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1. Introduction

Since the Yuan dynasty built pasture and brought Mongolian horses. Cheju Island has been well known for their habitat. According to records. the Yuan dynasty set up pasture in Cheju in king Wonchong's fourteenth ruling year, and appointed Topjajuck as a supervisor called Dalnowhajuck in king Chungyeol's second ruling year (1276) and brought 160 horses. Topjajuck had been to Yuan several times over a period of six years to bring several kinds of livestock. At that time, he brought horses as well. After that, it was of common knowledge that many horses were brought to Cheju Island for about 100 years.

Although Cheju Island had played a very important role as a place of producing and supplying horses, this became a burden to breeders because of tax. As the impact of the Korean war and the supply expansion of agricultural implements changed the usefulness of horses, the Cheju horse faced a major crisis point.

Cheju Island was once called Pungmado, which has many horses. Now it is regaining its past reputation.

2. The Present situation of Cheju Horse

In 1998 there were 8470 head of horses in 445 houses in Korea. At the end of 1996, the number of horses indigenous to Cheju were 3014. A select breed was 3641. In terms of a regional area, Cheju Island ranks as the first breeding place in total 4202, and Kunggi province next to Cheju Island breeds 1747 head of horses.

Considering horse breeding in Cheju Island, there are 4202 head of horses. Pukcheju county has 2098 head of horses most, and Namcheju county has 1034. There are 923 head of horses in Cheju city and 147 head of horses in Sogwipo city. (table 1)

According to the breeding horse species in Cheju Island, a select breed is 1429 head, and native species of Cheju is 2773 head. In the distribution of the number of houses related to breeding horses in Cheju Island. 71 houses have 1-2, and 58 houses have 5-9. 39 houses have 10-19. 28 houses have 20-39, and seven houses have 40-49. There are 50-99 horses in 22 houses, and in five pastures breed more than 100 head of horses.

table 1. The Head of a Horse Breed in Cheju Island

unit : head

city, county \a species	a select breed	cheju horse	a donkey	a mule	the total
Cheju Island	1429	2773	-	-	4202
Cheju city	173	750	-	-	923
Sogwipo city	73	74	-	-	147
Pukcheju county	2098	846	-	-	2098
Namcheju county	337	697	-	-	1034

(Chejudo, 1998)

3. The Future Situation of Cheju Horse

(1) The Preservation of Animal Gene

(The 347th natural precious product)

Cheju horses were once almost extinct with a sudden reduction in the number of the breeding horses because of the expansion of agricultural implements supply. Then, many people came to think of the preservation of a pure-bred Cheju horse as our cultural asset and take care of them carefully. Thus there was a survey on the breeding situation of the Cheju horse across Cheju Island. As a result of this, 64 head of horses considered as a pure-bred academically were designated as the third precious natural product preceded by Chindo dog and Ogol chicken.

According to the outcome of scientific research services including mine in February in 1986. 64 head of horses recognized as a pure-bred Cheju horse were designated as the 347th natural precious product. Now they are being taken good care of in a pasture under the Chejudo Livestock Promotion Center. It is very desirable to preserve animal genes as a very important cultural heritage.

At present, 77 head of Cheju horses dedicated as a natural precious product are being raised. 57 head of native Cheju ponies called Sungma ($\stackrel{\circ}{+}$ 54. $\stackrel{\circ}{+}$ 3), 19 head of horses called Yuksungma ($\stackrel{\circ}{+}$ 17. $\stackrel{\circ}{+}$ 2) and one head of horse called Zama ($\stackrel{\circ}{+}$ 1) are taken good care of.

(2) Horseback riding

Horseback riding is to control a horse like exercise (action) with riding a horse. In other words, it is arts that man and horse have one mind without exchanging any words between themselves. It is usually called horsemanship. Horsemanship in Korea seemed to start from ancient times. It was used as farming, transportation and method of carriage. Also it was developed as a essential technique in war. Shooting arrows and spears while riding a horse were important techniques along with archery, a long spear and swordsmanship.

There are 20 tour horseback riding places in Cheju Island. Pukcheju county has 6, and Namcheju county has 10. There are two places in Cheju city, and two in Sogwipo city. These places draw many tourists. In particular, about 70-80 percent honey moon tourists enjoy horseback riding. There are 400 head of Cheju horses. 1000 head of Cheju horses will be held by 2001.

(3) Horse Racing

They say that the origin of horse racing is as old as the time that

man raised livestock. There is a record of chariot horse racing in Homer's Iliod. Another record is about the cavalry in the Greece Olympic Games. In fact, horse racing started to improve a horse species, but after around World War two, the horses's role in military and industry was reduced. Then, as a sports game by using a pari-mutuel ticket, it became popular in every country especially England, the United States. Australia and France and became the center of society circles in Europe.

In September in 1990, the Cheju horse race course under the Korean Horse Affairs Association was established and became the first race course using an indigenous horse in the world. In this place, there are stands holding 5000 audience in the 210000 pyung. Cheju horse racing is held on Saturdays and Sundays from January to December. In summer, there is night horse racing. Now Cheju horse race course has 386 head of horses, and the number of horses will be increased up to 900 by 2001. Therefore, horse racing could be more active.

(4) The Animal Model as a Organ Donor

Cheju horse could be used as a organ donor. Among animals for Xenotransplantation, the transfer of organs between members of different species, the animal for an artificial heart transplant should meet some conditions. First, it should resemble the biological structure of the human heart. Second, after transplant the ability of recovery and the will of revival should strong. During that time, the hearts of goats and sheep used for experiment were close to human's biological mechanism condition. but the revival will for maintaining itself was weak after artificial heart transplant surgery. Therefore, it was hard to estimate the adjustment ability of artificial heart to recipient's bodies. The heart size of a six-month old Cheju horse is close to human's. It is also known as the animal which has strong exercise will related to the revival after a transplant surgery, so the use of Cheju horse is highly expected in this area.

(5) A Horse and Welfare

It has been about 5000 years since man and horse lived together. A horse has played an important relation with people centering agriculture and mountain villages, but recently it is less important as the methods of agricultural and transportation development. Now in Korea people have less relation with horses than before except " horseback riding as a sport" or "horse racing as leisure". However, the new period is coming up for building fresh and various contact between people and horses such as Horse Racing. Horse Trekking, culture of sentiments and rehabilitation. Elegance and wisdom of horses could give an idea to people what our life should be considering comfortable life, rich old age life, spare time activity, removal of stress and the preservation of environment which people need in the 21st century.

A healthy life means mental and physical activity for a richer life. To live a healthy life is believed to be active for capability for living and self-control such as early detect of diseases. immunity against virus with early treatment and health improvement. Moreover, Horseback riding or a horse riding therapy is used quite actively in England and Germany.

(6) The Use of Horse Meat

Horse meat consists of less fat than other meat, and the fat has unsaturated fatty acid and low melting point. In addition, its muscle fiber is thick and its moisture is low compared with beef. The proportion of protein is almost similar to that of other meat, but its muscle has glycogen. Horse meat is effective to those who have high blood pressure, neuralgia and diabetes. Horse oil is a good medicine for burns.

According to the analytical marks of Cheju horse and thorough-bred by parts for examining the value of Cheju horse meat, the moisture content ranged from 70.9 to 73.8 percent. Protein is $18.7 \sim 18.5$ percent, and fat is 6.4-6.8 percent. It showed a little difference by parts. Thus, it is necessary to examine closely the use of the Cheju horse as one of the high quality meat resources: development of cooking and export goods to Japan.

(7) The Performance of Traditional Horsemanship

Tourists tend to complain that Cheju tour is simple sightseeing. There is no night performance culture. So many people say that the establishment of performance places for activity of performance culture using the Cheju horse is desirable. Along this tendency, a performance place was set up. Now tourists can see a wonderful horse performance. Another place will be set up soon in Namcheju county.

The performance place called Green Resort Leisure Pasture Masangje located in 20 km from Cheju city by car and already provides tourists with new worthwhile sights. Masangje is the cavalry arts which carried out among horse soldiers during Imginwheran, the period of Japanese invasion, in 1592. This performance is made up of shooting, hanging beside a horse, lying down, standing upside down, falling backward, lying down across, hanging upside down beside a horse, and shooting standing on two horses while players ride a horse. Five Mongolians performed Masangje themselves in this place.

(8) Cheju Horse Park

There is Northern Horse Park in Hokkaidou, Japan, which many tourists visit. It is one of the most popular parks where wind, horses and nature could be one. Above all, it takes 15 minutes by car from Chidoshe airport, Hokkaidou. There are free shuttle buses every hour from ten a. m. to four p.m. every day, the main facilities in this park are tour coaches, horseback riding (tour horseback riding, horseback riding class for experience, riding a horse), bikes, rent cars, tennis, basketball, golf, table tennis, badminton, ski (winter), horse sliding(winter), and horse gallery. Everyone regardless of age enjoys what they like using a variety of facilities centering horses.

Cheju Island is able to establish Cheju Horse Park in this way and give memorable sightseeing to tourists.

(9) The Establishment of Cheju Horse Museum

Museums are basic factors for competition in the 21th century which is

the period of cultural war because we can get many ideas about the cultural industry from museums as a culture treasure. However, the situation of museums in Korea are too poor. There are 230 museums in Korea in comparison to 3000 in Japan. Even these museums are not used well.

A museum should be established for the next generation who is supposed to use the valuable folk materials related to horses in Cheju Island well known for the native horse place a long time ago. Considering the disappearance of precious materials related to horses, the establishment of a museum should be hurried along.

(10) The Establishment of Cheju Horse Research Center

Cheju Island has perfect natural conditions to breed horses, so it has been a famous producing horse center for centuries. They are saying that people should go to Seoul, and horses should be sent to Cheju Island. This shows close relation between Cheju Island and horses. Horses adjusted to the local environment of Cheju Island very well and have had great influences on the history of Cheju Island. It is of no use to say Cheju Island in the past without talking about horses. Horses are the very animal that has shared joy and sadness with people on Cheju Island for a long time.

In addition. Cheju horse is a very important animal gene resource which is very special characteristic as a horse breeding. We should preserve animal resources well and furthermore, encourage people to do academic research for the useful usage of the distinctive gene of Cheju horse continually. In order to this, we should establish a system. For instance, we should set up Cheju Horse Research Center from now and let the experts work sustainable researches on the Cheju horse systematically and effectively.

The forthcoming 21st century will be the period of a breeding battle. It is crucial for us to study steadily to prepare for this. We should give great support to breeding and recognize its importance.