

**BY EVAPORATIVE COOLING IN SUMMER SESSION IS
POSSIBLE TO IMPROVE GROWTH AND FEED CONVERSION
IN PIG FATTENING**

T. Adamec, P. Kunc, I. Knížková, J. Dolejš, O. Toufar

Objective

The influence of evaporative cooling in pig fattening on the growth, feed consumption and meat quality.

Abstract

One experiment with fattening pigs LWxL breed from 27 to 110 kg living weight in summer 1996 was carried out. Group (n=7) of pigs (4 castrates and 3 gilts) with water evaporative cooling had daily gain 800g (control group 762g). Gain consumption (ad libitum) was 3.37 resp. 3.57 kg/kg. Meat proportion was 50.3 resp. 46.8%. All differences were not significant. Time of evaporation was one minute after automatic contact in temperature 23°C (quiet interval was 20 min.). In the period of cool summer session from 14.6.96 to 5.9.96 there were a whole number of evaporations -53 in 24 days from 84 days of fattening. Average temperatures inside were 17.5 - 20.4°C, outside 14.5 -18.0°C.

Table 1. - THE CONSUMPTION OF FEED MIXTURES AND DAILY WEIGHT GAIN

Criterion	n=7	Control group	Group with evaporation
Feed consumption per 1 kg in the 1 st half of fattening	kg	3.00	3.10
Feed consumption per 1 kg in the 2 nd half of fattening	kg	3.91	3.82
Feed consumption per 1 kg for the whole time	kg	3.57	3.37
Daily weight gains in the 1 st half of fattening	g	785	803
	s	37.6	12.9
Daily weight gain in 2 nd half of fattening	g	739	748
	s	300.1	211
Daily weight gain	g	762	800
	s	159.5	97.6
Whole weight gain	kg	80.0	83.9
	s	16.7	10.2
Slaughter weigh	kg	107.7	111.1
	s	19.8	13.0.

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T. Adamec, P. Kunc, I. Knížková, J. Dolejš, O. Toufar, Research Institute of Animal Production, Prague, Uhřetěves, 10400, Czech Republic.

A fotoexposition in infrared spectrum one time there was made. Decrease of body temperatures was to average 4.7°C and settlement was to 30 minutes. Exchanges of temperature were different on body parties and also individually according to the disposition of pigs. Pigs were getting up with pleasure below the evaporative zone.

HLADENJE ISPARIVANJEM U LJETNOM RAZDOBLJU MOŽE SE POBOLJŠATI RAST I KONVERZIJA HRANE U TOVU SVINJA

Cilj: Utjecaj hlađenja isparavanjem u tovu svinja na rast, utrošak hrane i kakvoću mesa

Izvadak

Pokus sa svinjama u tovu pasmine LWxL od 27 do 110 kg žive vage obavljen je u ljetu 1996. godine. Skupina (n=7) svinja (4 uškopljenika i 3 nazimice) uz primjenu hlađenja isparavanjem vode imala je dnevni prirast od 800 g (kontrolna skupina 762 g). Utrošak hrane (ad libidum) po prirastu bio je 3,37 odnosno 3,57 kg/kg. Omjer mesa je 50,3 odnosno 46,8%. Razlike nisu bile značajne. Vrijeme isparivanja bilo je jedna minuta nakon automatskog kontakta na temperaturi od 23°C (vrijeme mirovanja bilo je 20 min). U ljetnom razdoblju hlađenja od 16.6.96. do 5.9.96. odvijao se čitav niz isparivanja –53 u 24 dana od 84 dana tovljenja. Prosječne temperature u objektu bile su od 17,5 – 20,4°C.

Tablica 1. - UTROŠAK KRMNE SMJESE I DNEVNI PRIRAST TEŽINE

Kriterij	n=7	Kontrolna skupina	Skupina s isparivanjem
Utrošak hrane za 1 kg u prvoj polovici tovljenja	kg	3.00	3.10
Utrošak hrane za 1 kg u drugoj polovici tovljenja	kg	3.91	3.82
Utrošak hrane za kg u čitavom razdoblju	kg	3.57	3.37
Dnevni prirast težine u prvoj polovici tovljenja	g	785	803
	s	37.6	12.9
Dnevni prirast težine u drugoj polovici tovljenja	g	739	748
	s	300.1	211
Dnevni prirast težine	g	762	800
	s	159.5	97.6
Ukupni prirast težine	kg	80.0	83.9
	s	16.7	10.2
Klaonička težina	kg	107.7	111.1
	s	19.8	13.0

Fotoekspozicija u crvenom spektru učinjena je jedanput. Pad tjelesne temperature bio je u prosjeku 4,7°C, do 30 minuta. Promjene temperature bile su različite prema dijelovima tijela i pojedinačno prema raspoloženju svinja. Svinje su rado dolazile u područje isparivanja.