

# The Ruling Class's Perception and Classification of Meat in the Joseon Dynasty: Based on the Joseonwangjosillok

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## ABSTRACT

This study aims to provide foundational data for understanding the meat-based food culture of the Korean people by analyzing the Joseonwangjosillok to examine the state of livestock species and the perceptions of the ruling class toward meat consumption during the Joseon period. The research analyzed a total of 1,968 volumes and 948 books covering 518 years of records from the Joseonwangjosillok, using frequency analysis. An analysis of the ruling class's interest in meat consumption revealed that the kings most interested in meat were Seonjo (16th century), Sejong (15th century), Sukjong (17th century), Yeongjo (18th century), and Jungjong (16th century) in that order. The number of extracted words related to meat was 101,042, with livestock-related mentions accounting for 57,988 instances (57%) and references to wild animals appearing 43,709 times (43%). Among mammals, the most frequently recorded animal, comprising 72% of the records, was the horse (馬), followed by the dog (犬). The ratio of livestock to wild animals was recorded at 57:43%, indicating a higher consumption of livestock compared to the records left by sadaebu (scholar-officials). Among the various livestock species, two showed distinct fluctuations across different time periods: the chicken (鷄) and the black cow (黑牛). On the other hand, the species that showed the least variation over time was the dog (犬). A total of 1,137 records of meat-based foods were extracted from the Joseonwangjosillok, with dried meat showing the highest frequency. Additionally, records mentioned dishes such as steamed veal (蒸牛兒), Jeonyak (煎藥), and Tarakjuk (駝駱粥). The references to tarakjuk and jeonyak in the Joseonwangjosillok indicate the Joseon Dynasty's sikchi (食治) philosophy, which emphasized disease prevention and treatment through food.

**Keywords** Joseonwangjosilrok, meat, frequency analysis, sikchi (食治)

## INTRODUCTION

Liking meat can be considered an innate human instinct.<sup>1</sup> Today, meat has become a common food that anyone can consume, and meat consumption patterns in Korea continue to rise. While protein is an essential nutrient that enhances health and quality of life, it has also been recently identified as a major contributor to metabolic diseases. Some food culture scholars regard a meat-centered diet as a Western dietary practice that should be avoided. Additionally, the metabolic diseases resulting from modern meat-based eating habits are sometimes explained as a consequence of human maladaptation.<sup>2</sup> The idea is that the

rapid and drastic dietary changes have outpaced our genetic ability to adapt. Examining dietary habits and food culture throughout history is thus crucial for understanding the genetic characteristics of our people and designing personalized nutrition plans for a healthier life.

Koreans have historically been known as a vegetarian people. Their dietary habits, which center around rice as a staple food accompanied by vegetable-based side dishes, have been long established. However, this does not mean that they completely refrained from consuming meat. The meat-based food culture of Koreans dates back to prehistoric times when hunting and gathering were prevalent. The murals of Goguryeo tombs illustrate the role of hunting in the lives of Goguryeo people, showcasing a diverse range of hunted animals. The hunting scene from Muyongchong (Tomb of the Dancers) depicts a mounted archer hunting deer and tigers, accompanied by a hunting dog. Similarly, murals from Anak Tomb No. 1 and Jangcheon Tomb No. 1 depict both mounted archers and foot soldiers using spears to drive animals into traps. Additionally,

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falconry scenes illustrate the use of trained birds for hunting, demonstrating the diverse hunting methods employed in Goguryeo.<sup>3</sup>

The origins of Korea's iconic bulgogi dish can be traced back to the maekjeok (豕炙) consumed by the Maek (豕) people in southern Manchuria during the 3rd century.<sup>4</sup> Records indicate that unlike Chinese grilling methods, the Maek people marinated their meat with sauce containing leeks and garlic before grilling, a technique that the Chinese reportedly regarded as sophisticated. In an agricultural society where both humans and livestock competed for limited grain resources, the demand for meat had to be restrained. Consequently, animal protein, which was scarce relative to demand, naturally became a valuable commodity concentrated in the hands of the powerful.<sup>5</sup>

Until the mid-Joseon period, wild animal meat—such as pheasant, wild boar, deer, and roe deer—accounted for a significant portion of meat consumption, and meat was not yet a staple part of daily diets.<sup>6</sup> In pre-modern times, animal-based foods were generally reserved for special occasions and primarily consumed by certain social classes. Even today, meat consumption serves as an economic indicator, reflecting purchasing power.

Research on Korea's meat consumption culture includes some studies on dietary habits during the Goryeo Dynasty.<sup>7-10</sup> Studies on meat consumption during the mid-Joseon period have focused on analyzing sadaebu (scholar-official) diaries,<sup>6,11</sup> while research on the late Joseon period has been conducted through analyses of historical cookbooks.<sup>12</sup> Additionally, studies have examined meat consumption trends over the past century to identify changing patterns,<sup>13</sup> as well as meat supply and demand research from the 1980s onward.<sup>14-16</sup> However, no comprehensive diachronic study covering 500 years of meat consumption culture in the Joseon Dynasty has been conducted.

The Joseonwangjosillok is the only complete chronological record encompassing the entire Joseon period, making it an invaluable historical source for studying the era.<sup>17</sup> As a meticulously recorded historical text, it provides insights into dietary changes, developments, and continuities over time, making it a representative resource for research on food history. Existing studies on the Joseonwangjosillok include quantitative analyses of vegetables,<sup>18</sup> big data-based research on fruit consumption patterns,<sup>19</sup> studies on fishery resources and seafood products,<sup>20</sup> investigations into food poisoning incidents,<sup>21</sup> research on grain consumption patterns,<sup>22</sup> studies on the drinking culture of the ruling class,<sup>23</sup> and research on ginseng culture.<sup>24</sup> These studies have collectively explored various aspects of food culture through diverse analytical approaches.

Therefore, this study aims to examine the detailed status of meat species and the ruling class's perceptions of meat consumption during the Joseon Dynasty by analyzing the Joseonwangjosillok. Through this, the study seeks to provide foundational data for understanding the meat-based food culture of the Korean people.

## MATERIALS AND METHODS

### Materials (Subject)

To analyze records related to meat consumption across the entire Joseon period, this study included all volumes from the Taejo Sillok to the Sunjong Sillok, covering all kings of the dynasty.<sup>18-24</sup> The Joseonwangjosillok span a total of 518 years, documenting the reigns of 27 kings across 1,968 volumes and 948 books. The original and translated texts of the Joseonwangjosillok were collected through web crawling from the website of the National Institute of Korean History.<sup>25</sup>

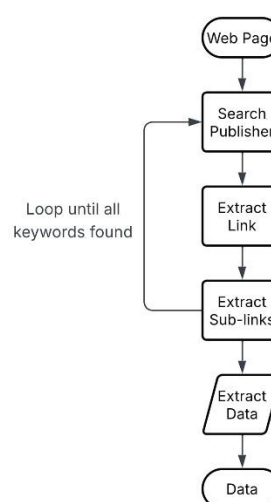
The web crawling software was developed using Python 3.8, implementing an algorithm that automatically extracted all original texts in both Chinese characters and Korean script. As shown in Table 1, the crawling process collected 384,565 instances of Korean script and 384,567 instances of Chinese character-based text, with a data loss rate of only 0.01% as depicted in Table 1.

**Table 1. Data collection by web-crawling**

Korean (N)	Missing (N)	Rate (%)	Chinese Characters (N)	Missing (N)	Rate (%)
384,565	39	0.01	384,567	38	0.01

### Methods(Analysis tool)

The data analysis was conducted using Python 3.8. The data, which was categorized by year on the respective website, was first generated. Then, the necessary sentences were identified, and during this process, URLs from all pages were extracted to create a list of the required content. The built web crawler explored the generated URLs and extracted related information, which was then stored in a database (Fig. 1).



**Fig. 1. Web-crawling process usage Python.**

## Research Contents

To analyze articles related to meat consumption in the Joseonwangjosillok, this study examined categories in the website's classification system that were most likely to contain references to food ingredients. The selected categories included: Economy & Finance–Tributes and Offerings, Economy & Agriculture–Agricultural Promotion, Agricultural Technology, Crop Cultivation, Forestry, Livestock, Orchard Horticulture, and Specialty Crops, Economy & Finance– Fisheries, Fishing, and Salt Industry, Society & Dietary Habits– Staple and Side Dishes, Alcoholic Beverages, and Luxury Foods, Society & Customs– Customs and Banquets. From these categories, relevant Chinese characters related to meat consumption were extracted and classified. The frequency of extracted meat-related terms served as an indicator of how often specific words appeared in articles, both in the overall data set and within different reign periods. A higher frequency indicated that the term was a key topic in the records. Through this research procedure, a frequency analysis was conducted to identify meaningful words and examine how their occurrences varied across different reigns. This analysis aimed to provide insights into changes in meat consumption trends throughout the Joseon Dynasty.

## RESULT

### Interest and Perception of the Ruling Class Toward Meat Consumption (MII)

The frequency of meat-related references in the Joseonwangjosillok was categorized by reign (Table 2), with the total occurrence reaching 101,697 mentions out of 384,582 articles, making up 26.4% of all records. The top five reigns with the highest number of meat-related mentions were: Sejong (15th century): 12,612 mentions (12.4%), Jungjong (16th century): 10,446 mentions (10.3%), Seongjong (15th century): 10,128 mentions (10.0%), Seonjo (16th century): 8,987 mentions (8.8%), Yeongjo (18th century): 6,689 mentions (6.6%).

However, absolute frequency alone does not accurately reflect the ruling class's level of interest in meat. Since longer reigns and a higher volume of records naturally lead to more mentions, a Meat Interest Index (MII) was developed. The MII was calculated by dividing the absolute frequency of meat-related records by the product of the total number of records and the length of the reign (Fig. 2). As a result of the analysis, the interest in meat (MII) was high in the order of the Seonjo (16th century), Sejong (15th century), Sukjong (17th century), Yeongjo (18th century), Jungjong (16th century).

The king with the highest interest in meat (MII 0.968) was King Seonjo (宣祖, 1552-1608) with a total of 8,987 records on meat. King Seonjo tried to reform the state administration by recruiting human resources, but the national economy in the 16th century was in a very difficult situation due to the Imjin War, the Jeongyu Rebellion, and the invasion of the Jurchens. January 22,

the 8th year of King Seonjo (1575) 三公 領事啓曰初喪有疾 滋以薑桂 補以酒肉 君喪 以宦官代哭 爲其疲倦也(Samgong and Consul reported, It's because of the king's tiredness. If you have a disease during the funeral, fill the gaps with ginger and herbs and protect your body with alcohol and meat. Not only that he makes the servant cry loudly instead of during the funeral). It is common practice to eat less vegetables and not eat meat during funerals, but since eating less vegetables for a long time was a health threat, the servants suggested to the king that he should protect himself by eating meat. War, the health management of the king was a matter directly related to maintaining power, so protecting the body through consumption of meat was protecting the country. In other words, meat consumption is a human instinct, but it was also a means of symbolizing the power and power of the ruling class beyond instinct.

The king who had the second highest interest in meat was in the 15th century during the reign of King Sejong (1397-1450). Sejong is regarded as the king who achieved the most splendid culture in our history. September 14th, the 1st year of King Sejong (1419) 遣宦官 進肉于老上王 時 老上王在西江 朴因家 (The king sent a eunuch to feed the retired King meat, and he was at Park In's house) According to Sillok's records, King Taejong handed down the king to his third son, King Sejong, not his eldest son, Prince Yangnyeong, because he practiced Sejong's filial piety (孝) and diligently learned how to do it normally. Such delicious and precious meat was an important food medium for practicing filial piety.

The third king who showed high interest in meat was King Sukjong (1661-1720) of the 17th century. The royal authority of King Sukjong was strengthened, and the Daedongbeop was expanded and applied nationwide for the first time in a hundred years. In addition, it was a time when commercial activities were supported by issuing money called Sangpyeong Tongbo. August 14th, the 19th year of King Sukjong (1693) 不知自何時濫觴 有米布衙門 大備盤果 酒肉狼藉 不啻若流 飫及隸僮 此亦朝廷無紀律之致也 (I don't know when it started, but the food and the fruits were prepared, and the liquor and the meat were scattered here and there, not only like water flowing, but also because the food reached the servants as much as it ate, and this was also signaling a breakdown in social order). As recorded in the above article, the economic situation seems to have improved a little in the 17th century. However, the situation where fruits, alcohol, and meat enjoyed only by some powerful people in the early Joseon Dynasty are scattered here and there, and even servants eat as much as they want, is a lamentable situation that the status and class are ignored by the ruling class, which is the disappearance of the state's rules. In Pansori Heungbojeon, a work that expresses the people's hopes through gourds in the late Joseon Dynasty, meat and rice cakes were the foods that they wanted to be included in the gourds.<sup>26</sup> The greasy

Table 2. Components and Meat prevalence in JoseonWangjoSilrok

	King Names	Period	Years	Rows	Prevalence		MII <sup>1)</sup>	
					Ranking	Absolute value	Ranking	Absolute value
1st	Taejo	1392-98	7	2,731	20	780	18	0.330
2nd	Jeongjong	1399-00	2	762	25	251	17	0.343
3rd	Taejong	1401-17	17	11,650	10	4,688	6	0.584
4th	Saejong	1418-50	32	33,288	1	12,612	2	0.819
5th	Moonjong	1450-51	2	2,826	19	1,042	15	0.384
6th	Danjong	1452-54	3	2,781	18	1,202	12	0.459
7th	Saejo	1455-67	13	11,789	9	4,919	8	0.551
8th	Yaejong	1468-68	1	1,597	21	695	13	0.444
9th	Sungjong	1469-93	25	34,298	3	10,128	10	0.525
10th	Yeonsangoon	1494-99	6	3,832	13	1,391	16	0.364
15C		Subtotal	108	105,554	-	37,708	-	-
10th	Yeonsangoon	1500-05	5	8,174	-	2,069	-	-
11th	Joongjong	1506-44	39	39,658	2	10,446	5	0.708
12th	Injong	1545-45	1	667	26	142	24	0.217
13th	Myeongjong	1545-66	22	15,042	12	3,570	14	0.390
14th	Sunjo	1567-99	33	16,851	4	5,902	1	0.968
16C		Subtotal	100	80,392	-	22,129	-	-
14th	Sunjo	1600-07	8	9,828	-	3,085	-	-
15th	Gwanghaegoon	1608-22	15	22,121	8	4,973	21	0.311
16th	Injo	1623-48	26	16,041	11	4,649	9	0.529
17th	Hyojong	1649-58	10	5,427	17	1,445	19	0.329
18th	Hyunjong	1659-73	15	9,291	16	1,627	22	0.242
19th	Sookjong	1674-99	26	13,854	7	2,927	3	0.796
17C		Subtotal	100	76,562	-	18,706	-	-
19th	Sookjong	1700-19	20	10,351	-	2,693	-	-
20th	Gyeongjong	1720-23	4	2,740	22	571	23	0.226
21st	Youngjo	1724-75	52	36,725	5	6,689	4	0.791
22nd	Jungjo	1776-99	24	17,670	6	5,916	7	0.580
18C		Subtotal	100	67,486	-	15,869	-	-
23rd	Soonjo	1800-33	34	15,520	14	3,331	11	0.493
24th	Hunjong	1834-48	15	3,979	24	508	25	0.177
25th	Chuljong	1849-62	14	5,764	23	534	26	0.125
26th	Gojong	1863-06	44	27,939	15	2,787	20	0.318
27th	Soonjong	1907-10	3	1,386	27	125	27	0.096
19C		Subtotal	110	54,588	-	7,285	-	-
Total			518	384,582	-	101,697	-	-

<sup>1)</sup> MII (Meats Interest Index by kings)=

$$\sum_{j=1}^m \frac{F_j}{R \left(1 - \frac{P}{100}\right)^2} \quad (F: \text{Frequency}, \quad R: \text{Rows}, \quad P: \text{Period})$$

and delicious precious meat dish would have been a symbol of the desire of ordinary people in the Joseon Dynasty to eat all the time.

The fourth king of high interest in meat was King Yeongjo (1694-1776) of the 18th century. King Yeongjo was the 21st king of Joseon, the longest-serving king for 54 years, and is known as

the king who revived the culture with a powerful royal authority. December 7, (1731) the 7th year of King Yeongjo's reign  
司饗院啓言 全羅道所封進生豬體小 當退送 上曰  
此時御供猶減 況臘肉乎 其捧進也 (Saongwon gave their opinions. Of course, the pig raised in Jeolla-do is small, so you have to send it back. However, the king said that the fish tax

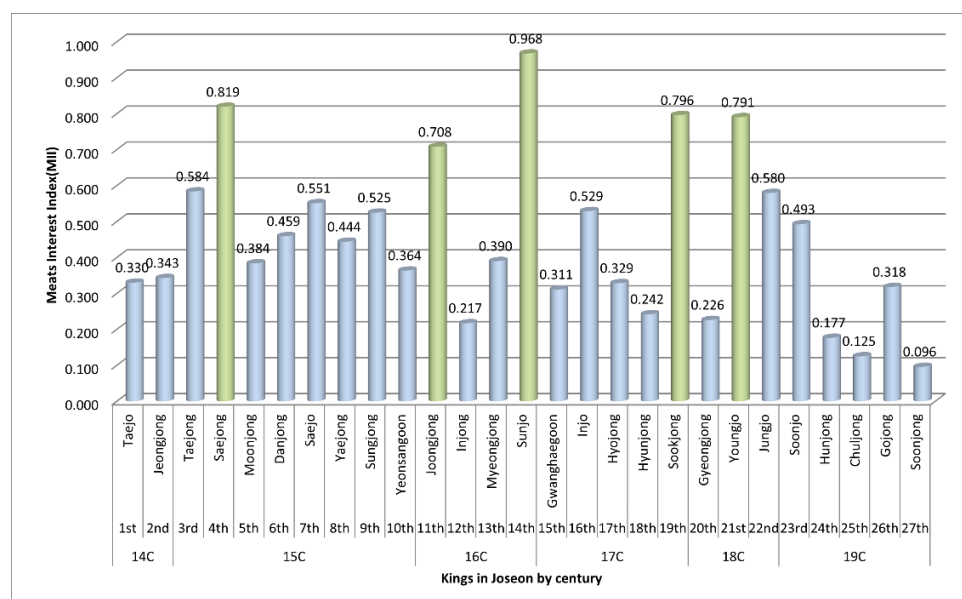


Fig. 2. Meat Interest Index (MII) by kings in Joseon

should be reduced now, but it was meat, so I told him to pay for it). As seen in the article above, the ingredients used in the court were mainly used as tributes in the provinces. In particular, nabyuk (臘肉) refers to meat and was collected based on the land and local products of each county and county to use it as a ritual for the state and royal family and as a daily food. Tributes accounted for about 60% of the country's finances during the Joseon Dynasty, and tributes in the late Joseon Dynasty, when the Daedong Law was enforced, were received as Daedongmi, but the Confucian ideological principle of tribute and tax was maintained by allocating a list of goods by region and receiving meat as a reward.<sup>27</sup>

The fifth and highest level of interest in meat was the King Jungjong (1488-1544) era in the 16th century. This period was compiled by the ShinJeungdonggukYeojiSeungram, but it was a period when the cultural development policy was almost suspended after Gimyosahwa. March 5, (1510) the 5th year of King Jungjong's reign. 庚申命頒酒肉于關內各衙門及入直軍士 (The king ordered the wine and meat to be distributed to each government officer in the palace and to the soldiers who served). As can be seen in the article above, meat was the most effective food in raising the morale of courageous soldiers regardless of the era.

### Types and Frequency of Meat Mentions in the Joseonwangjosillok

In the Annals of the Joseon Dynasty, there were 101,042 extracted words related to the meat group, and they were classified as shown in Table 3. Meat was first classified into human-crapped livestock and wild, with 57,988 cases accounting for 57% of the total, and 43,709 cases of wildlife expression accounting for 43% of the total.

First of all, when looking at livestock by detailed species, the expressions of collective terms such as yukchuk (六畜, general livestock), japchuk (雜畜, miscellaneous livestock), and yuk (肉, meat), which refer to livestock meat, were classified as collective words, and 44 cases were extracted.

Among livestock, most birds were recorded as hwanggye (黃鷄, yellow chicken) and gye (鷄, chicken), totaling 611 entries (1%). The vast majority, 99% (57,333 cases), of livestock entries were mammals, including dogs, pigs, horses, cattle, sheep, and goats. Specifically, dogs were recorded in 7,377 cases (12.9%) under the terms gyeon (犬), gu (狗), and gua (狗兒); mules in 83 cases using ra (騾) and ungraja (雄騾子); and donkeys in 137 cases under ryu (驢). Pigs were recorded as jeo (豬), accounting for 1.7% of the total with 986 cases. Horses were the most frequently mentioned livestock, appearing in 41,260 entries (72%) as ma (馬). Cattle (u, 牛) followed with 5,826 entries (10.2%), sheep (yang, 羊) in 1,556 cases (2.7%), and goats (go, 羔) in 108 isolated cases. Horses were the dominant mammal in the livestock records, reflecting their essential role as transportation for the ruling class and a necessity for long-distance travel. The second most frequently recorded mammal was the dog (gyeon, 犬).

Looking at the detailed species of wild animals recorded in the Annals, 33 cases of nabyuk (臘肉), referring to the meat of wild animals, were classified as collective terms. Insects such as crickets, silkworms, bees, and scorpions were recorded 1,003 times (2.3%). Amphibians such as toads were recorded 84 times,

Table 3. Classification and frequency of Meats in 『Joseonwangjosillok』

Category			Variation		Fre.	Sum	Category	Variation		Fre.	Sum	
D o m e s t i c  A n i m a l s	Overall		<i>YucChooc</i>	六畜	14	44	Overall	<i>Geem</i>	禽	1816	1,816	
			<i>JabChooc</i>	雜畜	6			<i>A</i>	鵞	277	277	
			<i>SengYuc</i>	生肉	24			<i>ChenA</i>	天鵝	74	74	
	Fowl	Chicken	<i>HwangGye</i>	黃雞	1	611	Wild Goose	<i>Aan</i>	雁	248	248	
			<i>Gye</i>	鷄	610			<i>Nightingale</i>	鶇鶇	2	2	
		Dog	<i>Gyen</i>	犬	1474	7,377	Pheasant	<i>SengChi</i>	生雉	33	916	
			<i>Goo</i>	狗	5822			<i>GunChi</i>	乾雉	32		
			<i>GooA</i>	狗兒	81			<i>GoChi</i>	膏雉	2		
		Mule	<i>Ra</i>	騾	82	83	B i r d s	<i>BeakChi</i>	白雉	106	2,752	
			<i>WoongRaJa</i>	雄騾子	1			<i>Chi</i>	雉	743		
			Donkey	<i>Ryu</i>	驢			137	137	<i>Bo</i>		鴛
		Pig		<i>Jeo</i>	猪	972	986	W i l d  A n i m a l s	<i>Chye</i>	鷺	95	95
			<i>GunJeo</i>	乾猪	14	<i>SongGol</i>			松鶻	129		
		Horse	<i>Ma</i>	馬	41253	41,260	Hawk	<i>AGol</i>	鴉鶻	14	2,752	
			<i>MaYoo</i>	馬乳	7			<i>Eng</i>	鷹	2609		
			<i>Woo</i>	牛	5566			<i>Amsoon</i>	鶇鶇	4		4
		M a m m a l	Cow	<i>NongWoo</i>	農牛	178	5,826	M a m m a l	<i>Egret</i>	紫鷺	4	4
				<i>NacWoo</i>	駱牛	3			<i>ChenA</i>	天鵝	74	74
				<i>JongLac</i>	湏酪	2			<i>HyuRyu</i>	鶇鶇	72	72
				<i>YooWoo</i>	乳牛	25			<i>Jea</i>	鶇	19	19
				<i>HeekWoo</i>	黑牛	22			<i>Dobi</i>	都飛	15	15
				<i>HwangWoo</i>	黃牛	15			<i>Ap</i>	鴨	954	954
				<i>WoongWoo</i>	雄牛	9			<i>Chungduap</i>	青頭鴨	6	6
				<i>JaWoo</i>	牝牛	6			Subtotal	7,332		
				<i>Yang</i>	羊	1549			An elk	<i>Mi</i>	麋	94
		Sheep	<i>JaYang</i>	雌羊	4	1,556	M a m m a l	Marten	<i>Sandangoi</i>	山獺皮	15	15
			<i>WoongYang</i>	雄羊	3			Bear	<i>Woong</i>	熊	1281	1,285
			Goat	<i>Go</i>	羔			108	108	<i>WoongA</i>	熊兒	
		Subtotal		57,333				Roe Deer	<i>Jang</i>	獐	710	757
			<i>GunJang</i>	乾獐	25	<i>BeakJang</i>	白獐		21			
		Sum			(57%)		57,988					

Table 3. Continued

Wild Animals	Overall	<i>Napyuck</i>	臘肉	33	33	Wild Animals	Roe Deer	<i>AJang</i>	牙獐	1	
	Cricket	<i>Goong</i>	蛭	7	7		Boar	<i>SanJeo</i>	山猪	12	12
	Silkworm	<i>Sangyen</i>	山繭	3	3			<i>SoonRoc</i>	馴鹿	2	
	Locusts	<i>Hwang</i>	蝗	518	518			<i>GunRoc</i>	乾鹿	8	
	Bee	<i>Bong</i>	蜂	397	397		Deer	<i>Roc</i>	鹿	1911	2,256
	Scorpion	<i>Gayl</i>	蝎	78	78			<i>RocKac</i>	鹿角	89	
	Subtotal				1,003			<i>RocMi</i>	鹿尾	63	
	Toad	<i>Sum</i>	蟾	84	84			<i>BeakRoc</i>	白鹿	114	
	Turtle	<i>Goo</i>	龜	6719	6,720		Rabbit	<i>BeakTo</i>	白兔	1	1
	Sea turtle	<i>SengDaeMo</i>	生玳瑁	1			Goat	<i>SanYang</i>	山羊	160	160
	Snake	<i>Snake</i>	巳	17373	17,373		Wildcat	<i>SengLi</i>	生狸	2	2
	Terrapin	<i>Beyl</i>	鱉	28	28			<i>SooWoo</i>	水牛	94	
	Pangolin	<i>Pangolin</i>	穿山甲	3	3		Wildcow	<i>YaWoo</i>	野牛	2	96
	Subtotal				24,124		Fox	<i>HeekHo</i>	黑狐	17	17
	Sum			(43%)	43,709		Elephant	<i>Sang</i>	象	6438	6,438
Total				(100%)	101,042	Subtotal				11,133	

and reptiles such as turtles, snakes, and terrapins appeared 24,124 times (55.2%). Birds such as pheasants, hawks, and geese were noted 7,332 times (16.8%). Mammals such as elk, bear (熊), wild boar (山熊), roe deer (獐), deer (鹿), and mountain goat (山羊) accounted for 11,133 cases (25.5%).

In the Annals of the Joseon Dynasty, the ratio of livestock to wildlife records was 57% to 43%, indicating that livestock consumption was more frequent. However, while the frequency of wildlife records was lower than that of livestock, the diversity of species was found to be greater.

### Changes in the Frequency of Meat Records by Century

The analysis of changes in the frequency of meat records in the Joseonwangjosillok is shown in Fig. 3. The most significant change over time is the sharp decline in records of domesticated livestock. In the 15th century, there were 24,776 records (42.7%), which decreased to 13,370 (23.1%) in the 16th century, 10,025 (17.3%) in the 17th century, 6,752 (11.6%) in the 18th century, and 3,065 (5.3%) in the 19th century. This trend does not necessarily reflect actual meat consumption patterns during the Joseon period. However, it suggests that livestock were no

longer considered rare or noteworthy enough to be frequently recorded and had become a familiar part of daily consumption.

In contrast, the records of wild animals show little variation over time. The number of wild animal records was 12,932 (29.6%) in the 15th century, 8,759 (20%) in the 16th century, 8,681 (19.9%) in the 17th century, 9,117 (20.9%) in the 18th century, and 4,220 (9.7%) in the 19th century.

Examining the specific livestock species recorded over time, the records of chicken (鷄) were 74 (12.1%) in the 15th century, 85 (13.9%) in the 16th century, 224 (36.7%) in the 17th century, 155 (25.4%) in the 18th century, and 73 (11.9%) in the 19th century, which differs from the recording patterns of other livestock species (Table 4). This indicates that the frequency of records increased from the early and mid-Joseon period toward the later period. Additionally, another species that saw an increase in records toward the later Joseon period was black cattle (黑牛). The records of black cattle appeared once in the 15th century, four times in the 16th century, seven times in the 17th century, and ten times in the 18th century. Black cattle were used in sacrifice rituals (犧牲祭) at Jongmyo Shrine and other state ceremonies. These cattle, considered the most precious in Joseon, were transported from Jeju Island to Jongmyo in

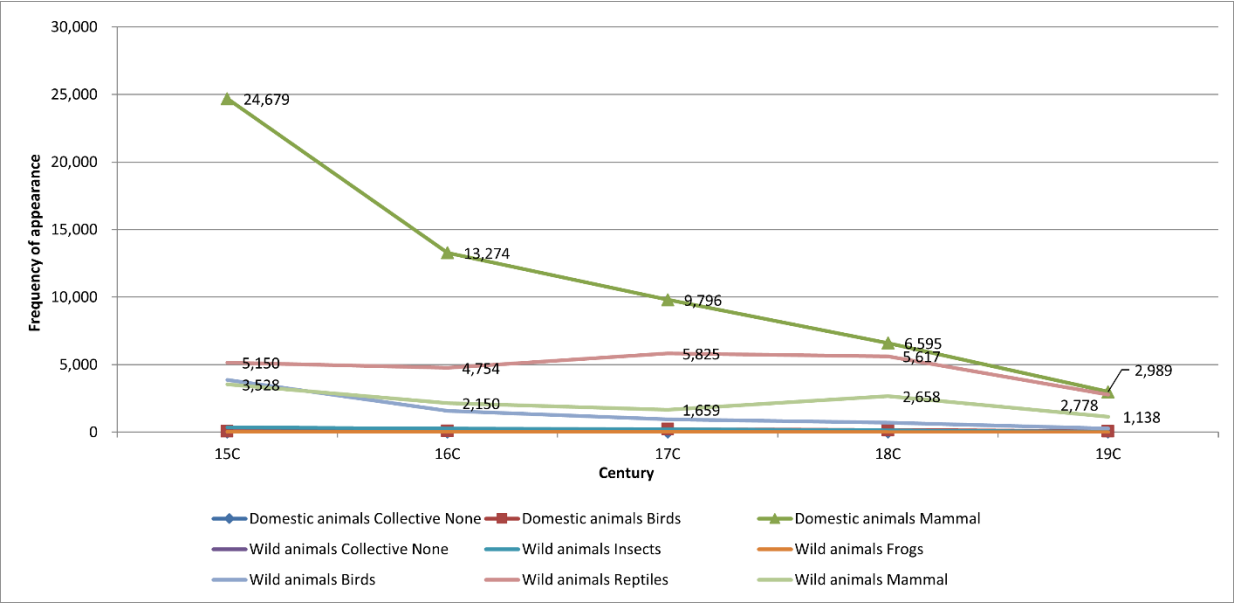


Figure 3. Meat groups prevalence by periods

Table 4. Classification and frequency of Domestic animals by century

Category		Vaiaion		Number(%)					
				15C	16C	17C	18C	19C	Sum
Overall		<i>YucCho</i>	六畜	5(35.7)	4(28.6)	1(7.1)	1(7.1)	3(21.4)	14
		<i>JabCho</i>	雜畜	1(16.7)	4(66.7)	1(16.7)	-	-	6
		<i>SengYu</i>	生肉	17(70.8)	3(12.5)	3(12.5)	14.2()	-	24
		Subtotal		23	11	5	2	3	44
Fo wls	Chick en	<i>Hwang</i>	黃雞	-	1(100)	-	-	-	1
		<i>Gye</i>	鷄	74(12.1)	84(13.8)	224(36.7)	155(25.4)	73(12.0)	610
		Subtotal		74	85	224	155	73	611
Ma mm al	Dog	<i>Gyen</i>	犬	489(33.2)	481(32.6)	298(20.2)	135(9.2)	71(4.8)	1,474
		<i>Goo</i>	狗	1,514(26.0)	1,305(22.4)	1,144(19.6)	1,214(20.9)	645(11.1)	5,822
		<i>GooA</i>	狗兒	73(90.1)	7(8.6)	1(1.2)	-	-	81
	Mule	<i>Ra</i>	騾	16(19.5)	21(25.6)	22(26.8)	23(28.0)	-	82
		<i>Woong</i>	雄騾子	1(100)	-	-	-	-	1
		<i>RaJa</i>							
	Donk ey	<i>Ryu</i>	驢	48(35.0)	28(20.4)	22(16.1)	34(24.8)	5(3.6)	137
	Pig	<i>Jeo</i>	豬	658(67.7)	113(11.6)	108(11.1)	66(6.8)	27(2.8)	972
		<i>GunJeo</i>	乾豬	12(85.7)	-	2(14.3)	-	-	14
	Horse	<i>Ma</i>	馬	18,687(45.3)	9,866(23.9)	6,720(16.3)	4,120(10.0)	1,860(4.5)	41,253
		<i>MaYoo</i>	馬乳	5(71.4)	2(28.6)	-	-	-	7
Cow	<i>Woo</i>	牛	2461(44.2)	1081(19.4)	954(17.1)	768(13.8)	302(5.4)	5,566	



Table 4. Continued

Ma mm al	Cow	<i>NongWoo</i> 農牛	75(42.1)	52(29.2)	21(11.8)	25(14.0)	5(2.8)	178
		<i>NacWo</i> 駱牛	-	-	-	2(66.7)	1(33.3)	3
		<i>JongLa</i> 潼酪	2(100)	-	-	-	-	2
		<i>YooWo</i> 乳牛	22(88.0)	3(12.0)	-	-	-	25
		<i>HeekWoo</i> 黑牛	1(4.5)	4(18.2)	7(31.8)	10(45.5)	-	22
		<i>HwangWoo</i> 黃牛	-	6(40.0)	2(13.3)	4(26.7)	3(20.0)	15
		<i>WoongWoo</i> 雄牛	8(88.9)	-	1(11.1)	-	-	9
		<i>JaWoo</i> 牝牛	5(83.3)	-	-	1(16.7)	-	6
	Sheep	<i>Yang</i> 羊	541(34.9)	286(18.5)	476(30.7)	182(11.7)	64(4.1)	1,549
		<i>JaYang</i> 雌羊	3(75.0)	1(25.0)	-	-	-	4
		<i>WoongYang</i> 雄羊	3(100)	-	-	-	-	3
	Goat	<i>Go</i> 羔	55(50.9)	18(16.7)	18(16.7)	11(10.2)	6(5.6)	108
Subtotal			24,679	13,274	9,796	6,595	2,989	57,333
Sum			24,776(42.7)	13,370(23.1)	10,025(17.3)	6,752(11.6)	3,065(5.3)	57,988

Hanyang to be offered as sacrificial animals. The sacrifice ritual was distinct from regular offerings; the animals were slaughtered near the sacrificial site just before the ceremony, and the raw meat was either burned or buried to be received by the spirits.<sup>16</sup>

On the other hand, one livestock species that showed little variation in records over time was the dog (犬). The number of records was 2,076 (37.4%) in the 15th century, 1,793 (24.3%) in the 16th century, 1,443 (19.6%) in the 17th century, 1,349 (18.3%) in the 18th century, and 716 (9.7%) in the 19th century, indicating a steady presence across all centuries. Dogs were the first domesticated animals and have been found in artifacts from Korea's Neolithic period, suggesting they were likely consumed as food throughout history.<sup>28</sup>

Records of wild animals in the Joseonwangjosillok remained relatively constant over time (Table 5). A notable trend among these records is the term nabyuk (臘肉), which appeared once (3.0%) in the 15th century, five times (15.2%) in the 16th century, eight times (24.2%) in the 17th century, and 19 times (57.6%) in the 18th century, showing an increase toward the later Joseon period. Nabyuk (臘肉) refers to the meat of wild animal offered to the central government by local authorities for use in nabil (臘日) festivals. The animals used included raw pig (生豬), raw roe deer (生獐), raw pheasant (生雉), raw deer (生鹿), and raw rabbit (生兔). The lunar offering day (臘日) in Joseon was the

third mal-day (末日) after the winter solstice, observed as a festival day for the general public and a day of Confucian ritual significance for the royal family.

The records of pheasants (雉) in the Joseonwangjosillok totaled 884, showing a high frequency. The records were 318 (35.9%) in the 15th century, 206 (23.3%) in the 16th century, 122 (13.8%) in the 17th century, 212 (23.9%) in the 18th century, and 26 (2.9%) in the 19th century, indicating consistent documentation throughout the Joseon period.

### Meat Cuisine Culture in the Joseonwangjosillok

The extraction of records related to meat dishes rather than animals in the Joseonwangjosillok yielded (Table 6). A total of 1,137 records were identified, with meat dishes (肉膳) appearing 405 times (35.6%), milk porridge nakjuk(酪粥) 19 times (1.7%), fermented meat hae (醢) 45 times (4.0%), and dried foods such as jerky (脯) and dried meats gun (乾) 659 times (58.0%). Other dishes, including steamed dishes jeung (蒸) and boiled medicinal dishes jeonyak (煎藥), appeared nine times (0.8%), showing that dried meat had the highest record frequency. Jerky (脯) was a preserved food made by slicing or mincing meat, seasoning it, and drying it in the sun. It was the most frequently recorded meat dish in historical documents, regarded as a premium snack and

Table 5. Classification and frequency of Wild animals by century

Category		Vaiation		Number(%)					Sum
				15C	16C	17C	18C	19C	
Overall		<i>NabYuc</i>	臘肉	1(3.0)	5(15.2)	8(24.2)	19(57.6)	-	33
Insects	Cricket	<i>Goong</i>	蛭	-	4(57.1)	1(14.3)	1(14.3)	1(14.3)	7
	Silkworm	<i>Sangyeon</i>	山繭	-	3(100)	-	-	-	3
	Locust	<i>Hwang</i>	蝗	176(34.0)	133(25.7)	143(27.6)	62(12.0)	4(0.8)	518
	Bee	<i>Bong</i>	蜂	172(43.3)	111(28.0)	61(15.4)	37(9.3)	16(4.0)	397
	Scorpion	<i>Gayl</i>	蝎	12(15.4)	21(26.9)	17(21.8)	21(26.9)	7(9.0)	78
		Subtotal		360	272	222	121	28	1,003
amphibian	Toad	<i>Sum</i>	蟾	34(40.5)	14(16.7)	23(27.4)	5(6.0)	8(9.5)	84
Birds	Overall	<i>Geem</i>	禽	754(41.5)	485(26.7)	319(17.6)	152(8.4)	106(5.8)	1,816
	Goose	<i>A</i>	鵞	85(30.7)	45(16.2)	103(37.2)	35(12.6)	9(3.2)	277
	Swan	<i>ChenA</i>	天鵝	42(56.8)	5(6.8)	16(21.6)	11(14.9)	-	74
	Wild Goose	<i>Aan</i>	雁	112(45.2)	45(18.1)	42(16.9)	36(14.5)	13(5.2)	248
	Nightingale	<i>Nightingale</i>	鶇鶇	1(50.0)	-	-	1(50.0)	-	2
		<i>SengChi</i>	生雉	7(21.2)	15(45.5)	5(15.2)	5(15.2)	1(3.0)	33
	Pheasant	<i>GoChi</i>	膏雉	1(50.0)	1(50.0)	-	-	-	2
		<i>BeakChi</i>	白雉	73(68.9)	18(17.0)	7(6.6)	7(6.6)	1(0.9)	106
		<i>Chi</i>	雉	237(31.9)	172(23.1)	110(14.8)	200(26.9)	24(3.2)	743
	Migrant	<i>Bo</i>	鴝	-	1(25.0)	-	3(75.0)	-	4
	Eagle	<i>Chye</i>	鷲	59(62.1)	20(21.1)	3(3.2)	10(10.5)	3(3.2)	95
	Hawk	<i>SongGol</i>	松鶻	122(94.6)	5(3.9)	1(0.8)	1(0.8)	-	129
		<i>AGol</i>	<i>SongGol</i>	14(100)	-	-	-	-	14
		<i>Eng</i>	鷹	1,779(68.2)	464(17.8)	164(6.3)	124(4.8)	78(3.0)	2,609
	Quail	<i>Amsoon</i>	鶻鶻	2(50.0)	1(25.0)	-	1(25.0)	-	4
	Egret	<i>JaRo</i>	紫鷺	4(100)	-	-	-	-	4
	swan	<i>ChenA</i>	天鵝	42(56.8)	5(6.8)	16(21.6)	11(14.9)	-	74
	Owl	<i>HyuRyu</i>	鴞	66(91.7)	6(8.3)	-	-	-	72
	Sada Bird	<i>Jea</i>	鶻	6(31.6)	9(47.4)	1(5.3)	-	3(15.8)	19
	Dobi Bird	<i>Dobi</i>	都飛	10(66.7)	5(33.3)	-	-	-	15
	Duck	<i>Ap</i>	鴨	420(44.0)	261(27.4)	150(15.7)	93(9.7)	30(3.1)	954
	Mallard	<i>Chungduap</i>	青頭鴨	-	-	-	6(100)	-	6
		Subtotal		3,859	1,564	944	697	268	7,332

Table 5. Continued

Reptiles	Turtle	<i>Goo</i>	龜	1172(17.4)	967(14.4)	1883(28.0)	1658(24.7)	1039(15.5)	6,719
		Sea turtle	<i>SengDa eMo</i>	1(100)	-	-	-	-	1
	Snake	Snake	巳	3971(22.9)	3773(21.7)	3939(22.7)	3954(22.8)	1736(10.0)	17,373
	Terrapin	<i>Beyl</i>	鱉	3(10.7)	14(50.0)	3(10.7)	5(17.9)	3(10.7)	28
	Pangolin	Pangolin	穿山甲	3(100)	-	-	-	-	3
Subtotal				5,150	4,754	5,825	5,617	2,778	24,124
Mammals	An elk	<i>Mi</i>	麋	50(53.2)	15(16.0)	6(6.4)	19(20.2)	4(4.3)	94
	Bear	<i>Woong</i>	熊	433(33.8)	468(36.5)	138(10.8)	178(13.9)	64(5.0)	1,281
		<i>Woong A</i>	熊兒	4(100)	-	-	-	-	4
		<i>Jang</i>	獐	454(63.9)	119(16.8)	63(8.9)	49(6.9)	25(3.5)	710
	Roe Deer	<i>GunJang</i>	乾獐	21(84.0)	1(4.0)	1(4.0)	2(8.0)	-	25
		<i>BekJang</i>	白獐	20(95.2)	1(4.8)	-	-	-	21
		<i>AJang</i>	牙獐	-	1(100)	-	-	-	1
	Boar	<i>SanJeo</i>	山猪	6(50.0)	2(16.7)	-	4(33.3)	-	12
		<i>SoonRoc</i>	馴鹿	1(50.0)	1(50.0)	-	-	-	2
		<i>GunRoc</i>	乾鹿	8(100)	-	-	-	-	8
	Deer	<i>Roc</i>	鹿	1,047(54.8)	398(20.8)	159(8.3)	221(11.6)	86(4.5)	1,911
		<i>RocKac</i>	鹿角	66(74.2)	19(21.3)	1(1.1)	2(2.2)	1(1.1)	89
		<i>RocMi</i>	鹿尾	22(34.9)	35(55.6)	-	6(9.5)	-	63
		<i>BeakRoc</i>	白鹿	84(73.7)	22(19.3)	-	5(4.4)	3(2.6)	114
	Marten	<i>Sandan goi</i>	山獺皮	8(53.5)	3(20.0)	2(13.3)	2(13.3)	-	15
	Goat	<i>SanYang</i>	山羊	75(46.9)	71(44.4)	5(3.1)	8(5.0)	1(0.6)	160
	Wildcat	<i>SengLi</i>	生狸	1(50.0)	1(50.0)	-	-	-	2
	Wildcow	<i>SooWo o</i>	水牛	70(74.5)	21(22.3)	2(2.1)	1(1.1)	-	94
		<i>YaWoo</i>	野牛	2(100)	-	-	-	-	2
	Fox	<i>HekHo</i>	黑狐	14(82.4)	2(11.8)	1(5.9)	-	-	17
	Elephant	<i>Sang</i>	象	1,088(16.9)	962(14.9)	1,279(19.9)	2,155(33.5)	954(14.8)	6,438
	Rabbit	<i>BekTo</i>	白兔	1(100)	-	-	-	-	1
Subtotal				3,528	2,150	1,659	2,658	1,138	11,133
Sum				12,932(29.6)	8,759(20)	8,681(19.9)	9,117(20.9)	4,220(9.7)	43,709

Table 6. Classification and frequency of Meat Food by century

Category		Variation		Frequency(N, %)				Total	%
				15C	16C	17C	18C		
Food	Dish	Yucksun	肉膳	314(77.5)	65(16.0)	23(5.7)	3(0.7)	405	35.6
	Porridge	NacJook	酪粥	-	4(21.0)	8(42.1)	7(36.8)	19	1.7
	Fermentation	NocHae	鹿醢	31(88.6)	-	1(2.9)	3(8.6)	35	4.0
		BocJanghae	腹掌醢	1(100)	-	-	-	1	
		Janghae	獐醢	-	-	-	1(100)	1	
		Chihae	雉醢	1(50.0)	1(50.0)	-	-	2	
		Tohae	兔醢	4(66.7)	-	2(33.3)	-	6	
		Subtotal		37	1	3	4	45	
	Steamed	Jeengwoa	蒸牛兒	-	1(100)	-	-	1	0.8
		JeanYack	煎藥	1(12.5)	4(50.0)	2(25.0)	1(12.5)	8	
		Subtotal		1	5	2	1	9	
	Jerky	YucPo	肉脯	2(66.7)	-	-	1(33.3)	3	58.0
		JoPo	條脯	2(40.0)	-	3(60.0)	-	5	
		JoongPo	中脯	11(44.0)	-	12(48.0)	2(8.0)	25	
		NocPo	鹿脯	53(76.8)	8(11.6)	2(2.9)	6(8.7)	69	
		Po	脯	282(61.7)	81(17.7)	48(10.5)	45(9.8)	456	
		GonMaYuc	乾馬肉	4(100)	-	-	-	4	
		GonYang	乾羊	4(100)	-	-	-	4	
		GonEoYuc	乾魚肉	4(80.0)	1(20.0)	-	-	5	
		GonYuc	乾肉	15(88.2)	2(11.8)	-	-	17	
		GonJang	乾獐	21(84.0)	1(4.0)	1(4.0)	2(8.0)	25	
		GonChi	乾雉	23(71.9)	1(3.1)	7(21.9)	1(3.1)	32	
		GonJeo	乾猪	12(85.7)	-	2(14.3)	-	14	
		Subtotal		433	94	75	57	659	
	Sum			785(69.0)	169(14.9)	111(9.8)	72(6.3)	1,137	

an essential dish for banquets. The Joseonwangjosillok records that beef (肉脯, 條脯, 中脯), venison (鹿脯), horse meat (乾馬肉), lamb (乾羊), roe deer meat (乾獐), pheasant (乾雉), and pork (乾豬) were used for jerky.

By century, meat cuisine records were highest in the 15th century (785 records, 69.0%), followed by the 16th century (169 records, 14.9%), the 17th century (111 records, 9.8%), and the 18th century (72 records, 6.3%). The 15th century dominance in records applied not only to meat but also to grains, fruits, and seafood, reflecting the Joseon government's efforts to document

nationwide resources for taxation and tribute purposes. The high frequency of jerky records aligns with the necessity for long-term storage and its value as a tradable commodity akin to currency.

The Joseonwangjosillok also documents various fermented meat dishes (yukhae, 肉醢), including nokhae (鹿醢) made of deer, bokjanghae (腹掌醢) made of roe deer stomach, janghae (獐醢) made of roe deer, chihae (雉醢) made of pheasant, and tohae (兔醢) made of rabbit. These dishes, which were primarily used in state or royal ceremonies, were made by fermenting raw

meat with salt. Korea used nuruk (fermentation starter) and liquor for fermentation, vastly different from China that used spices like sesame oil, scallions, sancho, and fennel in its meat sauces.<sup>29</sup>

Records of Steamed Calf (蒸牛兒) in the Joseonwangjosillok March 14, Year 12 of Yeonsan's Reign (1506) 下蒸牛兒于承政院 傳曰 令司畜署 多畜牛 供上何如 此物非但犧牲 常用爲便 承旨等啓 上教允當 王好食黃牛肉 每於內宴 不時供進 司畜署未能及備 奪行路牛隻 椎殺而進 怨呼者盈路 (He gave them a steamed calf and said. Why don't we have Sachukseo order a lot of cattle and raise more cattle for tribute to the court. This item is not only used for sacrifices but is also convenient for daily use. The king liked to eat beef, so he suddenly told him to raise it at every feast. When the Sachukseo failed to prepare in time, they would seize cattle from the roads and slaughter them for the king, leading to widespread resentment among the people). The mention of steamed calf (蒸牛兒) in the Joseonwangjosillok illustrates how extravagant and resented this dish must have been in the agrarian society of Joseon, where cattle were highly valued, especially young calves.

Another dish made from cattle, Jeonyak (煎藥), is also recorded. It appeared once in the 15th century, four times in the 16th century, twice in the 17th century, and once in the 18th century. Jeonyak was a medicinal food made by boiling imported foreign spices such as pepper, cinnamon, and clove with jujube flesh and gelatin extracted from cattle hide, then solidifying the mixture before consumption as a tonic. January 27, Year 45 of Sukjong's Reign (1719) 昌集又言 耆所 例有節日食物 逐朔藥價 土稅魚鮮分用之規 此則狼脣不敢進上 而至於酪粥 煎藥醞湯 似當封進 上可之 (Kim Chang-jip further stated, In the Giroso, it is customary to have ceremonial dishes on designated days, and there are established regulations for dividing monthly medicinal costs, land taxes and fishing rights. While it may be presumptuous and excessive to present certain offerings, tarakjuk, jeonyak, and jehotang ought to be respectfully presented. The king approved of this proposal). The article mentions that there are records regarding milk porridge or tarakjuk (駝駱粥) aside from beef jelly or Jeonyak. Royal meals are either developed by the royal chefs, passed down from the common people, or brought in from foreign lands to create special dishes. milk porridge or tarakjuk, made by soaking and grinding rice and then simmering it with milk, was a regular dish used in the royal court for medicinal purposes. tarakjuk was highly valued for its ability to restore vital energy and harmonize the stomach and spleen, making it an essential food. Special care was taken in choosing healthy cows for the milk, and the royal physician supervised the milking process to ensure that the best quality milk was used to make the porridge. Before serving, the imperial court's medical staff would taste the dish, and it was

sealed for presentation. In particular, when someone suffered from high fever and needed relief for their digestive system, tarakjuk was served cooled to be eaten in a chilled state.<sup>30</sup> After King Sukjong and King Yeongjo entered the Giroso, tarakjuk began to be served to the elders every winter. Over time, the consumption of tarakjuk expanded to local regions and private households.<sup>31</sup>

## DISCUSSION

This study aimed to examine the status of meat consumption and the perceptions of the ruling class toward meat in the Joseon Dynasty by analyzing the texts of the Joseonwangjosillok. Through this analysis, we sought to provide foundational data for understanding the meat food culture of the Korean people. The research targeted the Joseonwangjosillok, analyzing a total of 518 years of records across 1,968 volumes and 948 books. The data were collected via web crawling from the website of the National Institute of Korean History, and frequency analysis was performed on meaningful words.

The analysis of the ruling class's interest in meat during the Joseon Dynasty showed that the kings most interested in meat were, in order: Seonjo (16th century), Sejong (15th century), Sukjong (17th century), Yeongjo (18th century), and Jungjong (16th century). During the reign of Seonjo in the 16th century, meat consumption went beyond mere sustenance and became a symbol of power and authority among the ruling class. Under Sejong in the 15th century, meat was an important medium for practicing filial piety. During Sukjong's reign in the 17th century, meat was a luxurious and flavorful delicacy, symbolizing the desires of the people. Under Yeongjo in the 18th century, meat was collected as tribute based on land taxes and local products, serving both state rituals and daily consumption in the royal court. During Jungjong's reign in the 16th century, meat was considered the most effective food for boosting the morale of brave soldiers. Additionally, during Seonjo's era, there was also the highest interest in fruits,<sup>19</sup> alongside meat. This indicates that in the Joseon Dynasty, both fruits and meats were primarily used by the ruling class for ancestral rites and ceremonial events rather than as part of the daily diet of commoners.

In the Joseonwangjosillok, a total of 101,042 references related to meat were extracted, with 57,988 instances (57%) referring to livestock and 43,709 instances (43%) referring to wild animals. Among mammals, the most frequently recorded animal, making up 72% of the references, was the horse (馬), followed by the donkey and cattle.<sup>32</sup> The second most frequently mentioned mammal was the dog (犬). Dog meat consumption had existed since ancient times, and by the late Joseon period, it became an affordable and widely consumed food for the common people as a nutritional supplement.<sup>33</sup> In the mid-Joseon period, the ruling sadaebu (scholar-official) consumed more wild animals than livestock.<sup>6</sup> However, given the Joseonwangjosillok's overall 57:43 ratio of livestock to wild animal records, it can be inferred that livestock consumption was

more prevalent. While wild animals appeared less frequently than livestock in the records, they showed greater diversity in species.

One notable pattern in livestock consumption over time was the increasing mention of chickens (鷄) from the early and mid-Joseon periods to the later years. This aligns with research indicating that after livestock farming techniques were introduced in the late Goryeo period, increased meat consumption led to a shortage of beef supply. Consequently, as Joseon was an agrarian state that prioritized the protection of draft cattle (農牛), raising chickens was encouraged.<sup>34</sup> Studies analyzing old cookbooks also report that chicken-based dishes became more common over time.<sup>35</sup> Another livestock animal that saw increased mentions in the late Joseon period was the black cow (黑牛). Black cows were highly valuable and were primarily used as sacrificial offerings for state and royal ceremonies. As the number of ancestral shrines honoring former kings increased and as more frequent rain-calling rituals were conducted in response to droughts and poor harvests, the demand for black cows grew, with Jeju Island supplying them annually.<sup>36</sup>

In contrast, the number of records mentioning dogs (犬) remained relatively stable over time. Dog meat consumption is well-documented in various historical texts, and steamed dog meat (狗蒸) even appeared on the royal court's meal tables, indicating that dog meat was a widely accepted and common source of food during the Joseon Dynasty.<sup>28</sup>

Records on wild animals in the Joseonwangjosillok remained relatively steady over time. The mention of preserved meats nabyuk increased in later periods. Nabyuk referred to wild game meats presented as tribute by local government offices for use in winter sacrificial rites naphyang. Common tribute items included fresh pork (生豬), fresh roe deer (生獐), fresh pheasant (生雉), fresh deer (生鹿), and fresh rabbit (生兔). The nabil rite, which involved making offerings to ancestors while also serving as a ritual for warding off evil spirits, was a seasonal custom that symbolized the transition to a hopeful new year.<sup>37</sup> Pheasants (雉) were one of the most frequently recorded wild animals in the Joseonwangjosillok, with 884 references spanning the entire Joseon period. A study on the consumption of animal-based foods in the 16th century also found that pheasant meat was the most frequently consumed game meat.<sup>11</sup>

An analysis of meat-related dishes in the Joseonwangjosillok yielded a total of 1,137 references, with dried meat (po, 脯) being the most frequently recorded. The Joseonwangjosillok also contains numerous references to meat-based fermented food (yukhae, 肉醢), which were made by fermenting meat with salt and malt. These condiments were primarily associated with state and royal ceremonial foods. Unlike ordinary people's family rituals, it was characterized by raw food that was not cooked.<sup>29</sup>

The reason is that it emphasizes the purity obtained from nature and shows that it comes from the Ju(周) Dynasty ritual culture, which is a sample of Joseon rituals. Among other meat-based dishes recorded in the Joseonwangjosillok is steamed veal (蒸牛兒). Studies on the food culture of Joseon scholar-officials have categorized meat-based cooking methods into soup, grilled, dried, raw, and boiled preparations, with steamed dishes accounting for only 2.93% of all meat-based cooking.<sup>11</sup> The relatively low frequency of steamed meat dishes suggests that steaming meat was considered a luxurious way of cooking. Another dish mentioned is jeonyak (煎藥), which was a health supplement made by mixing gelatin derived from boiled cowhide with imported spices such as black pepper, cinnamon, and clove, along with jujube pulp. In the 16th century, this dish contained a high concentration of jujube and spices, whereas by the late 18th century, it had evolved into a chewier, cinnamon-flavored dish with reduced amounts of jujube, black pepper, and clove but a higher gelatin content.<sup>38</sup>

The Joseonwangjosillok also contains many records of milk-based porridge (tarakjuk, 駝駱粥). Since meat dishes (yukchan, 肉饌) were prohibited during mourning periods, extended consumption of a vegetarian diet could lead to health issues, even for those who were initially healthy. In such cases, tarakjuk was the only available food that provided sufficient nutrition.<sup>30</sup> Tarakjuk was particularly associated with respect for the elderly and was regarded as a symbol of filial piety, benevolence, and Confucian values.<sup>39</sup> These records indicate that during the Joseon Dynasty, dietary therapy (sikchi, 食治) was emphasized over medicinal treatment (yakchi, 藥治), as food was considered a means of preventing and curing illnesses.

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## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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