

A REGIONAL SURVEY OF EMERGING HOT CLIMATE CONDITIONS IN PORTUGAL AND THE NEW CHALLENGE TO ANIMAL HOUSING

V. Fitas da Cruz¹, F. Baptista¹, J.M. Corte-Real¹, J.C. Barbosa², and I. Menezes¹

¹ ICAAM, Escola de Ciências e Tecnologia, Universidade de Évora, Ap^o 94, 7002-554 Évora, Portugal

² CIMO, Escola Superior Agrária de Bragança, Ap^o 1172, 5301-855 Bragança, Portugal

ABSTRACT

Portugal, located in the South-western Europe, is characterised by a Mediterranean climate with hot and dry summer. According to data from Portuguese IM (Instituto de Meteorologia) during the last decade, summer temperatures tend to be higher, and several heat waves have occurred, with temperatures above 40 °C. During summer, days with high temperatures and heat waves are becoming more and more common in Portugal. The past four summers have been among the hottest ever registered. These frequently high temperatures can cause problems in intensive animal production. In most cases, the livestock buildings are not prepared for animal production under high temperatures and most of them do not have environmental control equipments adequate to control indoor environment under such conditions.

From a geographical point of view, and examining climatic data, we find two regions (Alentejo and Trás-os-Montes) where high temperatures are more usual and summer tend to be hot. In these two regions, livestock is quite relevant and have a great significance to the regional economy.

Two locations were chosen in these regions to register and analyse air temperature in order to identify the occurrence of hot climate conditions; and to evaluate its influence on the inside animal housing climate.

Keywords: hot climate, animal housing, farm buildings

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