

## **Thai Swamp Buffalo General Information**

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### **Introduction**

Before 1971 the buffalo was a very important domestic animal in Thailand. Statistics from the Thailand agricultural statistical center showed that Thailand had about 5.5 – 6.5 million buffalo during 1971 and 1981. The buffalo population declined to 1.8 million in 1999. Buffalo could be extinct from Thailand in 20 years, if no considerable public attention was received. There are several reasons for the reduction in the number of Thai swamp buffalo:

1. the reduction in the rice producing areas,
2. the replacement of buffalo by farm engines,
3. the castration of good male buffalo,
4. the industry invasion into the Thai rural areas, and *etc.*

From 1953 to 1971 the Thai rural areas were covered with buffalo because most of the rural families had 2 – 4 buffalo each. According the Thailand agricultural statistical center (1971 – 1981), Thailand owned the largest buffalo population and was the buffalo champion in South East Asian countries. Today, one would have to drive a car for a long distance to find one buffalo.

### **Types of buffalo in Thailand**

There are three types of buffalo in the world, the swamp buffalo (Fig. 1), the river buffalo and Mediterranean buffalo. The swamp buffalo is the indigenous buffalo in Thailand. The Department of Animal Science, Kasetsart University, was the first official unit that introduced river buffalo into Thailand during 1957 and 1978. Most of the swamp buffalo in Thailand are completely black in color. Only a few of them are white in color. The white buffalo are not albino but the color is due to uncertain genetic effects. The dark color makes the buffalo's look scary and most

ladies are afraid of the buffalo (Fig. 2). The dark color also makes buffalo heat intolerant, which is why it must stay near the swamps (Fig. 3, 4). On average, mature male buffalo weigh 450 – 600 kg in weight. The mature females weigh 350 – 450 kg in average (Fig. 5). Thai buffalo is longevity and prolificacy; female buffalo could have healthy offspring even elder than 20 years old (Fig. 6, 7, 8).

### **Thai swamp buffalo as a royal worker**

The Thai swamp buffalo is called “Ai Tui” in the Thai language which means, “it is an honest royal worker” that is very important for Thai farmer life. The buffalo was considered a royal worker because no comparable animals or machines could do the work as well as the buffalo. Because it has big feet and is good at pulling with slow walking steps, Thai farmers use them to pull rice-digging instruments for preparing the land to grow rice. The buffalo was also used as a transportation animal (horses are rarely used in Thailand up to today). Because of its long terrible looking horn (Fig. 9) that sometimes becomes as long as 3 meters across both horns, the buffalo was also used in war. However, most of today's buffalo have short horns (Fig. 10).

The Thai swamp buffalo can be used to work up to 14 years old without problems. That is very long royal worker life compared to other animals. On average, the buffalo works 5 hours a day. In one year a buffalo can help to grow 9.7 to 13.4 Rai of rice (1 Rai in Thai is equivalent to 1600 m<sup>2</sup>). The buffalo is used 122 days a year. In the past, most Thai farmers grew only one rice crop in a year. Today in the machine era, we can have 3 rice seasons in Thailand each year. After they are 14 years old the “royal worker” are sent to the slaughterhouse. A buffalo carcass will contain 40.8 to 46.4% based on live weight. Buffalo carcass quality is inferior compared to cattle i.e. less in lean cut percentage, less in dressing percentage, higher, the “royal worker” are sent to the slaughterhouse. This may be the reason why farmers today prefer to raise beef cattle.

### **Buffalo husbandry**

Both male and female buffalo were used as draft animals. Thai children perform the buffalo husbandry duties and thus the “royal worker” is also a friend to Thai kids. Because of the deep friendship between the buffalo and kids, the buffalo becomes very healthy and in good condition. The pasture quality in Thailand is

poor and barren (Fig. 11) but the buffalo is well adapted to this condition. It is able to eat everything refused by cattle. The weeds in the swamp areas along the roads are a good source of food for buffalo (Fig. 12). The buffalo is not only a “royal worker” but also our weed controller and an ecological maintenance animal (Fig. 13). The buffalo is also a fertilizer maker because it produces an abundance of feces that is fertile for the land. More important than fertilizer, buffalo’s feces is free of the toxic chemical residues found in commercial fertilizers that is harmful to the ecological system.

Unlike river buffalo, Thai swamp buffalo are very low in milk production. Buffalo are never milked for human food (even it was said that buffalo milk is very high in quality with 12% white fat). Buffalo meat in Thailand is a by-product because there is no buffalo meat production in Thailand. For this reason there is a lack of meat production data for the buffalo in Thailand.

### **Relationship between Thai farmers and buffalo**

Thirty to fifty years ago was the “buffalo golden age” in Thailand. During that time 90% of the Thai population were farmers and they all had buffalo. Thai people have deep relationship with the buffalo in the life. Several Thai songs mentioned the relationship between farmers and buffaloes. The buffalo era changed into the meat cattle era. This change occurred very fast and made the buffalo an endangered animal. Now, Thai custom compares a stupid person to a buffalo. Because they think the buffalo are stupid animals instead of an honest and royal animal. If it is said in Thai “You are a stupid buffalo” most Thais will become angry.

Most Thai farmers today that still have buffalo are not rich (Fig. 14). Their home conditions are shown in Fig. 15. Big farms belong to companies and raise beef cattle instead of buffalo (Fig. 16). Thai farmers still keep their “royal animals” next to their homes. In the first Thai song that included at the end of this paper “the buffalo sleeps near the farmer during the night”. The major food for Thais’ “royal animal” is rice straw (Fig. 17). This is the by-product produced by the buffalo itself. Of the buffalo produces the rice that is Thais’ food (the rice grain) and eats the part that the human are unable to eat (the rice straw). Do we abuse or take advantage of the “royal animal”?

## Thai swamp buffalo and the Thai cultures

Because 30-50 years ago there were a lot of buffalo in Thailand, the buffalo related deeply to Thais' life and became part of the Thai culture. There were several Thai songs that talk about buffaloes and showed as examples in Tables 1 and 2.

Table 1. Smell of mud and buffalo song (composed by Mr. Paiboon Butrakhan)

กลิ่นโคลน-สาบควาย  
ไพบุลย์ บุตรขัน

อย่าดูหมิ่นชาวนาเหมือนดังตาสี เอาขึ้นมาเป็นที่ขำนักพิงร่างกาย  
ชีวิตเอยไม่เคยสบาย ฝ่าเปลวแดดแผดร้อนแทบตาย ไล่ควายไถนาป่าดอน  
เหงื่อรินหยดหลังลงลดแผ่นดินไทย จนตัวดำเกรียมไหม้แดดเผามีได้อุทธ  
เพ็งพิงกายมีควายเคียงนอนสาบควายกลิ่นโคลนเคล้าโชยอ่อน ยามนอนหลับแล้วไผ่ฝัน  
กลิ่นโคลนสาบควายเคล้ากายหนุ่มสาวแห่งชาวนา ไม่ลอยเลิศฟ้าเหมือนชาวสวรรค์  
หอมกลิ่นน้ำปรงฟุ้งอยู่ทุกวัน กลิ่นกระแจะจันทร์ หอมเอยทุกวันนี้ต่างชาวนา  
อย่าดูถูกชาวนาเห็นว่าอับเฉา มือถือเคียว ชันเข่า เกี้ยวข้าวเลี้ยงเราผ่านมา  
ชีวิตคนนั้นมีราคา ต่างกันแต่ชีวิตชาวนา บุชากลิ่นโคลนสาบควาย

We should not look down on our Thai farmers. Their life was hinged on rice growing in rural areas. Thai life was tough and the farmers worked under the strong sunshine. Their skin was burned and became dark in color. However, they never complained about that. Near their homes the buffalo slept and a muddy smell always reached their noses. However, they slept in a good dream. The young male and female farmers were also covered with the muddy smell from the buffalo. Conversely, the Bangkokian who lived like in heaven always had the smell of good perfume. That is a big difference from the Thai farmers. Please don't look down on the Thai farmers. Their hands are always busy with a tool to cut the rice grain to feed us. Life is always a valuable thing, because the farmer worships on the muddy buffalo smell.

Table 2. Bringing buffalo to their place song (all right reserved by Kasetsart University, Thailand)

ดอนกระบือ  
 มหาวิทยาลัยเกษตรศาสตร์  
 ชาวไดใจกล้า เหมือนชาวงานเก่ง ยากไม่เกรง หนักหามทน  
 ถึงเราจนเราชานาไม่กลัว หาเลี้ยงตัวเลี้ยงครอบครัวเอ๋ย  
 ( หากินกันกลางด้าวดิน หากินกันมาแต่เยาว์ ชัยาว  
 ด้าแล้วดวาย กลับดอกที่ เร็วเกิดขี้เขี่ยอย่าเขื่อน เร็วเกิดขี้เขี่ยอย่าช้า  
 กลับดินหาแหล่งดวายเอ๋ย ๗  
 ทำงานวันยังด้า โททำไปจนห่อหมก ทรัพย์ได้ออม หวานไถเป็น  
 ถึงล่าได้ เราชานาไม่กลัว หาเลี้ยงตัวเลี้ยงครอบครัวเอ๋ย) ข้า

No one is as brave as the farmer. They are never afraid of hard work. They are very durable and patient with their hard work. Although they are not rich they are never afraid of that. They always earn money for their family. They start to work on the ground before sunrise and stop their work after sunset. After sunset they shout “Huei Huei Huei Huei”, the magic words to bring their buffalo home. They want the buffalo to move fast but the buffalo keep moving slowly and clumsily. They repeat the same job everyday since they were young until they become very old. They deposit their income on their land. They are able to grow rice by keeping on practicing. Their life is tough but they are never afraid of that. They always have to earn money for their family.

The story about the Bangkokian (a Thais who lived in Bangkok), afraid of the buffalo when they visit a rural area, is repeated in Thai movies. The Bangkokian always wears colorful cloth. When they meet the buffalo face to face, the Thai words “berng” is used to describe this situation. It means that the buffalo and human are looking face-to-face and eyes-to-eyes (Fig. 18). Most of the time the Bangkokian will be frightened because they are always thinking that the buffalo will become angry with them. So they run away. Actually, no one knows what the buffalo really thinks. The buffalo is colorblind. So, there is difference in color of the clothes that the farmer wears or the clothes that the Bangkokian wear for the buffalo. Perhaps, the reason the buffalo keeps on looking at the Bangkokian is their strange behavior. Who knows? This phenomenon might also occur in other countries. However, it occurred so often in Thailand that it became part of Thai culture.

## **References**

- Tumwasorn, S. 1979. Buffalo production. Department of Animal Science, Kasetsart University.
- Faarungsang, S. 1979. Buffalo feed. Buffalo bulletin. Department of Animal Science, Kasetsart University.
- Voranvan, C. 1984. Dairy Production. Thai Wattana Panich Publ., pp. 365.
- Chakriyrat, S. 2002. Artificial Insemination of Cattle and Buffaloes. Kasetsart University Publ., pp. 439.



Fig. 1. Typical short horn buffalo





Fig. 2. Long horn and dark color buffalo



Fig. 3. Cows near swamp but buffalo in the swamp



Fig. 4. Buffalo loves playing in swamp



Fig. 5. How heavy are they?





Fig. 6. A 21-year-old long horn buffalo with healthy buffalo kid



Fig. 7. Back view of old long horn female buffalo and buffalo kid



Fig. 8. A Thai buffalo kid



Fig. 9. Thai long horn buffalo





Fig. 10. Short horn buffalo resting under tree



Fig. 11. The buffalo is adapted to low quality pasture as well



Fig. 12. Buffalo along the road near Srakaew province



Fig. 13. A natural weed mower, buffalo, in mango garden





Fig. 14. Healthy and smiley buffalo owner



Fig. 15. Buffalo owner's home



Fig. 16. Large-scale beef cattle farm in the central Thailand



Fig. 17. Rice straw heap, low is nutrients but the buffalo can thrive on it





Fig. 18. Look out. Is the buffalo going to attack a colorful dressed person?