

testicular sacs). Testicular diameter was 25.10 ± 1.1 cm for 1 year-old animals; 26.31 ± 2.16 cm for 15 to 18 months-old animals, 27.55 ± 3.04 cm for 2 years-old bucks; 31.5 ± 2.5 cm for 3 years-old, and 30.97 ± 2.44 cm for animals over 4 years old. A clinical and morphological pre-mating evaluation of bucks is a useful tool to detect and culling animals that might adversely affect flock fertility, prevent disease spread, and select males with desired traits.

390. Alternative strategies to prevent and control endoparasite diseases in goat farming

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In goat farming systems endoparasites have become a major threat (Coles, 2005). Infestation with gastro-intestinal nematodes in goat farming cause server economic losses and endanger animal welfare. Infections with gastro-intestinal nematodes can have a detrimental effect on animal health (Lüscher et al., 2005), leading to clinical and sub-clinical diseases, that may result in financial loss and overall decreased productivity (Rahmann et al., 2002). Current goat production relies on the application of chemical anthelmintics. The compulsory and often excessive use of chemotherapeutics (Hein and Harrison, 2005), often in combination with poor management practises (Wolstenholme et al., 2004), has resulted in endoparasite nematodes starting to develop resistance to treatment drugs. At present, resistant strains of endoparasites can be found all over the world, with some strains being resistant to most active agents. The development of organic farming systems, the increased public awareness for drug residues in agricultural products and the development of resistant strains of parasites have enforced the search for sustainable alternatives. The world wide conducted research has revealed the major potential to be within the field of non-chemical options. Biological control, effective pasture management, selective breeding, enhanced nutrition and the administration of bioactive forages were discussed and found to hold numerous options. The aim of this review is to summarise the current scientific knowledge of alternative strategies to prevent and control endoparasitic diseases in goat farming systems. The presentation will be divided into a part of non-chemotherapeutical control strategies and alternative anthelmintic treatments. The investigation of non-chemical control strategies comprises aspects of grazing/pasture management, breeding and feeding strategies to reduce endoparasite infection (Koopmann et al. 2007; Rahmann & Seip 2007a). The investigation of alternative anthelmintic treatments reviewed phytotherapy, homeopathy and copper-oxide wire particles (Rahmann & Seip 2007b). Phytotherapy will be examined in detail because it holds future potential, indicating a strong need for scientific verification of the potential of many plants. In conclusion this presentation will show possibilities and limitations in the area of alternative anthelmintic treatments as well as in non-chemical control options and outlines future research fields.

391. Prevalence of juvenile Capri-Paratuberculosis in postnatal kids belonging to farm and farmer's herds using culture and indigenous ELISA kit and geno-typing of Mycobacterium avium subspecies paratuberculosis by I1311 PCR-REA.

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To investigate prevalence of Juvenile Capri paratuberculosis in postnatal kids 71 fecal and serum samples (30 from government organized herd, 15 from private organized herd and 26 from farmers) were screened using fecal culture and indigenous ELISA kit. ELISA results were transferred to S/P ratio and the animals were categorized as negative, suspected, low positive, positive and strong positive. Cumulatively, 69.0 and 47.8% kids were positive by ELISA and fecal culture, respectively. The 73.3, 80.0 and 57.6% kids were positive in ELISA kit from government farm, private farm and farmer's herds, respectively (Type II sero-reactors). However, 40.0, 66.6 and 46.1% kids were positive in fecal culture from government farm, private farm and farmer's herds, respectively. MAP isolates were primarily characterized on the basis of morphology and mycobactin J dependency and finally using IS900 specific primers. MAP strains isolated from kids were genotyped as 'Bison type' using IS1311 PCR-REA. Study revealed high prevalence of MAP infection ('Bison type') in young kids belonging to farm and farmer's herds in North India. Potential of indigenous ELISA kit for the diagnosis of CJD has been discussed



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