

notes on goats



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FUTURE OUTLOOK OF MEAT GOAT INDUSTRY FOR THE U. S. SMALL FARMS

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The purpose of this paper is to assess the current meat goat industry in the U.S. and to determine its future outlook. The data presented in this paper is drawn from four different sources—the U.S. 2000 Population Census, the USDA 2002 Census of Agriculture, the USDA National Agricultural Statistic Service, and the USDA Foreign Agricultural Service. In the U. S. meat goat production has been gaining popularity in recent years particularly because of a growing population of ethnic and faith-based groups who consume goat meat. The national estimates, based on import data only, indicate that the U.S. is more than 750,000 head deficient in meeting current demands for goat meat.

Goat Industry Profile in the U.S.

According to the 2006 USDA-NASS, the U.S. goat population is almost 3 million heads. Goat numbers increased 10% annually from 1985 to 2006. More than 82% of goats in the U.S. are meat goats, 10% are dairy goats and 8% are fiber goats (Figure 1, Table 1).

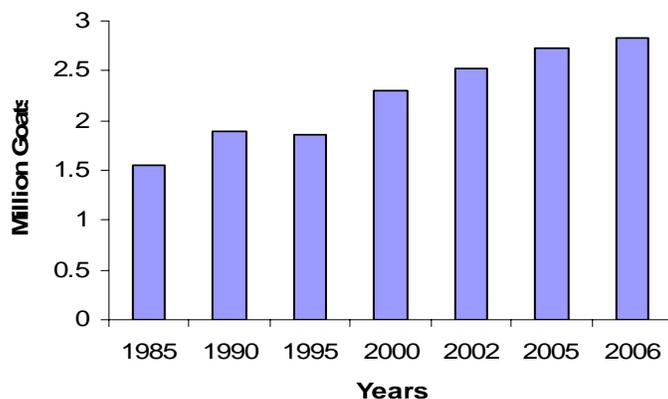


Figure 1. U.S. goat population changes from 1985 to 2006.

Table 1. Goat industry profile in the U.S.

	2002		2006*		Change % of 2002
	Number	%	Number	%	
All goats	2,530,466	100	2,934,000	100	115.9
Meat goats	1,938,924	76.6	2,400,000	81.8	123.8
Milk goats	290,789	11.5	296,000	10.1	101.8
Fiber goats	300,756	11.9	238,000	8.1	79.1

* Reflects USDA-NASS sample data.

Most of the goats in the U.S. are produced in the South (Texas) and the Southeast (Tennessee, Georgia, Kentucky, North Carolina, Florida and Alabama), the Midwest (Oklahoma, Missouri) and the West (California). More than 44% of all goats are produced in the state of Texas alone. The number of goats in the state of Texas is 1.3 million, up 9% from the 2002 USDA Census. More than 70% of the total goat population in the U.S. is produced in the top ten states in goat numbers (Table 2). Many states experienced an increase in the goat numbers from the 2002 USDA Census. The state of Florida with 73,000 goat numbers experienced the highest gain (up 183%). The state of California claimed second place after Texas and moved Tennessee to third place.

The state of Georgia claimed fourth place surpassing Oklahoma. Missouri with more than 166% increase in goat population surpassed Kentucky, North Carolina and Alabama and claimed 6th place in the nation for goat production. State of Florida with highest jump in goat population, made the top 10 list as 9th producer of goats in the nation.

Table 2. U.S. top ten states for numbers of all goats in 2006*

	All Goats	% of Total	% of 2002
U.S.	2,934,000	100	116
Texas	1,300,000	44.3	109
California	133,000	4.5	129
Tennessee	123,600	4.2	108
Georgia	98,000	3.3	141
Oklahoma	90,000	3.1	109
Missouri	81,000	2.8	166
Kentucky	79,300	2.7	116
North Carolina	75,000	2.6	111
Florida	73,000	2.5	183
Alabama	50,000	1.7	99

* Reflects USDA-NASS sample data.

More than 75% of meat goats are produced by top ten states in number of meat goats. According to USDA-NASS sample data, Texas leads the nation with over 1 million meat goats and 45% of meat goat population, followed by Tennessee (Table 3). California with 63% increase in meat goat population surpassed Oklahoma, Georgia and Kentucky and claimed 3rd place. Georgia with 44% increase in the goat numbers claimed 4th place surpassing Oklahoma. Missouri with 183% increase in meat goat numbers ranked 8th and Florida with 180% increase made the top 10 list as 9th producer of meat goats in the nation.

Table 15. U.S. top ten states for numbers of meat goats in 2006*

	Meat Goats	% of Total	% of 2002
U.S.	2,400,000	100	124
Texas	1,090,000	45.4	116
Tennessee	117,000	4.9	109
California	100,000	4.2	163
Georgia	95,000	3.9	144
Oklahoma	81,000	3.4	110
Kentucky	74,000	3.1	120
North Carolina	70,000	2.9	119
Missouri	68,500	2.8	183
Florida	65,000	2.7	180
Alabama	48,000	2.0	101

* Reflects USDA-NASS sample data.

Goat Meat Imports

In 2006, the U.S. imported more than 11,000 MT (metric ton) (nearly 25 million lbs.) of goat meat valued at \$41.8 million up 131% from 8,462 MT in 2003; its total value was up 194% from \$21.5 million in 2003. However, goat meat imports in 2006 were up 329% from 3,360 MT in 1999; its total value was up 535% from \$7,850 million in 1999 (Table 4). The main exporters of goat meat to the U.S. are Australia and New Zealand with 92.5 % of the contribution coming from Australia. As indicated by the Figures 2 and 3, there is a sharp increase in goat meat imports and dollars spent for goat meat. This trend will most probably continue unless there is an increase in domestic production. Imported goat meat prices increased sharply from 2003 to 2006. According to the USDA-FAS, price paid per lb. of imported goat meat in 2006 was \$1.72, up 50% from \$1.15 per lb. in 2003 and up 62% from \$1.06 per lb. in 1999 (Table 4, Figure 3).

Table 4. U.S. Goat meat imports (MT) and its value (\$1000)

	1999	2003	2006*	% of 1999
Goat meat	3,360	8,462	11,070	329
Dollar Value	7,850	21,484	41,816	535
\$/lb	1.06	1.15	1.72	162

* Reflects USDA-NASS sample data.

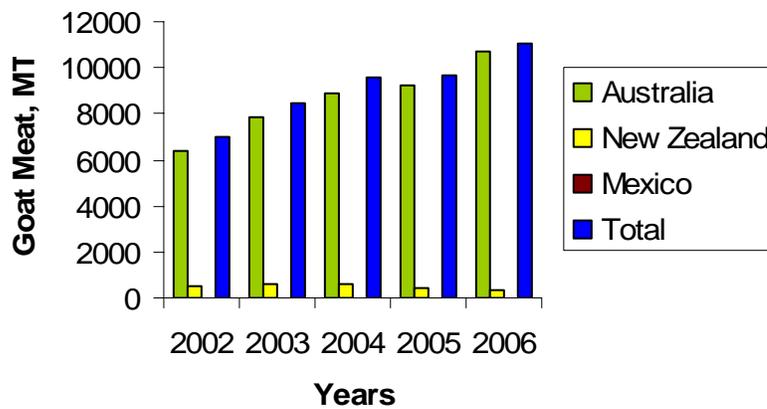


Figure 2. Changes in the goat meat imported to the U.S. from 2002 to 2006.

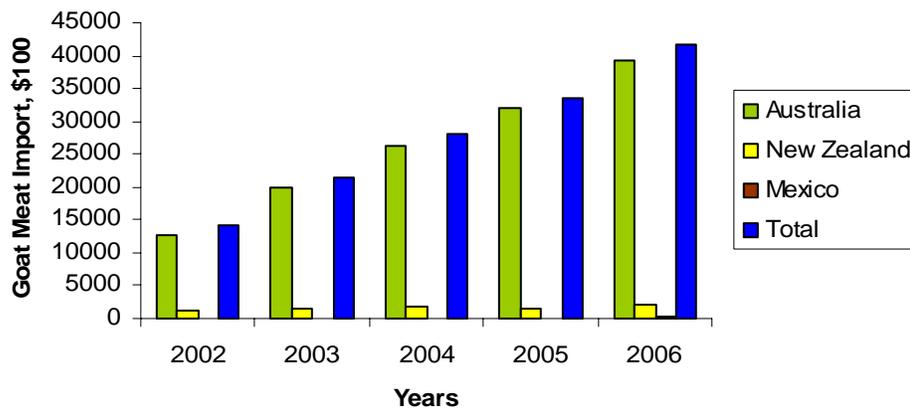


Figure 3. \$ Value of goat meat imported to the U.S.

Source: www.fas.usda.gov/ustrade

Goats Slaughtered in Inspected Plants

The number of all goats slaughtered at the state and federally-inspected plants in 2006 were nearly 750,000, up 2.5 folds from 1990. Meat goat slaughter numbers have shown a solid increase since 1990 (Table 5 and Figure 4), and they likely will continue to increase due to trends in population growth that promote meat goat production. Meat goat industry in general is in its infancy; therefore, many on-farm slaughters are probably not reported. It can be conjectured that for every goat reported, there are at least 4 (estimated later in this report) that are not reported. Also it must be noted that 2006 was the first year that goat slaughtered in the state inspected units were reported.

Table 5. Goats (numbers) slaughtered at the inspected plants in the U.S.

	1990	2006	% of 1990	% of 1990
U.S. Federal	229,600	581,743	254	
Total Inspected		749,300*		326

^a First reported year for non Federally inspected units.

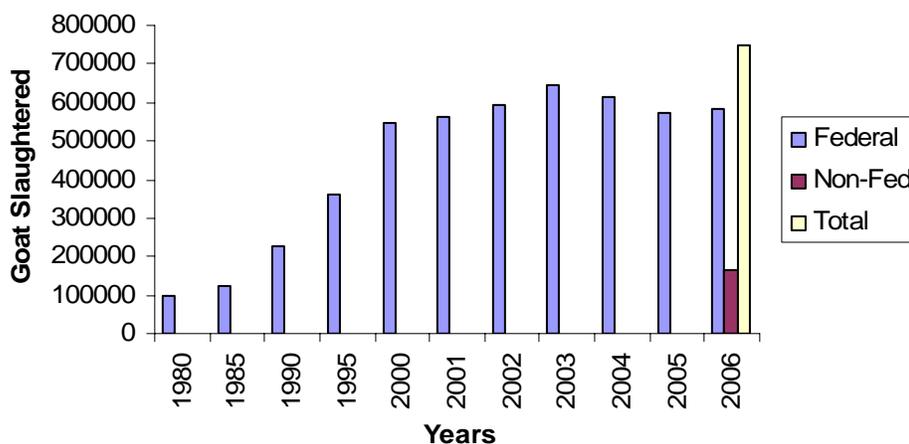


Figure 4. Goats slaughtered in federally and state inspected plants in the U.S.

Goat Consumption Based on Import and Slaughter Data

Goat consumption in the U.S can be estimated based on imported goat meat and slaughter data. Goats consumed in the U.S. are nearly 1.5 million heads of goats annually. This represents an increase of 150% from 2002 and over 320% increase from 1999. Total goats imported were estimated based on total goat meat import and an average carcass weight of 32.5 lbs. (65 lbs. of live weight is average slaughter weight reported by USDA). Goat consumption in the U.S. has increased steadily since 1999 and will likely continue to increase as the demand is growing (Figure 5). The sharp increase in the number of slaughtered-goats maybe a reflection of the reported data from the state inspected plants initiated in 2006.

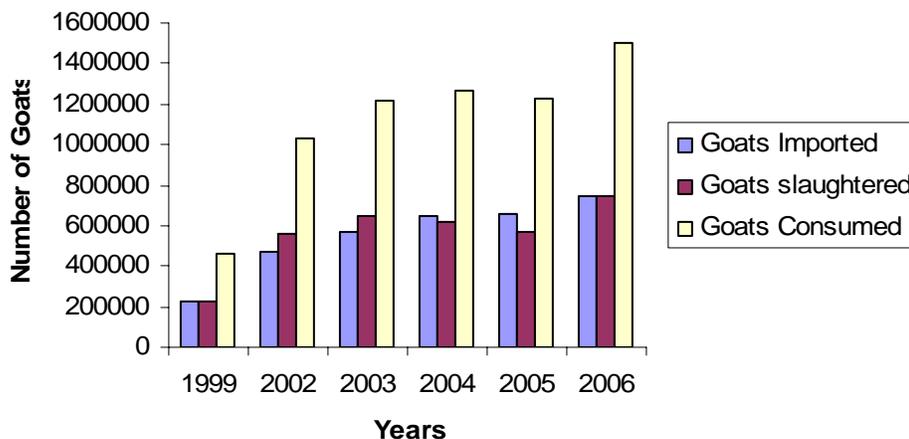


Figure 5. Changes in goat consumption in the U.S.

FACTORS THAT MAY AFFECT GOAT MEAT CONSUMPTION

U.S. Population Changes

The major contributing factor for the rise in interest in meat production in the U.S. is the shift in demographics. According to the 2000 Population Census, the foreign-born population in the U.S. is up 57% since 1990, from 19.8 million to 31.1 million and continues to increase on an upward trend that started in 1970. As of 2000, 51.7 % of the foreign-born population was from Latin America and 26.4 % from Asia. It is projected that the U.S. Hispanic population is rising at a rapid rate and will reach over 100 million

or 25% of the population in the year 2050 (Table 6). This group of immigrants has a strong preference for goat meat and will add to the opportunity for this sector of agriculture to grow.

Table 6. Projections of total U.S. population changes by ethnic groups from 2000 to 2050

	2000	%	2005	%	2050	%
Total	281,421,906		295,507,000		419,854,000	
Asian	10,242,998	3.6	12,419,000	4.2	33,430,000	7.9
Black	34,658,190	12.3	38,056,000	12.9	61,361,000	14.6
Hispanic	35,305,818	12.5	41,801,000	14.1	102,560,000	24.4

Source: U.S. Population Census (2000)

U.S. Foreign Born Population

In 2004 more than 32.4 million of the U.S. population or nearly 12% were foreign-born (Figure 6). Most foreign-born populations, Caribbean, South and Central American and Asian, historically have the preference for goat meat. This sector of population has increased in numbers during the last 10 years, which may have contributed to the increased demand for goat meat.

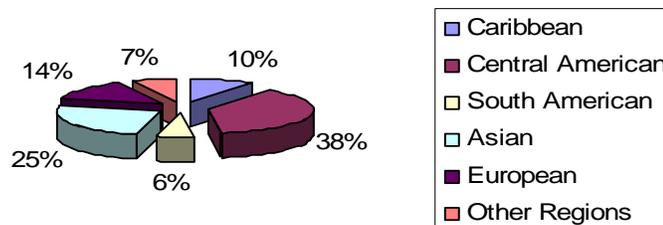


Figure 6. U.S. foreign-born population profile.

Changes in Ethnic and Faith-Based Populations in the U.S. Having Preference for Goat Meat

Although ethnicity and faith tradition undoubtedly overlap, as of 2000 over a million Buddhists and a million Muslims, over 10 million Asians and over 35 million Hispanics are reported as residing in the U.S. (U.S. Census, 2000). Again, this increase from 1990 to 2000 creates an opportunity for U.S. agriculture to produce new products to serve the food preferences of this ever-increasing population (Table 7).

Table 7. Percent changes in selected U.S. ethnic and faith-based population changes from 1990 to 2005

	1990	2000	2005*	% change	
				1990-2000	2000-2005
Muslims	0.53	1.1	--	109	--
Buddhists	0.40	1.1	--	170	--
Hispanics	22.4	35.3	42.7	58	21
Asians	6.91	10.2	12.7	48	24

* Estimate, -- no data reported

ESTIMATED DEMAND FOR GOAT MEAT IN THE U.S.

The largest group of ethnic consumers of goat meat is the Hispanics, with an increase of 57.94% in population from 1990 to 2000. Muslims, Asians and Africans also consume considerable amounts of goat meat. Goat consumption is steady except for special holidays when goat meat consumption increases 3 to 4 fold. There are increases in demand for goat meat for Easter, the 4th of July and certain Muslim holidays such as Aideh Ghorban or Aideh Fatre. Among Chinese goat meat consumption is usually higher in colder months, between October and February. Understanding these ethnic traditions and matching the demand with production require marketing education and techniques. Also, the special handling and harvesting procedures may differ according to different religions and traditions and can contribute to the value of the goat meat. Halal harvesting procedures for Muslims and Kosher techniques for Jews may add value to goat meat.

Estimating Population Having Preference for Goat Meat in the U.S.

An attempt will be made to estimate demand for goat meat based on Hispanic, Asian, foreign-born African and Caribbean populations in the U.S. Based on the U.S. Census Bureau (2005), there are about 12.4 million Asians and about 41.8 million Hispanics in the U.S. Among an estimated 7 million illegal immigrants (U.S. Census, 2000), over 90% are Mexican and other Latin Americans that consume goat meat. There are almost three million foreign-born Caribbean and almost one million Africans in the U.S. In total there are about 62.4 million potential goat meat consumers in the U.S. (Table 8).

Estimating Goat Meat Consumption and Meat Goats Needed in the U.S.

The average number of persons living in a U.S. household is 2.59 (U.S. Census, 2000). For the ethnic population under consideration, a slightly higher number of 3 persons per household are used. Assuming conservatively that only 10% of these ethnic households consume goat meat, a total of 20.8 million households may consume goat meat in the U.S. (Table 8). According to the Agriculture Fact Book (2001-2002), American consume on average annually 195 pounds of red meat and poultry per capita in the year 2000. If every ethnic household (three persons) consumes only 72 pounds of goat meat annually, including holidays, there will be a projected demand for 149.76 million pounds of goat meat. Assuming a 32.5-pound carcass weight per goat (according to the 2006 USDA-NASS, average weight of goat slaughtered in the federally inspected plants was 62 pounds) the total number of goats needed is 4.08 million per year (Table 8). This is a modest estimate of the numbers of meat goats needed for the U.S.

Estimating the Numbers of Goats Processed on Private Establishments (Unaccounted)

Based on the import and slaughter data, more than 1.5 million goats were consumed in the U.S. in 2006. Undoubtedly, there are more meat goats consumed in the

U.S. that are not reported. The remaining 2.58 million goats (4.08 million – 1.5 million) represent unaccounted numbers of meat goats that are consumed in the U.S. With almost 750,000 goats slaughtered in the state and federally inspected plants, for each reported goat there are almost 4 that are not reported and most probably are processed at the farm or a private establishment. This estimate may bring a closure to various numbers reported ranging from 5 to 10 unaccounted goats for every reported one (Table 8).

It is notable that estimated demand does not include general population because goat meat is generally not available in the supermarkets and to general public. It is usually sold at ethnic markets and specialty stores. Making goat meat available to general public will increase demand. Given these simple facts it is clear that there is a great potential for goat industry to grow and be organized in the U.S. Small farm sector of the U.S. agriculture especially the Western, the Midwest and the Southeastern regions, have tremendous potential for meat goat production and can easily supply the demand for other metropolitan areas in the North and the Northeast.

Table 8. Estimated demand for goats and goat meat in the U.S. based on ethnic populations

	U.S.
Total Population (Asian and Hispanics and others)	62.4 millions
Number of households based on 3 persons	20.8 millions
Households that consume goat meat	2.08 millions
Annual household consumption including holiday, lbs	72
Total lbs. of goat meat consumed/year	149.76 millions
Average goat carcass weight lbs.	32.5
Total goats in demand	4.08 millions
Total number of goats consumed (slaughter plus import)	1.50 million
Total number of goats consumed (not reported)	2.58 million
Ratio of goats reported: not reported	1: 4

CONCLUSION

There is an increased interest in goat meat consumption in the U.S. Goats slaughtered in USDA-inspected plants as well as goat meat imported from Australia and

New Zealand have sharply increased since 1999. The U.S. has changed from a net exporter to a net importer during the last decade. Increases in ethnic populations in the U.S., especially Hispanics, Asians and Muslims, have contributed to this development. Also, goat meat is healthy meat and fits the designer diets of health-conscious Americans. Goat production is a great opportunity for small farm producers in U.S. to target these markets and diversify their farm products. There is a great opportunity for value-added products. However, consumer as well as producer education is needed and marketing structure must be strengthened.

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ACKNOWLEDGEMENT

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<http://www.agmrc.org/NR/rdonlyres/49CF62F6-4612-4FEC-A17F-661DB90CA115/0/USGoatProductionFinal.pdf>

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