happens here is that the price is decided by the industrialists. These companies determine the price without a

Table 8
Establishments for meat processing

Holding Kind	Number
Meat Industrial Complex	3
1. Class slaughterhouse	2
3. Class slaughterhouse	3
Sausage - Pastrami Factory	2
Meat Chopping Facility	2

Source: Tokat Province Agriculture Directorate Briefing, 2007.

competition between them. They buy the milk for a low price from the producer. There is the problem of being unorganized for the sales of the milk. If the breeders are organized in between their selves at least they may have an effect during the determination of the price.

Applicable Agricultural Policies

In order to increase the production of the feeding crops, seed being ahead the other inputs must be supported; there must be supplied facilities for the obtainment of the tools and the equipments. Special acceleration must be provided to the education and publications of these issues and activities must be done with the organizations of this sector.

Application of natural insemination, artificial insemination and embryo transfer techniques is necessary in order to increase the production and the efficiency by improving the bovine and caprine animal races, by providing the improvement of the bovine and caprine livestock populations in order to obtain races of which the genetic efficiency is higher. As a result of this the efficiency of milk and meat increases.

It is necessary to determine the production and the marketing policies together with the live stock breeder unions, to provide the participation of insemination animal breeders to the activities which are in the scope of the genealogy, primary

genealogy and semen control programs, to do the technical controls of the facilities at which insemination breed animals are raised, to attend the related legislation works and to do the similar works which will be assigned by the Directorate.

In order to improve the live stock breeding it is necessary that support in a manner to incentive the artificial insemination are given and premium or incentives must be given for each heifer which will be born by mean of artificial insemination.

The efficiency control and the registry system must be established under the leadership of the government and it must be transferred to the live stock breeder unions which will be established later on. The efficiency control of the live stock of which the pedigree is being done, must be kept. These records must be entered to the central genealogy. For the success of the system insemination live stock breeding must be supported and an attractive market must be established for the sales of the breed insemination live stocks.

In order to prevent the instability of the prices of meat and milk, the dialogue between the milk processing industrialists and the milk producer unions must be improved.

The milk must be provided to reach from the producers to the industrialist by means of the cold chain in a healthy manner; the existing meadows must be improved over again (to seed the legume and other feeding crop after the handling of the soil). The Breeder Unions must play an active role for the information supply to the producers regarding the shelter hygiene and milking techniques.

It is necessary to encourage qualified rough fodder production for increase in meat and milk efficiency. Qualified rough fodder provides more revenue than grain; even it is sold in dried herb. Using this kind of fodder in animal husbandry will make farmers gain additional income.

It is necessary to spread the lactation over for seasons in milk production, to decrease the costs by means of increasing the capacity of the small scale family facilities, to pay importance

to the agricultural publication activities in order obtain quality and high efficiency in live stock breeding, to facilitate easy use of the credits of the Agricultural Bank by the live stock breeders, to support the breeders for the in puts(such as feeding crop); to make the city gain high capacity live stock breeding facilities or organized industrial zones for this purpose, to provide the holdings to obtain their needs for feeding crop within the holding, to provide incentives to those facilities which produce insemination breed live stock or to those which are willing to produce insemination live stock breeds, to make the activities of the union effective and to increase the number of the members.

SWOT Analysis in Tokat City in Small and Big Live Stock Breeding

In the given below, (SWOT) analysis on strong and weak, opportunities and threads in live stock breeding is shown.

Strong Sides

- Low labour cost
- Usage of family labour force for animal husbandry activity
- High number of animal husbandry holdings
- Existence of related Union activities
- Farmers' cost reducing efforts producing rough fodder
- Sufficiency of grasslands and areas for fodder crops
- Usage of milking machine and taking account of hygiene conditions in big sized animal husbandry holdings
- Provided quality permanence in produced milk products

Weak Sides

- Having small sized animal husbandry holdings
- High production costs in small sized animal husbandry holdings
- Because of a high a number of small dairy

farms, production in unhygienic conditions in the region

- Insufficiency of credit Source's directed to animal husbandry activity
- High number of local animal races
- Unconsciousness of animal husbandry farmers
- Off the record production
- Low genetic potential
- Low productivity and profitability

Opportunities

- Consumers increased conscious and balanced nourishment habit which occurred in the last few years
- Increase in income
- Direct and indirect supports to manufacturing animal product
- Conducting relevant projects
- Increasing investments
- Young population

Threats

- Decreasing number of dairy holdings in the region because of low milk prices paid to producers
- Necessity of strong distribution network and cold chain for preventing animal products from spoilage
- Low consciousness level of animal rearing farmers
- Inadequate capacity to combat animal diseases
- Incapable studies to increase genetic potential
- Farmers' abandon of animal production activities
- Decreasing number of animals
- Illegal slaughtering

Conclusion

Even though the live stock breeding reveals a rapid development in Turkey yet it has not reached

its demanded level. Turkey, with its different climate zones and wide meadows has a significant potential for live stock breeding.

One of the most important reasons why live stock breeding has not reached its demanded level in Turkey is that live stock breeding is perceived as a sub- sector in the agricultural sector and within the frame of this approach it is not supported sufficiently.

The contribution of the milk production obtained from the big live stock breeding to Tokat city is 179 000 000 TL. In order not to decrease its contribution to the economy of Tokat city, policies tended to improve the live stock production just be put forward and they must be applied.

When the index values of the caprine live stock assets in Tokat city are observed it is seen that it reveals a constant dropping. It is seen that it has recorded a drop by 59.1% in year 2007. When the curve of the trend equation of the caprine live stock asset is observed, it is seen that the curve is negative and its average change per year is 6.10%.

In the bovine live stock asset in Tokat city a drop by 34.2% is observed. When the curve of the trend equation of the bovine live stock asset is observed, a negative curve can be seen and its average change per year is 3.2%.

As it is in Turkey in Tokat City it is seen that the number of the bovine and caprine livestock are about to decrease in time. One of the most important reasons why the number of the animals is dropping is that the incentives supplied to breeders are not sufficient and the costs of the inputs are high. As long as no measures are taken against these the decreasing of assets of live stock will continue on.

Due to the decrease of live stock assets in time, it is estimated that the prices of the meat and milk products will rapidly increase in future and due to this reason for those families who have a limited income it will be more difficult to meet the needs for animal sourced proteins. The most important reasons why the animal breeding is decreasing in

is that there is no sustaining agricultural policy in Turkey. In Turkey it is necessary to establish an agricultural policy of which the purposes are determined and which can be sustainable.

References

- Akman, N., Askin, Y., Cengiz, F., Ertugrul, M., Firatli, C., Turkuoglu, M., Yener, S. M.**, 1997. Animal Breeding. *Ankara University Faculty of Agriculture*, Textbook, Second edition, Ankara.
- Babacan, S.**, 2006. In the EU Process Advantages and Disadvantages of Turkey Animal Husbandry Sector, *Izmir Chamber of Commerce*, İzmir.
- Demirbas, N.**, 2005. Place and importance of agro industry in Turkey economy. Namik Kemal University, *Journal of the Faculty of Agriculture*, **10** (1-2): 71-81.
- Hekimoglu, B. and M. Altindeger**, 2006. In our country, and Samsun Province; Milk farming and status in dairy sector, problems and recommendations, Samsun. <http://www.samsuntarim.gov.tr/yayinlar/strateji/sut.pdf>
- Karakoyunlu, A.**, 2007. Agricultural support , The UNION of the Chambers of Turkish Engineers and Architects, The Chamber of Agricultural Engineers,
12. September.2007, http://www.zmo.org.tr/genel/bizden_detay.php?kod=6697&tipi=2&sube=9,
- Oruc, H.**, 2008. Support for breeders should be increased, Referans Newspaper, <http://www.kobifinans.com.tr/tr/sector/012102/17855>
- Republic of Turkey Ministry of Agriculture, Tokat Province Agriculture Directorate**, 2007a. Project and Statistics Branch Records, Animal Health Department.
- Republic of Turkey Ministry of Agriculture, Tokat Province Agriculture Directorate**, 2007b. Tokat Province Agriculture Directorate Briefing.
- Tanrivermis, H., E. Gundogmus and C. Sayin**, 1993. General economic situation of animal husbandry in Turkey and fundamental problems and policy alternatives oriented to livestock sector”, *Yasar Education and Culture Foundation publication*, Ankara, 98 pp.
- Tuzun, A. M. and R. Yenigun**, 2003. Place and Importance of animal production in the GAP, <http://www.gap.gov.tr/Turkish/Tarim/Makale/mhv1.html>
- Yildirim, A. E.**, 2008. Support disappears in fifty support , World Newspaper, 21 January 2008. <http://www.tarimdunyasi.net/?p=95>,
- Turkish Statistical Institute**, 2008, http://www.turkstat.gov.tr/VeriBilgi.do?tb_id=61&ust_id=16

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