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Research Management

Assessment of animal welfare and animal health of kids and lambs from dairy goat and dairy sheep production reared for fattening

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Key words
Dairy goat, dairy sheep, lamb, rearing, health, growth, welfare

Aim of the study
The rearing of lambs/kids from dairy sheep and goat not used for breeding is challenging for farmers in terms of marketability, profitability, and labour input. To date, little was known about the rearing of these animals until slaughter in Switzerland. The aim of this project was to describe the current rearing systems for fattening dairy goat kids and dairy sheep lambs, and as well to assess their health status and growth rates.

Material and methods
The project consisted of three work packages (Wp1-3). (1) Based on data of TVD 2019-23 mortality rates, life span, frequency of animal movements and age at slaughter were determined. (2) Based on visits to farms with good agricultural practice, data were collected on the rearing systems of 22 Swiss dairy sheep farms, 17 dairy goat farms and nine fattening farms by means of an interview. Daily weight gain and health status (539 lambs, 235 kids) as well as gamma globulin levels (sub-sample of 131 lambs, 86 kids) were determined for a sample of new born animals of each farm in two (for kids) to three (for lambs) visits throughout their lifespan. (3) On a sub-sample of 10 sheep farms, the profitability of the rearing system was assessed.

Results and significance
The data of the TVD showed that lambs and kids mortality were within the expected range with median rates of 11% and 12% in kids/lambs. Kids were slaughtered at a younger age than lambs with median ages of 56 and 174 days for kids/lambs. Kids were mostly raised on their farm of birth until slaughter (85%) whereas nearly half of the lambs (48%) were sent to slaughter from a different farm.
The main rearing systems observed on the visited farms were motherbound, temporarily motherbound and artificial rearing for both species with great differences in milk allowance and feeding regimes within rearing systems. Eleven dairy sheep farms and one dairy goat farms transferred lambs and goat kids to a fattening farm. The measured gamma globulin levels were within the expected range averaging of 0.94 g/dl in lambs and 1.34 g/dl in kids. Average daily weight gains were 0.24 kg/day and 0.23 kg/day for lambs/kids. Good performance could be attained in all the current rearing and fattening systems suggesting the need to look more closely at other factors contributing to the high variance observed.
In the profitability analysis, four of the ten farms practised motherbound lamb rearing, three of them with less than 100 dairy sheep of lamb fattening. Three out of ten farms were unable to cover even the direct costs of lamb fattening with their lamb sales revenues, whereby the lost sheep's milk sales revenues representing the largest cost factor. Among these were two farms practicing mother-bound rearing. However, the other two farms with mother-bound rearing achieved good to very good incomes across the entire dairy sheep production branch. This indicates that the rearing system in itself is not an obstacle to good profitability.

Publications, posters and presentations

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