The status of Najdi Goat rearing in Khuzestan Province

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History of goat production in Khuzestan
According to statistics of Improvement of Animal Production Administration of Khuzestan province (2016), there are about 398794 heads emigrants’ goats and 947877 heads non-emigrants goats (as total 1346671 heads) in this province, which are reared by rural families and tribes. It seems that the name of this goat comes from "Najd", which means a wide and long land. Because of some historical evidences, Najd was a wide area in the Iranian plateau, where was covered the western foothills of the Zagros Mountains and Khuzestan province.

Geographic Distribution
Najdi goat as a native goat of Khuzestan province is distributed from the south foothills of Zagros Mountains in the east and southeast of Khuzestan to the coasts of Persian Gulf. Also, it is found in some regions of the north of Khuzestan.

Population
Because of undesirable crossing to other breeds, there is not accurate statistics about Najdi population and a few of this native mass - having minimum phenotype of the standard breed - are observed in the herds. But, it is estimated some 2500 heads. Unfortunately, this goat is one of the endangered breeds that need more attention to keep it.

Production systems
This breed is reared in traditional flocks, and industrial farming has not been experienced for this breed yet. This animal is a dairy goats.

Job creation
In the province, there are 2,7000 sheep and goat breeders which 30% of them have only goat and the others merely reared sheep or mixed flock of sheep and goats. Although the breeders (rural and tribes flock) usually do not have much technical information about rearing of this animal, they keep goats in order to improve their economic situation and also because of their great interest in this profession.

Cultural, social and economic relationship with nomadic and rural communities
Najdi goats are often kept and reared in relatively small flocks (with average of 15 heads). It should be noted that, contrary to other native goats, the Najdi goat cannot walk and migrate to another location with long distances. Therefore, because of this reason Najdi goats are rarely found among nomadic flocks that are constantly being moved, or in the flocks that they use feeding in pasture for a long time, and it is not compatible to this type of farming. For this reason, it is typically reared in urban and rural areas and in the houses with traditional system. Breeders use pastures near the city (up to 3-2 km) to feed goats, in addition to manual feeding.
Appearance characters
General color of Najdi goat is 55.4% light to dark brown, 25% white to dark white, 4% black and 15.6% mixed color in female goats and is 63.3% light to dark brown, 16% white to dark white, 2.4% black and 16% mixed color in male goats. But, its main color is light to dark brown. Usually, there is the dark line on Najdi back, from neck to tail as its main characteristic. Also, the color of it's around the muzzle, the end of feet, sometimes both sides of the face and eye orbit is darker than the color of body. Najdi goat has relatively small head and short minikin muzzle, flat forehead and pensile medium ears. It is recognized also by long minikin neck, narrow flat back and no long feet.

Table 1. Body dimensions of Najdi goat (cm)

<table>
<thead>
<tr>
<th>Gender</th>
<th>Body length</th>
<th>Wither height</th>
<th>Chest round</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutual male</td>
<td>93.7</td>
<td>69.7</td>
<td>80</td>
</tr>
<tr>
<td>Mutual female</td>
<td>92.7</td>
<td>64.8</td>
<td>73.8</td>
</tr>
</tbody>
</table>

Table 2. Annual yield of Najdi goat (kg)

<table>
<thead>
<tr>
<th>Lactation length (days)</th>
<th>Milk</th>
<th>Cashmere</th>
<th>Hair</th>
<th>Carcass</th>
</tr>
</thead>
<tbody>
<tr>
<td>174</td>
<td>135.5</td>
<td>-</td>
<td>-</td>
<td>13</td>
</tr>
</tbody>
</table>

Table 3. Reproduction features of Najdi 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>7</td>
<td>12</td>
<td>7.5</td>
<td>95.8</td>
<td>60.2</td>
</tr>
</tbody>
</table>

Table 4. Economic traits of Najdi goat

<table>
<thead>
<tr>
<th>Gender</th>
<th>Live weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Birth</td>
</tr>
<tr>
<td>Male</td>
<td>2.6</td>
</tr>
<tr>
<td>Female</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Products applications
Breeders make dairy products from this goat's milk, which are used by themselves. Despite the bad nutrition, management and health condition, this animal has relatively good milk production. Najdi goat meat is popular because of tenderness and delicious.

Conducted activities to identify and breed
Collecting 70 heads Najdi goats from the goat flocks, breeding of this breed by selection, doing estrus synchronization and artificial insemination operations and distributing male goats among goat flocks from 2012 so far by Improvement of Animal Production Administration of Khuzestan.

**Proposed solutions to improve its production**
- Continue to breeding and distribution of male goats in to the flocks in order to increase population of this breed.
- Conservation and sustainable development of goats raising career through increased efficiency and revenue in Khuzestan province
- Developing Najdi goat farming by the private sector and planning to export products to the countries of the Persian Gulf area.

![Fig. 1. Male (left) and Female (right) of Najdi goat](image)

Fig. 1. Male (left) and Female (right) of Najdi goat
Fig. 2. Flock of Najdi goat in the Safiabad Animal Husbandry Research Station