The status of Bakhtiari black goat rearing in Chaharmahal and Bakhtiari Province

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History of goat breeding in the province
History of animal husbandry in Chaharmahal and Bakhtiari province is more than 7 thousand years. Maybe the start of husbandry in this province for access to sources of forage for livestock was as pastoralist, mainly immigrants and smallholder farms. Husbandry in this province was based on small animals (sheep and goats). The Bakhtiari lands are included lands where the man domesticated of animals and plants for the first time. Also, some animals, especially goats were tamed for the first time in the mountains of the Bakhtiari.

Geographic distribution areas
The Bakhtiari black goat is one of the largest population of breeds in the Iran. Although this breed has been distributed across the provinces located in the Zagros Mountains, but this population mainly located in the West and Southwest parts of Iran, especially in the Chaharmahal and Bakhtiari, Lorestan and Khuzestan provinces.

Population
The population of this breed in Chaharmahal and Bakhtiari province is about 1 million heads now. Also, due to the decline of pastures and rangeland species the population of this breed has been reduced in the recent years.

The types of rearing systems
The main rearing goat systems in Chaharmahal and Bakhtiari province are nomadic, village and farming system, respectively. Although the keeping of goat in village and farming systems is growing, due to reducing pastures and coverage of grasslands, so far, the keeping goat in the intensive rearing system is not experienced in this province.

Job creation
Some 14034 households are directly engaged in rearing goats or combination sheep and goat. In addition, more than 10,000 people are indirectly engaged in handicrafts, sales, supply and distribution if input and output.

The cultural, social and economical relations with nomadic and rural communities
The rearing Bakhtiari black goat in Chaharmahal and Bakhtiari province has been considered as triple-purpose, due to the production of meat, milk and hair. The meat produced by kids of this breed is crisp, low-fat and having a taste and smell popular after the meat of the lamb in the province. The milk produced by this breed has a special popularity among the people of the province. The milk produced rarely sold as raw milk with more than 2 to 3 times of the price of milk produced by other livestock. The milk produced by goat sold mainly after converting it to products such as yogurt, cheese, fat, whey, Qara and will earned the added value more than three times the price of the raw milk goat. Products derived from goat’s milk are popular among the consumers inside and outside the province. So, the price of products is several times more than the same products derived from the milk of other livestock, and most of the products pre-buying from the farmers, so that hardly these products can be purchased in the market. The hair produced by goat also has many socio-economic applications in making handicrafts and houses in the tribes. Bakhtiari nomads live in black tents called “Buhon”. To make the black tents they use the hair of goat, which prevents the cracks caused by some parasites (Lepidoptera such as Tincola biseliella).
Appearance features
Although the fiber cover of this breed is mainly black, but also a variety of colors from white light to dark and hybrid schemes can be seen (piebald, brunette, gray, red spots, etc) in this breed. This breed of goat is agile and wise with a large size and the male goat of this breed is used as the forefront of the sheep flock.

Table 1. Reproduction features of Bakhtiari black goat

<table>
<thead>
<tr>
<th>Puberty age (months)</th>
<th>Mating age (months)</th>
<th>Parturition interval (months)</th>
<th>Fertility (%)</th>
<th>Twinning (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>16.33</td>
<td>-</td>
<td>91</td>
<td>19</td>
</tr>
</tbody>
</table>

Table 2. Economic traits of Bakhtiari black goat

<table>
<thead>
<tr>
<th>Gender</th>
<th>Live weight (kg)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Birth</td>
</tr>
<tr>
<td>Male</td>
<td>-</td>
</tr>
<tr>
<td>Female</td>
<td>-</td>
</tr>
</tbody>
</table>

Export
Due to this fact that the meat produced by kids is crisp, low-fat with a pleasant taste and smell, the number of male kids of this breed exported as official and unofficial way to the Persian Gulf Arabic countries in each year.

Items use of products
Meat produced by goat is used as a source of valuable protein for local people. The milk produced by goat is mainly converted to other dairy derivatives i.e. yogurt, cheese, fat, whey, Qara and having a large importance in food security of nomadic and village people. The hair produced by goat also has many applications in making handicrafts and house in the tribes. Bakhtiari nomads are living in black tents called “Buhon”. To make black tents use the hair of goat, that prevented the crack of some parasites (Lepidoptera such as Tincola biseliella). The other properties of goat's hair is that expanded at the time of rainfall and humidity, that cold weather cannot penetrate inside, and also shrunk in warm weather to cooler the inside of the tent. Goat's skin has two major applications. One called "Khik" is used as water bottle to transport or store the juice and the other called "Mashk" and is used for the production of milk products such as yoghurt, butter and so on.

Measures for identifying and genetic improvement
Up to now, no specific plan has been developed and implemented for identifying and genetic improvement in black goat Bakhtiari. In 2001, the genetic diversity of six Iranian native breeds of goat (Markhoz, Rayini, Southern Khorasan, Black Bakhtiari, Najdi and Tali) were studied using RAPD markers. Also, the breeding objectives and economic values of different traits were defined in order to construct economic selection index in a research project in the different rearing system (nomadic, village and farming) in 2009.
Suggestions ways to improve performance

1. It is suggested that due to the high economic and biological efficiency in farming system, any development in rearing Bakhtiari goat to be occurred in this system.

2. Due to higher relative importance of survival rate, milk yield and reproductive traits, it is suggested that in order to improve economic efficiency, these traits must be improved by genetic and non-genetic procedures in all of the rearing systems.

3. According to clarify the breeding objectives as well as economic values of traits that affecting profitability in this breed, it is suggested to use the economic selection index, group breeding program in the form of open nucleus plans are develop and implement to cover the number of Bakhtiari black goat flocks in this province and other provinces where rearing of this breed is common.

Fig. 1. Male (right) and Female (left) of Bakhtiari black goat
Fig. 2. Flock of Bakhtiari black goat