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## PROPOSAL FOR SIZING OF FACILITIES AND EQUIPMENT THROUGH BODY MEASUREMENTS IN DAIRY COWS

### Abstract

The design of facilities and equipment for dairy cows is an aspect of crucial importance in ensuring compliance with the requirements of comfort and animal welfare, as reflected in their productivity. Therefore, the use of biometric measures seems to be an appropriate methodology to better match the morphology of animals and the characteristics of the stables. The body measurements were listed in height at withers, height at rump, width at rump and the width of the chest, performed in about 20% of the more corpulent animals of the herd. The proposal refers to the length and width of corridors of movement and passage of animals across sectors and specifically the types and measures of cubicles. Reference is made to the importance of space required per animal in the manger and the water trough. According to body measurements in cows in Northern Portugal the corridor beside the manger should be at least 3,6 m wide and the corridor from the back and passage about 2,4 m. Dimensions recommended for cubicles head to head and against the wall are 230 cm and 260 cm in length respectively, and 112 cm width. It is estimated a space need for the manger of 63 cm and 6 cm of water through per animal.