Introduction
Sheep and goat farming, and breeding, as well, have a longstanding tradition in Austria. However, they just represent a small range of animal production. 350,000 sheep and 70,000 goats have been kept in Austria in 2014 (Statistik Austria, 2015). Most of the sheep are kept for lamb production, in contrast to the goats, which are kept for milk production, predominantly. Additionally, sheep and goats are very important in terms of cultivation and conservation of cultural landscape, especially in steep grassland areas of Alpine regions. The single farms are quite small – an average flock consists of 25 sheep or 8 goats, respectively. 12 % of the sheep keepers possess more than 50 sheep and only 2 % of the goat keepers own more than 50 goats. The number of sheep and goats and the number of the respective farms is slightly declining (figure 1 and 2).

Sheep and goat breeds
In Austria there are 29 different sheep breeds and 15 different goat breeds. 8 sheep breeds and 7 goat breeds of these are to find in the programme for conservation of rare and endangered breeds (ÖBSZ, 2015). The sheep are divided in hill breeds, meat breeds, dairy breeds and land breeds. Concerning the goats there are mountain goat breeds, dairy goat breeds and meat breeds (table 1).

Organisation
Sheep and goat breeders as well as the sheep and goat farmers can be members of the federal associations for sheep and goat breeders, respectively. There are six such associations for sheep and goats, further three associations for sheep breeding only and three associations for goat breeding. Above these federal organisations there is the Austrian Federal Association for sheep and goats, which consists of different commissions, for example for the herd book and IT, for health, and for breeding as well as for marketing and one for the goats. The federal associations have to keep the herd books; additionally, they make the breeding programme and organise the performance tests concerning milk and meat. The stock exchange for sheep and goats is responsible for national commercialization.

Estimation of breeding value
Currently, there is no breeding-value estimation procedure for sheep and goats in Austria. However, implementation is planned for 2016. By means of the breeding objectives the relevant breeding characteristics are determined in the breeding programme and which level of performance is to be aimed at concerning the next generation. On the long run breeding objectives will only be constructive, if relevance is not only ascribed to performance but to vitality, as well (Fürst-Waltl und Fürst, 2014). Thus, on the one hand proceeds-relevant characteristics (e.g. milk and meat-yield) have to be considered of, and on the other hand functional features, like longevity and disease resistance, have to be borne in mind in order to reduce the costs.
In order to achieve the performance having been determined for the breeding objectives, performance of the animals has to be tested. These tests take place at a special performance testing.
All of the assessed characteristics are summarized in order to obtain an aggregate genotype. This is a so called selection index and represents the mathematical definition of the breeding objective. The total of all important characteristics is expressed by a number.

**Milk yield recording**
In 2014 379 farms have been working under control of milk yield recording. In total 3,260 sheep and 8,766 goats have been controlled (LKV Austria, 2014). The average milk yield per lactation lay at 435 kg for sheep and 635 kg for goats. The average amount of fat and protein was 28.2 and 22.3 kg concerning the sheep and 23.6 and 20.1 kg, respectively, concerning the goats. On the whole 11,223 t of ewe milk and 19,804 t of goat milk have been produced in the year 2014 (ÖBSZ, 2015). Compared to 2013, production of ewe milk has slightly increased whereas production of goat milk has slightly declined.

**Meat performance test**
Meat performance test for the meat breeds Texel, Suffolk, Blackheaded Mutton, Île de France, Berrichon du Cher, Dorper, Merino and Jura are carried out by means of ultrasonic scanner. Animals having a live weight of 35 – 45 kg are tested. Muscle depth and fat are measured in the range of 3rd and 4th lumbar vertebra (figure 3) by means of ultrasonic scanner. Besides, a subjective assessment of the body is accomplished and live weight is to be determined. The parameters daily gain in weight, muscle depth, fat, and subjective assessment constitute the basis for an index (Ringdorfer, 2006). Animals achieving a score beyond 90 are qualified for breeding. These tests are carried out with animals being intended to be used for breeding, only.

**Functional characteristics and habit**
Breeding objectives will only be constructive, if vitality is kept in mind besides performance. There are data in terms of habit and fertility to be recorded, as well. In this respect the assessment of habit as well as characteristics of fertility like lambing interval, litter size and still births are relevant.

**Herd manager**
All relevant data of the sheep and goats can be recorded by means of an online programme, the so called herd manager. This herd manager has continuously been being developed and is going to be available as “sz-online” from 2016 on.

**Exhibitions**
These are of great importance in the Western provinces of Austria (Salzburg, Tirol), primarily. There are a lot of regional associations for sheep and goat breeding, which organize annual exhibitions for their best animals. The animals are assessed and ranked according to their habit.

**References**


ÖBSZ, 2015: Jahresbericht des Österreichischen Bundesverbandes für Schafe und Ziegen 2014. www.oebsz.at
Table 1: Sheep and goat breeds in Austria

<table>
<thead>
<tr>
<th>Breed Type</th>
<th>Breeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mountain sheep breed</td>
<td>Tiroler Bergschaf, Braun Schaf, Schwarzes Bergschaf, Tiroler Steinschaf, Geschecktes Bergschaf, Jurabschaf, Walliser Schwarznasenschaf, Weißes Alpenschaf</td>
</tr>
<tr>
<td>Meat sheep breed</td>
<td>Suffolk, Schwarzköpfiges Fleischschaf, Texel, Dorper, Berrichon du Cher, Île de France, Charolais,</td>
</tr>
<tr>
<td>Dairy sheep breed</td>
<td>Ostfriesisches Milchschaf, Lacaune</td>
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<tr>
<td>Land sheep breeds</td>
<td>Merinolandschaf, Kärntner Brillenschaf, Krainer Steinschaf, Waldschaf, Shropshire, Alpines Steinschaf, Montafoner Steinschaf, Zackelschaf, Karakulschaf, Heidschnucke, Coburger Fuchsschaf, Kamerunschaf, Scottish Blackface, Zwartblesschaf</td>
</tr>
<tr>
<td>Dairy goat breed</td>
<td>Saanenziege, Gemsfarbige Gebirgsziege, Toggenburger Ziege, Bunte Edelziege, Anglo Nubier, Bündner Strahlenziege, Thüringer Wald Ziege</td>
</tr>
<tr>
<td>Mountain goat breed</td>
<td>Tauernschecke, Pinzgauer Ziege, Pfauenziege, Steirische Scheckenziege, Walliser Schwarzhalsziege, Pinzgauer Strahlenziege, Bloße Ziege</td>
</tr>
<tr>
<td>Meat goat breed</td>
<td>Burenziege</td>
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Figure 1: Development of sheep stock and sheep farmers in Austria

Figure 2: Development of goat stock and goat farmers in Austria

Figure 3: Schematic illustration of measuring points for meat performance tests