RESEARCH ABSTRACT

ANIMAL WELFARE

Title: Establishing bedding requirements for finisher pigs during transportation and skin surface temperature during different seasons after transportation -**NPB#10-176** **revised**

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ABSTRACT

Potential benefits of using different levels of bedding in trailers while transporting market pigs from finishing sites to the slaughter plants in different seasons were investigated. The objective of the study was to define the bedding requirements of pigs during transportation in commercial settings during cold, mild and warm weathers. Animals used were raised in commercial finishing sites as per industry standard practices. Three bedding levels low, medium and high (3 bales, 6 bales and 12 bales respectively) were assigned randomly to the trailers in which finishing pigs were transported and dead on arrival (DOA), non-ambulatory (NA) and total dead and down were used as a measure of bedding level efficacy and pig welfare. Skin surface temperatures of the pigs were analyzed as a non-invasive method to measure welfare. The research was divided into three experiments overthree different seasons; winter, mild and summer. Temperature ranges was divided into bins of 5 °C. In experiment 1, in January and February, bedding levels used were heavy (12 bales) and medium (6 bales). Total dead and down percentage when medium level of bedding was used was 0.11% whereas when high level of bedding was used, total dead and down percentage was 0.18% ($P = 0.29$). In experiment 2, in March and May, three levels of bedding heavy (12 bales), medium (6 bales) and light (3 bales) were used. Total dead and down percentages were 0.20, 0.21 and 0.09% in low, medium and heavy bedding level respectively ($P = 0.34$). In experiment 3, in June and July, bedding level was classified into four different levels 3, 5, 7 and 9 bags of bedding. Total dead and down percentages were 0.17, 0.42, 0.46 and 0.53% respectively in 3, 5, 7 and 9 bags of bedding ($P = 0.08$). Total dead and down percentage showed no interaction between bedding level and outside air temperature in all three experiments. Average skin surface temperature during unloading increased with outside air temperature linearly in all three experiments ($P < 0.01$).