

Korean Cattle and Colonial Modernization in the Japanese Empire: *From “Cattle of the Peninsula” to “Cattle of the Empire”*

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Abstract

The Japanese Empire mobilized various resources ranging from livestock to human resources from its colonies. After the Meiji Restoration, Japan introduced a Western lifestyle for cultural modernization. This change affected the Japanese traditional diet, and a large number of people started consuming beef. Soon this consumption led the country to a chronic cattle shortage, especially considering the number of cattle that were slaughtered. For this reason, demands for Korean cattle went up. The Korean export of cattle to Japan grew about 60,000 every year and further expanded with the outbreak of the Sino-Japanese War. “Cattle of the Peninsula” had become “Cattle of the Empire.” Systems of quarantine and disease prevention were established. However, because of the rapid growth of cattle exports to Japan, the height and weight of Korean cattle became inferior, and this deficiency marked the birth of “healthy” yet under-sized Korean cattle. Consequently, it can be said that Korean cattle were merely used as a source of supply to propagate Japanese cattle. The case study on colonial cattle indicates that the imperial economic integration might give rise to a contradiction between the empire and the colony.

Keywords: Korean cattle, cattle market, Japanese cattle, rinderpest, quarantine system, disease prevention system, “cattle of the empire”

Introduction

After colonizing Korea, Japan made the following evaluation: “It is quite bizarre that cattle farming is developed in a country like Korea where various produce industries are traditionally depressed and underdeveloped” (Koezuka 1911, 3–24). Then, how did this cattle farming change under the rule of the Japanese Empire? Each year, about 50,000 to 60,000 cows were exported to Japan where they plowed fields and were used for cultivation, weeding, threshing and transport, as well as for fertilizer collection. Ultimately, they were slaughtered and their meat consumed by the Japanese. How was this large-scale export of cattle possible, and why were the Japanese in such need of Korean cattle? Also, what kinds of changes were brought about to Korean cattle as a result? To answer these questions, we must examine farming and the export of Korean cattle within the context of economic relations between Korea and Japan.

Nevertheless, no prior research has offered an empirical analysis of the Korean cattle industry during this period. Historical study on cattle has been relatively neglected in comparison with study on rice cultivation, which has been conducted broadly with research on colonial landlordism and peasant movement. Recently, a debate over colonial modernization has developed around the issue of economic development. Researchers estimated GDP of the colonial period and showed the modern economic growth of colonial Korea (Kim 2006). However, Huh Soo-Youl (2005) insisted on the idea of “development without development” and pointed out that colonial development was accomplished not for Koreans but for Japanese, and there was no modern economic growth itself. Kim Nak Nyeon deemed that economic growth rate was an appropriate estimation based on the 19th-century Korean socio-economic crisis and insisted not only the Japanese but also Koreans in part were able to enjoy the results of economic growth. The core of the present debate concentrates on modern economic growth and an evaluation of how it evolved in the context of increased rice cultivation in the early stage of the colonial period by the adoption of irrigation facilities and species improvement. On this point, we examine how Korean cattle, which were a capital good equivalent to cur-

rent tractors in agricultural production and simultaneously a consumer good as a source of protein, were produced and consumed from the view of the entire Japanese empire as well as that of Korea. The export of Korean cattle to the Japanese empire, including Manchuria, not only changed their dietary life, agriculture and disease prevention system, but also influenced Korean cattle farming and agriculture. This paper attaches great importance to the concept of “aggression and development,” as shown through Mastumoto Toshio’s study of the Manchurian iron manufacture business (Mastumoto 1988). The colonial authorities did not pursue unconditional plundering of colonial resources but proceeded with industrial development by the introduction of modern technology and capital investment that structurally integrated the colonial economy into the imperial sphere under Japanese initiative.

As for the Korean cattle industry, Matsumaru Shimazo (1949) dealt with Korean cattle as part of a self-reflection on Japan’s aggression and investigated actual circumstances in Korea, while introducing the history, characteristics, and cattle farming methods of Korean cattle from ancient times in an effort to understand the mindset of the Korean people. However, the study does not include a description of policies during the colonial period. Kajimura Hideki (1989) examined the trade of Hamgyeong-do province at the end of the Joseon Dynasty and discovered that, even though the export of Korean cattle to Vladivostok surged, it became meaningless after the economy of Hamgyeong-do province was reorganized into a Japan-oriented system under Japanese occupation. Meanwhile, Takio Eiji (1997) set a goal to study how “Korean cattle” were managed and controlled in colonial Korea under Japanese imperial rule and set plans to analyze cattle hides, Chosen Leather Company, the slaughter of live cattle, and policies of improvement and propagation of cattle. A real problem is that no outcomes from his research, to the author’s knowledge, have been published yet.¹

Furthermore, Haga Noboru (2001) provided an overview of Korean

1. In addition, the author cannot help but question why the market was not included as a discussion point in his research goals.

cattle export during the Meiji era using a small number of statistics. However, it is a summary overview and thus cannot be considered a detailed analysis. In addition, Mashima Ayu (2002) examined the historical background behind the increase of Korean cattle from the 1890s to the 1910s and the meat diet experienced by Japanese immigrants and visitors to the Korean Peninsula. He discovered that Korean cattle were exported to meet the demands of the Japanese military for a meat diet during the first Sino-Japanese and Russo-Japanese war period and also that the environment of the meat diet improved with colonization. Additionally, Korean cattle provided an opportunity for many Japanese to experience a meat diet. However, because the analytical focus was placed on the meat diet of the Japanese, the study failed to reveal production and consumption structures of Korean cattle from the vantage of the empire, including both Korea and Japan. Likewise, Noma Mariko (2013) reviewed the history of the Japanese meat diet and pointed out that the introduction of Western civilization and the Russo-Japanese War (1904–1905) caused a rapid increase in Japanese beef consumption, for which Korean cattle was one of the main supply sources. She notes that Korean cattle were not only consumed as meat but also used as work cattle. Nevertheless, Noma's research only examines the history of Korean cattle in the Japanese meat diet by focusing on the Meiji Era and therefore lacks a sufficient socio-economic examination of Korean cattle.

However, the analysis of Yi Shi-young (2010), although not on the farming and export of Korean cattle, warrants attention. Yi studied the development process of veterinary medicine in Korea from ancient times to post-liberation and investigated the veterinarian and veterinary medicine education systems, projects to prevent infectious diseases among livestock, and the quarantine system during the colonial period. Other studies that analyzed the establishment and development of modern veterinary institutions include Sim Yu-jung and Choi Chong-up (2011). While it is only a natural course of research in the field of veterinary science to evaluate institutional achievements, such as the establishment of quarantine centers for cattle for export or the Rinderpest Serum Manufacturing Center, which was later changed to the Livestock Hygiene Research Institute,

these studies do not provide a comprehensive analysis of the historical context within which the prior-mentioned institutions came into being. Ultimately, we must examine how cattle farming was carried out in Korea in both market and policy. Thus, this paper analyzes the development of farming and export of Korean cattle in the Japanese Empire in order to reveal the impact on livestock hygiene.

Cattle Farming and Trade: Requisites for “Crude” Agriculture

Although their origin is unclear, Korean cattle are believed to belong to the same family as Chinese yellow cattle. Their build and characteristics are more or less the same. However, due to environmental influences of mountainous regions and flatlands within Korea, cattle in regions above Seoul are large and those in regions south of Seoul are usually small (Keijo Shoko Kaigisho 1928, 3). Despite varying sizes, male cattle were 1.40 m tall and female cattle were 1.15–1.33 m tall; male cattle weighed 300–400 kg and female cattle weighed 188–300 kg in most cases. Korean cattle were easy to manipulate thanks to their extremely calm and mild nature; they were intelligent enough to follow instructions and handle tasks, strong enough to carry and drag heavy loads, and they walked relatively fast (Koezuka 1911, 18–26). Also, thanks to their large size and strong health, they seldom contracted diseases and withstood extreme cold and hot weather, thus requiring little attention while being raised. They were suitable for various agricultural and transportation-related tasks, and were very cheap thanks to low production costs. Korean cattle were also easy to fatten up and impregnate.

Accordingly, the Japanese took notice of the excellence of Korean cattle from early on, and it was evaluated that “among Korean livestock, horses, pigs, and chickens have small and inferior constitutions, but cattle are particularly excellent in their performance and build. This indicates that there has been great natural influence. Moreover, one must acknowledge the fact that the people are very skilled at raising cattle” (Koezuka 1911, 2–4), which is attributable to the small population in Korea in comparison with the county’s

land area, necessitating a “crude” (extensive) agriculture.² This endowment of Korean agriculture was related to the use of cattle farming. The natural environment and the constitution of cattle in Korea made supply of cheap cattle for labor possible. What is important here is that Korea’s agriculture at that time was recognized as extensive. More specifically, “in Japan, one farming unit consists of three laborers on average for about 1 ha of cultivation acreage, whereas in Korea, where agriculture is intensive, as found in South Korea in particular, two laborers would be required on average for 1.3 ha of cultivation acreage. Meanwhile, in regions where agriculture was most extensive, as in North Korea, three laborers would cultivate 6 ha of cultivation acreage on average. As such, it was impossible to do farm work without the use of cattle for labor” (Koezuka 1911, 2–4). It was very rare in Korea to use human labor or machines for land cultivation purposes. Moreover, the number of horses was small, and hence most farming was performed by cattle labor.

While cattle farming was prevalent all over Korea, by the number of heads, Pyeonganbuk-do was the largest at 193,598 in 1926, followed by Gyeongsangbuk-do, Gangwon-do, Hamgyeongnam-do, and Gyeongsangnam-do. These five provinces, though the rank changed in a given year, had the most active cattle farming in Korea. On the contrary, the regions with the smallest number of cattle were Jeollabuk-do, Chungcheongnam-do, and Chungcheongbuk-do. Koreans made the most out of cattle for farm labor. A farm family would use cattle for farming, transport, and rice-polishing; they would obtain manure for fertilizer and finally sell the cattle for slaughter. They would then buy calves to replace the slaughtered cattle and start the process again. As such and given Korea’s agricultural characteristics, cattle trade was frequent. Direct transactions took place between sellers and buyers, and cattle houses that offered a marketplace for cattle with a cowshed and feed also coordinated cattle transactions, but the latter took a very small portion of the overall trade, most of

2. Of course, even though Korea’s population density was lower than Japan, it was higher than that of Southeast Asia and, even compared to the global average of the time, it was never low.

which took place in markets.

Table 1. *Cattle Transactions in Cattle Markets*

Year	Cattle Markets (number)	Heads in Markets (number)	Successfully Transacted Cattle (Heads)				Transaction Rate	Total Amount of Transaction (JP¥)	Average Price per Head (JP¥)
			Cow	Bull	Calf	Total			
1909	872	710,088				248,452	35.0	5,422,466	21.8
1910	825	818,038				261,114	31.9	5,878,275	22.5
1920	764	2,342,450				575,456	24.6		
1933	963	2,382,794	405,553	360,586	362,069	1,128,208	47.3	57,950,695	51.4
1934	983	2,516,908	407,153	371,066	377,962	1,156,181	45.9	68,541,772	59.3
1935	1,010	2,321,085	374,356	370,978	379,166	1,124,500	48.4	71,829,952	63.9
1936	1,022	2,426,037	377,917	393,151	378,731	1,149,799	47.4	79,684,570	69.3
1937	1,084	2,778,256	386,917	394,957	378,509	1,160,383	41.8	99,697,774	85.9
1938	1,056	2,652,172	386,099	395,345	399,001	1,180,445	44.5	132,847,433	112.5
1939	1,071	2,842,158	411,273	442,852	463,625	1,317,750	46.4	158,059,791	119.9

Sources: Japanese Government-General of Korea, Department of Agriculture, Commerce and Industry (1910); Japanese Ministry of Agriculture and Forestry, Agricultural Affairs Bureau; Bocho Kaigai Kyokai (1924); and Japanese Government-General of Korea, Agriculture and Forestry Bureau.

Therefore, cattle markets could be found all over the country. There were 872 markets for livestock in 1909, and this number shrank later but grew again over the 1920s and 1930s, amounting to 1,084 in 1937 when the Second Sino-Japanese War (1937–1945) broke out. The market was year-round in Gyeongseong and Busan, which were exceptions, and some markets were open three times a month. However, most markets were open six times a month in accordance with the lunar calendar. A seller would bring his cattle on the day of market and specify his asking price with a broker. Based on the broker's evaluation, a cattle seller would wait for a buyer to select the

cattle and negotiate with the broker for transaction. Brokerage of cattle is mainly the responsibility of a stock-raisers' association, and the transaction fees were within three percent of the actual selling price. The scale of transactions showed an increasing trend over a long period, and the rate of successful transactions from the perspective of cattle markets stood at around 30 percent before and after 1910, but this figure fell to as low as 24.6 percent in 1920 during the post-WWI Depression. It rose only to be disrupted again by the Showa Depression and then jumped to as high as 40 percent thanks to economic recovery afterwards.

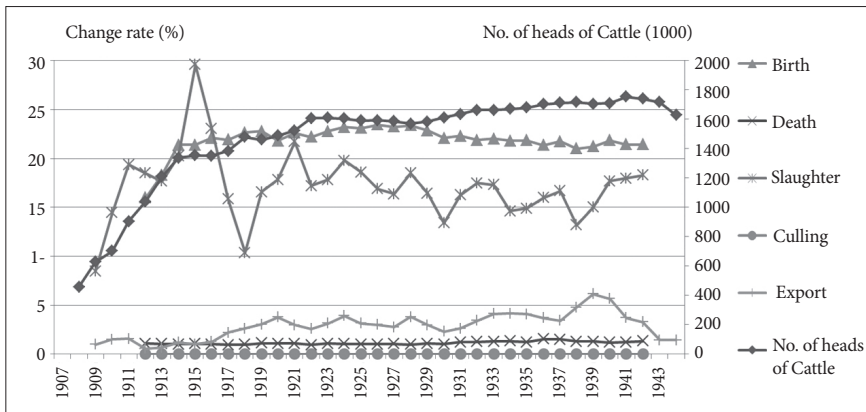


Figure 1. Development of Korean Cattle

Sources: Japanese Government-General of Korea, Police Bureau (1907–1943); Bank of Joseon (1948); Japanese Government-General of Korea, Agriculture and Forestry Bureau; Japanese Ministry of Agriculture and Forestry, Agricultural Affairs Bureau; Koezuka (1911, 100–103); Japanese Ministry of Agriculture and Forestry, Stock-Raising Affairs Bureau; and Bocho Kaigai Kyokai (1924).

Note: The export of Korean cattle from 1943 to 1944 only includes exports to Japan.

At this point, one would be compelled to ask how many cattle were raised in Korea, and how many of the cattle were slaughtered and exported. These answers can be discovered with statistics from the Japanese Government-General of Korea (hereafter, JGGK). According to the data, the number of

Korean cattle grew nearly three-fold in just six years from 459,462 in 1908 to 1,338,401 in 1914.³ Afterwards, the growth slowed to a moderate level and for certain years was even stagnant, meaning that the cattle industry tripled prior to the JGGK's implementation of its policies, but after such implementation, the same industry languished. One source noted that "while the information on export, slaughter, death, and culling seems to be relatively accurate thanks to customs duty and hygiene management, the current number of cattle heads and the number of births at the end of each year may not be accurate as it is customary for Koreans to conceal their properties and thus they may not have reported the accurate number of cattle heads and made a false report with a smaller number instead" (Keijo Shoko Kaigisho 1928, 3). Farmers sought to hide the number of cattle, which were important capital goods or assets, in order to prevent excessive tax arbitrarily devised by the power of the state, in particular by corrupt officials. This phenomenon is attributable to the lack of organization of statistical systems at the end of the Joseon Dynasty and the initial stage of the JGGK's rule of Korea, and as such the scale of cattle farming at the end of the Joseon Dynasty may have been underestimated.⁴ Although the number of cattle heads increased by 21.7 percent annually from 1908 to 1913 immediately after Korea was colonized in 1910, the annual growth rate of the number of cattle heads was only 2.4 percent from 1914 to 1922 before the growth of the total number of cattle heads started to slow down. Therefore, the statistics from 1908 through 1913 appear to have little reliability. Afterwards, the number of Korean cattle stagnated in 1923 and grew again after the Showa Depression to reach 1,753,556 in 1941. As for sex, there were twice as many female cattle than male cattle. The number of cattle per

3. Yi Shi-young (2010) did not raise any questions regarding this topic but only pointed out that after the Japanese colonized the Korean Peninsula and as a result of their exploitation, the Korean Peninsula witnessed tremendous development of stock raising and as for Korean cattle, the number of cattle was around 900,000 in 1911 and soared to 1.35 million in just five years in 1916 because of Japanese exploitation. However, one must ask why this *magic* never happened again despite various cattle-raising policies implemented by the JGGK.

4. The same problem can be found in Kobayakawa (1960, 187–189).

farming family was 1.2.

Let us now look at the factors underlying the increase in the number of Korean cattle. First, the birth rate was over 20 percent of the total number of heads, and thus it can be said that the increase in the number of Korean cattle was primarily a result of birth. Next, as for the factors responsible for the decrease, while there were substantial differences each year, slaughter took up 15–20 percent of the entire reduction, which is significantly related to increases and decreases of meat export, but the biggest cause was the economic situation of the farmers. For example, the fact that the number reached about 400,000 in 1915 indicates that rice was cheap and the price of cattle hide rose due to economic circumstances at the time. As a result, demands for beef increased due to the low price, and a great deal of slaughter was carried out the next year in 1916. The number of slaughtered cattle was particularly small in 1917 and 1918, mainly because farmers became wealthy with a rise in rice prices and wage hikes, and they were reluctant to sell cattle due to rising cattle prices. The rate of slaughter thereafter decreased temporarily immediately following the Showa Depression and the Sino-Japanese War. Although the number of heads raised was not large for Gyeonggi-do province, where the country's capital Gyeongseong was located, they nonetheless consumed 2–5 times more beef than other provinces. Another noteworthy fact is that the sex composition of slaughtered cattle each year shows that male cattle took up more than half, which was quite different from that of the entire cattle population, meaning that male cattle, not a preferred choice for farming or export, were slaughtered more than female cattle.

Instead, deaths (from diseases and old age), culling (to prevent infectious diseases), and export filled the gap between births and slaughter. Natural deaths took one percent, and culling performed under the instruction of the police was at a negligible level. Thus, most of the gap was export, which grew each year, from less than one percent to reach 6.2 percent in 1939. The traders purchased cattle through intermediation of the stock raising association in cattle markets, sent them to Japan from ports, and handed them to Japanese merchants. Export destinations for Korean cattle were Japan and Vladivostok in Russia. Only a small volume was exported to China. For

export to Vladivostok, the cattle were shipped from Hamgyeong-do province for geographical reasons. Shipping of Korean cattle was frequent from 1908 to 1911 before being halted due to bankruptcy of the export merchant and the volatile political situation in Russia. Instead, export to Japan surged during the First World War period. The next section sheds light on how Korean cattle were exported in large volumes.

Export and Purpose: From “Cattle of the Peninsula” to “Cattle of the Empire”

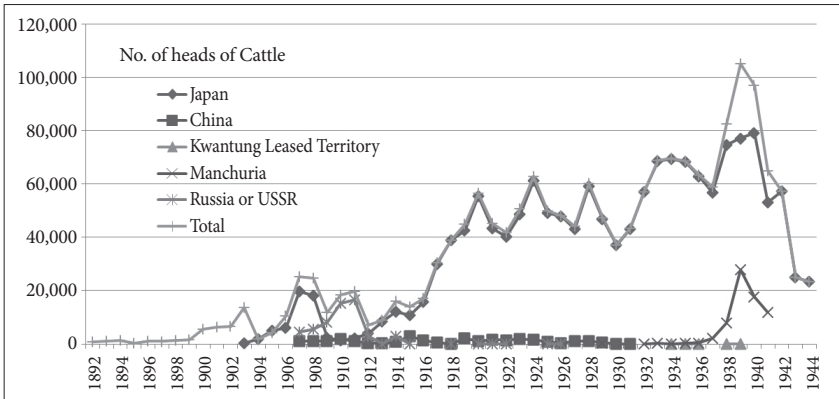


Figure 2. Export of Korean Cattle

Sources: Japanese Government-General of Korea, Agriculture and Forestry Bureau; Japanese Government-General, Police Bureau; Bank of Joseon, Department of Investigation (1948); Japanese Ministry of Agriculture and Forestry, Agricultural Affairs Bureau; and Japanese Ministry of Agriculture and Forestry, Stock-Raising Affairs Bureau.

The first cattle export from Korea was when Oita Prefecture imported some 20–30 Korean cattle from Busan in 1884. The Japanese avoided eating meat as a Buddhist tradition, but the new Meiji government removed the prohibition on meat eating to show cultural homogeneity with the United States and European countries and instead recommended con-

sumption of meat. As a result, *sukiyaki* consumption boomed during the period of civilization and enlightenment.⁵ However, this export to Oita was not the start of cattle export in earnest but was rather trial farming of the relatively cheap Korean cattle. Later, as it became known that Korean cattle were excellent for farm labor, demand grew slowly, but the lack of proper transportation and frequent occurrences of infectious diseases of livestock made full-blown export of Korean cattle difficult.⁶ However, as there was a shortage of Japanese cattle due to increasing the supply of beef for the military during the Russo-Japanese War, demand for Korean cattle to complement the supply soared in Japan. Because military demand suddenly rose, including canned beef supplied to field officers, the supply of beef from working cattle in Japan alone was not sufficient. In 1904, a quarantine station for cattle imports from Korea was established in Fukuoka Prefecture through which a large number of cattle were exported every year. Over 15,800 cattle were exported in 1908 and another quarantine office was opened in Busan as well. With this opening, Korean cattle were exported after quarantine, but the volume decreased drastically because of an epidemic of rinderpest, or cattle plague, in Japan.

What surged instead was the export of cattle to Vladivostok. At the time, Vladivostok consumed about 100,000 cattle for beef each year but only 10,000 were locally procured. Thus, about 90,000 cattle were imported from Hamgyeong-do province, Manchuria and Shandong province of China. Cattle would pass through Wonsan and Seongjin in Hamgyeong-do province for export, and about 61,800 cattle were exported from 1908 to June 1911. However, after the cattle export merchant Choe Bong-hwan shut down his business due to a failed venture in 1911, marine export discontinued. There was cattle export in 1914 at the request of Russian government authorities, but the trade was practically suspended due to the Russian Revolution (Kobayakawa 1960, 402–408). In addition, Korean cattle were exported to China as well, albeit at an insignificant scale, in the areas

5. *Sukiyaki* is a Japanese hot pot dish that is usually cooked at the table in a cast iron skillet.

It typically contains of thinly-sliced beef, cubes of tofu, and a variety of fresh vegetables.

6. Keijo Shoko Kaigisho (1928, 10–11).

bordering Korea and along the Anfeng Railway 安奉線. The cattle were exported to such regions at a higher price than the price of exported cattle to Japan.

Afterwards, when the epidemic of rinderpest was over in Japan, export of Korean cattle grew again, and during the First World War period, wage hikes led to a shortage of labor and demand for cattle for labor purposes increased, which coincided with the sharp rise in the demand for meat in Japan. Population growth and economic growth increased consumption of meat, which was considered a superior good, and the supply and demand structure of cattle in Japan resulted in a state of chronic short supply. This supply shortage naturally led to strong demand for widely popular Korean cattle, and the number of Korean cattle exported to Japan broke the 60,000 mark in 1920. Moreover, cattle price surged as well. The price per head in 1914 was JP ¥ 19.0, which grew more than two-fold over the First World War period to JP ¥ 77.6 in 1919. Export of Korean cattle declined to about 50,000 head in the aftermath of the Great Kanto Earthquake and the economic depression, indicating that there was a structurally formed market and consumption for Korean cattle in Japan.⁷ In particular, with the outbreak of the Sino-Japanese War, import of Shandong cattle from China was disrupted, and demand for Korean cattle increased.⁸ Demand for Korean cattle was growing even in Manchuria owing to its planning expansion policy for cattle farming, and the number of Korean cattle exported to Manchuria was 27,933 in 1939 and even after that peak,

7. In 1933, broker fees were a burden not only on the farmers but also for both exporters and importers. As such, the Joseon agricultural association and stock-raising industry played a brokerage role for cattle trade in communication with Japan's stock-raising association and agricultural association. "Ishutsugyu hanbai o sekkyokuteki ni assen" 移出牛販売を積極的に斡旋 (Active Brokerage of Sale of Cattle for Export), *Hokusen nippo* 北鮮日報 (North Korea Daily), September 9, 1933; "Ishutsugyu no assen keikaku chukan sakushu haijo o mezashi" 移出牛の斡旋計画中間搾取排除を目指し (To Rule out Intermediary Exploitation among the Brokerage Plans for Cattle Export), *Keijo nippo* 京城日報 (Seoul Daily), September 1, 1933.

8. "Chungyeonggi abdugo sandongso suibdujeol-ro joseonwu jeokgeuk iip" (Vigorous Import of Korean Cattle Due to Import Interruption of Shandong Cattle Shortly before Spring Plowing), *Dong-A Ilbo*, January 29, 1938.

over 10,000 heads of cattle were exported to Manchuria each year.⁹ The price per head exported to Manchuria was higher than that to Japan despite the soaring price for exported cattle in Japan. As the Japanese Empire expanded, so did the market for Korean cattle with the number of exported Korean cattle reaching 105,128 in 1939.¹⁰ In other words, the “cattle of the peninsula” had become the “cattle of the empire.”

Before the establishment of the Busan Cattle Quarantine Center in 1909, Korean cattle were sent to the quarantine station in Fukuoka Prefecture. They had been freely exported from Incheon and Jinnampo as well as Busan. However, after the launch of the quarantine center in Busan, Korean cattle were primarily sent to Busan, and although the buyers were mainly located in south of Seoul, the supply of Korean cattle at home came under increasing pressure. Accordingly, export locations of Korean cattle expanded gradually, and they were now exported through railways in Pyeonganam-do and Pyeonganbuk-do provinces. In addition, exporters of Hamgyeong-do cattle came to seek a new export destination to replace Vladivostok. Amid this expansion, a decree to prevent infectious diseases in livestock in 1915 went into effect, which made it possible to export Korean cattle from other ports than Busan to be quarantined in Japan. Nonetheless, exports from Busan remained dominant.

Because of this geopolitical situation, Gyeongsangnam-do was the biggest exporter of cattle, with over 10,000 head, followed by Gyeongsangbuk-do, Hwanghae-do, Gangwon-do, Gyeonggi-do, and Hamgyeongnam-do. In contrast, the number of exported cattle barely reached 3,000 in Jeollabuk-do, Pyeonganbuk-do, and Chungcheongbuk-do. However, as concerns over possible depletion of cattle from these regions were raised due to increased export from the late 1930s, Hwanghae-do province emerged as the largest

9. “Naeji-wa manju-eseo joseonso-e jumok jipjung” (All Eyes on Korean Cattle from Inland and Manchuria), *Maeil sinbo*, January 28, 1938; “Kanto mejasu Chosengyu susento” 間島目指す朝鮮牛数千頭 (Thousands of Korean Cattle Heading to Jiandao), *Kanto shinpo* 間島新報 (Gando News), April 10, 1937; “Joseonso manju jinchul” (Korean Cattle’s Advance into Manchuria), *Dong-A Ilbo*, March 9, 1938.

10. “Uri nara joseonso suchul simman yeo mari dolpa yesang” (Our Country’s Korean Cattle Export to Exceed 100,000), *Dong-A Ilbo*, November 1, 1939.

supplier, with few exports from Pyeonganbuk-do and Hamgyeongbuk-do. By season, the cattle trade was most active during agricultural off-seasons from mid-July to the end of September and from December to early April with reduced farming and transport activities.¹¹ Most exported cattle (over 98 percent of the exported cattle for 11 years from 1929 to 1939) were female unlike those traded or slaughtered at home. In Japan, “female cattle are more expensive than male cattle as they are easier to raise than male cattle, and can be used for reproduction. However, in Korea, female cattle are cheaper, so exporters buy female cattle at low prices to sell them for higher prices.”¹² Typically, Korean cattle would be exported at the age of two to three years to be used for farming labor for four to five years and would be sold at the age of six or seven for meat through brokerage.¹³

At this point, one must ask what was behind the heavy import of Korean cattle by Japan. The birth rate of Japanese cattle was below 20 percent until the 1930s, which is in contrast to the birth rate of Korean cattle at over 20 percent.¹⁴ The rate of slaughter, on the other hand, was around 20 percent on average from 1910, although it fluctuated depending on the time, greatly surpassing the birth rate. In other words, the cattle market was going through a chronic shortage of supply and thus required sources from overseas. Korean cattle were the solution to this problem. According to criticism by Koezuka Shota on Japanese cattle farming, an “extremely small number of head for slaughter,” “poor quality of cattle,” “high prices of cattle farming and products,” and “low level of utilization” were cited as major problems (Koezuka 1911, 8–9).

As such, Japan sought improvement of breed and propagation of cattle,

11. Keishonando Chikusan Dogyo Kumiai Rengokai (1918).

12. Shinba (1925).

13. “Ilbon-e ichuldoen joseonso isipsaman mari” (240,000 Korean Cattle Exported to Japan), *Dong-A Ilbo*, February 7, 1934.

14. Japanese Ministry of Agriculture and Forestry, Stock-Raising Affairs Bureau, *Honpo chikusan yoran*; Japanese Ministry of Agriculture and Forestry, Stock-Raising Affairs Bureau, *Chikusan tekiyo*; Japanese Ministry of Agriculture and Forestry, Agricultural Affairs Bureau, *Kachiku eisei tokei*; and Japanese Ministry of Agriculture and Forestry, Agricultural Affairs Bureau, *Chikusan tokei*.

while feeling the need to secure a source to supplement the shortage. Large-scale export of cattle from China could not be expected, as Shandong province had no quarantine facilities despite being the origin of rinderpest, and transportation was costly. Against this backdrop, the subjugation of Korea under Japanese imperial rule was hailed as “God’s blessing to our country in the form of the best cattle ranch” (Koezuka 1911, 8–9). Therefore, cattle export to Japan fluctuated based on economic trends as it grew in good times and dwindled sharply during economic depressions, as shown in Figure 2. Thus, Korean cattle started to be produced in close conjunction with the supply and demand structure of the Japanese inland. This linkage indicated that division of labor in the empire spread, and Korea was placed as a supply center for the primary industries.

Notably, from the 1870s to 1880s, Korean cattle were exported to the western region of Osaka, including Kochi, Saga, Kagawa, Yamaguchi, Oita, Ehime, Okayama, and Osaka. The distribution of Korean cattle centered on Hyogo, Kanagawa, and Shizuoka until 1890 and then spread to the western region of Kinki and some parts of Kanto, such as Ehime, Hiroshima, Kagawa, Dottori, Shiga, Ibaragi, Saitama, and Kunma, and then almost covered the entire nation except for Miyagi, Kagoshima, Okinawa, and Hokkaido.¹⁵ This supply of Korean cattle was attributable to low price, large build, physical capabilities, and endurance, as well as their strong resistance to diseases, which made them suitable for agricultural labor. According to a survey by the Cattle-Raising Affairs Bureau under the Japanese Ministry of Agriculture and Forestry as of the end of 1925, the number of Korean cattle being raised stood at 214,000, equivalent to 14.7 percent of the entire number of cattle being raised in Japan.¹⁶ In 1933, the number grew to 244,352, or 15.6 percent of the entire cattle population. As for distribution by region, the cattle population was dense in the Kanto Plain region centering on Shikoku, Sanyo, and the Hanshin region, while it was mostly scarce in various parts

15. Keijo Shoko Kaigisho (1928, 20–22); Japanese Government–General of Korea (1922, 2–10).

16. Japanese Ministry of Agriculture and Forestry, Stock-Raising Affairs Bureau (1927, 8); “Ilbon-e ichuldoen joseonso isipsaman mari” (240,000 Korean Cattle Exported to Japan), *Dong-A Ilbo*, February 7, 1934.

of Kyushu excluding Kinki and Fukuoka, such as in Tohoku, Hokuriku, Toukai, Koushin, Sanin, and Osaka (Yoshida 1927, 10–56).

The scarce distribution of Korean cattle in certain prefectures of Japan was not because farmers who lived there insisted on raising only Japanese cattle and did not embrace Korean cattle. One must consider that Japan, in its efforts to modernize agriculture, utilized not only cattle but also horses for farming. Tohoku, Hokuriku, and Minamikyushu were horse-raising regions where horses, rather than cattle, were predominantly used for farming purposes (Japan Racing Association 1989).¹⁷

In terms of slaughter, vigorous farming of Korean cattle would mean active slaughter and higher slaughter rates as well. Only Tokyo had a larger number of slaughters and exhibited characteristics of a beef-consuming region. Overall, of 320,921 head of cattle butchered in 1925, 71,301 were Korean cattle, representing 22 percent of the entire volume. The fact that Korean cattle accounted for 14.7 percent of the total number of cattle raised in the same year indicates that Korean cattle were very popular as a source of meat as well. However, it was rare that Korean cattle would be raised only for meat consumption. Rather, they were mostly used for labor, and the farmers would wait for the cattle to fatten naturally and then sell them off for meat. However, the meat quality of Korean cattle was a little poor due to its lack of fat, its price was low,¹⁸ and it was consumed as a second-grade product instead of Japanese beef. Moreover, in some cases, Korean beef was even used as an ingredient for cans manufactured at military food procurement centers in Hiroshima and Uji. Despite the fact that the Japanese imported many cattle from Korea, consumption of meat in Japan was much smaller than in Western countries. Then what changes did such export bring about for Korean cattle?

17. Of course, it should be considered that even in the horse-plowing areas, the price of Japanese horses increased and many farmers unable to purchase horses imported relatively cheap Korean cattle during the First World War (Noma 2013, 125). Nevertheless, Korean cattle were mainly purchased for farming purposes in cow-plowing areas.

18. Japanese Government-General of Korea (1922, 22–24).

Quarantine and Prevention of Livestock Infectious Diseases: *The Birth of “Healthy” Korean Cattle*

Meanwhile, export of Korean cattle gave rise to many problems and sent shockwaves around Japan in terms of animal hygiene. Thus, a counter plan for animal diseases advanced in both Japan and Korea led to the development of Japanese animal hygiene. In 1897, the rules for rinderpest quarantine were established, thereby designating Nagasaki, Yokohama, and Kobe as ports for livestock quarantine, and quarantine facilities were installed at these ports. Because there were strong demands for Korean cattle for both labor and meat, a quarantine office was established in Busan in 1909, which signaled the start of the dual quarantine system where quarantine was performed in both exporting and importing countries. At the same time, preventive measures for infectious diseases of livestock taken by Japan were modified, resulting in the establishment of rules to prevent six types of infectious diseases, including rinderpest, in 1886, which were amended as the Act on Livestock Infectious Diseases Control 獣疫予防法 in 1896 (amended to the Act on Domestic Animal Infectious Diseases Control 家畜伝染病予防法 in 1922). As a result, ten communicable diseases were officially designated.

In addition, the Livestock Infectious Disease Research Office was established at the Livestock Farming Examination Center under the Japanese Ministry of Agriculture and Commerce in 1891 (Livestock Infectious Disease Study Center in 1921) to manufacture immune serums for rinderpest. However, with the amount of manufactured immune serum being limited and after rampant outbreaks of rinderpest from 1908 to 1910, the Rinderpest Serum Manufacturing Center 牛疫血清製造所 was established in Busan in 1911, which engaged in many activities, including development of the world's very first rinderpest vaccine.¹⁹ This center was transferred to the JGGK organization in 1918 and reorganized as the Animal Infectious

19. “Doctor Gakijaki Chiharu developed a vaccine that deactivated the cattle plague virus by adding glycerin in a spleen emulsion of the cattle infected with rinderpest” (Yamauchi 2011, 75).

Disease Serum Manufacturing Center 獸疫血清製造所 (changed to the Livestock Hygiene Research Institute 家畜衛生研究所 in 1942) to handle matters related to infectious diseases for livestock other than rinderpest. These measures made certain strides, and the number of occurrences of infectious diseases declined over the long run.²⁰

Accordingly, quarantine and disease prevention systems were organized in Korea as well. The Quarantine Center for Cattle for Export, which was established by the JGGK under the Act on Quarantine for Exported Cattle in 1909, belonged to Busan Customs. With the enforcement of the Act on Livestock Infectious Diseases Control in 1915, the Act on Quarantine for Exported Cattle (Korea) was abolished, while the Rule for the Inspection of Infectious Diseases of Exported Livestock 移出獸疫検査規則 were enforced. However, when the quarantine system was expanded following the revision of the Rule for Inspection of Exported Cattle in 1925, Korean cattle could not be exported unless they had been quarantined at relevant centers at Jinnampo, Wonsan, and Seongjin. In 1932, the Decree on Prevention of Infectious Diseases in Korean Livestock 朝鮮家畜伝染病予防令 went into effect, enabling quarantine practices in other centers than the five existing ones, and additional quarantine centers were installed in Mokpo and Pohang. It goes without saying that this expansion of quarantine centers was to keep up with increasing Korean cattle exports.²¹

Meanwhile, under the Regulation on the Prevention of Livestock Infectious Diseases, measures to control infectious diseases were devised and implemented mainly by the Police Bureau of the JGGK. In addition, central policies were conveyed and discussed at governors' meetings and provincial police heads' meetings, and in particular, a conference on prevention and control of infectious diseases of livestock in Korea was held.

20. Japanese Ministry of Agriculture and Forestry, Stock-Raising Affairs Bureau, Honpo chikusan yoran; Japanese Ministry of Agriculture and Forestry, Stock-Raising Affairs Bureau, Chikusan tekiyo; Japanese Ministry of Agriculture and Forestry, Agricultural Affairs Bureau, Kachiku eisei tokei; and Japanese Ministry of Agriculture and Forestry, Agricultural Affairs Bureau, Chikusan tokei.

21. Keijo Shoko Kaigisho (1928, 18).

Upon an outbreak of an infectious disease, police offices or ad hoc infectious disease branch offices in each county took charge of controlling the diseases (Yi 2010, 252–463). Moreover, to prevent infectious diseases in livestock from spreading, vaccination, train inspection, quarantine at provincial borders, destruction of affected cattle, and slaughter inspection were performed, and a blackleg immune zone and a rinderpest immune zone at the border were declared.

Veterinary affairs including quarantine and control of infectious diseases were handled by either veterinarians who had acquired a license under the Veterinarians Act or military officers who had completed veterinary education from the military. Naturally, regular schools also started providing education on veterinary science. When the School of Agriculture was renamed the Suwon School of Agriculture and Forestry, veterinary science-related courses were revived in 1922 and a department of veterinary science and animal husbandry was opened in 1937.²² Veterinary medicine in colonial Korea developed while having a linkage to cattle export bound for Japan, the consequence of an academic approach to ensure that export cattle would be healthy and not susceptible to disease. It is an historic irony that such an academic result led to postwar growth in the stock-raising industry in Korea. Following the establishment of departments of veterinary science and animal husbandry at regular schools, the Rule of Korean Veterinarians were enacted, and the very first veterinarian license examination was carried out in 1941.

Furthermore, the JGGK authorities launched several initiatives to improve cattle breeds and to enhance cattle propagation. Breeding bull and protected breeding bull programs were implemented to improve the cattle of Hamgyeong-do province, known for their large size,²³ which were used as seed bulls to be crossbred with female cattle in ordinary farms in a rotational manner for the purpose of cattle improvement. During the war peri-

22. Animal anatomy and histology, physiology, parasitology, bacteriology, epidemiology, diagnostics, hippology, animal dietetics, zootechny, beef studies, animal hygienics, pathology, thremmatology, etc. were taught there.

23. Cattle with a superior physique are over 1.2 m tall and have red hair and are designated as breeding bulls (Keijo Shoko Kaigisho 1928, 3–4).

od, the “Korean Cattle Propagation Plan” was launched²⁴ to increase the number of cattle head to 2.5 million over a 20-year period from 1938 to 1958.

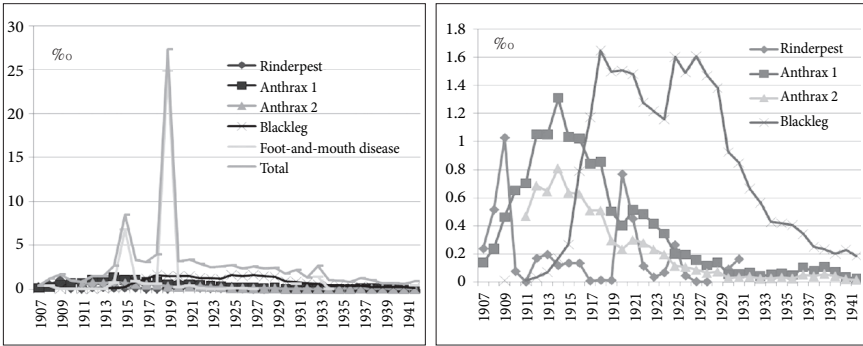


Figure 3. Morbidity Rates of Infectious Diseases of Cattle in Korea (Unit: percent %)

Sources: Japanese Government-General, Police Bureau.

Note: It is surmised that the number of head of cattle infected by anthrax includes the number of other livestock. Anthrax 1 is the morbidity rate that is divided by the number head of cattle and Anthrax 2 is the morbidity rate that is divided by the head of livestock, including cattle, horses, pigs, sheep, and goats.

With the establishment of systems for quarantine, disease control, and veterinary education, significant strides were made in the outbreaks of infectious diseases of livestock. As for rinderpest, no major epidemics took place except for 1920 when the highest rate of occurrence of 0.8 percent

24. To that end, quality maintenance and improvement, promotion of production, improvement of dead cattle relief, expansion of cattle-raising, cattle trade improvement, substantial improvement of guidance and promotion agencies, augmentation of testing and research organizations, and other necessary measures for Korean cattle were implemented. Japanese Government-General of Korea 1994, 363–364; “Joseonso jeungsik gyehoek mokpyo suryang jincheok ibaek osimman mari dolpa munan” (Production Increase Plan of Korean Cattle Expected to Easily Meet its Goal of 2.5 Million Heads), *Dong-A Ilbo*, January 25, 1940. However, this plan was never completed because of the liberalization of colonial Korea and the subsequent Korean War.

was recorded. The overall rate of occurrence for infectious diseases reached 27.3 percent, when 36,397 cattle contracted foot-and-mouth disease, accounting for as much as 24.9 percent in 1919.²⁵ According to the overall trends of occurrence of infectious diseases, a long-term declining trend until 1942 can be confirmed based on the available records, following the epidemic of foot-and-mouth disease in 1919.

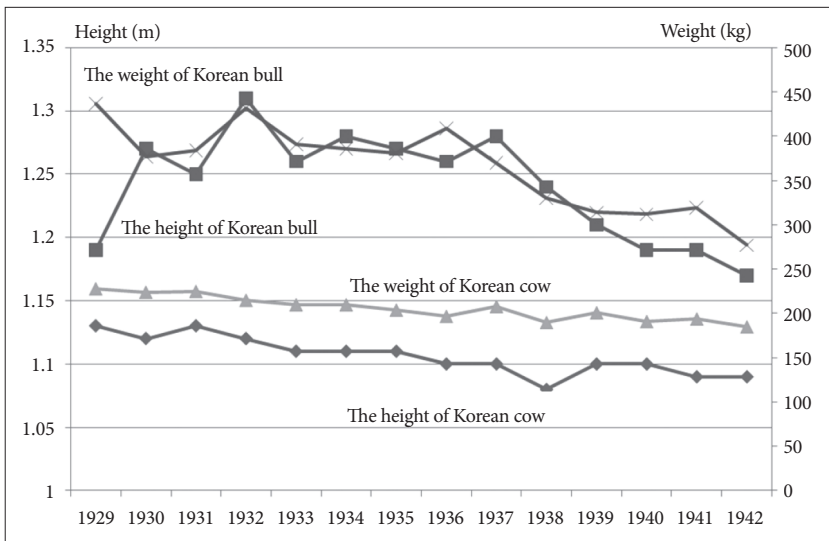


Figure 4. Average Height and Weight of the Exported Cattle (Unit: m, kg)

Source: Japanese Government-General, Police Bureau.

The hygiene of Korean cattle thus improved greatly, but the number of cattle head in Korea was in contrast with that of Japan. In Korea, the number increased from 1,338,401 in 1914 to 1,753,556 in 1941, but dropped to 1,628,475 during war time despite implementation of the Korean cattle propagation program. In Japan, on the contrary, the number increased

25. Japanese Government-General, Police Bureau, *Chosen kachiku eisei tokei*.

from a similar level of 1,387,233 in 1914 to reach 2,159,039 in 1944.²⁶ Although Korean cattle had consistently higher rates of impregnation and birth than Japanese cattle, the number of cattle head was larger for Japan. That this difference was a result of cattle exports from Korea is indisputable.²⁷ These exports not only inhibited propagation of Korean cattle but also brought about changes in the build of Korean cattle. As shown in Figure 4, the height and weight of exported cattle declined consistently from the 1920s to the early 1940s according to available records. Although the JGGK emphasized upgrading Korean cattle, the result was actually degradation. Contrary to slaughter and cattle trade within Korea, 98 percent of cattle exported were female, which resulted in deterioration of Korean cattle.

With regard to this discussion of the decline in quality of Korean cattle, the following comments of a Japanese businessman, who criticized the deterioration of Korean cattle in the late Joseon era, are worthy of attention:

Export of live cattle to Japan, towards Vladivostok and towards Chinese border regions shows that the number increased each year, and a large number of grown female cattle were chosen for export. As a result, the number of cattle births in Korea decreased and the calves became inferior. Although efforts for improvement were made, no results could be seen before colonization. After colonization, however, relevant measures, such as selection and protection of breeding bulls, promotion of propagation, and prevention of rinderpest were implemented, which led to steady increases in the number of cattle head, finally resulting in better quality of cattle.²⁸

Considering actual outcomes, it is undeniable that this remark, which criticized cattle raising at the end of the Joseon Dynasty while praising the

26. Immediately after the war defeat, about 2 million cattle were being raised in Japan, about 300,000 and 500,000 of which were Holstein cattle and Korean cattle, respectively (Matsumaru 1949, 21).

27. “Naichi ishutsu de chosengyu heru ippo” 内地移出で朝鮮牛減る一方 (Korean Cattle Exported to Japan on the Continued Decline). *Keijo nippo* 京城日報, February 10, 1933.

28. Keijo Shoko Kaigisho (1928, 3).

measures taken by the JGGK, is a mere distortion of reality. In other words, while Korean society as a colony witnessed fewer occurrences of infectious diseases, it also saw births of Korean cattle that were “healthy” but undersized.

Conclusion

In the foregoing discussion, we have noted that colonial Korea, where agriculture was “crude” compared to that of Japan, had about the same number of cattle as Japan, whose population was three times larger than that of Korea. Because cattle were an invaluable element in Korean agriculture, cattle markets had been developed in Korea. Thanks to such transactions, Korea could respond to the demands in overseas markets from the late Joseon Dynasty. What made this growth possible was Korean cattle’s vigorous reproduction, surpassing 20 percent of the total. Indeed, Korean cattle had strong vitality and to the Japanese empire, Korea as a colony was thought an excellent ranch given by God. For these reasons, overseas demand for Korean cattle was on the rise. Exports to Japan grew again with the number of cattle being exported ranging from 40,000 to 60,000 every year to meet demands in Japan during the First World War period, and further expanded with the outbreak of the Sino-Japanese War. Moreover, the demand from Manchuria also grew. “Cattle of the peninsula” had become “cattle of the empire.”

In Japan, the number of cattle head per farming family and cultivation acreage was much smaller than that of Korea, and the birth rate was below 20 percent as well. These facts mean that the country was experiencing a chronic shortage of cattle. As such, Japan preferred Korean cattle, which led to the export of two- to three-year old female cattle to be used for labor for the next four to five years and then to be slaughtered through brokers at the age of six or seven for meat. In other words, Korean cattle had become an essential part of the Japanese diet.

However, export of Korean cattle also served as a transmission route for infectious diseases of livestock, including rinderpest, within Japan. In

response, systems of quarantine and disease prevention were established in both Korea and Japan. Furthermore, the JGGK implemented programs to protect breeding bulls and other measures to improve cattle quality and to enhance cattle propagation. As a result, the rate of occurrence for infectious disease among Korean cattle showed a declining trend over the long term after the outbreak of foot-and-mouth disease in 1919.

Nevertheless, the fact that Korean cattle became the cattle of the empire actually represents a process in which cattle farming slowed down and cattle quality deteriorated. In 1910, Korea had a larger number of cattle than Japan, but thereafter only Japanese cattle increased in number while the number of Korean cattle remained stagnant. Is this stagnation not a negative, gloomy dimension of the influence of the empire on the colony? When the colony was deeply subsumed into the empire through economic objectives, the logic of development was applied to the colony and colonial academia was established, meaning that various cattle propagation policies carried out by JGGK and a veterinary sciences and livestock hygiene system were introduced into colonial Korea.

Needless to say, the characteristics of the Korean cattle industry under Japanese occupation indicated “aggression and development” (Mastumoto 1988), rather than “unconditional economic plundering” (Huh 2005). Even though the transaction and export of Korean cattle by means of market mechanisms cannot be simply construed as unconditional economic plundering, the modern development of the Korean cattle industry was propelled through the new breeding mode, rinderpest, and the related education system. The Korean cattle industry was integrated into the economic system of the Japanese Empire. Japanese traders imported Korean cattle increasingly for the purpose of fulfilling the Japanese appetite and employing them in Japan’s agriculture, taking advantage of information on price differential. Judging from the increased export speed, this trend appeared more obviously in cattle production than in rice cultivation. As a result, the build quality of Korean cattle diminished, and this deterioration marked the birth of “healthy” yet undersized Korean cattle. As a consequence, we conclude that Korean cattle were used merely as a source of supply to propagate Japanese cattle.

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