Survey of dairy cattle welfare in small-scale mountain farming systems of the Eastern Alps

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Small-scale dairy farming is a key activity in most mountain regions worldwide. The goal of the present study was to provide robust survey data for health and welfare of dairy cows in small-scale farms in the Eastern Alps using outcome-based indicators – as recently suggested in the OIE welfare standards.

The present study included 67 small-scale dairy farms in the transboundary alpine region of Austria (n=25 – mean herd size=20 cows) – Italy (n=21 – mean herd size=32) and Slovenia (n=21 – mean herd size=14). Measurements were based on the EFSA protocol targeting small-scale dairy farms modified after the Welfare Quality® approach. Assessments were carried out 3 times in each farm to capture the seasonal change in management practices characterizing traditional alpine systems. Information on farm practices and resources in both the lowland (mean elevation: 622 m asl) and the highland (mean elevation: 1392 m asl) farm sites was collected using questionnaires.

Most farms raised local dual-purpose breeds and mean milk yield/cow/year ranged between 3,330kg and 10,200kg. In all countries – more than 30% of cows were at least in their fourth lactation. Reported time on pasture ranged between 1200h and 11568h per year. At herd level – variability of most outcome-based indicators was large and welfare issues were mainly related to poor body condition (mean: 10% lean cows/farm – range 0-44%) – soiling of animals (mean: 39% dirty cows/farm – 0-93%) and integument alterations (mean: 6% cows with lesions/farm; 0-33%). For measures such as mortality – dystocia or lameness consistent low prevalence (mean <5%) were found.

This survey indicated on the one hand that small scale alpine farming system are very diverse in both farming practices and prevalence of outcome-based indicators and on the other hand that high levels of animal welfare can be achieve when small-scale alpine farms are properly managed resulting in 0% prevalence for most outcome-based indicators.

Key words: outcome-based indicators – mountain farming – dairy cattle – small-scale farms – animal welfare