

XI International Conference on Goats



Gran Canaria, Spain 2012



BOOK OF ABSTRACTS

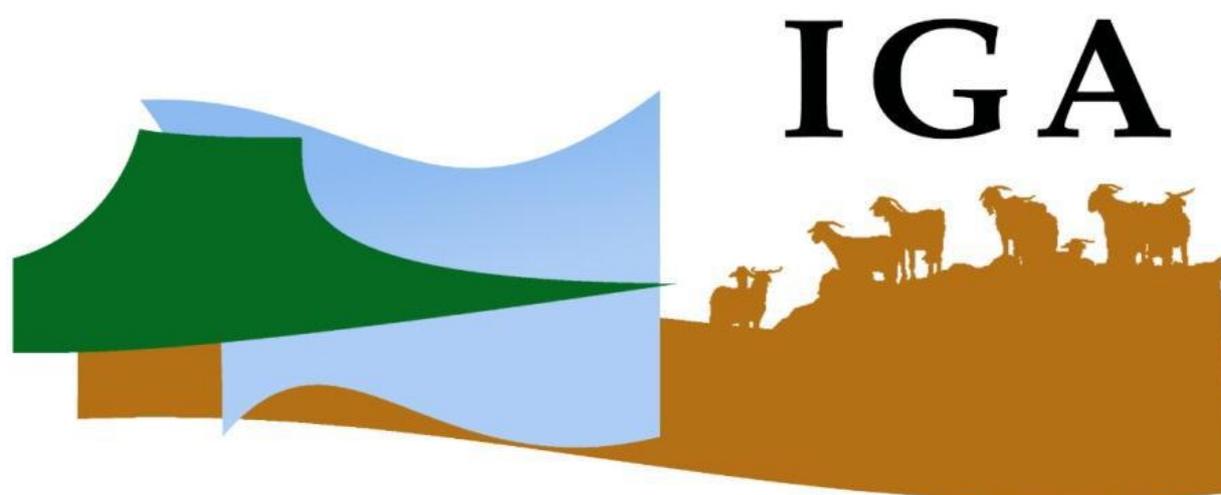


BOOK OF ABSTRACTS

XI INTERNATIONAL CONFERENCE ON GOATS

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Supervised by





A-22

Set up of a sampling strategy for the collection of animal-based welfare indicators during milking

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We hypothesised milking time to be the period of the production process that allows observers to have closer contact with dairy goats, hence being the ideal location/time to assess certain animal-based welfare indicators. However, for the development of a practical welfare assessment scheme, observing all the animals during milking would be too time consuming. The aim of the present study was to define a sampling strategy that can reduce the observation time and at the same time produce a valid and unbiased result. We observed milking in two farms (Farm1: 303 goats; Farm2: 141 goats). In each farm, goats were housed in two pens, so we had a total of four pens (191 and 112 goats each in Farm1; 65 and 76 goats each in Farm2). We collected data on lameness, body condition score, cleanliness, teat and udder abnormality and overgrown claws. Data were compared by chisq test. We found significant differences (at least $P < 0.01$) between farms for all the observed variables, except for lameness ($P = 0.08$). Within each farm, no differences between pens were recorded. A minimum of 3 to a maximum of 6 milking groups were formed from each pen, depending on the size of the milking parlour. We compared the prevalence of each welfare indicator in the whole pen with its prevalence in each milking group. In most cases, each single milking group did not statistically differ from the whole pen, and the central groups were able to better reflect the welfare situation of the whole pen. However, a clear and often significant increase of the prevalence of lameness was observed in the last milking groups. Our preliminary results suggest that a reliable sampling strategy can be used during milking to gather information about the welfare condition of dairy goats, thus reducing the time needed for data collection. When more than one pen is present in a farm, it seems that one pen can give sufficient information to represent the whole farm welfare level for the considered variables, provided that observations are carried out on the central milking groups. This seems particularly important for lameness. Further observations in more farms are required in order to confirm this hypothesis.



A-21

Deformation and overgrowth of the hooves, is it a problem in intensive dairy goat farms?

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One of the major consequences of intensive goat production is the lack of claw wear, often leading to claw deformation and overgrowth. Little is known about the prevalence of these two problems and the influence they have on lameness incidence. Our study was performed in an intensive dairy farm with 2000 goats (Alpine and Saanen) in milking. Lameness of thirty six randomly selected adult goats was scored (0 = not lame to 3 = severely lame) and the length, width of each claw along with the deformation of each hoof was measured. The anterior claws are wider than the posterior ones ($P < 0.001$) and the medial claw (33.1 mm) is wider than the lateral one (23.4 mm) in the hind limb ($P < 0.001$). The average length of the posterior claws is larger (80.1 mm) when compared with the anterior ones (77.1 mm) ($P = 0.027$) and the medial claws are longer than the lateral ones (76.9 mm and 80.2 mm respectively) ($P = 0.018$). A significant difference ($P = 0.029$) in the prevalence of claw deformation was shown between anterior and posterior claws (32% and 50% of claws assessed, respectively). A relationship between lameness and deformation was also shown with all animals with three hooves deformed being considered lame. However, we found that 33% of animals with no claw changes had some degree of lameness. There were no significant differences between breeds. These results show that anterior claws probably suffer more wear possibly because of the climbing behaviour of the goats. This may indicate that the hind hooves could be a good indicator to evaluate claw overgrowth in a farm if the evaluation was done in the milking parlour. The length of the posterior claws also show some correlation with a higher prevalence of deformation. These preliminary results show a tendency for lameness in the animals with deformed hooves.



A-23

Identifying promising animal-based welfare indicators in intensively bred dairy goats

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The AWIN project goal is to address the development, integration and dissemination of animalbased welfare indicators in different species, including goats. Considering the main productive systems around Europe, our first efforts focused on intensively bred adult dairy goats. We revised 40 scientific papers and drafted an initial list of relevant indicators, for each welfare criteria (good feeding, housing, health and behavior). From this list, the most promising animalbased indicators for on-farm welfare assessment were selected and the actions required to test their validity, feasibility, inter- and intra-observer reliability were identified. Some indicators can be collected in the home pen, but we hypothesised that some others may be collected during milking; a sampling strategy should be defined in order to gather the representation of the whole farm situation. Body condition score, panting score, kneeling, lesions/swellings, claw overgrowth, lameness, discharges, diarrhoea, abscesses, agonistic behaviour and abnormal oral behaviour have not been tested for their feasibility and reliability. Some of these indicators require to define/refine a scale and to develop a description and classification method with photographic illustrations as guideline. Lying behaviour, teats/udder abnormality, mastitis, isolated animals, snorting (sound alert) and qualitative behavioural assessment need to be better defined and fully tested. Preliminary results pointed out some doubts to include cleanliness as a reliable indicator, since goats are usually clean, but animals with wet hair need to be tested as an indicator of comfort around resting. Although shivering goats during cold season seem to be uncommon, we found some goats (probably weak animals) showing this behavior. This indicator needs further investigation. Many studies confirm the effectiveness of avoidance distance test to detect a good human-animal relationship, but we found many problems performing this test on goats. We are working to develop a valid test to show this relationship in every husbandry situation. During preliminary observations and sharing information with farmers, we found out new promising indicators that need to be completely investigated: animals with “bad hair”, probably weak animals with nutritional problems or parasitosis; waiting animals behind feeding goats, probably related to a lack of places at the feeding rack or fear of dominant animals.