

# Outlook for a Small Farm ◀ Meat Goat Industry for California



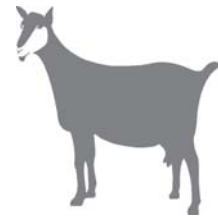
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### UC Small Farm Center Research Report SFCRR2005-01

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Photographs courtesy of  
John Gonzales of Rocky Spot Ranch.

Layout by Natalie Karst.



Goats are the most popular domesticated animals in the world and goat meat and milk are the most widely consumed animal products. Goats are popular with small holders because of their efficient conversion of feed into edible, high quality meat, milk, and hide. Goats are also used as a holistic tool for land vegetation management and fire fuel-load control. With proper grazing management, goats can eliminate noxious weeds, restore native grasses, and prevent fire through fuel-load reduction.

In the United States, meat goat production has been gaining in popularity in recent years thanks to several factors, including growing populations of ethnic groups that favor goat meat and

faith-based consumers who prefer it. National estimates based on import data indicate that the U.S.'s supply of goats is deficient—more than 500,000 additional goats are required to meet the country's current demand for goat meat.

California, with its large ethnic populations and many faith-based consumers, has great potential for meat goat production. A small herd of meat goats can be produced on 10 to 15 acres of pasture land and can fit into more than 60 percent of California's farmsteads, enhancing small farm diversity and profitability. Goat meat is also lean and healthy and can play a major role in the diet of health-conscious Californians.

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## Present Status of the Goat Industry in the U.S. and California ◀

### Changes in Farms and Farming Acreage

According to the U.S. Department of Agriculture’s (USDA’s) 2002 census, the total number of U.S. and California farms and the land area devoted to farming have decreased. However, average acres per farm and total dollars produced per acre of farm land have increased in the U.S. and especially in California (Table 1). California farmers produce on average three times the dollar value per acre as those in the rest of the U.S., and this is partially due to the creativity and diversity of small farms in California. Meat goats, as small grazing units, can quite appropriately fit into California’s farming structure and add more diversity to farming—justified by the increase in the percent of the population that consumes goat meat.

The majority of farms in California are small farms. Around 62 percent of California farms are less than 50 acres, 72 percent are less than 100 acres, and 80 percent are less than 180 acres in size (Table 2).

According to the USDA census (2002), while the number of acres in total woodland, pasture land and range land decreased from 1997 to 2002, the number of farms claiming woodland, pasture land, and range land increased (Table 3). This could be an indication that more small farms are utilizing grazing and browsing animals. Especially in California, more small farms seem to be utilizing pasture and range lands that are appropriate for goat production (goats being browsers).

### Status of Goat Farms in the U.S.

According to USDA’s census (2002), the number of goat farms in this country increased by more than 19 percent while there was a 12 percent increase in the goat population from 1997 to 2002; however, the number of farms that sold goats increased by more than 45 percent and goat sales were up more than 55 percent (Table 4).

During the same period, the number of angora goat farms declined along with a decrease of about 63 percent in the number of angora goats. The number

► Table 1. Farms’ status changes from 1997 to 2002 in the U.S. and California

	U.S.		California	
	1997	2002	1997	2002
Number of Farms	2,215,876	2,128,982	87,991	79,631
Area in Farming (acres)	954,752,502	938,279,056	28,795,834	27,589,027
Average Farm Size (acres)	431	441	327	346
Dollars per Acre	967	1,213	2,643	3,526

Source: U.S. Department of Agriculture, *2002 Census of Agriculture*.



► Table 2. California farm size (acres) and numbers

Farm Size in Acres	Number of Farms	Percent of Farms	Accumulated Percent
1-9	21,827	27.4	27.4
10-49	27,307	34.3	61.7
50-69	4,143	5.2	66.9
70-99	4,044	5.1	72.0
100-139	3,505	4.4	76.4
140-179	2,664	3.3	79.7
>180	16,141	20.2	99.9



Source: U.S. Department of Agriculture, 2002 Census of Agriculture.

► Table 3. Farms (acres) with woodland and pasture land

	U.S.		California	
	1997	2002	1997	2002
<b>Total Woodland</b>				
Number of Farms	858,438	818,105	4,944	5,136
Number of Acres	76,854,833	75,878,213	1,213,093	1,191,484
<b>Woodland Pasture</b>				
Number of Farms	402,490	379,795	2,183	2,534
Number of Acres	31,078,705	31,128,955	706,996	679,384
<b>Pasture and Range</b>				
Number of Farms	645,548	850,913	15,890	18,053
Number of Acres	398,232,125	395,278,829	15,021,823	13,987,763
<b>Pasture, All Types</b>				
Number of Farms	1,429,638	1,384,798	26,941	26,462
Number of Acres	495,699,214	486,965,589	17,067,865	16,012,506

Source: U.S. Department of Agriculture, 2002 Census of Agriculture.

► Table 4. Changes in all goat farms from 1997 to 2002 in the U.S.

	1997	2002
Number of Farms	76,543	91,462
Number of Goats	2,251,613	2,530,466
Number of Farms that Sold Goats	29,937	43,495
Number of Goats Sold	843,773	1,314,310

Source: U.S. Department of Agriculture, 2002 Census of Agriculture.



of farms that sold angora goats declined as well, with a decrease exceeding 61 percent in the number of angora goats sold (Table 5). The number of farms that sold mohair declined by more than 36 percent with more than 54 percent less mohair sold (Table 6).

By contrast, the number of dairy goat farms increased by 45 percent with a more than 52 percent increase in the number of dairy goats in the U.S. from 1997 to 2002. The number of dairy farms that sold goats increased by 71 percent with a more than 57 percent increase in the number of goats sold (Table 7).

► **Table 5.** Changes in angora goat farms from 1997 to 2002 in the U.S.

	1997	2002
Number of Farms	5,485	5,075
Number of Goats	829,263	300,753
Number of Farms that Sold Goats	1,883	1,662
Number of Goats Sold	238,674	91,037

Source: U.S. Department of Agriculture, *2002 Census of Agriculture*.

► **Table 6.** Changes in mohair production from 1997 to 2002 in the U.S.

	1997	2002
Number of Farms that Sold Mohair	3,826	2,434
Pounds of Mohair Sold	5,287,312	2,416,376

Source: U.S. Department of Agriculture, *2002 Census of Agriculture*.

► **Table 7.** Changes in dairy goat farms from 1997 to 2002 in the U.S.

	1997	2002
Number of Farms	15,451	22,389
Number of Goats	190,588	290,789
Number of Farms that Sold Goats	5,163	8,850
Number of Goats Sold	72,307	113,654

Source: U.S. Department of Agriculture, *2002 Census of Agriculture*.

► **Table 8.** Changes in meat goat farms from 1997 to 2002 in the U.S.

	1997	2002
Number of Farms	63,422	74,980
Number of Goats	1,231,762	1,938,924
Number of Farms that Sold Goats	24,539	36,403
Number of Goats Sold	532,792	1,109,619

Source: U.S. Department of Agriculture, *2002 Census of Agriculture*.

The number of meat goat farms increased by 18 percent with a more than 57 percent increase in the number of meat goats (Table 8). The number of farms that sold meat goats increased by 48 percent with a more than 108 percent increase in meat goats sold from 1997 to 2002. While there was a drastic reduction in angora goat numbers (530,000) and sales, the increase in the total goat population (more than 250,000) in the U.S. can be attributed partially to a small increase in the number of dairy goats (more than 100,000) and a major increase in the number of meat goats (more than 700,000). The 71 percent increase in the number of goats sold by dairy goat farms also may have contributed to the meat goat supply.



► Table 9. Profile of the goat industry in the U.S. and California

	U.S.		California		
	Number	Percent	Number	Percent	Rank
All Goats	2,530,466	100.0	103,122	100.0	3
Meat Goats	1,938,924	76.6	61,241	59.4	6
Milk Goats	290,789	11.5	37,343	36.2	1
Fiber Goats	300,756	11.9	4,538	4.4	4

Source: U.S. Department of Agriculture, 2002 Census of Agriculture.

### Status of Goat Farming in California

The 2002 agricultural census for California reported 4,256 farms that had sales of sheep and goat products worth \$52.4 million, whereas the U.S. reported 96,249 farms with sales of \$541.7 million. California claimed 4.4 percent of U.S. farms with a 9.7 percent contribution to sales of sheep and goat products.

### Goat Numbers

California, with more than 103,000 goats, ranks third in the total number of goats after Texas and Tennessee according to USDA’s 2002 census (Table 14). More than three-quarters of the U.S.’s goats are meat goats. Meat goats account for 60 percent, milk goats for 36 percent, and fiber goats for 4 percent of the goats in California. For dairy goats, California, with more than 37,000, ranks first; the state’s more than 4,500 fiber goats rank the state fourth; and its more than 61,000 reported meat goats place it sixth in the nation. Tables 10, 11, 12, and 13 clearly indicate that California is a leading state for goat production and that there is great potential for the meat goat industry to grow in this state.

### Goat Herd Size

The average size of goat herds in the U.S. is higher for fiber goats, followed by meat and dairy goats. Fiber goats are mainly

concentrated in large herds in the hot, dry climates of Texas, Arizona, and New Mexico. Dairy goats are located mainly in cooler environments such as those found in California and Wisconsin. Meat goats are the most widely distributed across the United States, which is an indication of their adaptability to different environments. An average California meat goat farm of 24 goats can be raised on 5 to 10 acres of pasture land and can fit into more than 62 percent of the farms in California, contributing to the diversity of these small farms.

### Goat Meat Imports

As shown in Table 15, in 2003 the U.S. imported 77.5 million kilograms of mutton and goat meat, up 54.4 percent from 50.2 million kilograms in 1999. Imports were valued at \$353.2 million, up 93.7 percent from \$182.3 million in 1999. The main exporters to the U.S. are Australia, which has about a 66 percent share, and New Zealand, which has about a 34 percent share.

Figures 1 and 2 show changes in goat meat imports and dollars spent from 1999 to 2003. Goat meat imports in 2003 alone were 8.46 million kilograms (valued at \$21.48 million), an increase of 151 percent from the 3.36 million kilograms imported in 1999. The value of goat meat imports



► Table 10. Top ten states for the number of all goats in 2002

	Farms	Goats
U.S.	91,462	2,530,466
Texas	17,411	1,194,289
Tennessee	5,268	114,664
California	3,542	103,122
Oklahoma	3,560	82,792
Georgia	2,975	69,498
Kentucky	3,471	68,412
North Carolina	3,546	67,276
Alabama	2,259	50,574
Missouri	2,411	48,654
Ohio	4,014	45,061

Source: U.S. Department of Agriculture, 2002 Census of Agriculture.

► Table 11. Top ten states for the number of meat goats in 2002

	Farms	Goats
U.S.	74,980	1,938,924
Texas	16,145	941,783
Tennessee	4,758	107,211
Oklahoma	3,006	73,302
Georgia	2,786	66,018
Kentucky	2,979	61,618
California	2,613	61,241
North Carolina	3,111	58,993
Alabama	2,042	47,270
South Carolina	1,943	37,985
Missouri	1,852	37,515

Source: U.S. Department of Agriculture, 2002 Census of Agriculture.

► Table 12. Top ten states for the number of milk goats in 2002

	Farms	Goats
U.S.	22,389	290,789
California	1,301	37,343
Wisconsin	668	25,900
Texas	1,703	22,569
Ohio	1,358	14,420
New York	1,146	12,822
Pennsylvania	1,082	12,652
Michigan	843	8,935
Missouri	749	8,656
Iowa	447	8,524
Oklahoma	865	8,389

Source: U.S. Department of Agriculture, 2002 Census of Agriculture.

► Table 13. Top ten states for the number of fiber goats in 2002

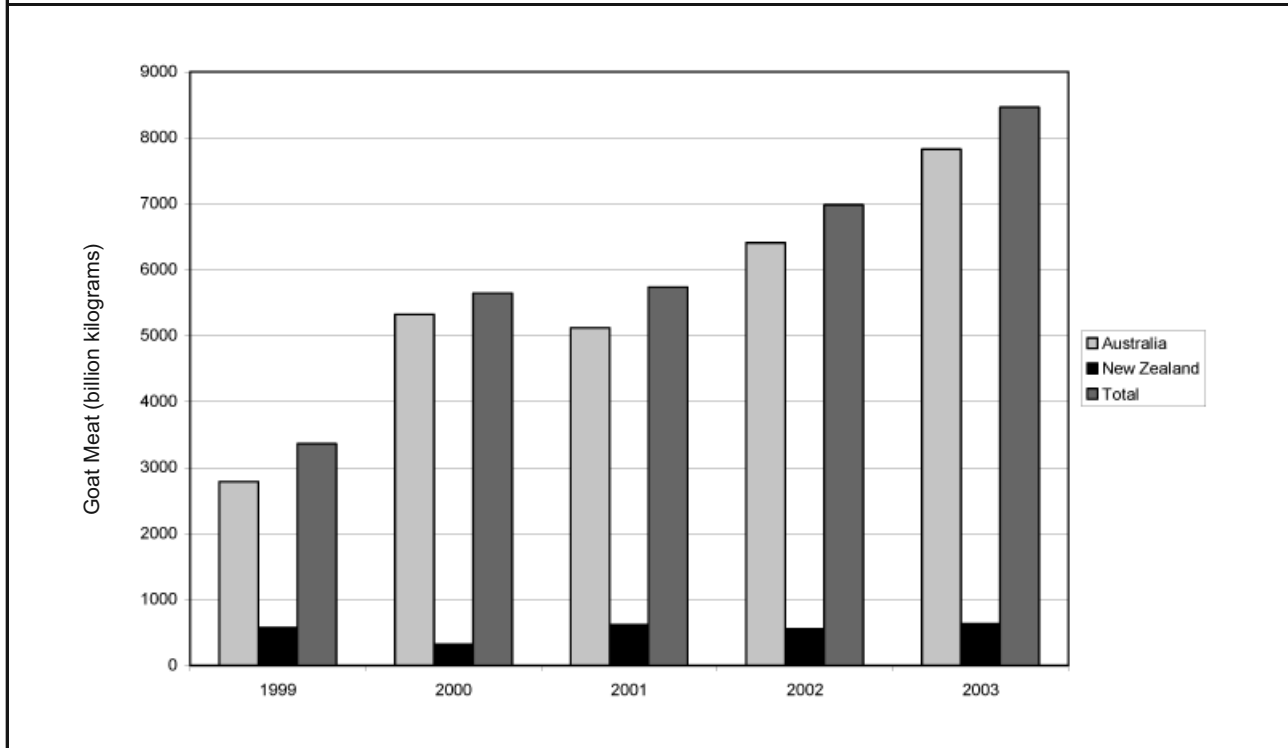
	Farms	Goats
U.S.	5,075	300,756
Texas	908	229,937
Arizona	53	27,905
New Mexico	98	7,059
California	246	4,538
Missouri	154	2,483
Ohio	253	2,202
Oregon	257	2,156
North Carolina	161	1,571
Michigan	145	1,374
Virginia	124	1,164

Source: U.S. Department of Agriculture, 2002 Census of Agriculture.



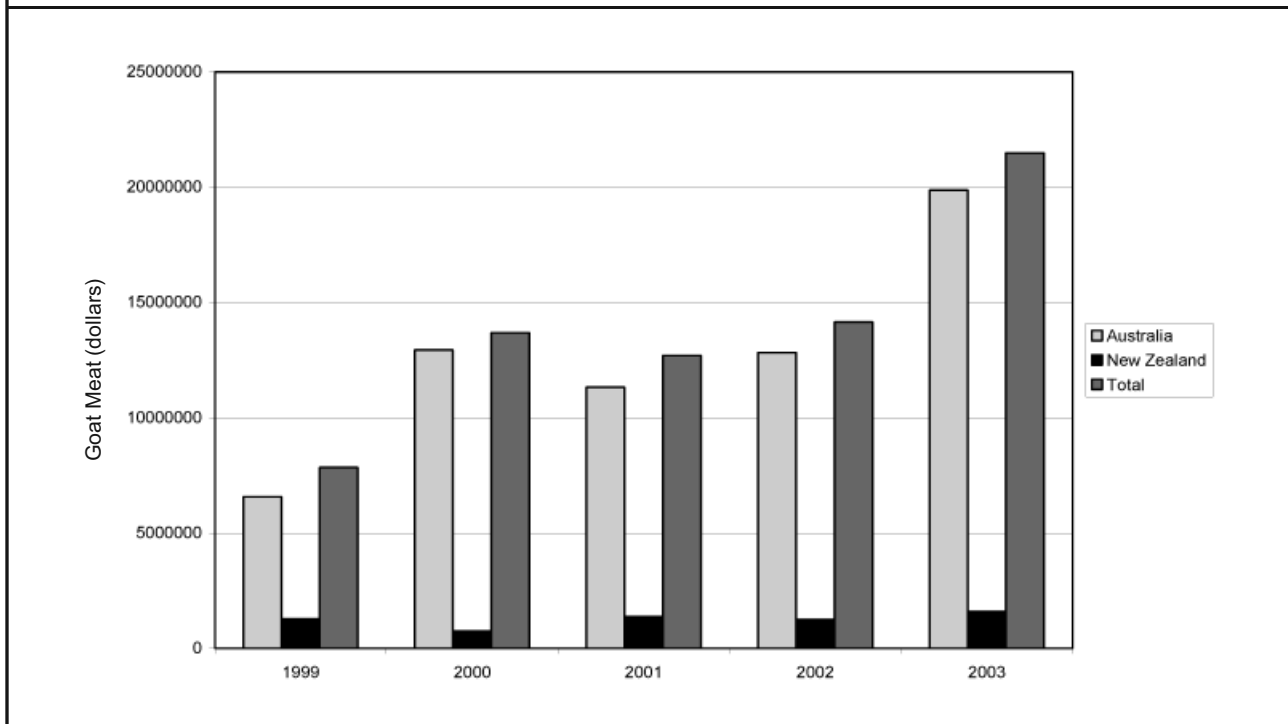


► Figure 1. Changes in goat meat imported to the U.S. from 1999 to 2003



Source: U.S. Department of Agriculture, National Agricultural Statistics Service, *Livestock Slaughter: 2004 Summary*.

► Figure 2. Changes in total dollars spent on goat meat from 1999 to 2003 in the U.S.



Source: U.S. Department of Agriculture, National Agricultural Statistics Service, *Livestock Slaughter: 2004 Summary*.



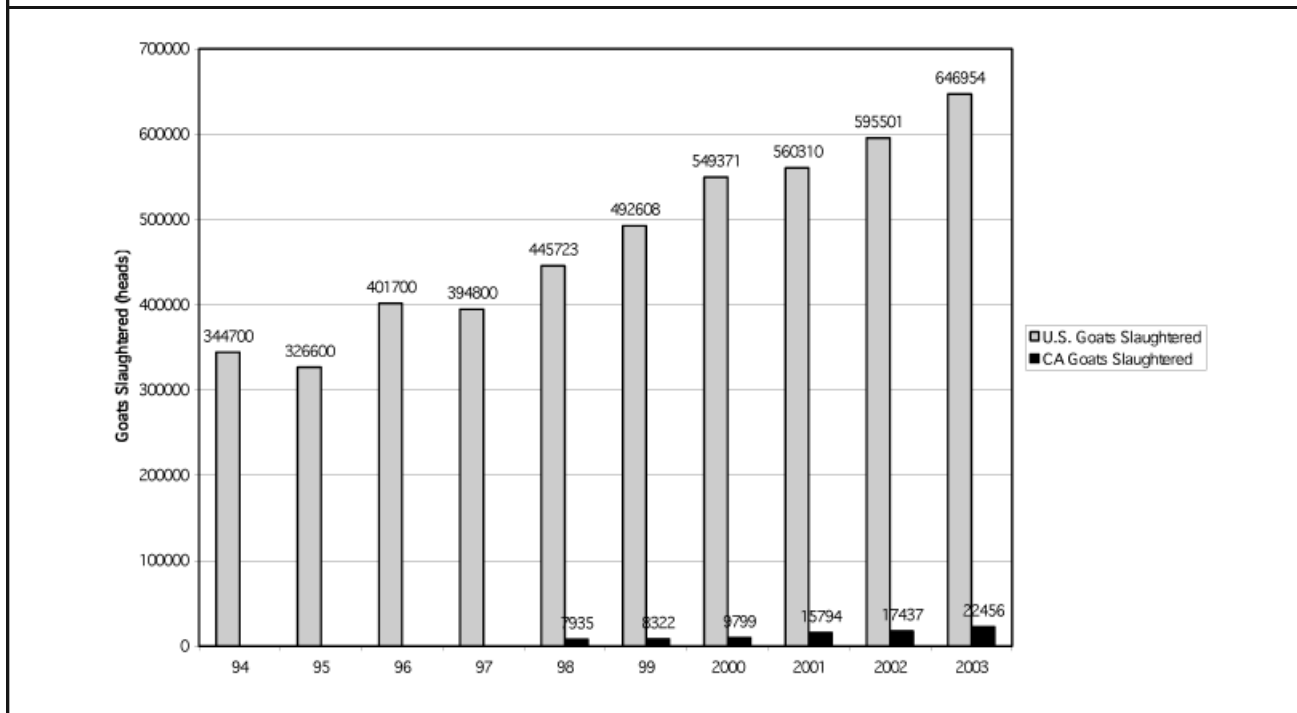
► Table 14.

Average size of goat herds in the U.S. and top ten states for meat, milk, and fiber goats

	All Goats	Meat Goats	Milk Goats	Fiber Goats
U.S.	28	26	13	60
Texas	69	59	14	254
Tennessee	22	23	–	–
California	29	24	29	19
Oklahoma	24	25	10	–
Georgia	24	24	–	–
Kentucky	20	21	–	–
Wisconsin	–	–	39	–
Ohio	11	–	11	9
New York	–	–	11	–
Arizona	–	–	–	527

Source: U.S. Department of Agriculture, *2002 Census of Agriculture*.

► Figure 3. Goats slaughtered in USDA-inspected plants in the U.S. and California from 1994 through 2003



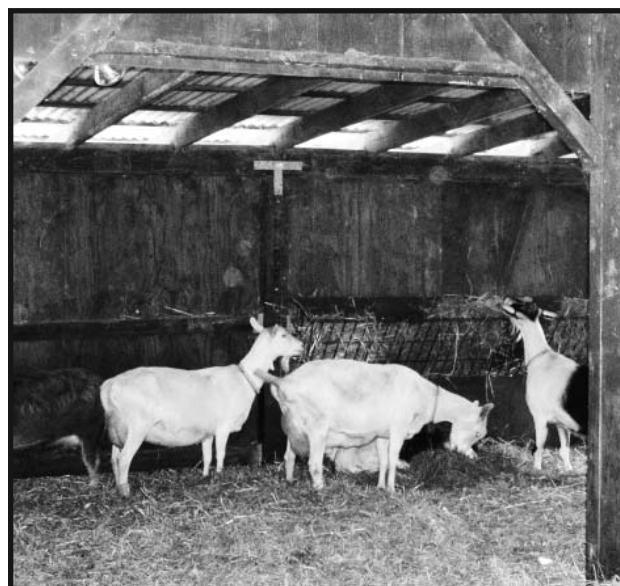
Source: U.S. Department of Agriculture, National Agricultural Statistics Service, *Livestock Slaughter: 2004 Summary*.



represented an increase of 174 percent from \$7.85 million in 1999. As the figures indicate, there was a sharp increase in goat meat imports and dollars spent for goat meat, especially from 2002 to 2003. This trend is likely to continue unless there is an increase in domestic production.

### Goats Slaughtered in USDA-Inspected Plants

The number of all goats slaughtered at federally inspected plants increased by 45.1 percent between 1998 and 2003, and there was a much greater increase in slaughters reported in California—183 percent (Table 16). No slaughter data were reported for California prior to 1998. The number of meat goats slaughtered has shown solid increases since 1998 and will



continue to increase due to a number of factors promoting meat goat production, especially in California (Figure 3). It also

must be noted that the meat goat industry in general and especially in California is in its infancy; therefore, many on-farm slaughters are not reported. For every goat slaughter reported, one can assume that others have not been reported.

► Table 15. U.S. goat meat and mutton imports and their value

	1999	2003	Percent Change
<b>Goat Meat and Mutton</b>			
Imports in Million Kilograms	182.30	353.20	93.7
<b>Goat Meat Only</b>			
Imports in Million Kilograms	3.36	8.46	151.0
Value in Million Dollars	7.85	21.48	174.0

Source: U.S. Department of Agriculture, National Agricultural Statistics Service, *Livestock Slaughter: 2004 Summary*.

► Table 16. Goats (number) slaughtered at federally inspected plants in the U.S. and California

	1998 <sup>a</sup>	2003	Percent Change
U.S.	445,723	646,954	45.1
California	7,935	22,456	183.0

<sup>a</sup> First year that data were reported for goats in California. Source: U.S. Department of Agriculture, National Agricultural Statistics Service, *Livestock Slaughter: 2004 Summary*.



## Factors That May Affect Goat Meat Consumption ◀

### U.S. Population Changes with Special Reference to California

According to the 2000 U.S. census, the number of foreign-born people in the U.S. has risen 57 percent since 1990—from 19.8 million to 31.1 million—and continues

1950 and 2000, the Southern share of the population increased from 31 percent to 36 percent; for the West, it increased from 13 percent to 22 percent; and for the Midwest, it dropped from 29 percent to 23 percent (Table 18).

► Table 17. U.S. population changes by ethnic/cultural group with projections to 2050

	2000	Percent	2005	Percent	2050	Percent
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. Census Bureau, *U.S. Census 2000*.

to increase on an upward trend that started in 1970. Of those born outside the U.S., 51.7 percent are from Latin America and 26.4 percent are from Asia. With this shift in geographic origins, there has also been a major change in regional settlement in the U.S. The number of foreign-born individuals living in the West and South rose from 37.7 percent in 1990 to 65.5 percent in 2000. The U.S. Hispanic population increased at a fast rate and will exceed 100 million or 25 percent of the population in the year 2050 (Table 17). This group of immigrants has a strong preference for goat meat and will create an opportunity for this segment of agriculture to expand.

Because of differences in growth rates, regions' shares of the total U.S. population have shifted considerably in recent decades. Between

### U.S. Hispanic Population Changes

Table 19 indicates changes in the U.S. Hispanic population by regional residency. The Hispanic population is mostly concentrated in the West and South with more than 40 percent in California.

### U.S. Asian Population Changes

About 50 percent of the U.S. Asian population resides in the West with more than 70

► Table 18. U.S. population changes by region

	1990	2000	Percent Change
U.S. Total	248,709,873	281,421,906	13.2
Northeast	50,809,229	53,594,378	5.5
Midwest	59,668,632	64,392,776	7.9
South	85,445,930	100,236,820	17.3
West	52,786,082	63,197,932	19.7

Source: U.S. Census Bureau, *U.S. Census 2000*.



► Table 19. Changes in the U.S. Hispanic population by region

	1990		2000	
	Number	Percent	Number	Percent
U.S.	22,354,056	9.0	35,305,818	12.5
Northeast	3,754,389	7.4	5,254,087	9.8
Midwest	1,726,509	2.9	3,124,532	4.9
South	6,767,021	7.9	11,586,696	11.6
West	10,106,140	19.1	15,340,503	24.3

Source: U.S. Census Bureau, *U.S. Census 2000*.

► Table 20. Changes in the U.S. Asian population by region

	1990		2000	
	Number	Percent	Number	Percent
U.S.	6,908,638	2.8	10,242,998	3.6
Northeast	1,324,865	2.6	2,119,426	4.0
Midwest	755,403	1.3	1,197,554	1.9
South	1,094,179	1.3	1,922,407	1.9
West	3,734,191	7.1	5,003,611	7.9

Source: U.S. Census Bureau, *U.S. Census 2000*.

percent of those in California. Goat meat is a popular staple food for this group of immigrants and provides an opportunity for goat meat production, especially in the West and California (Table 20).

the U.S. 2000 census) currently reside in the United States. Along with these populations come opportunities for U.S. agriculture to promote new products to serve this ever increasing population base (Table 21).

### U.S. Ethnic and Faith-Based Populations with a Preference for Goat Meat

The U.S. ethnic population consuming goat meat changed between 1990 and 2000. More than a million Buddhists and Muslims, more than ten million Asians, and more than 35 million Hispanics (according to

► Table 21. Changes in the U.S. ethnic population from 1990 to 2000

	1990	2000	Percent Change
Muslims	527,000	1,104,000	109
Buddhists	401,000	1,082,000	170
Hispanics	22,354,000	35,305,000	58
Asians	6,908,638	10,242,998	48

Source: U.S. Census Bureau, *U.S. Census 2000*.



## Outlook for Goat Meat Production in California ◀

The major factor contributing to the rise in demand for meat goat production in the U.S. is the shift in population demographics. California, with a Hispanic population of more than 30 percent, can be a major goat meat producer and consumer.

In 2000, 51.7 percent of the foreign-born population was from Latin America, 26.4 percent was from Asia, and 15.8 percent was from Europe. Together, Latin America and Asia accounted for 78.2 percent of the foreign-born population, up from 28.3 percent in 1970.

Along with this major change in the geographic origins of the foreign-born, the U.S. has seen a major change in settlement of these groups within the United States. The proportion of the foreign-born population living in the West and South rose from 37.7 percent in 1970 to 65.5 percent in 2000.

► Table 22. Population changes from 1990 to 2000 in California and surrounding states

	1990	2000	Percent Change
Arizona	3,665,228	5,130,632	40.0
California	29,760,021	33,871,648	13.8
Nevada	1,201,833	1,998,257	66.3
Oregon	2,842,321	3,421,399	20.4

Source: U.S. Census Bureau, *U.S. Census 2000*.

### Ethnic Population Changes in California and Surrounding States

The total population of Arizona increased 40 percent and Nevada saw a 66 percent increase in population from 1990 to 2000 (Table 22).

The increase in population in California, especially among ethnic minorities, has a spillover effect on neighboring states. This shift has impacted the foreign-born population in those states, which could also create a potential market for goat meat production. The Hispanic population doubled in Nevada and Oregon and increased 25 percent in California and

34 percent in Arizona from 1990 to 2000 (Table 23).

The Asian population has also increased more than 28 percent in Arizona, 18 percent in California, 55 percent in

► Table 23. Changes in the Hispanic population in California and surrounding states

	1990		2000	
	Number	Percent	Number	Percent
Arizona	688,338	18.8	1,295,617	25.3
California	7,687,938	25.8	10,966,556	32.4
Nevada	124,419	10.4	393,970	19.7
Oregon	112,707	4.0	275,314	8.0

Source: U.S. Census Bureau, *U.S. Census 2000*.



Nevada, and 30 percent in Oregon. This population increase in California and surrounding states is another promising factor for the goat meat industry in this region (Table 24).

### Sociological and Economic Changes among the Ethnic Population

Not only have ethnic populations increased in number in California, but household incomes for various ethnic groups have increased as well, allowing for more disposable income. Average household income

increased 18.8 percent with the incomes of African Americans and Asians increasing by 25.8 percent and 51.3 percent respectively (Table 25).

Socioeconomic changes in the Hispanic population are indicated by an increase in the number and proportion of Hispanic farmers that are principal operators and farm owners (Table 26). The increase in income could potentially lead to more disposable income in ethnic households, which may result in more consumption of goat meat.

► Table 24. Changes in the Asian population in California and surrounding states

	1990		2000	
	Number	Percent	Number	Percent
Arizona	51,699	1.4	92,236	1.8
California	2,735,060	9.2	3,697,513	10.9
Nevada	35,232	2.9	90,266	4.5
Oregon	64,232	2.3	101,350	3.0

Source: U.S. Census Bureau, *U.S. Census 2000*.

► Table 25. Changes in household income in the U.S.

	1990 Income in 2000 Dollars	2000 Income	Percent Increase
All Households	\$48,024	\$57,047	18.79
Whites	\$49,962	\$59,280	18.65
African Americans	\$31,860	\$40,067	25.76
Hispanics	\$35,915	\$42,411	18.09
Asians	\$46,412	\$70,231	51.32

Source: U.S. Census Bureau, *U.S. Census 2000*.

► Table 26. Changes in Hispanic principal operators from 1997 to 2002

	1997	2002	Percent Change
Farmers	33,450	50,592	51.2
Full Owners	21,742	36,650	68.5

Source: U.S. Department of Agriculture, *2002 Census of Agriculture*.





### Goats Slaughtered at USDA-Inspected Plants in California

The number of goats slaughtered at federally inspected plants in California increased from more than 7,900 reported in 1998 to more than 22,000 in 2003 (Figure 4). This is a clear indication of increased interest in goat meat.

Presently there are 27 federally inspected slaughterhouses in California according to a list compiled by High Sierra Beef. Five of those plants show goat processing and four of the five are open to the public (Table 27). The plants are all located in Central and Northern California.

The majority of California’s Hispanic population resides in Southern California locations, including Los Angeles (46.5 percent) and San Diego (25.4 percent)

(Table 28). The population in some areas in Southern California is more than 60 to 90 percent Hispanic, and the presence of a USDA goat-harvesting and processing plant should be justified.

### Imports and Exports of Goat Meat

The United States was a net exporter of goat meat until 1991; however, there were no exports after 1993 (Table 29). This shift is another indication of the increased interest in goat meat consumption nationally. In 2003, the U.S. imported more than 18 million pounds of goat meat. With an average carcass weight of 35 to 40 pounds, an estimated 500,000 goat carcasses were imported. This number of goats is a potentially viable value-added enterprise opportunity by which small farms in California can diversify.

► Table 27. USDA-inspected goat processing sites in California

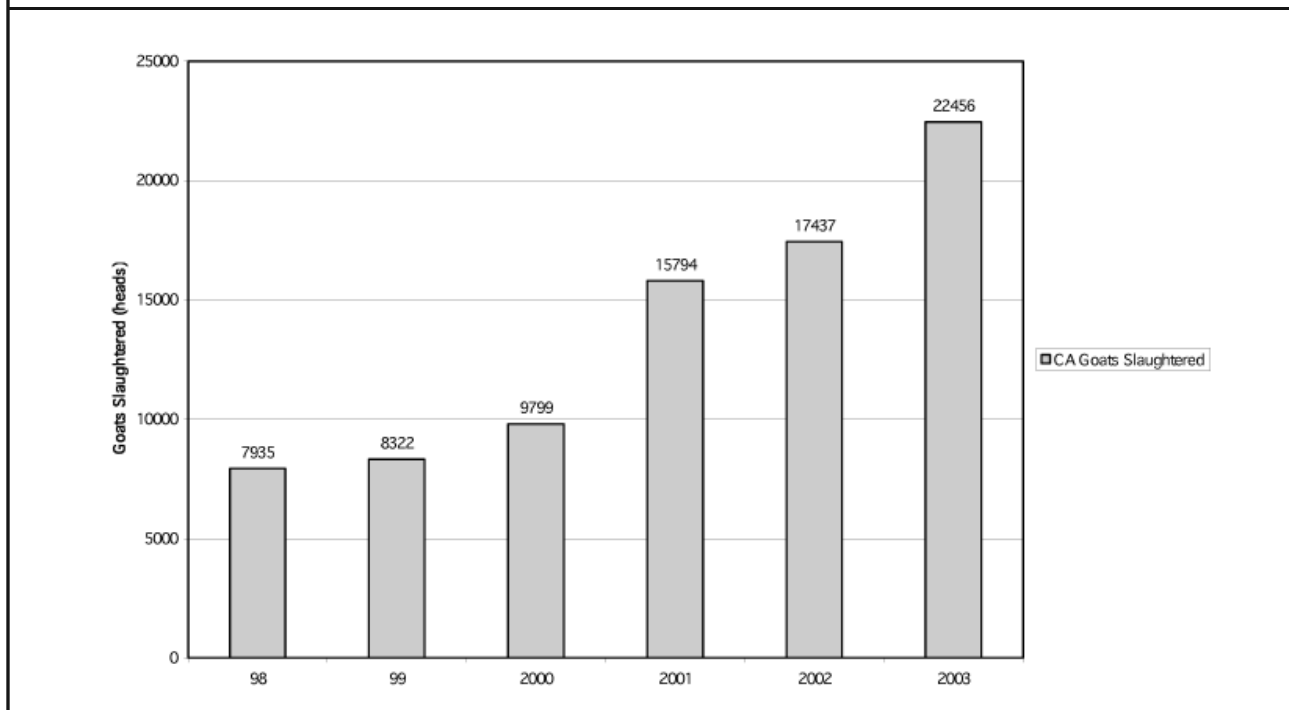
Abattoir	County	Telephone Number	Days Open	Public
Johansen’s Meat Market Road P North of Highway 232 Orland, California	Glenn	530.865.2103	Tuesday– Thursday	Yes
Meridian Meat Company 16761 Kilgore Road Meridian, California	Sutter	530.696.0130	Monday– Tuesday	Yes
Panizzera Meat Company Main Street & Graton Road Occidental, California	Sonoma	707.874.1854	Monday– Wednesday	Yes
Stagno’s Meat Company E. Barstow & Woodrow Modesto, California	Stanislaus	209.578.1748	Monday– Friday	Yes
University of California UC Meat Lab One Shields Avenue Davis, California	Yolo	530.752.7410	Monday– Friday	No

Source: [http://ucce.ucdavis.edu/counties/ceplacernevada.ucdavis.edu/custom\\_program550/usda\\_inspected\\_harvesting\\_sites.htm](http://ucce.ucdavis.edu/counties/ceplacernevada.ucdavis.edu/custom_program550/usda_inspected_harvesting_sites.htm).





► Figure 4. Goat slaughters reported from 13 USDA-inspected plants in California



Source: U.S. Department of Agriculture, National Agricultural Statistics Service, *Livestock Slaughter: 2004 Summary*.

► Table 28. Places in California with 100,000 or more individuals making up the Hispanic population

	Population	Percent
East Los Angeles	120,307	96.8
Santa Ana	257,097	76.1
El Monte	83,945	72.4
Oxnard	112,807	66.2

Source: U.S. Census Bureau, *U.S. Census 2000*.

► Table 29. U.S. meat goat import and export balance

	Imports to U.S.	Exports from U.S.	Balance
1989	86,067	122,056	+35,989
1990	99,353	115,413	+16,060
1991	122,932	53,246	-71,506
1992	172,280	60,444	-148,836
1993	136,364	3,504	-132,860
1994	138,481	None	-138,481

Source: U.S. Department of Agriculture, National Agricultural Statistics Service, *Livestock Slaughter: 2004 Summary*.



## Estimated Potential Demand for Goat Meat in California ◀

The largest group of ethnic consumers of goat meat is Hispanics, which increased 57.9 percent in population from 1990 to 2000. Muslims, Asians, and Africans also consume significant amounts of goat meat. Goat meat consumption throughout the year typically remains constant except on special holidays, when it triples or quadruples. There also are increases in demand for goat meat for Easter, the Fourth of July, and some Muslim holidays such as Aideh Ghorban and Aideh Fatre. Goat meat consumption is usually greater in colder months between October and February among the Chinese. Understanding these ethnic traditions and matching demand with production require special education in marketing techniques. Also, special handling and harvesting procedures related to various religions and traditions can contribute added value to goat meat. Halal harvesting procedures for Muslims and Kosher techniques for Jewish people may add value to goat meat.

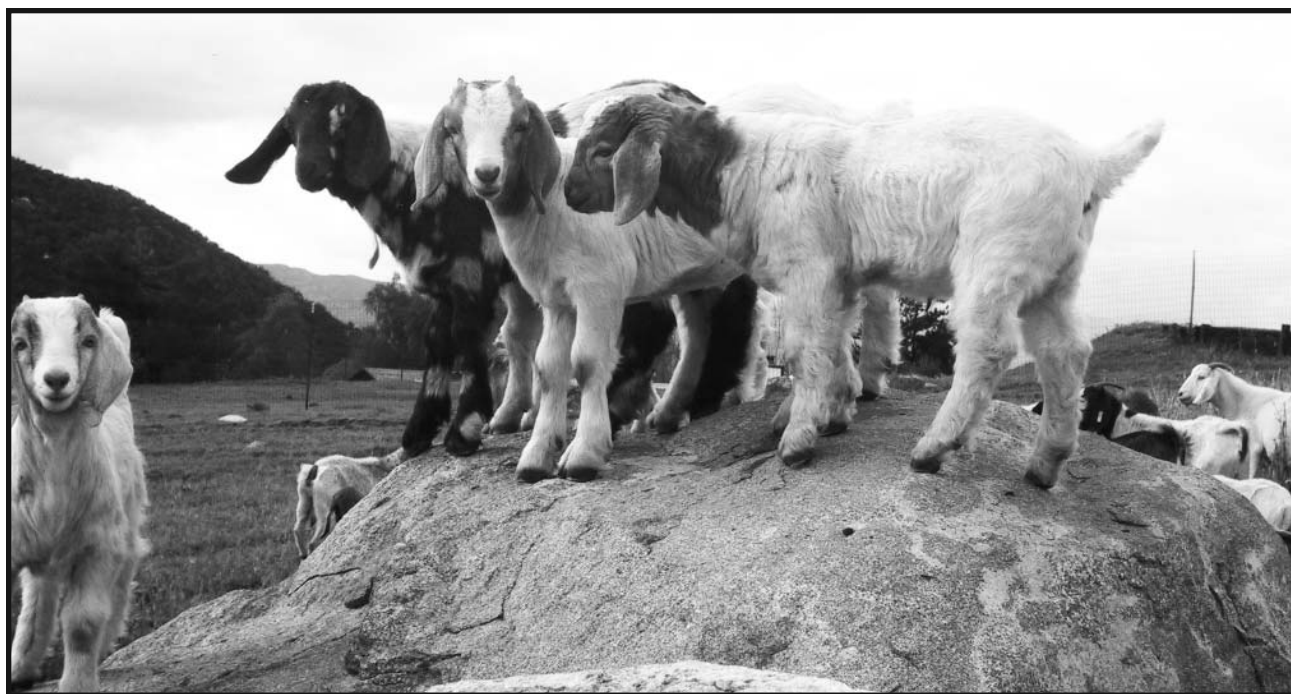
The following estimate of the potential demand for goat meat is based on the Hispanic and Asian population in

California. According to the U.S. census (2000), there are about 3.7 million Asians and about 11 million Hispanics in California. Among 7 million illegal immigrants, more than 50 percent are Mexicans (who consume goat meat), the majority of whom reside in California. In total, there are at least 17 million people belonging to ethnic populations in California. Dividing that figure by an average of 5 persons per household generates an estimated 3.4 million households. If only 10 percent of those households consume goat meat, there would be demand for the meat by 340,000 households. If every household consumes 6 pounds of meat per month (including holidays), there would be a demand for 24,480,000 pounds of meat. Assuming a 40-pound carcass weight, demand as total number of goats is 612,000 head (Table 30).

This is a very modest estimate of demand for meat goats in California. According to the USDA's 2002 census, California has about 61,000 goats that are not dairy or fiber goats. Some of those goats are undoubtedly used for vegetation control and are not usually sold for meat.

► Table 30. Estimated demand for goats and goat meat in California

Total Population (Asian and Hispanic)	17 million
Total number of households assuming five persons per household	3.4 million
Households that consume goat meat (10 percent)	340,000
Household consumption of goat meat per month, including holidays	6 pounds
Total goat meat consumed	24,480,000 pounds
Average goat carcass weight	40 pounds
Total head of goats in demand	612,000



With only 22,000 goats harvested in USDA-inspected plants, it is clear that there is great potential for this industry to grow and become better organized in California. About 50 percent of the U.S. ethnic population resides in California (17–18 million of 35–36 million), which should translate

into consumption of about half of the goat meat imported and harvested in the U.S. The estimated demand for consumption of goat meat in California is a little more than 50 percent of the 1.15 million goats reported consumed in the U.S. in 2003 (domestic slaughters + imports).



## Conditions Promoting Goat Production in California ◀

### Hispanic and Female Principal Operators

The number of female principal operators rose 12 percent between 1997 and 2002, whereas the number of Hispanic principal operators and of Hispanic female principal operators were up 51 percent and 56 percent respectively (Table 31). Goats are smaller animals than cattle and very popular with female producers. Increasing numbers of female principal operators and especially Hispanic principal operators and Hispanic women are encouraging prospects for promoting meat goat production. Proper knowledge in goat husbandry, budgeting, and marketing techniques will ensure a profitable agri-business.

The number of California women as principal operators decreased by 3.2 percent between 1997 and 2002; however, total Hispanic and Hispanic female principal operators were up more than 43 percent according to the USDA's 2002 census (Table 32).

### Farm Size in California

In 2002, California reported 4,256 farms with sales of sheep and goat products worth \$52.4 million, whereas the U.S. reported 96,249 farms with sales of \$541.7 million. California claimed 4.4 percent of U.S. farms with a 9.7 percent contribution to the sale of sheep and goat products.

California, having an average farm size of 346 acres and a median of 35 acres

per farm, is appropriately designed for small-scale meat goat production. Also, more than 50 percent of California's farms are less than 49 acres in size. Goats are smaller-unit animals and 5 to 10 goats can be raised on an acre of improved pasture depending on the intensity of management.

### Sources of Feed

California has the highest product value per acre in the U.S. and a large variety of agricultural products are grown on its fertile land. Energy-source cereal grains such as wheat, barley, and sorghum are grown locally. Protein feeds such as cotton seeds, sunflower meal, and other by-products are readily available. Roughages such as good quality hays

► Table 31. Changes in the characteristics of U.S. farms' principal operators from 1997 to 2002

	1997	2002	Percent Change
Total Women	209,784	238,269	11.95
Total Hispanics	33,450	50,443	50.80
Hispanic Women	3,286	5,138	56.36

Source: U.S. Department of Agriculture, 2002 Census of Agriculture.

► Table 32. Changes in the characteristics of California farms' principal operators from 1997 to 2002

	1997	2002	Percent Change
Total Women	13,018	12,598	-3.20
Total Hispanics	5,347	7,771	45.33
Hispanic Women	512	736	43.75

Source: U.S. Department of Agriculture, 2002 Census of Agriculture.



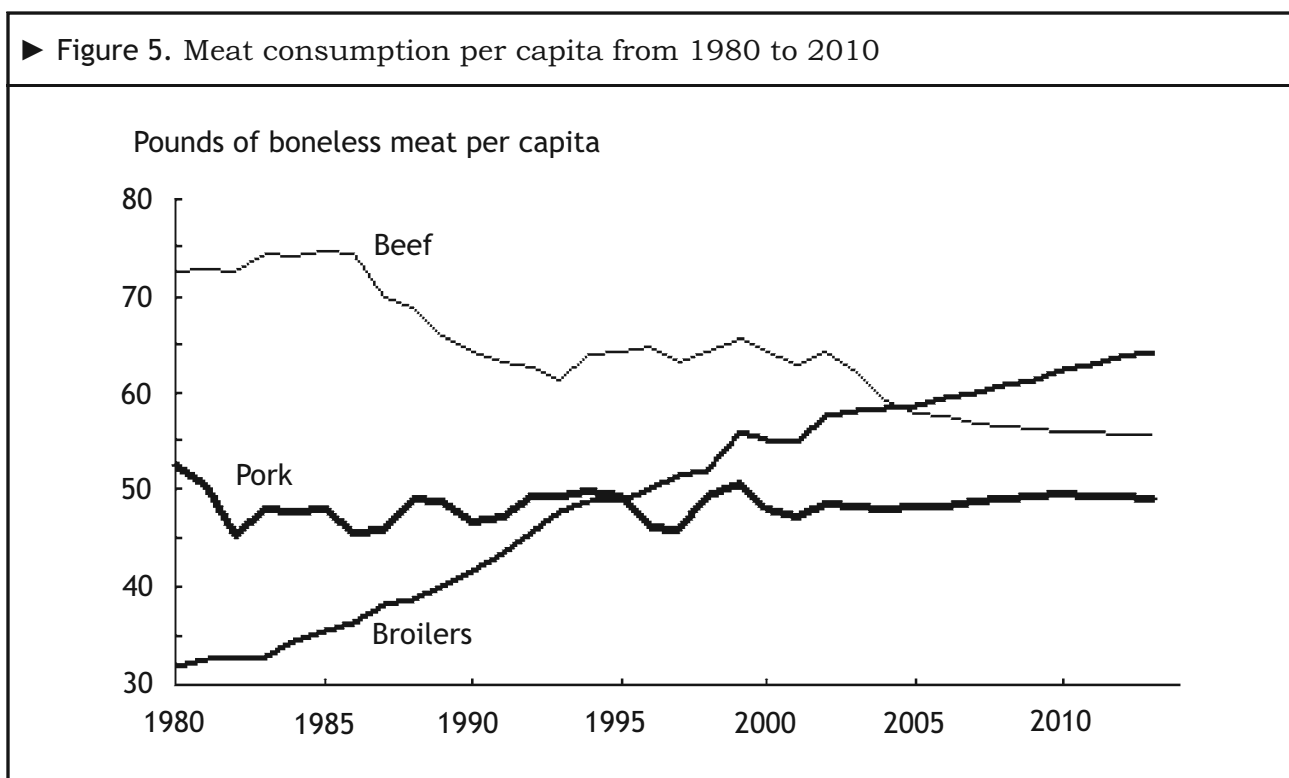
and silages and by-products such as rice bran, wheat bran, and sugar beet pulp are common. Leftover garden produce of all kinds sold in farmers markets is presently being composted, but it is a goat's favorite meal.

### Health Consciousness and Goat Meat Quality

Americans and especially Californians are more conscious of their health and what they eat than ever before. Poultry consumption has increased from less than 35 pounds per capita in 1980 and is projected to exceed 60 pounds per capita by 2010 (Figure 5). Three characteristics of poultry have made major contributions to this increase: 1) it is considered a healthier product as it is leaner than beef and pork, 2) it costs less than beef or pork, and 3) it is readily available. Compared to poultry,

goat meat is leaner with less fat waste, and research has indicated that it has balanced proportions of saturated and unsaturated fatty acids and is a rich source of conjugated linoleic acid (CLA), which is found only in ruminants. However, it is more expensive than poultry, beef, lamb, and pork and it is not readily available. A 2004 report of county fair activities in Merced, California, indicated that the interest in showing meat goats has been increasing each year since the first show of four meat goats in 2001. This year, the number was up to 53. Beef and sheep entries were down and goat and rabbits entries were up. Average prices per pound were \$4.93 for goats, \$4.50 for sheep, \$3.46 for swine, and \$2.50 for beef. Clearly the most expensive meat was goat meat. The high price of goat meat, along with lack of availability, constrains its consumption.

► Figure 5. Meat consumption per capita from 1980 to 2010



Source: U.S. Department of Agriculture, Economic Research Service, *USDA Agricultural Baseline Projections to 2013*, February 2004.



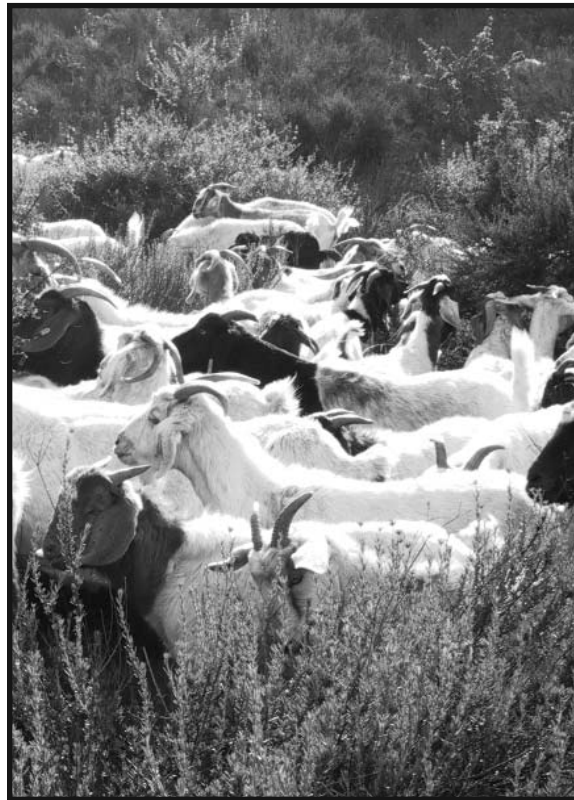
**M**ajor problems associated with advancement of goat meat production in California are:

- ▶ Consumer education
- ▶ Producer education
- ▶ Organized market and marketing channels

Consumer education on the quality of goat meat and why all the old cultures such as Greek, Chinese, Mayan (Mexican, Hispanic), and Middle Eastern people, eat this meat should be investigated. Producers should be educated on the best management techniques for raising goats for meat. Utilizing some superior breeds with fast growth rates, especially from South Africa, has revolutionized meat goat production

elsewhere. However, the most important factor in the growth of any industry, including goat meat, is marketing of the product. With high prices for goat meat, it

may be feasible to do direct marketing using the internet. Value-added products, such as specialty sausages and other ready-to-eat meat products, can enhance marketing and profit margins. Special consideration should be given to proper harvesting and handling techniques for goat meat to cater to various customer groups for increased profit margins.





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## Conclusion ◀

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**T**here is increased interest in goat meat consumption in the U.S. The number of goats harvested in USDA-inspected plants and the amount of goat meat imported from Australia and New Zealand have increased sharply since 1999. The U.S. has changed from a net exporter to a net importer during the last decade. Increases in ethnic populations, especially Hispanics, Asians, and Muslims, in the U.S. in general and in California in

particular may have contributed to this fact. Also, goat meat is a healthy meat that fits the “designer” diets of health-conscious Americans. This is an opportunity for small farm producers in California to target this market and diversify their farm products. There is also an opportunity for value-added products. However, consumer and producer education is needed and marketing structures need development.









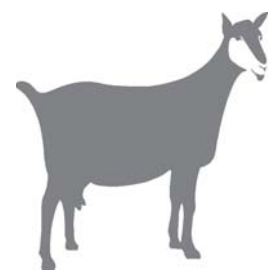
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**The Small Farm Center** offers this Situation and Outlook report as a prelude to more serious analysis and discussion about the possibilities for development of a more rational goat meat production and distribution system in California. As this report suggests, the potential demand for goat meat by various ethnic populations could provide the demand side that would justify developing this industry. On the supply side, it would not be an insuperable task to enable a significant number of California's small farmers to develop the necessary production capacity. More of a challenge would be the logistics of a marketing and distribution system, particularly regarding the location of slaughtering facilities. But through collaboration among potential stakeholders, the constraints may be breached and development enabled.



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