

Effects of floor types on growth performance of grower-finisher pig and pig house's, wastewater quantity and quality during cool season ⁽¹⁾

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Abstract

The purpose of this study was to investigate the effects of floor types on growth performance of grower-finisher pig and pig house's wastewater quantity and quality during cool season. A total of 72 heads of LD (Landrace ♀ × Duroc ♂) pigs, were assigned to three types of floor pen, inclusive of solid floor (SOF), partially slatted floor (PSF) and totally slatted floor (TSF) when their average body weights were 48 kg during the cool season (from Jun. to Sep.). Each group consisted of four pen replicates of six pigs with half barrows and half gilts. The floor of groups SOF and PSF were flushed once daily by fresh water, and the ditch of TSF group was flushed every 3 or 4 day by recycled water. Feed and water were supplied *ad libitum*. The feeding trial was terminated when the average BW of pigs reached 115 kg. The water consumption, wastewater quantity and quality, and the growth performances of pigs were investigated. The Results show that the floor types did not affect the average daily feed intake and feed efficiency of pigs. During the grower stage, the flush water consumption of SOF, PSF and TSF groups were 41.60, 34.98 and 17.79 L/d/head, respectively and the wastewater quantity were 33.87, 28.80 and 16.43 L/d/head, respectively. The water consumption of PSF and TSF groups were about 84.09% and 42.78% of SOF, respectively and the quantity of wastewater of PSF and TSF groups were about 85.00% and 48.50% of SOF, respectively. During the finisher stage, the water consumption of SOF, PSF and TSF groups were respectively 39.51, 29.37 and 13.86 L/d/head and the wastewater quantity were respectively 34.65, 27.44 and 13.06 L/d/head. The water consumption of PSF and TSF groups were respectively about 74.33% and 35.09% of SOF, and the quantity of wastewater of PSF and TSF groups were respectively about 64.76% and 37.69% of SOF. In conclusion, the pig house installed partially slatted floor or totally slatted floor could decrease water consumption and reduce quantity of wastewater during the cool season.

Key words: Grower-finisher pig, Floor type, Flush water consumption.

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