

FEEDING MANAGEMENT AS A KEY FOR IMPROVING HEALTH AND PRODUCTIVITY OF CALVES

Qendrim Zebeli

Institute of Animal Nutrition and Functional Plant Compounds

Department for Farm Animals and Veterinary Public Health, University of Veterinary Medicine Vienna, Veterinärplatz 1, 1210 Vienna, Austria; qendrim.zebeli@vetmeduni.ac.at

Abstract. Calf health and early development have major impact on the economic viability of cattle operations, with nutrition playing a pivotal role. A high proportion of deaths of pre-weaned calves can be attributed to diarrhea mainly because of the failure of passive transfer of immunity. Reaching the breeding age also depends on early development of the calves. Thus, the successful calf nutrition starts with appropriate colostrum management of the neonatal calf. This suggests that dairy producers have only one first chance to lay down the tracks of a well growing calf and successful breeding animal, which is a successful colostrums management. The latter event starts with the feeding and care of the pregnant cow. After a period where the calf relies almost entirely on liquid feeds, intake of starter feeds induces ruminal development. Although various approaches are used to rear calves and recommendations for feeding concepts differ between countries, they all have to cope with the unique physiology of the calf born as a pre-ruminant and transitioning to a functioning ruminant. The main goal of this paper is to provide an overview of the nutritional needs and feeding strategies of calves in terms of optimizing health and production.

Keywords: calf production, rearing calf, rumen development, feeding plan