

Effects of floor types on growth performance of grower-finisher pig and pig house's water consumption and wastewater quantity during hot season ⁽¹⁾

Tein-Ming Su ⁽²⁾⁽³⁾ Yi-Hsiang Weng ⁽²⁾ Cheng-Hsun Chung ⁽²⁾ Min-Chien Cheng ⁽²⁾
Ting-Hsun Hsiao ⁽²⁾ and Mei-Ping Cheng ⁽²⁾

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Abstract

The purpose of this study was to investigate the effects of floor types on the water consumption and waste-water quantity of pig house during the hot season, and their the growth performance of grower-finisher pigs. A total of 72 head 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 hot season (from Jun. to Sep.). Each group consisted of four pen replicates of six pigs per each pen, half barrows and half gilts each. The groups of SOF and PSF were washed once daily, and TSF group was washed once every 3 or 4 day. Feed and water were supplied *ad libitum*. The feeding trial was terminated when the average BW of pigs reached 115 kg. The water consumption and wastewater quantity of pig house, quality of wastewater and their growth performance of pigs were measured. The results showed that the floor types did not affect on average daily feed intake and feed efficiency of pigs. During the growing stage, the water consumption of SOF, PSF and TSF groups were respectively 41.60, 34.98 and 17.79 L/d/head and the waste-water quantity were respectively 33.87, 28.80 and 16.43 L/d/head. The water consumption of PSF and TSF groups were respectively about 84.09% and 42.78% of SOF, and the quantity of wastewater of PSF and TSF groups were respectively about 85.00% and 48.50% of SOF. During the finishing 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 reduced quantity of wastewater during the hot season.

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

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(2) Livestock Management Division, COA-LRI, Hsinhua, Tainan 71246, Taiwan, R.O.C.

(3) Corresponding author, E-mail: tmsu@mail.tlri.gov.tw.