

THE MARKETING OF THE GOAT IN KOREA

T. G. Min, K.O. Kong and H. B. Song
College of Natural Resources, Taegu University,
15 Naeri, Jinryang, Kyungsan, Kyungbuk, 712-714. South Korea

ABSTRACT

Korean native goat (KNG, the black goat) is the only indigenous breed in Korea and the population is about 500,000 heads in about 50,000 farms. The meat of KNG has generally considered goats as a healthy food that helps the seasonal attunement of the human body. With this background, KNG has been consumed much more in processed form like an extract rather than meat itself. For manufacturing the extract, a young goat of 13-15 kg live weight would be used and four or ten different kinds of medicinal herbs added as main herbs and 4-5 kinds herbs needed for supplement. The goat meat and the extract are consumed about 500,000 head each a year. The meat are sold not at ordinary butcher but at specialized restaurant as a type of roasting, cooked meat, or soups and the extract is sold mostly by home visiting and in part health food store. The price of goat is formed about 1.5 times and 3 times expensive compared with beef and pork, respectively. The extract is about 5-6 times expensive compared to other beverages because it is consumed mainly as a medicinal purpose not as a beverage. The consumption of the extract is not increased so far due to the high prices but is expected to increase of that if the medicinal effects are verified scientifically and the prices become low.

INTRODUCTION

Black goat is a type of typical native goat in Korea and occupies more than 80% of the whole goat population (Song et al., 1998). Korean native goat (*Capra hircus coreanae*, KNG), the black goat, is the only indigenous breed in Korea and the population is about 500,000 in about 50,000 farms, and comprises the majority of small ruminant herd of the country (the Ministry of Agriculture and Forestry, 2001). Unfortunately, archaeological evidences which indicate the origin of KNG or its introduction are not available. Only the historical literatures indicate that the history of goat farming in Korea peninsula could date back to about 2000 years ago (Kang, 1967, 1994). The KNG meat is not popular like beef, pork or chicken because of the unpleasant odour which is mainly occurred in male, but has been consumed continuously as a type of medicinal purpose, especially for women (Song, 1997). The ancient people, in Korea, used the goat meat as a health promoting food, especially for pregnant women and medicinal purposes for stomach inflammation or ulcer healing. Thus, the KNG meat, especially the black one, has been more expensive than other animal meat in Korea and consumed much more in processed form like an extract rather than meat itself (Son, 1999). This paper attempts to describe the production of the KNG, the uses of the KNG, the extracts of KNG meat as medicine and the marketing of the KNG and its extract.

1 PRODUCTION

OF

KNG

The goat population in Korea (Table 1, 2) was relatively small in the early 1900's. During the Korean War the whole country suffered serious animal losses; however, the number of goat continuously increased until the late 1990's. Overcoming a few short-term depressions such as during the Olympic Games in 1988, when hygienic slaughtering of specific animals including goats was strictly

controlled by the government, the KNG population has remarkably grown since 1997. The increase in goat population was definitely attributed to the general growth in the Korean economy. The importation of goats and goat meat noticeably increased with the opening of international markets under the WTO system. For example, in the period from 1990 to 1994, the total importation of goat meat amounted to 5,500 tons, of which Australia accounted for more than 90%. Nevertheless, the rising goat population continues because of consumer's preference for healthy food from indigenous goats, which are not readily available from imported goats and their meat.

Drink-type extracts were developed mostly by goat producer's cooperatives, partly in coordination with food companies. More than 4 million goat-processing establishments equipped with small-scale extractors form the main marketing route. Their rapid spread throughout the country helped to extend the market share of goats, which in turn made goat production a profitable enterprise especially in the last several years. Until 1970, one family mostly had one

Table 1 - Number of goats and farmer and flock size in Korea between 1909 and 2000

Year	Goats	Farm	Flock size	Number of Dairy goats
1909	7,322			
1920	21,075			
1945	29,361			
1950	19,850			
1960	155,492			
1962	313,449			
1965	177,491	120,532	1.5	15,585
1970	131,646	72,831	1.8	-
1980	200,502	107,994	1.9	4,353
1985	318,104	118,133	2.7	3,339
1990	211,292	49,281	4.3	150
1992	501,203	26,842	6.5	114
1995	680,761	82,719	8.2	-
2000	449,417	51,585	8.7	4,584

or two goats in Korea. In 1990, 47.7% of goat population from 92.8% of goat farm were grown as a flock size of 1-9 head per farm as a side job, and 19.7% of goat population from 1% goat farm were grown over 50 head per farm as a business flock size (Table 2). However, goat farms have been gradually changed as large scales since past ten years. In 2000, 28.7% of goat population from 83.6% of goat farm were grown as a small flock of 1-9 head per farm and 42% of goat population from 3.4% of the farm were grown over 50 head per farm as a business flock size as same as other livestock in Korea. A statistical rural survey conducted between 1995 and 2000 showed an increasing tendency for flocks of eight and more goats.

Table 2 - Number of goats and farms according to flock size (percent of total)

Flock size		1990	1995	2000
1-9	Farm	45,720 (92.8)	70,317 (85.0)	43,124 (83.6)
	Goat	100,709 (47.7)	212,316 (31.2)	129,236 (28.8)
10-49	Farm	3,058 (6.2)	9,690 (11.7)	6,746 (13.1)
	Goat	56,684 (26.8)	189,013 (27.8)	131,753 (29.3)
50-99	Farm	363 (0.7)	1,703 (2.1)	1,604 (2.1)
	Goat	18,649 (8.8)	109,109 (16.0)	67,209 (15.0)
100+	Farm	140 (0.3)	1,009 (1.2)	651 (1.3)
	Goat	22,802 (10.8)	170,323 (25.0)	121,219 (27.0)
Total	Farm	49,281	82,719	51,585
	Goat	211,142	680,751	449,417
	Goat/Farm	4.3	8.2	8.7

2 USES**OF****KNG****2.1 The historical background on uses of KNG meat and it's medicinal effect**

There are no clear historical records of the goat meat and it's extract as a medicine, but the descriptions of the medicinal action and restorative effect of the meat for healing and prevention from some diseases exist in old literatures in Korea and China. It could be estimated the history of growing KNG would be back to 2,000 years, but the first record was in the Royal chronicle of the Yi dynasty in Korea, about 500 years ago (Kang, 1967, 1994). The record described that the goat meat was served to honoured guests and used as a sacrificial offering in the Palace. The literature also reported that a queen used a kind of pill made by goat liver as promoting health about 300 years ago. The origin and history of the goat extract, used as a medicinal purpose today in Korea, are not clear due to no record and literature, but it could be estimated being used from several hundred years ago (Song, 1997).

2.2 Extract The extracts of KNG meat have been consumed as one of the typical oriental medicines and steam-processed products also gained popularity in the market as a wholesome drink. For manufacturing these products young male goats usually less than 4 months of age are used, though preferred slaughter age and the extracting method may vary in various provinces. After slaughter, the guts are removed and the carcass is washed clean, then water is added and carcass boiled with at least five different raw ingredients used for extraction.

2.3 Meat Goat meat has not been a favourite meal for Korean consumers. One of the reasons is the specific unpleasant flavour and particularly in meat of male goats. KNG meat helped develop an effective "deodorizing agent" for cooking and processing the meat. At least 27 menus developed for goat meat and seven procedures for streaming or roasting and recipes for soups are favourite dishes served to customers at specialized restaurants.

3 EXTRACTS OF KNG MEAT AS MEDICINE

3.1 Products There are several commercial products from the goat meat, such as the extract, pills and tea and the extract of drinking type have been used as typical oriental medicines (Song, 1997). The extracts of the goat meat are generally made with some herbal sources and classified into several categories depending on the kind or number of herbs added to the meat before extraction. The products of the extract are 'samultang extract' (four kinds of herbs added, four herbs extract) 'sibjundaebotang extract' (ten kinds of herbs added, ten herbs extract) and 'special ordering extract' (herbs added for consumer's choice).

3.2 Process for extracts The equipment for the extracts are composed of extractor, filter, packing tool, sterilizer, cooling system, refrigerator, washing machine and cutter of polyethylene film bag. The carcass and some herbal sources should be washed clearly and boil in the extractor under 100 °C for 22-24 hours or 110-120 °C for 6-12 hours, and then pressured through filter and exclude floating fat after cooling (Kim and Yoo, 1995). The extracts can be gained about 10,000ml from one goat. The extracts are packed by polyethylene film bag, capacity of 100, 120, 150 and 200 ml, but 100 ml bag is a most popular use. The bags are sterilised under 100 °C for over 30 min., and commercialised a 30, 60, 90 and 100 bags unit. They could be stored over 1 year at -5 °C condition.

3.3 Usage of the Extract There is a traditional common view that the extracts of the goat meat are especially good for women, but the consumption of those have not been same as the opinion. The extracts are particularly popular in gift for the parents and old people in national holidays or birthday, because they are believed to be good for prevention from geriatric diseases, osteoporosis and retarding senility. There is also general recognition from the experiences that the extracts are specially good for a delivered or pregnant women and also good for the discharged patients, the old and weak men, the mental fatigue for the students and the sexual vitality of men (Song, 1997).

4 MARKETING OF THE KNG AND ITS EXTRACT

4.1 Livestock and goat meat

4.1.1 Consumption The consumption of goat meat was estimated about one million head a year in the 1990's. The

meat is consumed about 500,000 head (30 kg of live weight) as a health promoting food, and other 500,000 head (13kg of live weight) are consumed as a medicinal purpose by a type of extracts. This data is not statistical, but just estimated by the sum of selling amount in the Taegu-Kyungbuk livestock industry cooperatives (The Ministry of Agriculture and Forestry, 2001).

4.1.2 Selling price The producer's prices of KNG are about 150-170(US) per head of 30kg, and about 80-100 (US) per head of 13kg live weight, respectively. The wholesale prices of goat meat used for medicinal purposes (13kg of live weight) have been formed as Figure 1 for 20 years estimated by Livestock data of the Ministry of Agriculture and Forestry (2001). The wholesale price of the meat in Taegu-Kyungbuk livestock industry cooperatives is about 10(US) per kg of carcass. The percent of dressing of KNG is about 48.9 (Table 3). The retail prices of lean meat are about 20(US), and of bone are about 10 per kg respectively, by specialized goat meat restaurants in Korea. The bone of goat is consumed favorably as a recipe for making soups as a health food.

Table 3. Dressing % of KNG

Body weight	heads	Dressing %
20-29	37	48.2
30-39	91	48.5
40-49	14	52.0
50+	12	48.7
Total	154	48.9

4.1.3 Sales tactics The goat meat would be consumed about 500,000 head a year in Korea, but the meat could not be found in ordinary meat butcher. The meat is only sold in specialized restaurants, located in big city or around the city, as a favourite dish for consumer wishing good health. The meat is selling as a type of steaming, roasting, and recipes for soups. The meat would be often served in the farms around park or big city on some special events, such as social meeting, family meeting, farewell party or reception dinner, as a type of roasting, cooked meat, or soups by being ordered.

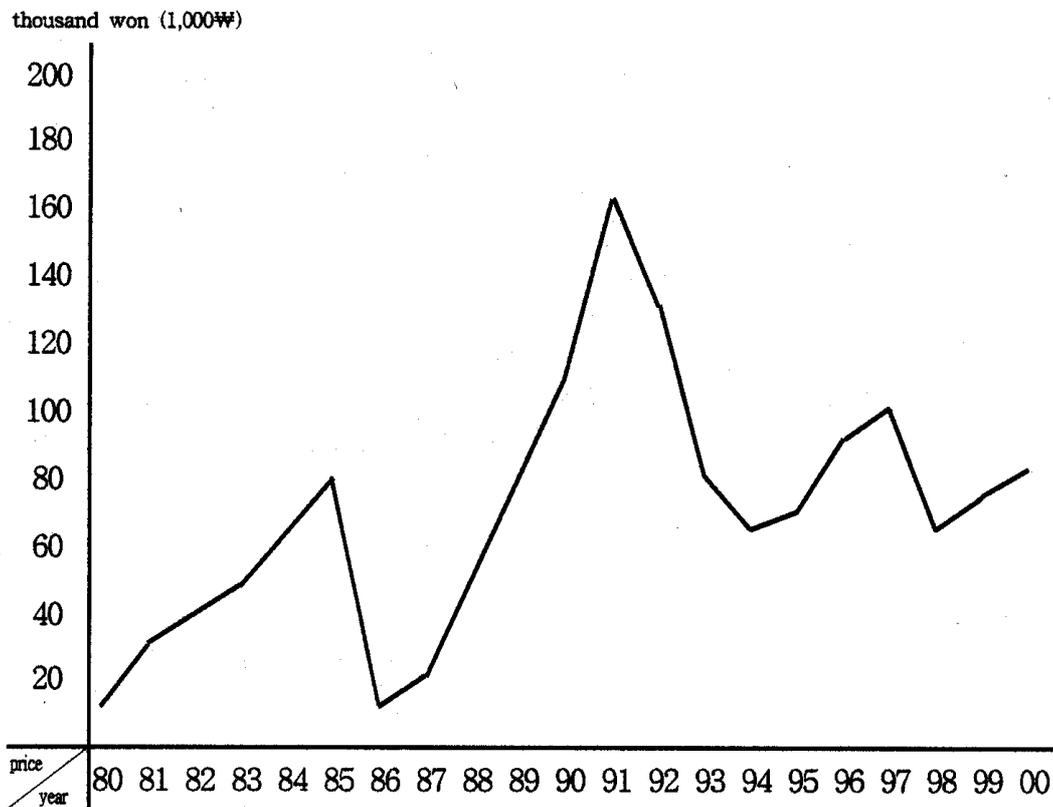


Figure 1 - The price of goat as a type of medicine (1\$(US)= \$1,300(Korea))

4.2 Extracts

4.2.1 Consumption The consumption of the extracts was estimated as the equivalent of 500,000 goats per year until 1997, the time of I.M.F (the financial crisis of Korea), but the consumption has been markedly decreased since the time (Lim, 1999). There are no exact statistical data, but just could be estimated by the sum of selling amount in the livestock industry cooperatives, the agricultural cooperatives and the goat processing association in Korea (Table 4). The member of the goat processing association are about 3,000 around the country consisted of the businessmen concerned the extract of the goat meat. The association works on the standardization of the extract quality, education of the processing technique and sanitation.

Table 4. Consumption at the extract of the goat meat (unit : head)

Company	1997	1998	1999
Livestock Industry Cooperatives	14,781	15,052	20,118
Agricultural Cooperatives	25,800	9,800	11,302
Goat Processing Association	420,000	126,000	175,000
Total	460,581	150,852	206,418

4.2.2 Selling prices The price of KNG meat is about \$80 - 100(US) per head of 13 kg live weight, and the four herbs, the ten herbs and the supplementary materials are about \$20, \$20 and \$10 (US), respectively (Lim, 1999). The consumer's price of the extract processed one goat is about \$200-250(US). About 100 polyethylene bags of 100 ml can be gained from one goat. Thus, the price of the extract per bag is about \$2 - 2.5, that is about 5-6 times expensive compared to other beverage, 40-50 cents per 200 - 360 ml, it is consumed mainly as a medicinal purpose not as a beverage.

4.2.3 Sales tactics The products manufactured by the livestock industry cooperatives or the agricultural cooperatives are sold mostly by home visiting and in part health food stores (Lim, 1999). The members of the Goat Processing Association in Korea have stores equipped with the processing facilities in a small scale and customers visit the stores by themselves and order the products after observing the process.

REFERENCE

- [1] Griffith, H.W. 2000. Healing herbs – The Essential guide. Fisher Books, Arizona, U.S.A., 13-304.
- [2] Kang, M. H.1967. Studies on the origin of Korean native goat. Korean J. Anim.. Sci., 9:5-10.
- [3] Kang, M. H. 1994. History of Korean animal production and veterinary medicine. Hyangmoon Press, Seoul, Korea. 28-34.
- [4] Keys, J. D. 1976. Chinese herbs; their botany, chemistry, and pharmacodynamics. Charles E. Tuttle Co. of Rutland, Vermont & Tokyo, Japan, 30-284.
- [5] Kim, Y. B. and Yoo, I. J 1995. A study on the extraction conditions of goat meat extract. Korean J. Anim. Sci., 37:179-185.
- [6] Lim, H. S. 1999. The present situation and problem of Korean native goat. Proceedings of the 8th Annual Congress in Anim. Sci., Seoul, Korea. 1:63-75.
- [7] Park, C. I. and Kim, Y. J. 1998. A study on the changes of fatty acid composition of Korean native goat meat extracts under different storage periods. Proceedings of International Symposium on Future and Development toward the 21st Century in Agriculture. Taegu, Korea, 247-257.

- [8] Son, Y. S. 1999. Production and uses of Korean native black goat. *Small Rumin. Res.*, 34:303-308.
- [9] Song, H. B. 1997. Korean native black goat. Taegu University Press, Taegu, Korea, 222-225.
- [10] Song, H. B., Kim, J. C. and Hong, K. C. 1998. A study of morphological characteristics and growth rate in the Korean native goat. 8th WCAP Proceedings, Seoul, Korea. 2:926-927.
- [11] The Ministry of Agriculture and Forestry, 2001. Livestock Bureau Data, Seoul, Korea.