

# **“BEEFS AND CHIPS” ENVIROMENTALLY FRIENDLY OVERWINTERING OF CATTLE ON WOODCHIP PADS**

**F.A. Agostini<sup>1</sup>, J.A. Laws<sup>2</sup> and K.A. Smith<sup>1</sup>**

<sup>1</sup> ADAS Wolverhampton, Wergs Road, Woodthorne, Wolverhampton, WV6 8TQ, UK. (E-mail: [francesco.agostini@adas.co.uk](mailto:francesco.agostini@adas.co.uk))

<sup>2</sup> Institute of Grassland and Environmental Research ,North Wyke, Okehampton, Devon EX20 2SB, UK.

There is a large and increasing interest, in the UK and Ireland, in the use of woodchip stand-off pads as an alternative to conventional, straw-bedded housing and concrete yards. The many benefits perceived by farmers include low installation costs, low labour input, reduced pasture damage and improved animal health, welfare and production benefits. Woodchip “corrals”, within the original concept, are open-air, uncovered enclosures, bedded with large woodchips. For the timber industry they constitute a promising outlet for cheap wood, with a potential demand for c.4 t woodchip per animal at installation and, perhaps, 0.5 t per animal per year for maintenance (assuming some replenishment of chips each year, and based on average stocking densities on UK pads). At current straw costs, the cost of bedding a suckler cow over a 4-month winter, under conventional housing, is estimated at c. 102.4 €/cow.

The woodchip bed, which is typically 500 mm thick, is claimed to work as a biological treatment unit, reducing the pollutant load from dung and urine passing through and before entry into the freely drained subsoil. There is, however, little evidence, from limited research to date, to substantiate claims of effluent biodegradation in the pads. More recently, “stand-off” pads, with a ‘higher’ specification, have evolved. In the stand-off pad, topsoil and usually some subsoil is excavated and either the base is compacted (clay sites), or a plastic liner is installed (on more permeable subsoils). A drainage system is installed to collect the effluent, thereby avoiding the risk of contamination. The paper will present the current state of development of pads in England and Wales and associated management benefits and problems. Potential environmental risks and benefits will be highlighted and, also, the need for further research.