

Analysing Dairy Farming in Japan through the TV Drama *Natsuzora* ('Summer Sky')

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ABSTRACT

As the global concern with animal welfare grows, the roles of animals in various cultural and historical settings need to be examined. This study analyses a popular Japanese TV show, *Natsuzora* ('Summer Sky'), aired in 2019, that shows the life of a dairy farm in post-war Japan from the 1940s to the 1970s, when the consumption and production of meat and dairy gradually increased with technological development. This is contrasted with the present time, against the backdrop of the Tokyo Olympics 2020, and a rise in awareness regarding animal welfare. The study analyses the story of *Natsuzora* and the different reactions towards it from the Ministry of Agriculture and the Animal Rights Center. It also scrutinises the social and historical background of the drama by referring to agricultural statistics from the 1940s to the present.

KEYWORDS

Animal Welfare, Milk Production, Hokkaido, Tokyo Olympics, *Natsuzora*

Introduction

Animal welfare is 'the physical and mental state of an *animal* in relation to the conditions in which it lives and dies' (World Organisation for Animal Health 2021).¹ It refers to the concept of realising the well-being of animals by avoiding their unnecessary suffering (Appleby, Olsson and Galindo 2018). Since the 1960s, starting in the UK, problems regarding modern livestock farming and the concept of animal welfare have been promoted. The Brambell Report in 1965 conceptualised animal welfare by formulating 'Brambell Freedoms' for farm animals, which later developed into the Farm Animal Welfare Council's 'Five Freedoms' in the early 1990s and formed the basis of subsequent animal welfare legislation in Europe (Appleby, Olsson and Galindo 2018). The focus of animal welfare continues to change from avoiding suffering to emphasising animal subjectivity, and it is applied to a wide range of animals (Mellor 2016; Appleby, Olsson and Galindo 2018). In the field of animal studies, animal welfare constitutes an important discussion topic, even from animal rights perspectives that reject all forms of animal use (Gruen 2018). Understanding of animal welfare is generally based on the Western theoretical framework. However, the social and cultural background of animal welfare has not been adequately discussed, and the roles of animals in different cultures and traditions affect the concept of welfare (Szűcs et al. 2012). This paper uses the example of

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animal welfare in Japan to examine the relationship between nonhuman animals, society, and culture.

It is noteworthy that the concept of animal welfare was being formulated in the UK when intensive farm animal production began in Japan. Dairy farming was introduced from Western countries to Japan in the late nineteenth century (Kamo 1976). Prior to that, the consumption of domesticated animals and their milk had generally been prohibited for about 1200 years in Japan, from the middle of the seventh century to the end of the nineteenth (Kamo 1976). As Japan was a Buddhist country, animals were not used or killed by humans for food (Szűcs et al. 2012). This prohibition continued until 1871, less than twenty years after Japan ended its national isolation (Ishida 2008). The new government advised people to eat meat and drink milk to gain physical strength, which was thought to be necessary to compete with modern Western countries (Kamo 1976).²

Although the consumption of meat and dairy products increased after the Meiji era (1868–1912), they were expensive and rare, and so limited to the wealthy class (Oshima 1970). It was not until World War II that these foods became common (Oshima 1970). The US occupation from 1945 to 1952 significantly changed Japan's dietary habits, including introducing bread, meat, and milk into the daily diet (Ishida 2008; Lee and Kobayashi 1982). Milk was also added to school lunches to improve children's nutrition (Masuda 2012). The consumption of milk per capita doubled from 1955 to 1965 (Oshima 1970). The number of cattle increased accordingly, but the number of dairy farmers decreased (Oshima 1970). During this period, many livestock farmers parted with their farms because they were required to expand their facilities with large capital investment (Nakahora 2015). Thus, dairy farmers were required to increase their milk yield, which was the beginning of large-scale farming in Japan (Nakahora 2015).

This study analyses a dairy farm depicted in a 2019 Japanese TV drama, *Natsuzora* ('Summer Sky'), to demonstrate how pastoral images and consciousness regarding animal welfare have been constructed in mass media in the context of the Tokyo Olympics and Paralympics 2020.³ *Natsuzora* has been chosen as the subject of this paper because it is a popular TV programme with an average high viewer rating, which focuses on livestock farming even though the number of dairy farmers is relatively small in Japan. The drama illustrates the life of a woman who is raised by a stepfamily in a dairy farm in Hokkaido, the northernmost area of Japan, and leaves for Tokyo to become an animator. On the one hand, the drama shows the life of a dairy farm in post-war Japan from the 1940s to the 1970s when the consumption and production of meat and dairy increased with technological development. On the other hand, it aired in 2019, when the concept of animal welfare was finally starting to draw attention because of the Tokyo Olympics in 2020. The drama shows the gap between the emergence of factory farming and the period when the concept of animal welfare was introduced to Japanese society.

² For the history of meat-eating and the country's modernisation process, see Tatsuya Mitsuda's (2019) recent discussion of vegetarianism and nationalism in Japan.

³ The Olympics were impacted by the COVID-19 pandemic in 2020. In March 2020, the Olympics were postponed to July 2021. According to a news survey conducted in January 2021, 80% of the public were in favour of either cancelling or rescheduling them (*Japan Times* 2021a). In March 2021, the organisers decided to ban overseas fans (*Japan Times* 2021b).

This study analyses the TV programme's story and the different reactions to it. The first section describes the development of dairy farming in the drama by referring to agricultural statistics from the 1940s to the present. The second section compares commentaries by the Ministry of Agriculture and the Animal Rights Center (ARC). I also scrutinise the social and historical background of the drama, including hosting the Olympics and the recent movement to promote women's participation in the workplace, by comparing the story arcs of the female protagonist and the dairy farm. In *Natsuzora*, the story of the protagonist as a pioneering female full-time animator runs parallel to the development of the farm.

The Story of *Natsuzora*: Pioneers Growing up with Cows

Natsuzora is a Japanese TV drama series that was broadcast in the morning from April to September 2019. The main character, Natsu Okuhara, who lost her parents during World War II, lives in Tokyo with her brother and sister. Owing to poverty, she is taken in by her father's friend, Takeo Shibata, whose family runs a dairy farm in Hokkaido. Natsu is raised by his family and milks cows with the head of the family, Taiju, who established the farm in the 1920s. To gain knowledge that could help the farm in the future, Natsu attends a local agricultural high school.

However, inspired by her friend and an American animated movie, she becomes interested in creating animated films. She is also eager to see her brother and sister in Tokyo. With the support and encouragement of the Shibata family, she graduates from high school and moves to Tokyo to work at an animated film production company and to find her siblings. She and her brother reunite after being separated for ten years. She reveals her talent as an animator and produces many popular animated movies and TV series. While creating works based on her own experiences of the war and life in Hokkaido, she finally finds her sister, who had been missing for over ten years.

Serial television novels (*renzoku terebi shōsetsu*) are Japanese TV drama programme series produced by the Japanese public broadcaster Nippon Hōsō Kyōkai (NHK). The series, referred to as 'morning drama' (*asadora*), is broadcast every Monday to Saturday from 8am to 8:15am for half a year. Beginning in 1961, some series gained popularity in the nation, such as *Oshin* (1983-4) and *Amachan* (2013) (Kinomata 2017), and have been translated into foreign languages and broadcast overseas (NHK Drama Bangumi-bu 2015). Many of the programmes present women who overcome difficulties during and after World War II, and they are categorised as *Bildungsromans* (Shiina 2020). They are often a gateway to career success for young female actors (NHK Drama Bangumi-bu 2015). To celebrate the hundredth series, some former female actors appeared in *Natsuzora* as supporting actors. While the audience rating of TV dramas has declined, serial TV novels have maintained an average rating of 20%, which is true even of the programmes broadcast since the 2010s (Yabe 2018). *Natsuzora* also recorded an average rating of 20% (Nihon Keizai Shimbun 2019).

Natsuzora was set in the period from 1946 to 1975. This was the time when Japan saw rapid economic growth and radical changes in society and people's lifestyles. After Natsu graduates high school in 1956, she moves from Hokkaido, where she lives with the Shibata family on

their ranch, to Tokyo. In Tokyo, she maintains a close relationship with the Shibata family, sometimes returning to Hokkaido for holidays and for inspiration for her animations. As she finds success in her career, Shibata Ranch shifts from small-scale, family-based livestock farming practices to modernised farming methods that allow the family to produce and sell milk more efficiently.

Let us examine Shibata Ranch's history as described in the drama. The owner and founder of the ranch, Taiju Shibata, was born in Toyama Prefecture, the north-western part of the main island of Japan. When the Japanese government promotes settlement in Hokkaido in the early twentieth century, he comes to the region alone to escape poverty. He tries to cultivate the land and grow rice, but because the region's soil is not suitable for grains and vegetables, he starts dairy farming. He plays a leading role in the region by sharing his knowledge of farming with neighbouring farmers. When Natsu first comes to the ranch in 1946, Taiju and his two employees are working there.⁴ Natsu, as a war orphan, feels grateful to the Shibata family for accepting her despite them not being related by blood, and she devotes herself to helping them take care of the cattle.



Figure 1. Cows tied with rope.
Natsuzora Episode 2
(Source: Author's Screenshot)



Figure 2. Cows tied using stanchions.
Natsuzora Episode 13
(Source: Author's Screenshot)

⁴ While one of Taiju's grandchildren, Teruo, helps them and takes over the ranch in the future, his younger sister Yumi is not involved in the family business when she is young. She says that she does not like milk, and spends most of her time reading books. She enters the Department of Literature at Hokkaido University. This is a great achievement as she is the first female university student in the area. Natsu and Yumi are the same age, but Taiju feels closer to Natsu than his granddaughter as he sees Natsu working hard at the ranch, and because he shares a similar experience with her (he also lost his parents when he was a child, as is revealed in a later episode).

Shibata Ranch's story shows the development of dairy farming in the northern part of Japan. Hokkaido, particularly the Tokachi area where Shibata Ranch is located, is now known for its dairy farming and products. As the story of *Natsuzora* progresses, some changes can be observed in the farming methods at Shibata Ranch. For example, in the late 1940s, the cows in the barns were loosely tied with rope (Figure 1). When Natsu entered high school in the mid-1950s, they were tied using stanchions in a newly established barn (Figure 2).

Stanchions fit around the necks of cows for ease of managing individual cattle (Chikusan Gijutsu Kyōkai 2020). This reflects reality, because as the number of dairy farmers increased, new barns were built during the 1950s and, to save labour, stanchion barns were constructed in the place of loose-housing barns (Ozaki and Miyoshi 1968).

The milking methods used at the farm also change. Natsu learns how to milk without hurting the cow's udder by watching Taiju and other experienced employees. The neighbouring Yamada family cannot afford to own their own cows, and so rent a cow from Shibata Ranch. To increase milk production and thus increase their income, the family feeds the cow clover. However, they provide excessive amounts and the cow suffers from ruminal tympany, a disease affecting ruminant animals and caused by gas in the rumen (Episode 23). When Natsu returns to Shibata Ranch in 1975, the Shibata family uses bucket milkers and discusses installing a new milking pipeline to increase milk production with a limited number of workers (Episode 154).

Natsuzora also describes changes in the production and sale of dairy products. During Natsu's childhood, milk is sold through the ranch owner's acquaintances, and butter is processed using a butter churn, as seen in Episode 10 (Figure 3). Shibata Ranch starts selling products through the local agricultural cooperative to stabilise the price of milk and butter and to expand their distribution. With the family's support, a butter factory is established in the 1970s owing to the city's desire to make dairy the main industry in the region. *Natsuzora* also illustrates the production of food items such as ice cream and sweets using local dairy products, which are now popular as local cuisine and souvenirs in Hokkaido.



Figure 3. A butter churn.
Natsuzora Episode 10
(Source: Author's Screenshot)

Commentaries by the Ministry of Agriculture and the Animal Rights Center

I would like to consider the development of these livestock technologies in the drama by comparing commentaries by the Ministry of Agriculture, Forestry and Fisheries and the welfare group, the ARC. Since the drama focuses on dairy farming in Hokkaido, the ministry supported the drama for its promotion of the dairy industry.⁵ The Livestock Planning Division provided commentaries to some of the episodes on the Ministry's website. To explain the farming methods depicted in the drama, they shared trivia about milk, dairy products, and the livestock industry twenty-three times during the drama's airing period (Nōrin Suisanshō 2019). The ARC, which was established in 1987 to improve animal welfare in Japan, responded to the Ministry's commentaries from an animal-focused perspective (Animal Rights Center 2019). The two organisations hold different opinions on *Natsuzora*.

For example, in Episode 2, Natsu drinks milk at the ranch for the first time and is impressed by its freshness, exclaiming 'Delicious!' (*Oishii*). The Ministry's commentary for this episode was titled 'Milk is Delicious' (*Gyūnyū wa oishii*) and explains how milk is produced. The webpage shows a photo of grazing cows with a caption, 'Image is for illustration purposes' (*Gazō wa image desu*) (Figure 4). The commentary by the ARC pays careful attention to the pastoral image of livestock farming presented in the drama and the Ministry's commentary:

Some people may have an idyllic image of dairy when they see *Natsuzora*, but modern dairy does not have that atmosphere. In the scene at the barn, Natsu is not allowed to milk immediately. The following dialogue is delivered: 'If you don't know cows, the amount of milk decreases. First of all, get along with cows'. However, there is no time for modern dairy farmers to 'get along' with cows [...] The image [shown in the ministry's commentary, Figure 4] as seen on the milk package is different from reality. If you get a job in dairy with such an image in mind, you will be disappointed. It is better to be careful. (Animal Rights Center 2019)⁶

⁵ The consumption of milk in Japan has been declining since it peaked in 1994 (Kubota, Nakano and Kono 2012). In April 2020, when the government declared a state of emergency owing to the COVID-19 pandemic, milk demand dropped by 30% without daily school lunches. A YouTube video, in which an official from the Ministry of Agriculture in a cow costume requested the nation to drink more milk, went viral during the stay-at-home period (Stapczynski 2020).

⁶ Author's own translation of the commentary.



Figure 4. Image of a dairy farm, from the Ministry of Agriculture, Forestry and Fisheries website

(Today's Natsuzora: Commentary from the Ministry of Agriculture)

URL: https://www.maff.go.jp/j/chikusan/kikaku/lin/natsu_zora/#0402 (Accessed: 18 September 2021).

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Calculating the number of cows per dairy farm in Japan, the ARC contrasts the average five to six cows in the drama with an average of eighty cows in real farms in 2017. The Center emphasises that the situation in the drama appears like ‘heaven’ for cows compared to the actual setup in contemporary milk production centres (Animal Rights Center 2019). As Peter Singer describes dairy cows in the era of factory farming in his book *Animal Liberation* (1975), they are now a ‘fine-tuned milk machine’:

The dairy cow, once seen peacefully, even idyllically, roaming the hills, is now a carefully monitored, fine-tuned milk machine. The bucolic picture of the dairy cow playing with her calf in the pasture is no part of commercial milk production. Many dairy cows are reared indoors. Some are kept in individual pens with only enough room to stand up and lie down. Their environment is completely controlled: they are fed calculated amounts of feed, temperatures are adjusted to maximize milk yield, and lighting is artificially set. (Singer 2009, 137)

The Center has criticised the anachronistic scenery of the ranch in the drama; today, it is no longer possible to see cows graze in such settings. Almost 70% of farmers in Japan do not graze cows, mainly because of the lack of space (Chikusan Gijutsu Kyōkai 2015).

While the Ministry of Agriculture supported the drama for its promotion of the dairy industry, the ARC has asserted that the methods it depicts increase animal suffering. Throughout the Ministry’s commentaries, it argues that the post-war livestock industry has developed through mechanisation. When the Shibata family considered installing a milking pipeline, the Ministry presented this as an optimistic concept, as mechanisation would reduce the burden on dairy farmers (Nōrin Suisanshō 2019). However, the ARC emphasises that mechanisation increases the suffering of cattle. The Center takes the example of the use of stanchions at Shibata Ranch. Stanchions make it easy to manage individual cattle but limit the movement of cows, causing arthritis and sleep deprivation due to a lack of exercise (Chikusan Gijutsu Kyōkai 2020). In recent years, the use of stanchions has declined, and farmers have shifted back to tying the cows loosely with rope (Chikusan Gijutsu Kyōkai 2015).

Regarding these differing opinions about the drama, it should be noted that it does not always show only the positive aspects of technology. In Episode 154, when Natsu returns to Hokkaido in 1975, the cows are no longer tied using stanchions. Instead, the farm uses tie stalls with looser chains and ropes (Figure 5), which the ARC does not mention in the commentary. On a stormy night, the milker ceases to work because of a power outage, and the entire family proceeds to milk the cows by hand. This is because cows are susceptible to bovine mastitis if they are not milked properly (Chikusan Gijutsu Kyōkai 2020). At this time, the family prioritises the safety and health of the cows over the storage and sale of milk. Older Taiju tells his grandson, Teruo, who takes over the ranch, that ‘the most important thing [for dairy farmers] is not to work or earn money. It is living with cows’ (Episode 155). The last part of the drama looks back at the protagonist’s childhood, when her family had fewer cows. This shows that the new technology installed on the farm does not always have a positive effect on farmers and their cattle.



Figure 5. Cows in tie stalls.
Natsuzora Episode 154
(Source: Author’s Screenshot)

Watching *Natsuzora* in 2019: Preparing for Tokyo Olympics 2020

When we examine the farming methods and relationship between humans and cattle in *Natsuzora*, we must consider the social background of the period when the drama aired in 2019, a year before the Tokyo Olympics. Hosting the Olympics was expected to increase the number of foreign tourists in Japan and to stimulate the national economy so that the nation could recover from the 2011 Great East Japan Earthquake (Yoshimi 2020).

Preparing for the Olympics also emphasised the importance of animal welfare in Japan. Currently, laws and regulations for animal welfare have been enacted in Europe, the United States, and many other developed countries (Appleby, Olsson and Galindo 2018). However, Japanese agriculture continues to practice factory farming methods as it exports few livestock products, and there is no economic pressure to change these methods (Kayashima 2018). For the Olympics, however, Japan is required to follow the sustainability standard for athletes’ meals set by the International Olympic Committee (Fukasawa 2018). In 2018, some athletes asked organisers to source cage-free eggs and stall-free pork (Legacy for Animals 2018). Under

the guidance of the Ministry of Agriculture, discussions about animal welfare finally began in Japan (Chikusan Gijutsu Kyōkai 2020).⁷

As the ARC argues, *Natsuzora*'s ranch may convey an idyllic and anachronistic setting to the audience in 2019. However, as Philip Brasor (2019) points out, the drama does not represent modern dairy since 'the drama is set during a time before factory farming became the norm' in Japan. By illustrating life on a dairy farm before modern farming methods were introduced, the importance of forging close relationships with animals and 'getting along with' them, as Taiju says, is reiterated.

Social and cultural oppression of animals and women and exploitation of female bodies have often been juxtaposed (Adams 2015). During the preparation for the Olympics, animals and women became controversial topics often discussed in Japanese society. In February 2021, the head of the Tokyo Olympics organising committee resigned after he was criticised for making sexist remarks about women (BBC 2021). Hosting the Olympic Games brought the debate and discussion of animals and women further into the spotlight in Japan.

The ARC evaluates *Natsuzora* from an animal welfare perspective, and it is important to watch the drama from a perspective other than that of the dairy farmers. One perspective to consider in *Natsuzora* is that of the women, as one of its themes is women's active participation in the workplace. Japan is notorious for its gender gap: it was ranked one hundred and twenty-first out of one hundred and fifty-three countries on the Global Gender Gap Index 2019, which measures the gender gap in social advancement in various countries (Osaki 2019). Under Prime Minister Shinzo Abe's administration, the Act on Promotion of Women's Participation and Advancement in the Workplace was enacted in 2015 (Kato and Zaimushō Zaimu Sōgō Seisaku Kenkyū-jo 2016). As a result, companies are obliged to formulate an action plan to promote the active participation of women. However, women's participation in the workplace continues to be low. Indeed, many women find it difficult to balance work and childcare and leave their jobs in their late twenties (Kato and Zaimushō Zaimu Sōgō Seisaku Kenkyū-jo 2016).

Natsuzora juxtaposes the story of a farm and the protagonist's life as the first female animator. Natsu becomes an animator after moving to Tokyo and marries a former director at her animation production company. At a time when it was normal at the company to leave work after marriage to focus on childcare, she decides to continue working full-time. After giving birth, she receives childcare support from her unemployed husband, female colleagues, and a nursery. While raising her daughter with formula milk, she takes a leading position at the company. As Kinomata points out, NHK's serial television novels are often closely related to the contemporary situation of women in society (2017). Most of the audience for the early series (i.e., in the 1960s and 1970s) were full-time housewives, and they enjoyed watching stories about families. Just before the enactment of the Equal Employment Opportunity Law in 1985 (Kato and Zaimushō Zaimu Sōgō Seisaku Kenkyū-jo 2016), women protagonists of the serial television novels started working. They actively depicted problems and difficulties women face at work and at home (Yabe 2018).

⁷ According to a survey on dairy cow management in 2015, 70% of farmers think it is important to consider animal welfare (Chikusan Gijutsu Kyōkai 2015).

Figure 6. Natsu remembers a cow's birth.
Natsuzora Episode 13 and 125
(Source: Author's Screenshot)



Figure 7. Natsu saves a calf's life with artificial respiration.
Natsuzora Episode 13
(Source: Author's Screenshot)



When Natsu gives birth to her daughter, she recalls a cow's birth at Shibata Ranch. Her suffering from labour pain is intercut with clips from Episode 13 of a cow's breech delivery (Figure 6). During the cow's delivery, she used the knowledge she had gained at high school to help birth the calf and, upon seeing it was not breathing, brought it back to life with artificial respiration (Figure 7). Episode 13 is also important as Natsu's actor changes from Sari Awano, who plays her as a child, to Suzu Hirose, who plays her as an adult. Thus, *Natsuzora* parallels the protagonist's growth from a girl to a mother and the birth of a cow, positing a bond between them. Natsu's growth at Shibata Ranch parallels her gaining knowledge about cows, and she learns about her physical changes as she grows from being a girl to a mother by observing dairy cattle. In addition, the bond between her and the cattle leads to the bond between her and her daughter when she formula-feeds her. Natsu grows up forging a close relationship not only with a family in Hokkaido, with whom she had no blood relationship, but also with cows, making, as Donna Haraway suggests, a kinship or multispecies relationship (2003).

At a glance, the story of *Natsuzora* supports the government's policy to promote women's participation in the workplace by depicting the life of a woman who succeeds in her career. However, it did not show male colleagues supporting her. When she finds out that she is pregnant and requests to continue working full-time, her colleagues just say, '*Ganbare*' ('good luck' or 'do your best') (Figure 8). The phrase '*Ganbare*', which is often used in this drama, places responsibility on the individual. Even when she works late immediately before and after

the birth of her child, she rarely receives help from male colleagues. When Takeo's wife, Fujiko, comes to Tokyo from Hokkaido to take care of Natsu's daughter, she thinks that Natsu might fall sick from working too hard at the company.



Figure 8. Natsu requests to continue to work full-time.

Natsuzora Episode 120
(Source: Author's Screenshot)

Another important perspective to consider in the context of *Natsuzora* is that of the indigenous people, the Ainu. The livestock industry in Hokkaido was established by exploiting the land of the Ainu (Emori 1998). After the Declaration on the Rights of Indigenous People passed by the United Nations in 2007, the government of Japan recognised the Ainu as indigenous to Japan. In 2019, the Act on Promoting Measures to Realize a Society in Which the Pride of the Ainu People Is Respected came into force (Umeda 2019). A year after the drama series aired, in 2020, the National Ainu Museum Upopoy was founded in Hokkaido to promote the understanding and awareness of Ainu history and culture (Upopoy 2020). However, the history of Hokkaido in *Natsuzora* was shown only from the perspective of Japanese settlers, never once mentioning the Ainu.⁸ Through the successful life stories of Taiju and Natsu, the drama emphasises the positive aspects of the 'pioneering spirit' (*kaitaku seishin*), such as a strong will to overcome difficulties, efforts to achieve success, and bonds with family and the settlers' community. It never mentions that the pioneers' social and cultural success has been achieved by sacrificing the indigenous people's rights. Overall, while *Natsuzora* shows the growth and success of war orphans and colonial settlers, it pays little attention to the suffering of nonhuman animals, women, and indigenous peoples.

Conclusion

Looking back at the history of post-war dairy farming in Hokkaido, *Natsuzora* shows how pastoral images and consciousness regarding animal welfare were being constructed immediately before the Olympics. The drama illustrates the development of factory farming and milk production, as seen in reality, from the 1940s to the 1970s, which represents a period of economic growth and technological improvement in the country. The Ministry of Agriculture and the ARC have different opinions on the development of dairy farming methods; while the former believe they reduce the burden on farmers, the latter think they

⁸ The only element in the drama that reminds the audience of the indigenous culture is a theatrical performance and costumes in the high school drama club in Episode 24.

increase the suffering of the cattle. This suggests that the popular TV programme mainly depicts the successful and heart-warming story of the war orphan and dairy farmers, ignoring the immeasurable suffering of the unheard, including non-human animals, women, and the indigenous people who have existed on the periphery of the history. The analysis of the drama also indicates that it does not illustrate the technological development in a linear way by showing the close relationship between humans and cattle in a small barn.

In 1964, Tokyo hosted the Olympic Games for the first time, which symbolised its recovery from the war and economic growth (Yoshimi 2020). The same year, British activist Ruth Harrison originally published *Animal Machines* and exposed the suffering of farm animals (2013). As modern animal husbandry emerged in northern parts of Japan, welfare conditions in British livestock farming were beginning to be investigated. About fifty years later, a nuclear power plant built to produce more energy during this period of economic growth caused a severe environmental crisis during the Great East Japan Earthquake of 2011, forcing Japanese society to change its values regarding life, science, and technology. Ten years later, the Tokyo Olympics 2020 are planned to symbolise the recovery from the earthquake of 2011 and from the COVID-19 pandemic of 2020.

It was beyond the scope of this analysis to elaborate on the role of media and fictional work in shaping the concept of animal welfare in each region and culture. Future research may examine how the media portrays the reality and ideals of livestock farming to the public. As the relationship between humans and non-humans is reconsidered after the outbreak of the zoonotic COVID-19 pandemic in 2020, society must also re-examine the environment and welfare of livestock animals. As the concept of ‘One Health’ in animal welfare advocates (United Nations News 2021), animal and human health cannot be separated.

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