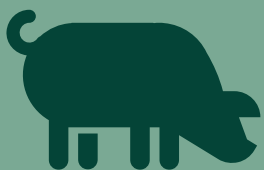




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THE SPACE ALLOWANCE AFFECTS SELECTED PORK PHYSICOCHEMICAL TRAITS OF NATIVE POLISH PULAWSKA PIG BREED



Goździejewska Weronika, Ludwiczak. A., Składanowska-Baryza J.,
Zaworska-Zakrzewska A., Kasprowicz-Potocka M.,
Łodyga D., Sell-Kubiak E.



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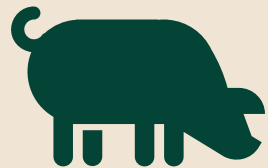
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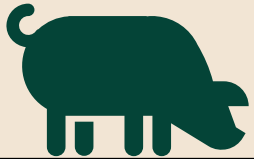
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**MEAT QUALITY = LINKING EXTENSIVE
HUSBANDRY PRACTICES TO THE INTRINSIC
QUALITY OF PORK AND BROILER MEAT**



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NATIVE PIGS BREED

Pulawska

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Zlotnicka White



Zlotnicka Spotted



NUMBERS OF FARM IN POLAND

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=

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RESEARCH OBJECTIVE



- To examine the effect of space allowance on the slaughter performance and meat quality in Pulawska fatteners,
- And to evaluate if sex influences the parameters studied.



MATERIALS

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- Purebred Pulawska fatteners
(n= **42**; slaughter weight **100-110 kg**):

CONTROL
1 m²/ANIMAL
N=14

GROUP 1
1.5 m²/ANIMAL
N=14

GROUP 2
2.0 m² /ANIMAL
N=14

EXAMINED TRAITS

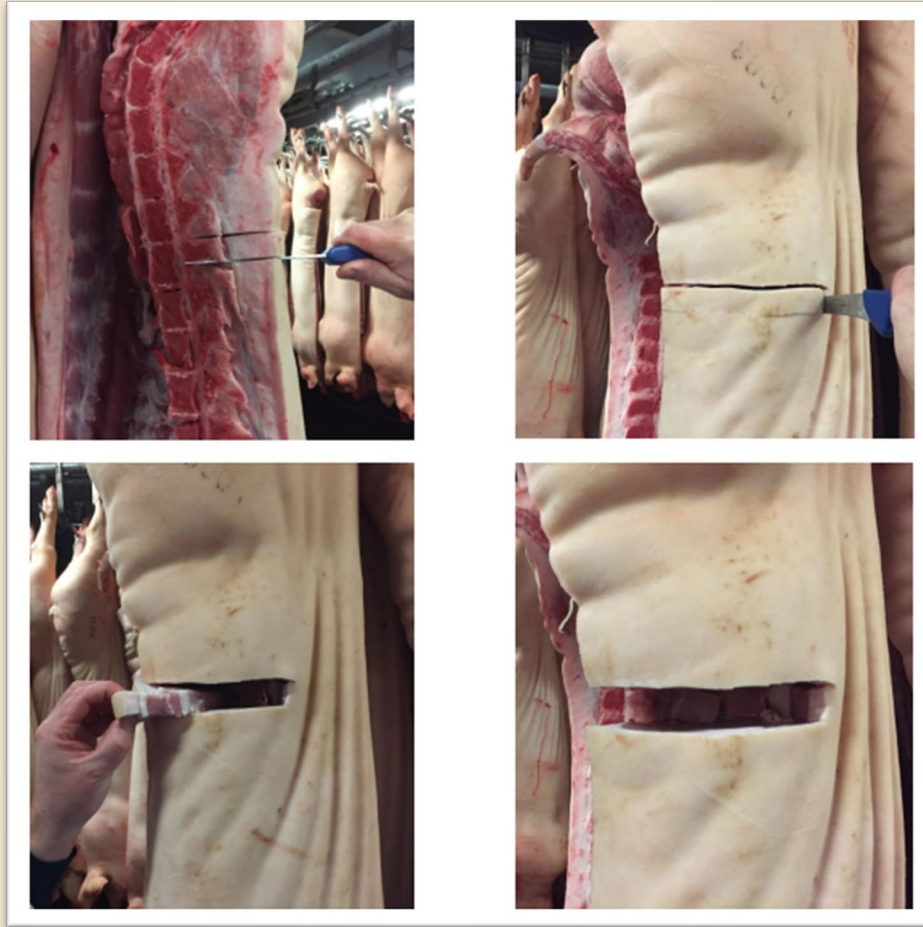
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m. longissimus thoracis et lumborum; LTL

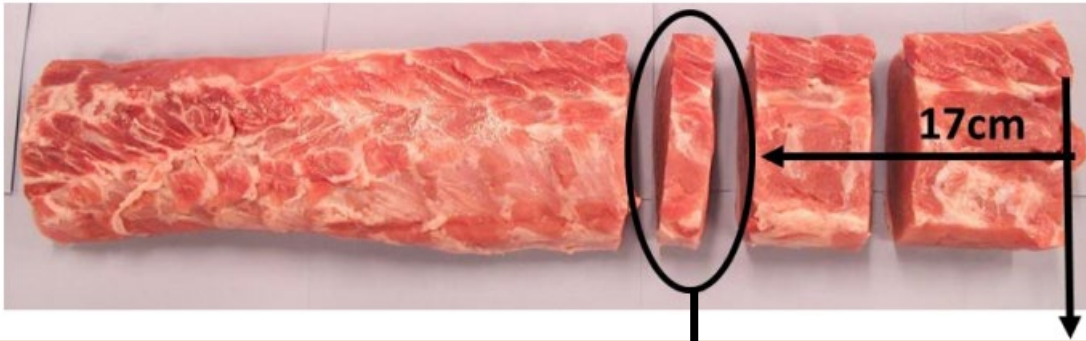
- **Slaughter traits:** carcass weight, meatiness, loin weight
- **Meat physicochemical quality**

METHODS

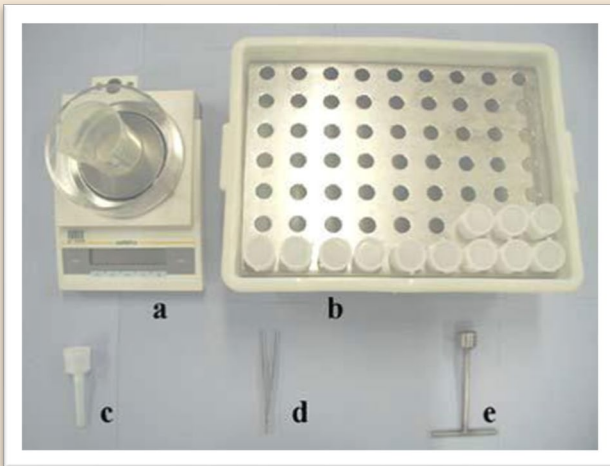


- Slice of 20 mm thickness opposite to the 5th posterior lumbar vertebra.

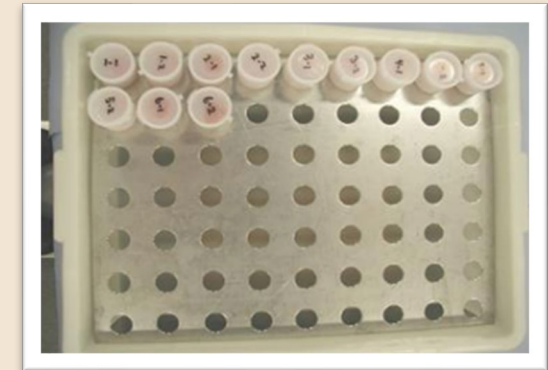
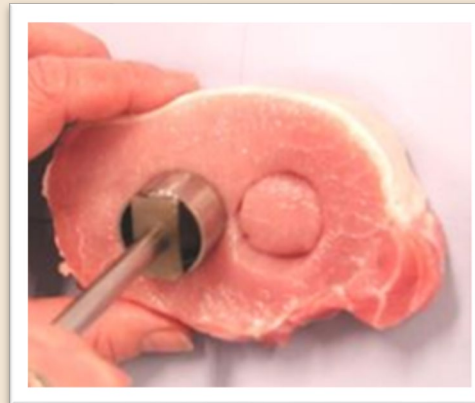
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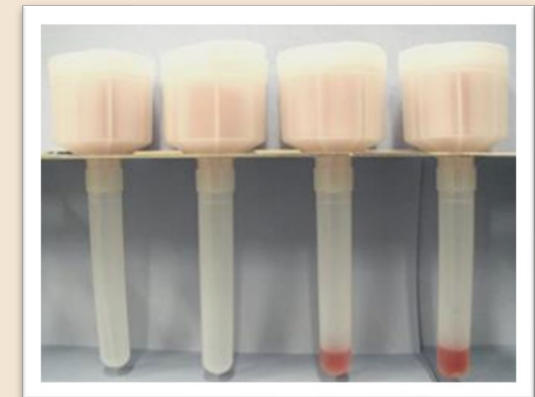
For each **left** loin (LTL)

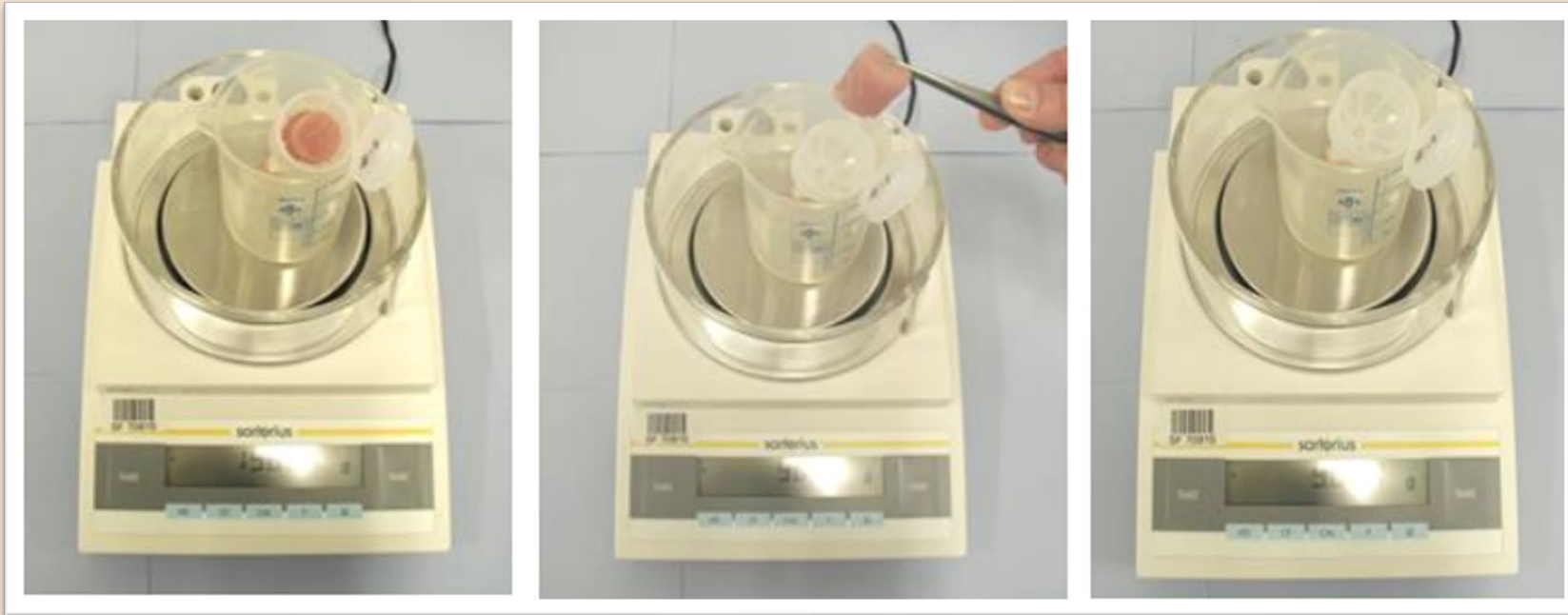


- a. Chemical scale and beaker glass
- b. Plastic box with holder
- c. EZ- DripLoss containers
- d. Tweezers
- e. EZ-DripLoss circular knife



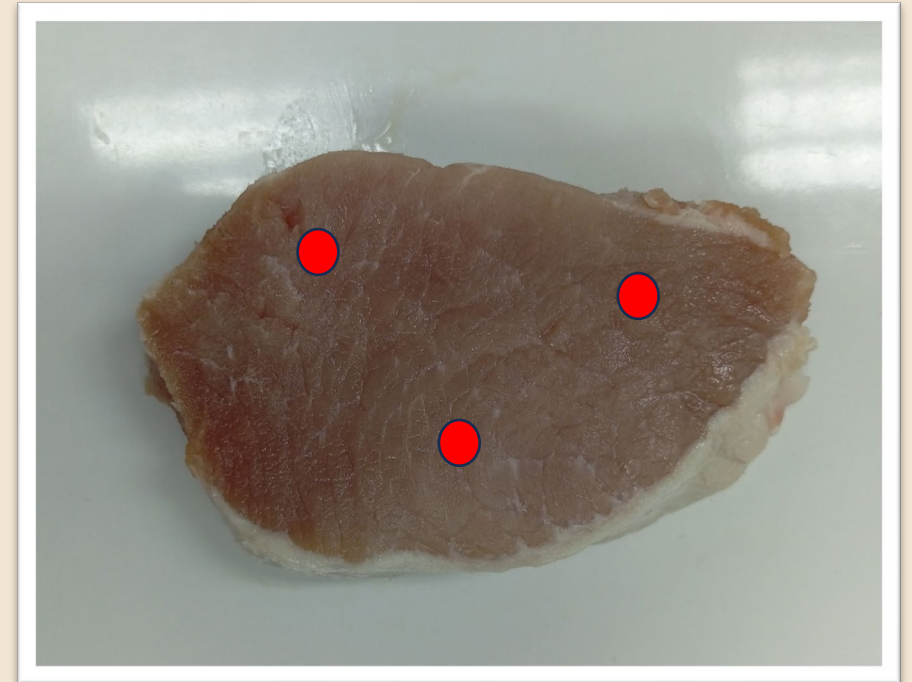
Store the EZ- DripLoss samples
at **4°C** for **24 hours**.



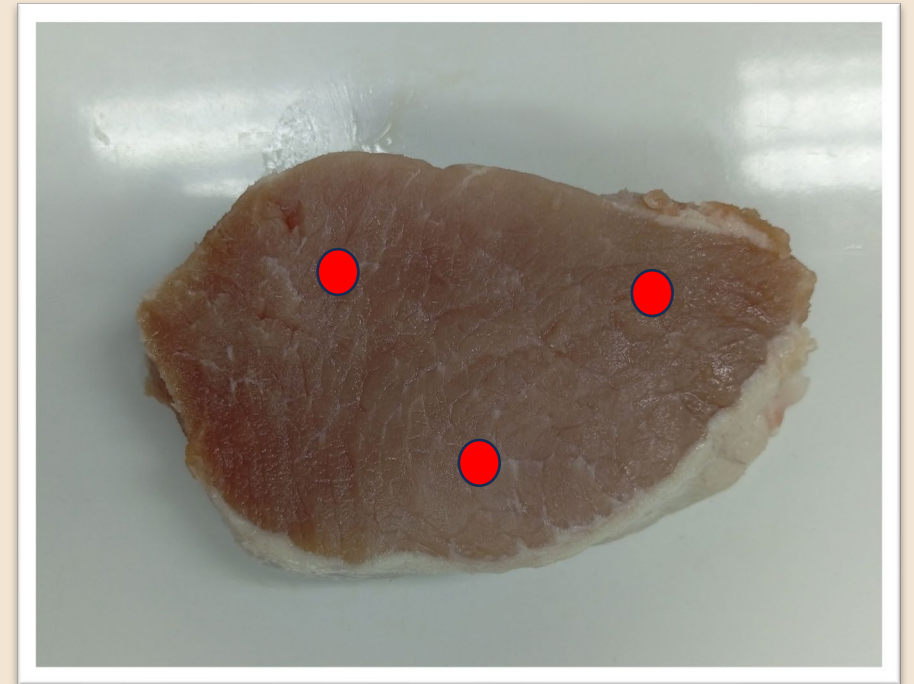
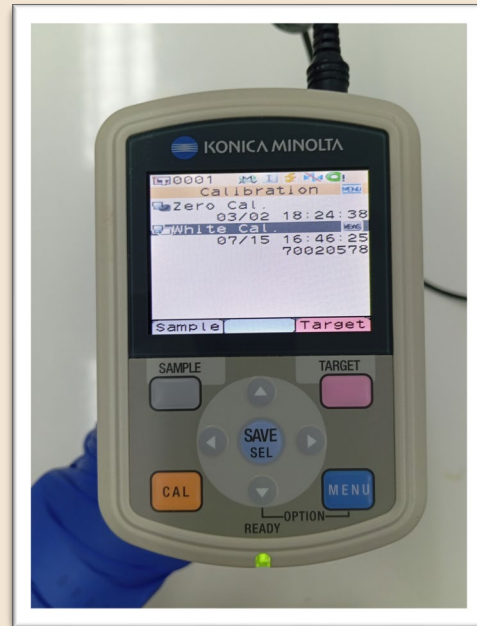


Measure the weight of the EZ-DripLoss container with **meat** and **juice**

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STATISTICAL ANALYSIS SLAUGHTER TRAITS (MEAN $\pm$ SE)

	CONTROL 1 M ² /ANIMAL	GROUP 1 1.5M ² /ANIMAL	GROUP 2 2M ² /ANIMAL	MALE	FEMALE
COLD CARCASS WEIGHT KG	91.6 $\pm$ 2.3	95.2 $\pm$ 2.4	96.7 $\pm$ 2.5	95.0 $\pm$ 1.8	94.0 $\pm$ 1.9
MEATINESS %	53.8 $\pm$ 0.6	53.7 $\pm$ 0.7	54.1 $\pm$ 0.6	52.5 $\pm$ 0.6 A	55.1 $\pm$ 0.5 B
LOIN – DEBONED KG	2.7 $\pm$ 0.1	2.7 $\pm$ 0.1	2.9 $\pm$ 0.1	2.7 $\pm$ 0.1 b	2.9 $\pm$ 0.1 a

A,B (a, b) means with different superscripts differ significantly at $p < 0.01$ (0.05)

STATISTICAL ANALYSIS

MEAT QUALITY TRAITS (MEAN $\pm$ SE)

	CONTROL 1m ²	GROUP 1 1.5m ²	GROUP 2 2m ²	MALE	FEMALE
pH45'	6.41 $\pm$ 0.05	6.52 $\pm$ 0.04	6.43 $\pm$ 0.07	6.42 $\pm$ 0.04	6.48 $\pm$ 0.04
pH48h	5.65 $\pm$ 0.50 B	5.87 $\pm$ 0.06 Aa	5.70 $\pm$ 0.04 Aa	5.46 $\pm$ 0.01	5.47 $\pm$ 0.01
EZ%	2.81 $\pm$ 0.40 a	1.51 $\pm$ 0.25 b	2.35 $\pm$ 0.28 ab	2.05 $\pm$ 0.26	2.40 $\pm$ 0.26
L*	50.8 $\pm$ 0.4 A	47.7 $\pm$ 0.7 B	48.8 $\pm$ 0.6 AB	49.2 $\pm$ 0.4	49.1 $\pm$ 0.5
a*	0.2 $\pm$ 0.3	0.2 $\pm$ 0.2	0.7 $\pm$ 0.4	0.8 $\pm$ 0.3 a	-0.1 $\pm$ 0.2 b
b*	9.4 $\pm$ 0.2	8.8 $\pm$ 0.3	9.2 $\pm$ 0.2	9.5 $\pm$ 0.4 a	8.8 $\pm$ 0.3 b

A,B (a, b) means with different superscripts differ significantly at $p < 0.01$ (0.05)

RESULTS

ADDITIONAL MEAT QUALITY TRAITS

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- Intramuscular fat content (IMF%):
Content **1.4 - 2.0%**



IS IT GOOD FOR THE MEAT QUALITY?

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PARAMETER	CONTROL 1 M ²	GROUP 1 1.5 M ²	GROUP 2 2.0M ²
DRIP LOSS	HIGH	HIGHER – GREATER LOSSES	LOWER
COLOR (L*)	BRIGHTER	OPTIMAL	OPTIMAL
pH AFTER 48H	LOWER/OPTIMAL	TOO HIGH	TOO HIGH / DFD
MEAT COLOR	TOO BRIGHT (PALE)	OPTIMAL	OPTIMAL
IMPACT ON MEAT QUALITY	HIGHER WATER LOSS	IMPROVED QUALITY	MINIMAL IMPROVMENT, TOO HIGH pH





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**THANK YOU FOR YOUR
ATTENTION!**



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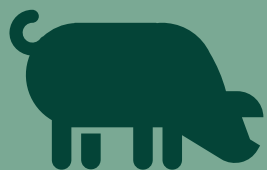
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