60th Annual Meeting of the European Association for Animal Production — Barcelona from 24th to the 27th August 2009

S.40 „Pig Production Free Communications“

ECONOMY IN PIG BREEDING WITH RESPECT TO GENOTYPE IN THE CZECH REPUBLIC

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Objective

The objective of this work was to verify production yield rate of selected genotypes of hybrid pigs by testing stations and to determine the effect of various inputs based upon real values of selected performance traits (weaner, grains) and output (the selling price) on the economics of fattening.

Materials and Methods

The 2 groups of hybrid pigs of 72 heads, where a cross-breed of LWDxL as mothers and pure bred boars were used as sires of the PN breed and hybrid LWSxPN, were monitored in the test station. Parameters were monitored in each pig weekly namely ALW, ADG, DFI, FCR, LMP and MCR (meat conversion ratio). The economic results of the monitored genotypes were evaluated by the profitability function in the form of profit total/item = sale total / item - cost total / items. cost total/ items = cost per piglet + cost for feed + cost fixed.

The fattening fenotype data were processed mathematically/statistically, converted and expressed in tables and graphs.

Results

Table 1 Overall selected indicators of feed efficiency and slaughter value from 25 to 105 kg of live weight

Item (LWDxL)x	ADG * (g)	FCR ** (kg)	DFI (kg)	Fattening* (days)	Fattening diff. (days)	LMP (%)	MCR1 (kg)
PN	890	2.7	2.4	89.9	5.1	55.3	5.08
LWSxPN	943.4	2.5	2.4	84.8	0	55.7	4.68

1 - meat conversion calculation is based the assumption that a stock porker with a weight of 25 kg contains 15 kg of lean meat

* P < 0.05, ** P < 0.01

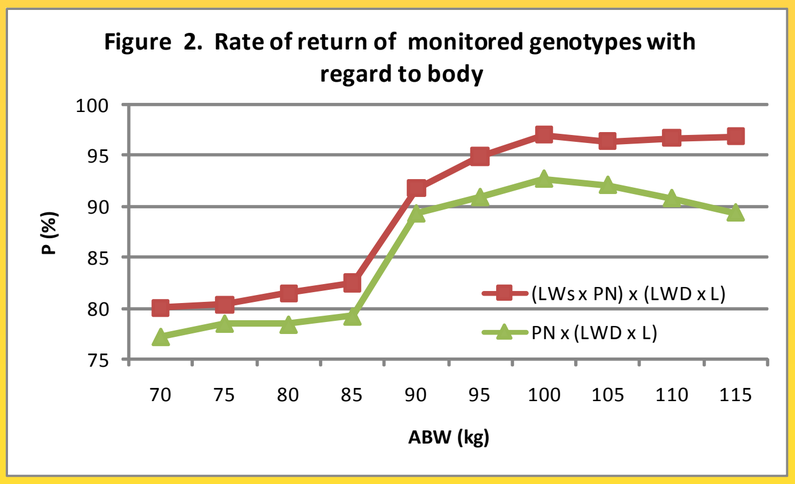

Table 2 Feed conversion dependence in kg and CZK on the attained live weight

	F C R			
	PNx (LWDxL)		LWSxPNx (LWDxL)	
ALW (kg)	CFM/kg of gain (kg)	CFM/kg of gain (CZK)	CFM/kg of gain (kg)	CFM/kg of gain (CZK)
70	2.81	16.55	2.66	15.65
75	2.90	17.06	2.75	16.23
80	3.00	17.66	2.85	16.81
85	3.12	18.36	2.95	17.38
90	3.15	18.54	3.05	17.96
95	3.2	18.84	3.14	18.53
100	3.38	19.90	3.14	18.48
105	3.47	20.46	3.23	19.05
110	3.60	21.19	3.33	19.61
115	3.75	22.10	3.42	20.18

Table 3 Meat conversion dependence in kg and CZK on the attained live weight

	PNx (LWDxL)			LWSxPNx (LWDxL)		
	MCR					
ALW (kg)	LMP (%) (%)	CFM/kg meat (kg)	CFM/kg meat (CZK)	LMP (%) (%)	CFM/kg meat (kg)	CFM/kg meat (CZK)
70	58.40			58.3		
75	58.20	5.23	30.80	57.9	5.27	31.04
80	57.90	5.61	33.07	57.5	5.54	32.64
85	57.50	6.10	35.92	57.1	5.82	34.29
90	57.10	6.26	36.87	56.8	5.89	34.73
95	56.60	6.72	39.58	56.4	6.39	37.66
100	56.00	7.57	44.61	56.0	6.48	38.18
105	55.30	8.41	49.54	55.7	6.50	38.32
110	54.60	9.01	53.10	55.3	7.10	41.82
115	53.80	10.36	61.06	55.0	7.08	41.69

Conclusions

- At the present time, characterized by high input prices and a low selling price, a profit cannot be attained under the present pig production,
- a profit can be achieved from a genotype (LWSxPN)x(LWDxL) from 90 to 100, resp. 115kg, while achieving: a reproduction performance of 25 reared piglets/sow/year, an increase of the pork carcass price to CZK 32 per kg of live weight, feed price of CZK 3,500 per ton,
- PNx(LWDxL) genotype shows losses in all improved performance parameters, except 95-105kg interval in the case of 25 reared piglets/sow/year, or at an increase of the average sale price/LW up to CZK 32,
- lean meat formation x live weight interaction is the prior factor of genotype selection, for achieving the optimum selling price,
- knowledge of the production performance parameters is principal condition of genotype selection for large scale operations,
- feed conversion and lean meat conversion are most significant items of the costs per unit,
- growth intensity influences the amount of fixed costs,
- average daily gain of 900g, feed conversion less than 2.7kg and daily feed intake of 2.4kg must be attained for profitable fattening in commercial herds.

This research was supported by the Ministry of Agriculturae (QG 60045) and the Ministry of Education of Czech Republic (MSM 60460709).