

EFFECT OF DIET AND CASTRATION METHOD ON SENSORY MEAT QUALITY?

Marijke Aluwé, Sam Millet, Alice Van den Broeke

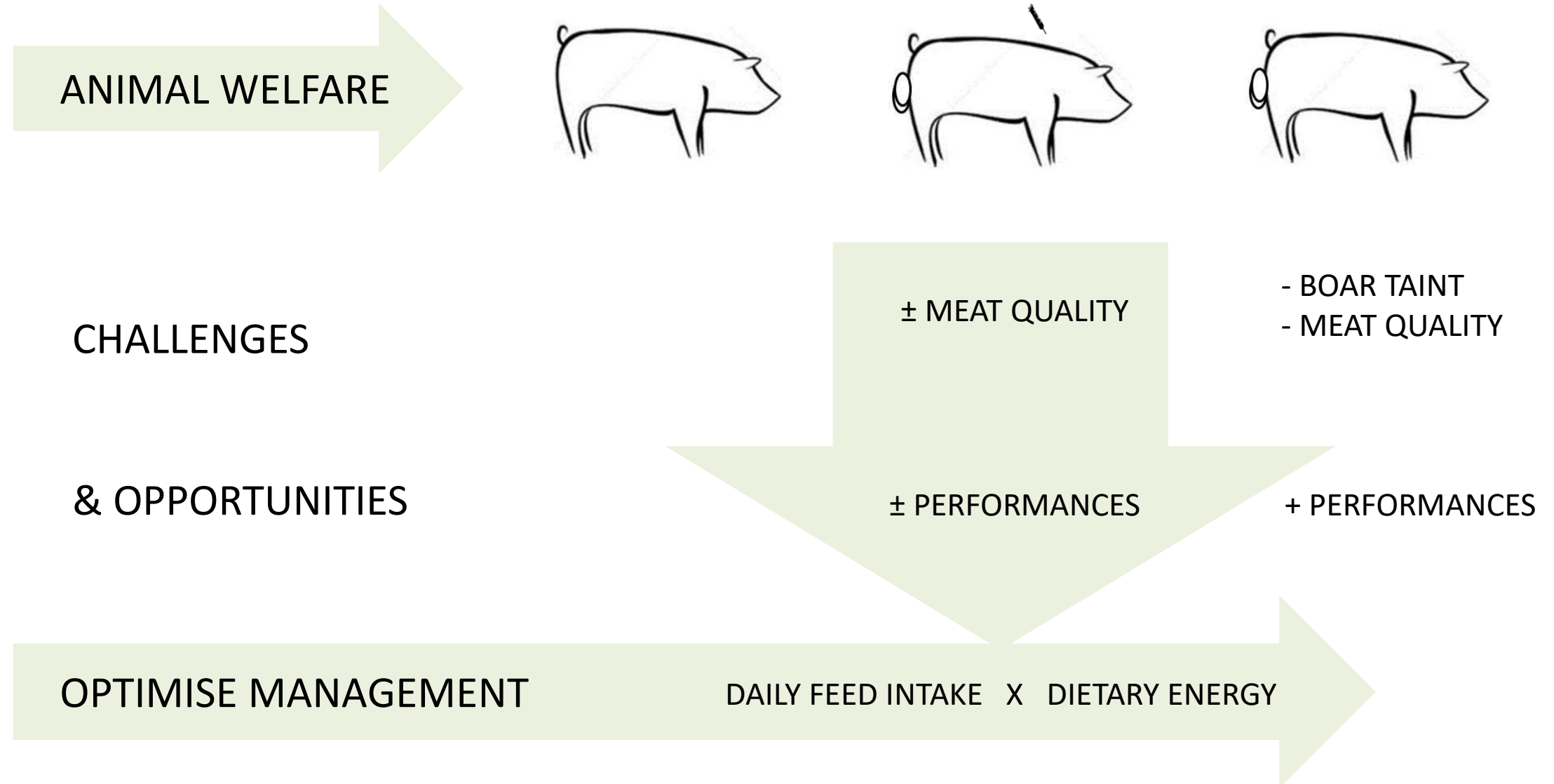
EAAP 2019, Ghent!

ILVO

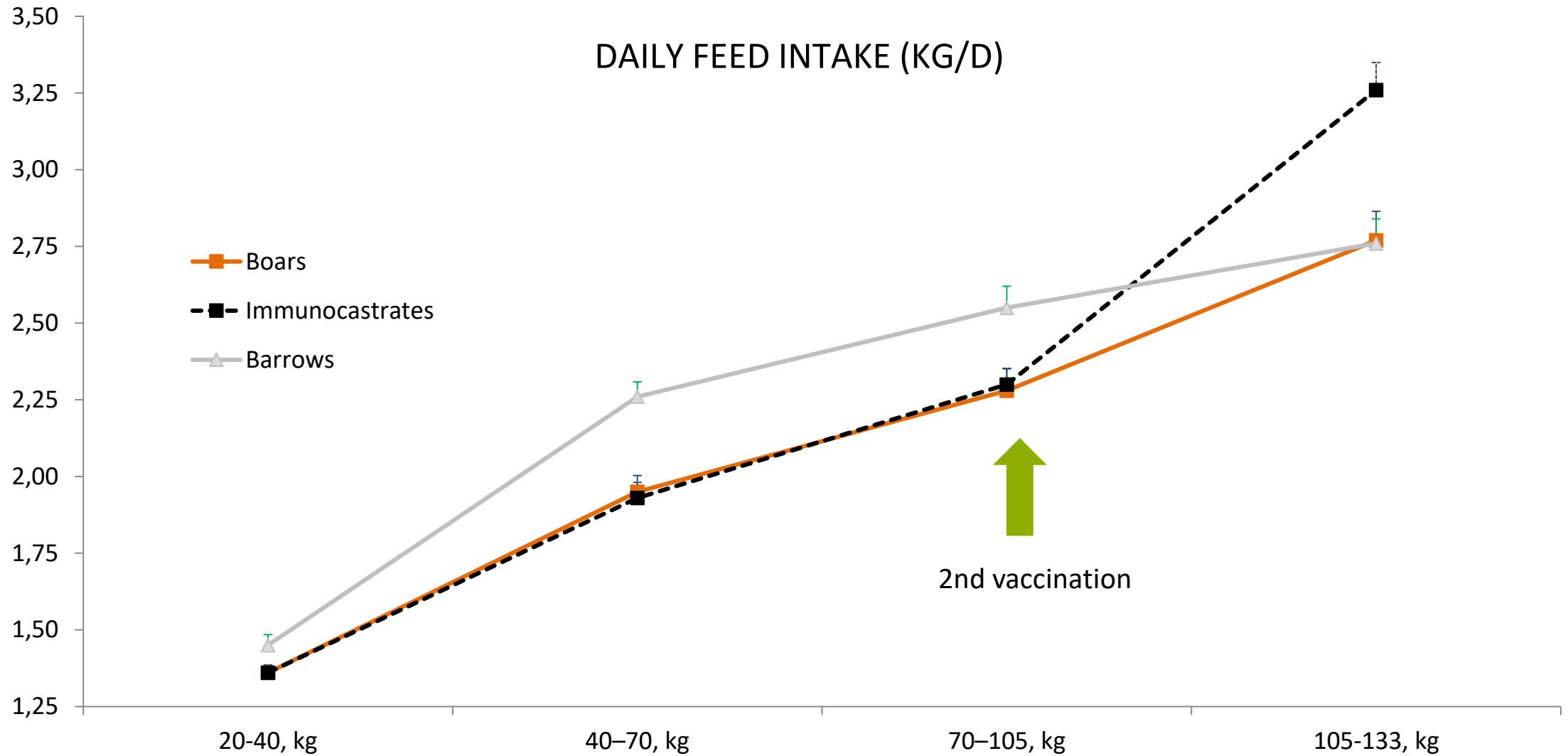


ERA-NET **SUSAN**

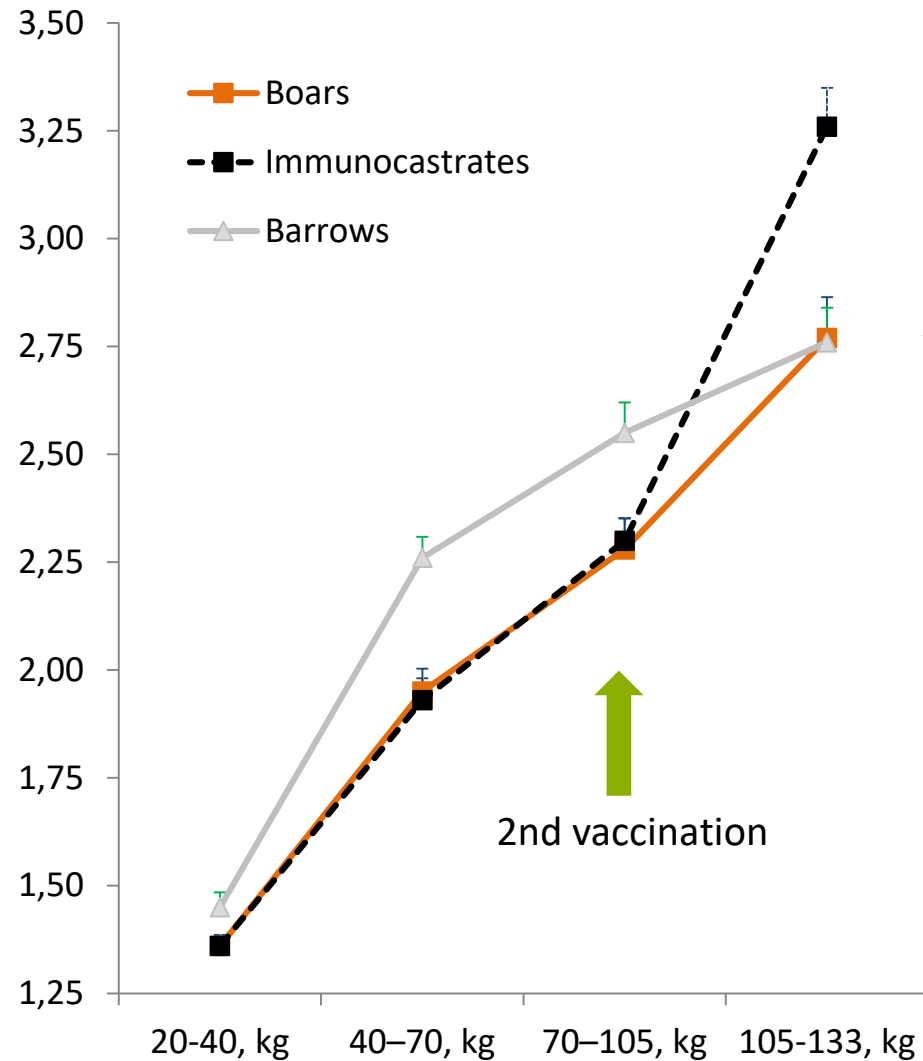
ALTERNATIVES FOR SURGICAL CASTRATION



ALTERNATIVES FOR SURGICAL CASTRATION



ALTERNATIVES FOR SURGICAL CASTRATION



DAILY FEED INTAKE

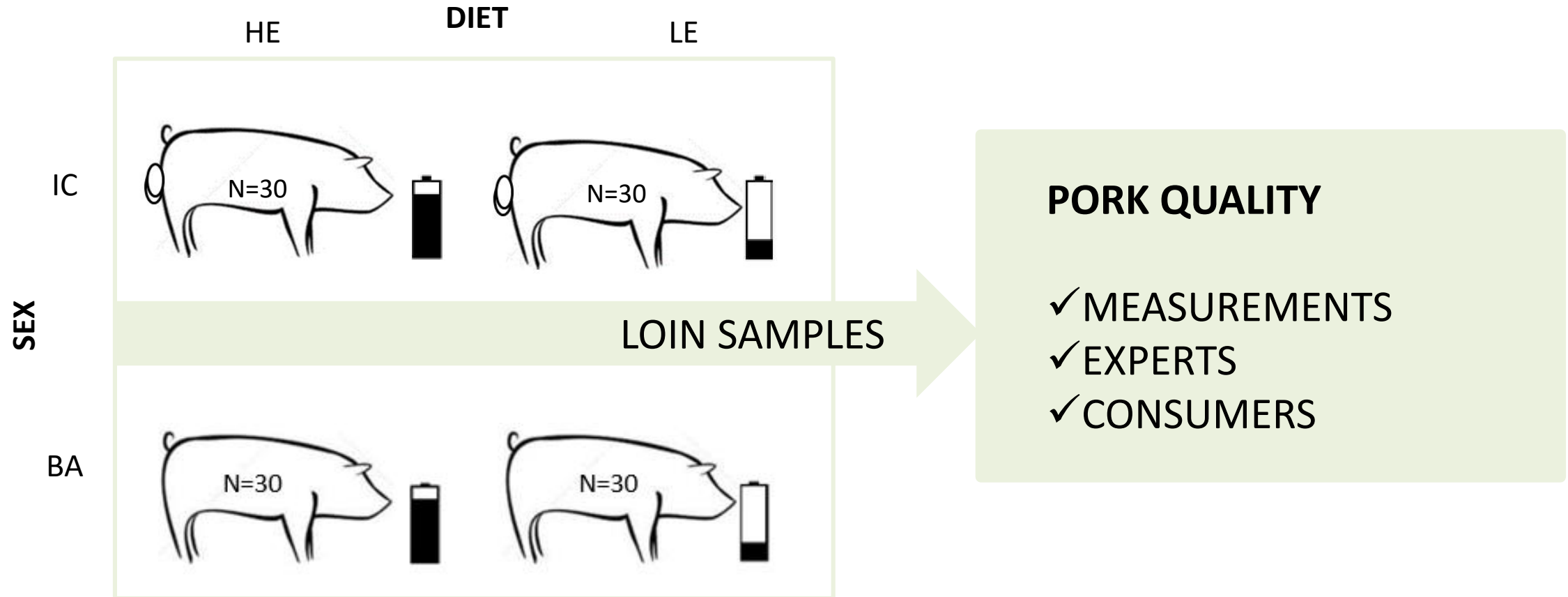
- DIFFERS BETWEEN SEXES
- STRONG INCREASE AFTER SECOND VACCINATION
- DEPENDS ON ENERGY CONTENT
- LINKED WITH DAILY GAIN AND FAT CONTENT

QUESTIONS

- ✓ DO BARROWS AND IMMUNOCASTRATES **REACT COMPARABLE** TO A HIGH VERSUS A LOW ENERGY FINISHER DIET?
- ✓ ARE WE ABLE TO **IMPROVE MEAT QUALITY** OF IMMUNOCASTRATES BY INCREASING THE ENERGY CONTENT OF THE DIET?

MATERIALS AND METHODS

EXPERIMENTAL SET-UP



MATERIALS AND METHODS

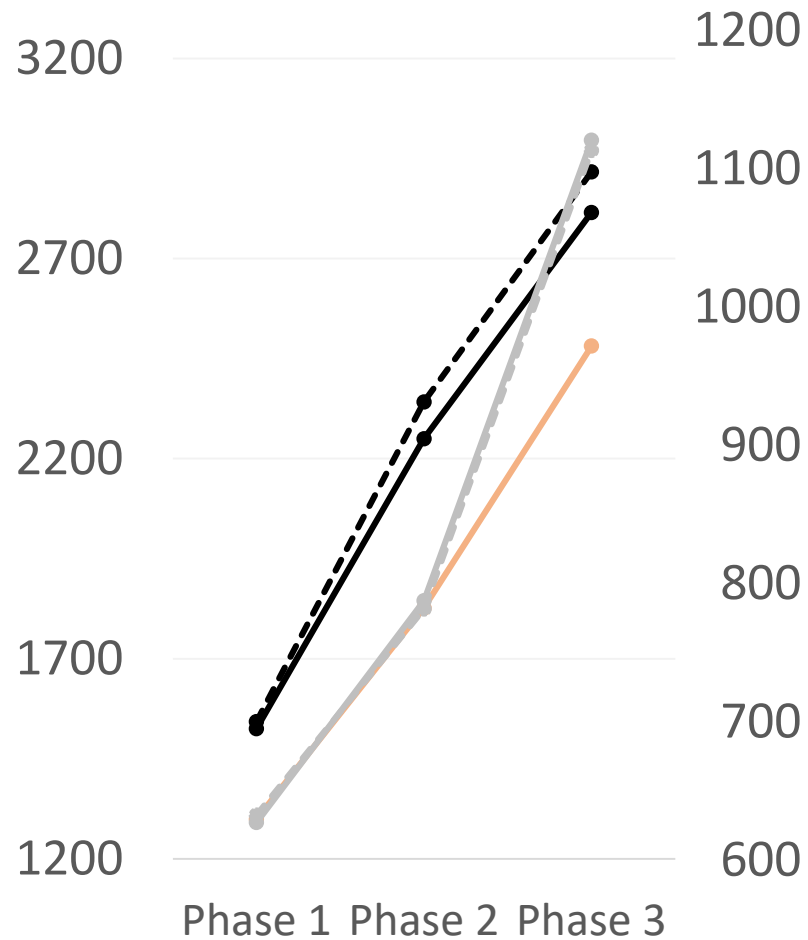
THIRD PHASE DIET (25 TO 117 KG)

	HE	LE
NET ENERGY, MJ/KG	10.2	8.8
CRUDE PROTEIN, G/KG	155	155
CRUDE FAT, G/KG	50	20
CRUDE FIBRE G/KG	46	65
DLYS, G/KG	7.5	7.5

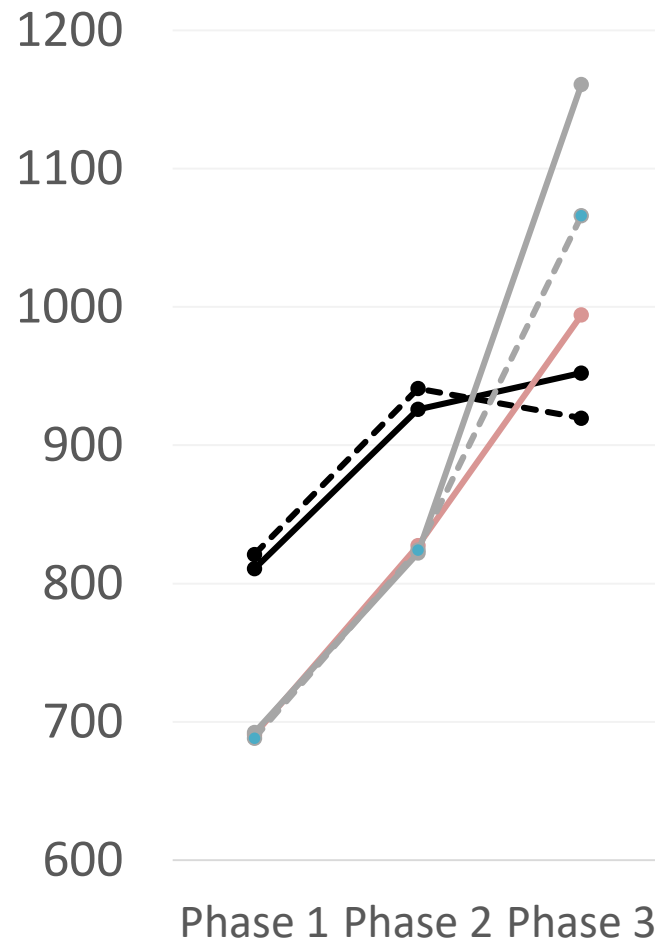
RESULTS

PERFORMANCES

DAILY FEED INTAKE (G/D)

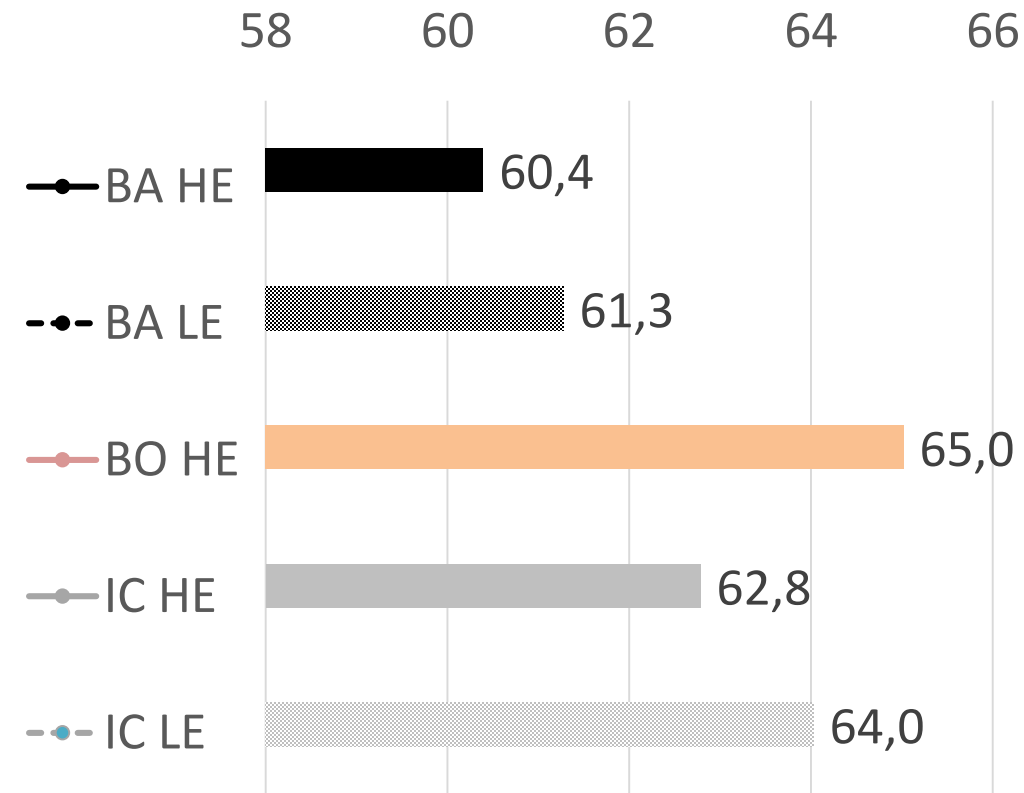


DAILY GAIN (G/D)



IC > BA
IC HE > IC LE

LEAN MEAT PERCENTAGE (%)



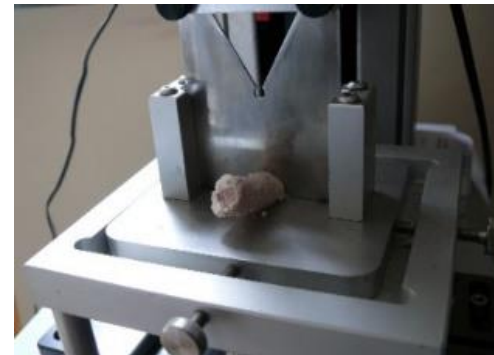
IC > BA
IC HE < IC LE

MEASUREMENTS

DRIP LOSS
COOKING LOSS
IMF
SHEAR FORCE

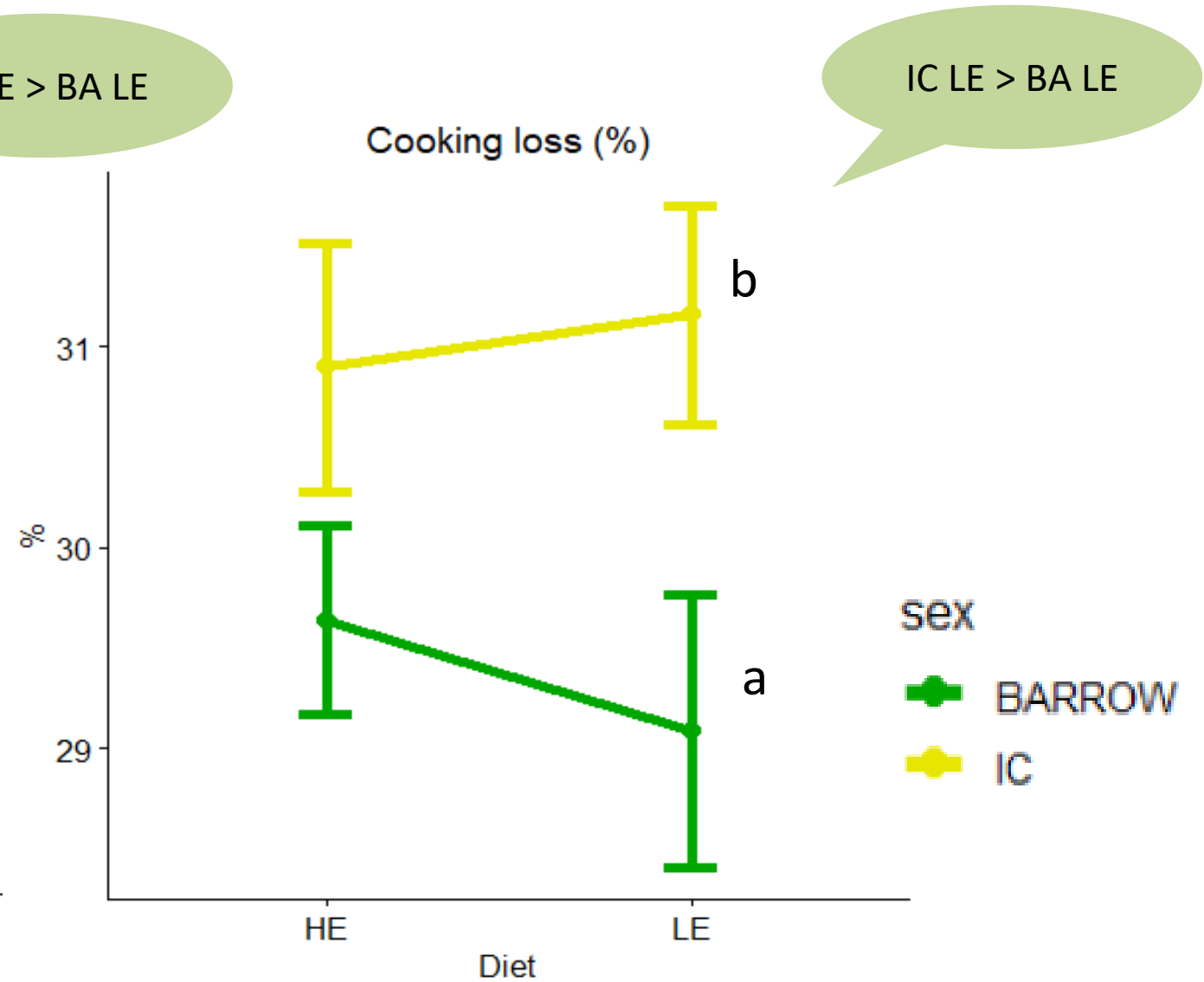
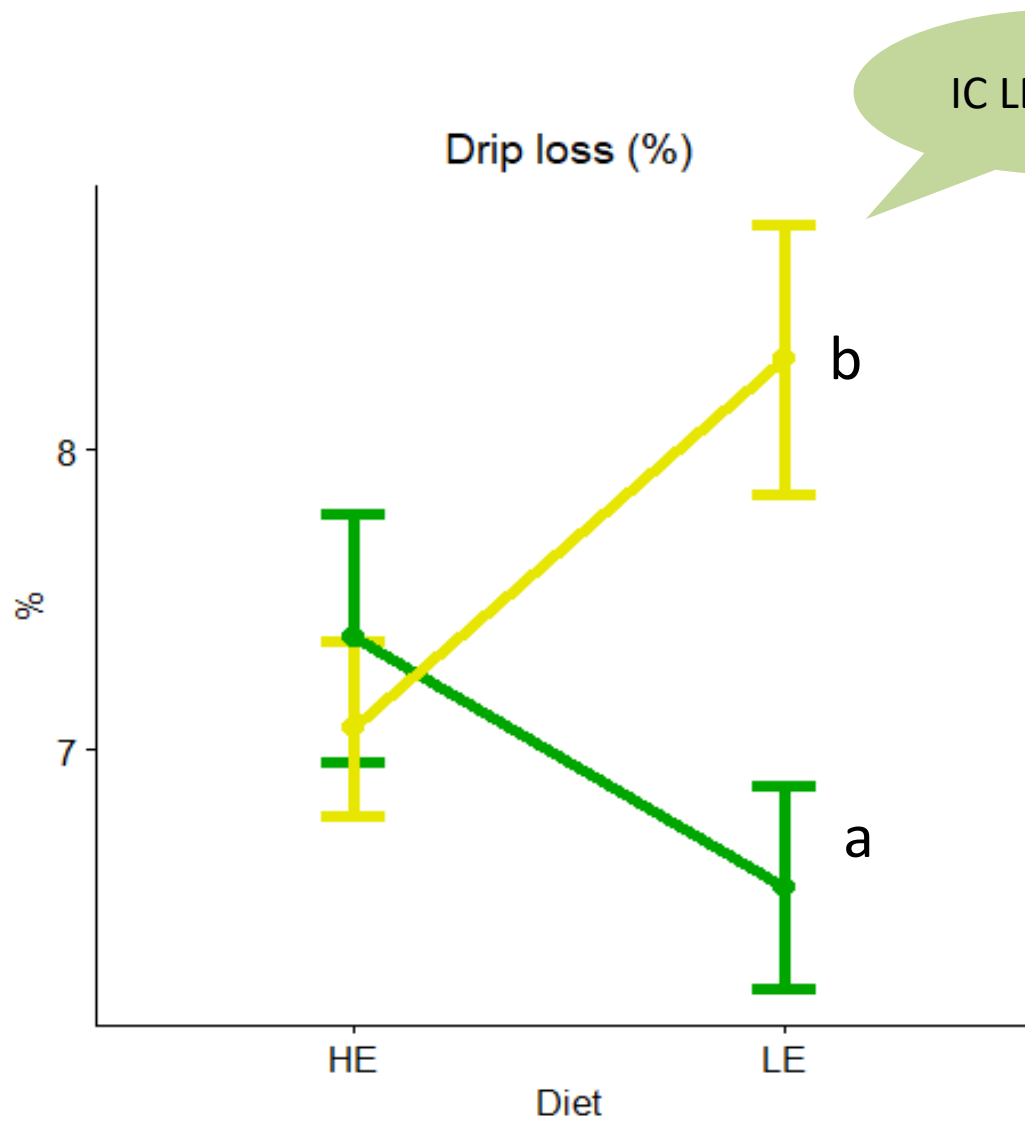


MARBLING SCORE
COLOUR
PH AT SLAUGHTER
PH AFTER 24H
THAWING LOSSES



RESULTS

MEASUREMENTS

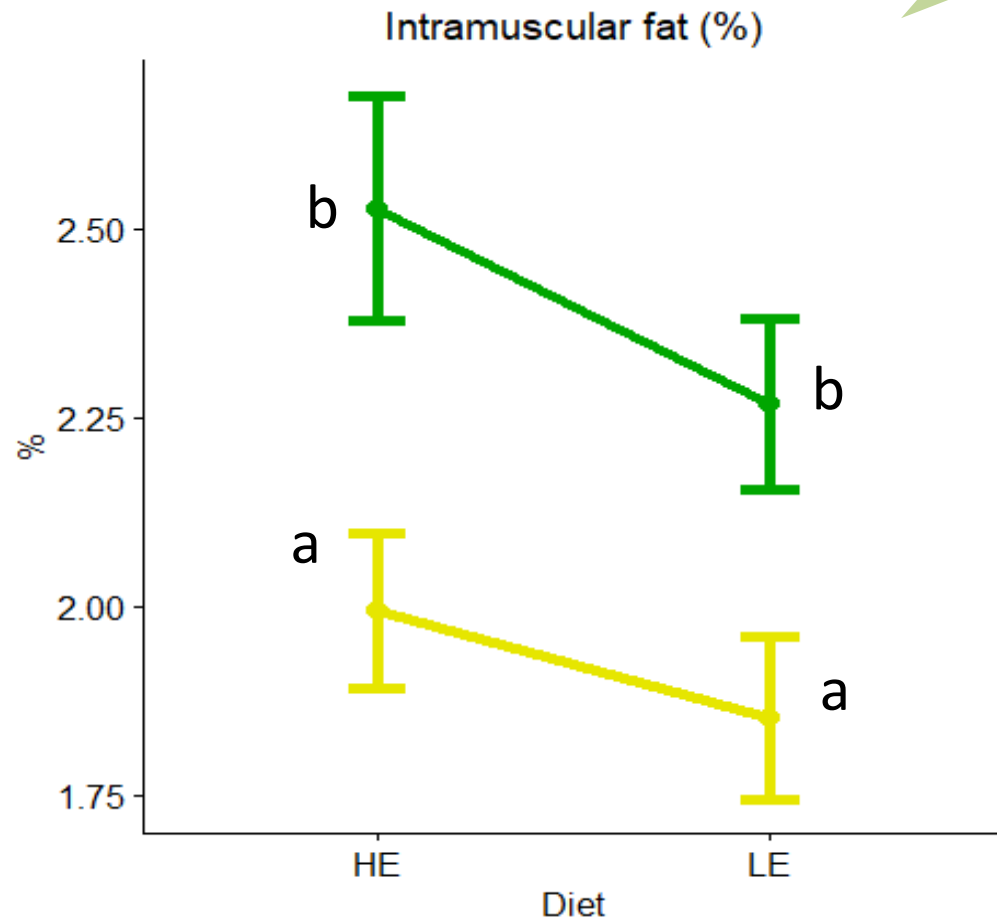


sex
BARROW
IC

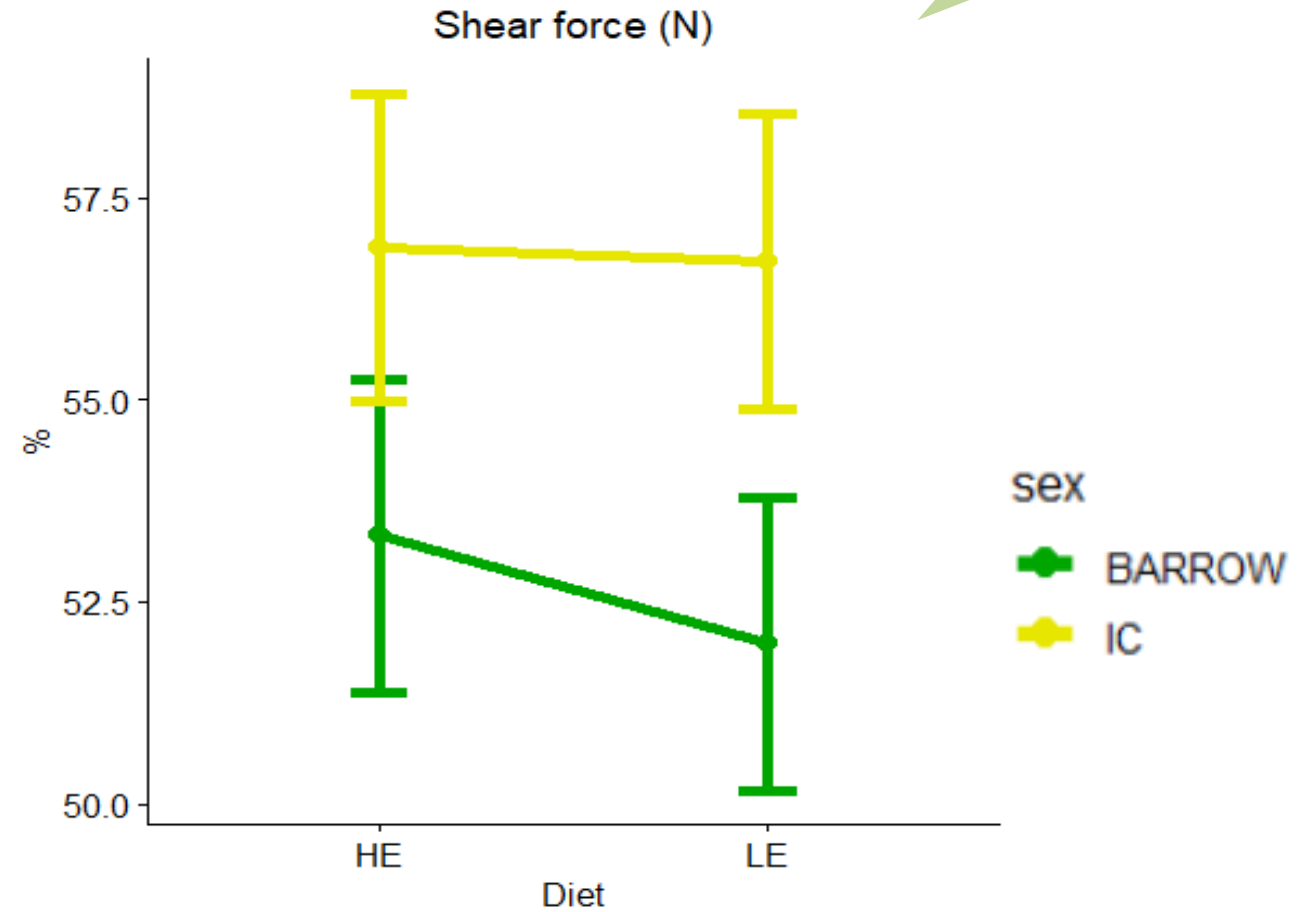
RESULTS

MEASUREMENTS

BA > IC



BA < IC



EXPERT PANEL

ODOUR, FLAVOUR, TENDERNESS, JUICINESS, OVERALL TASTINESS

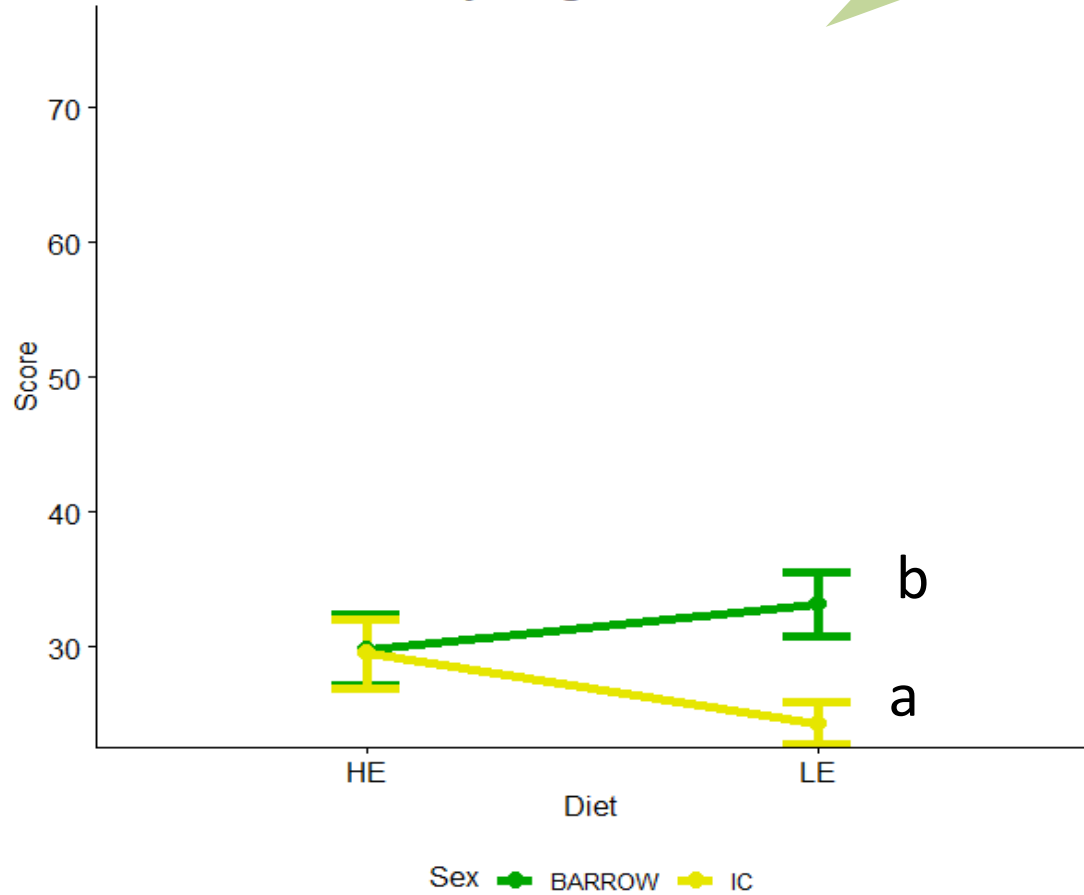


RESULTS

EXPERT PANEL

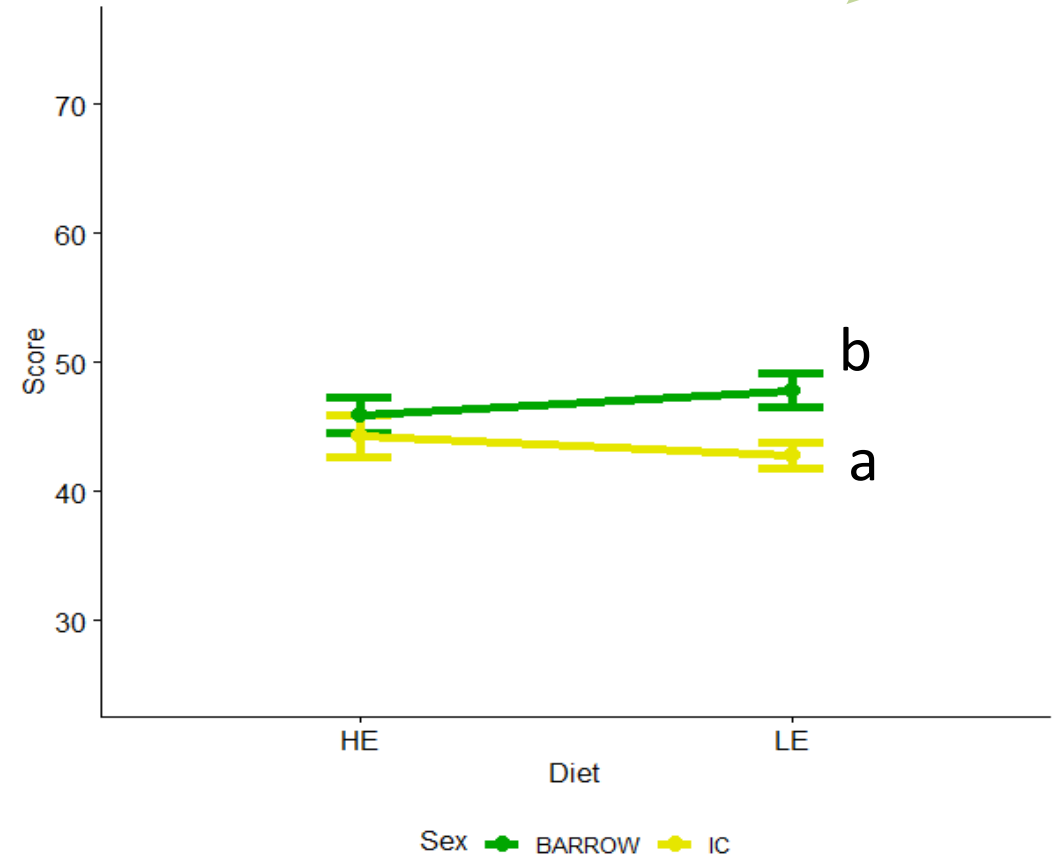
Frying odour

IC LE < BA LE



Overall tastiness

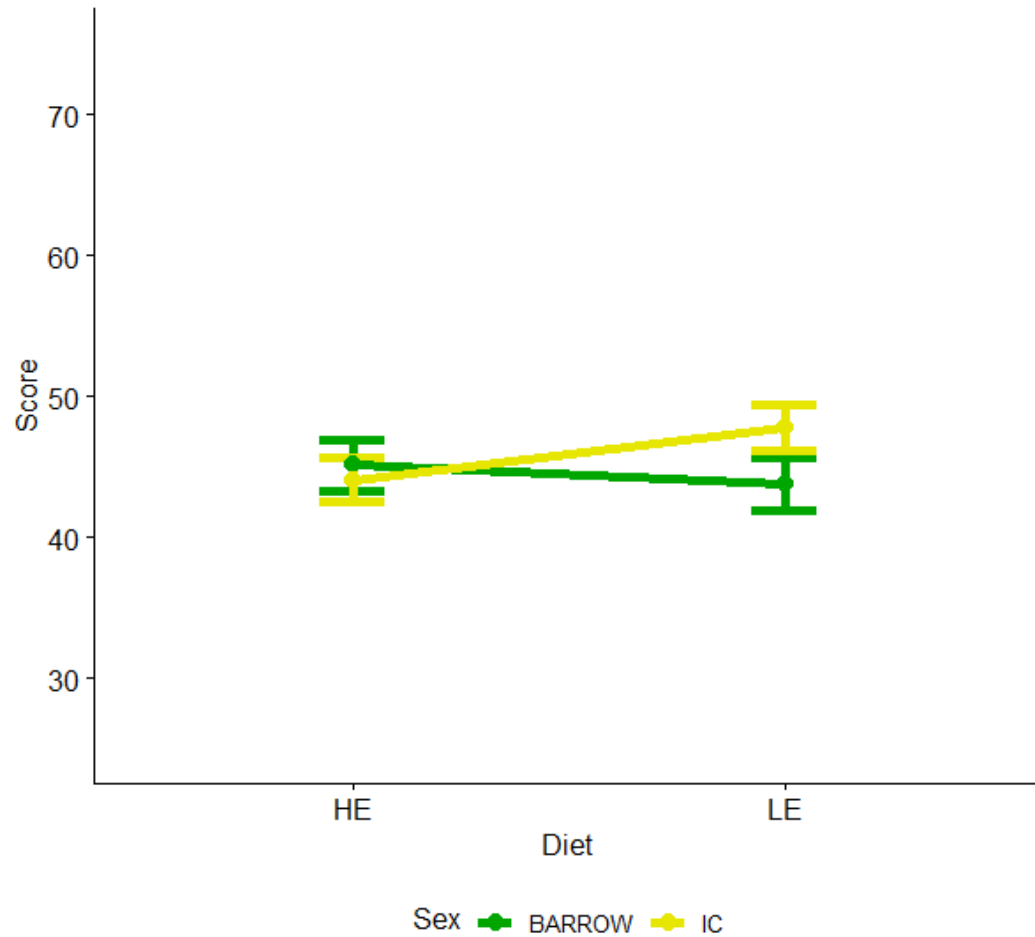
IC LE < BA LE



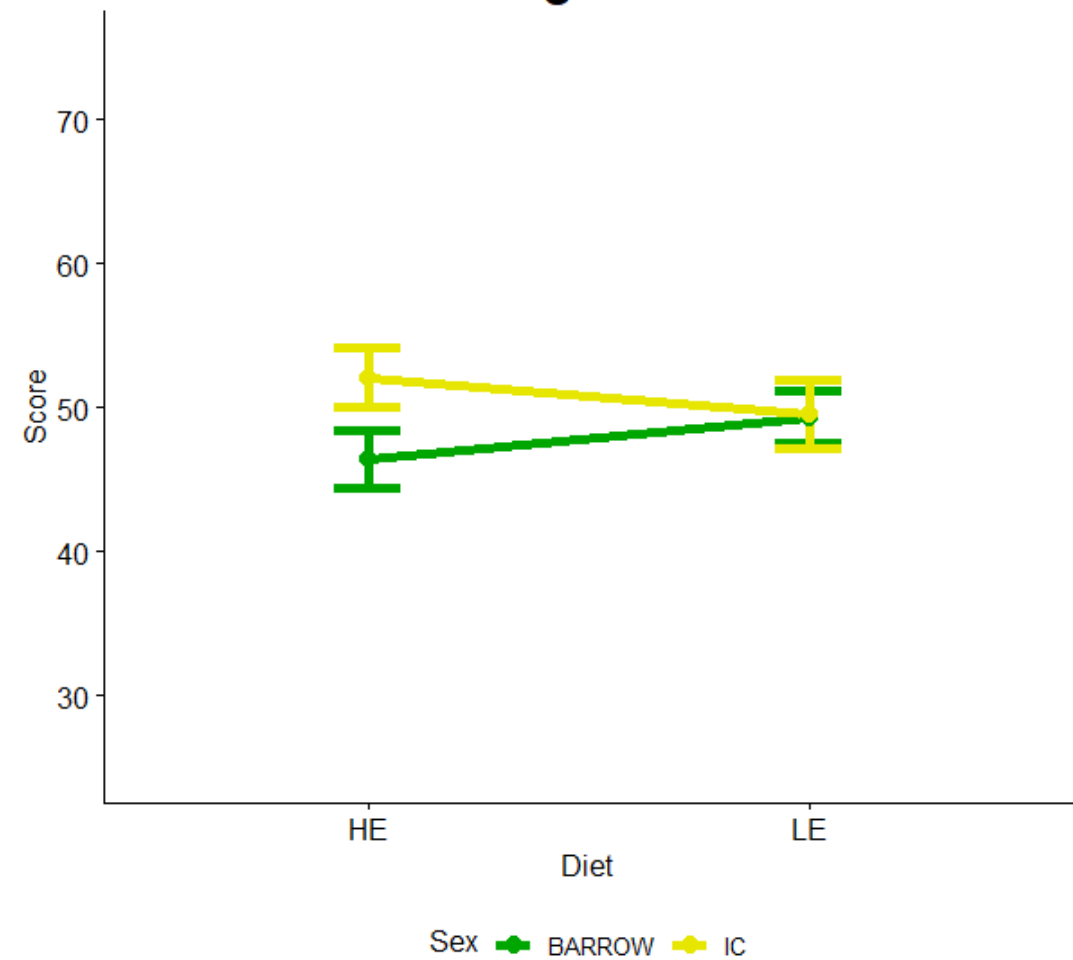
RESULTS

EXPERT PANEL

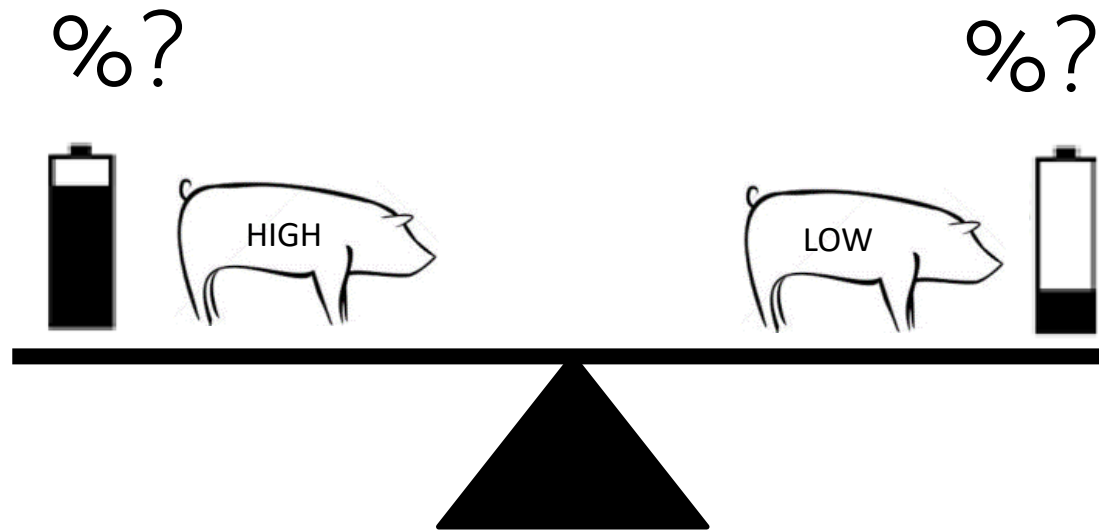
Juiciness



Toughness



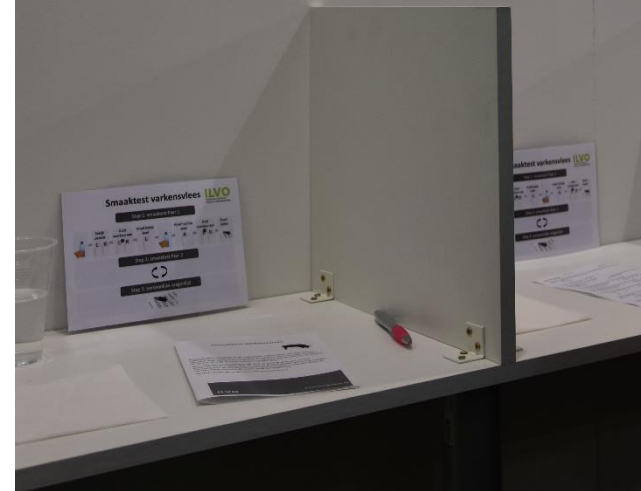
CONSUMER PANEL



PREFERENCE TEST

BARROW
IMMUNOCASTRATES

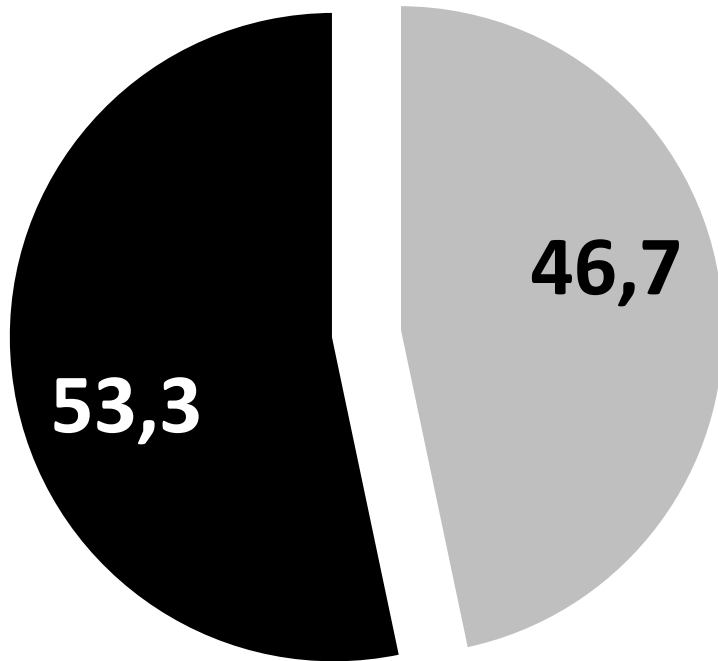
Doe de SMAAKtest & proef hier!



RESULTS

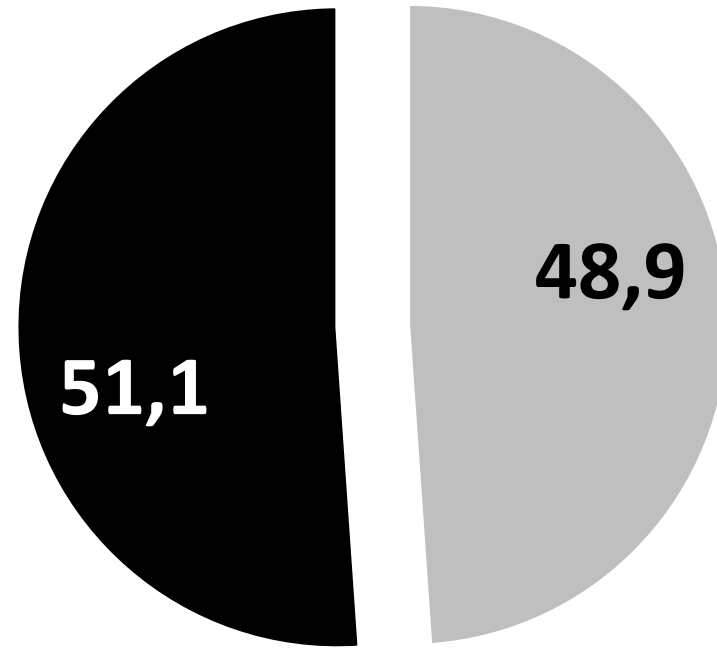
CONSUMER PANEL

BARROWS



■ HE ■ LE

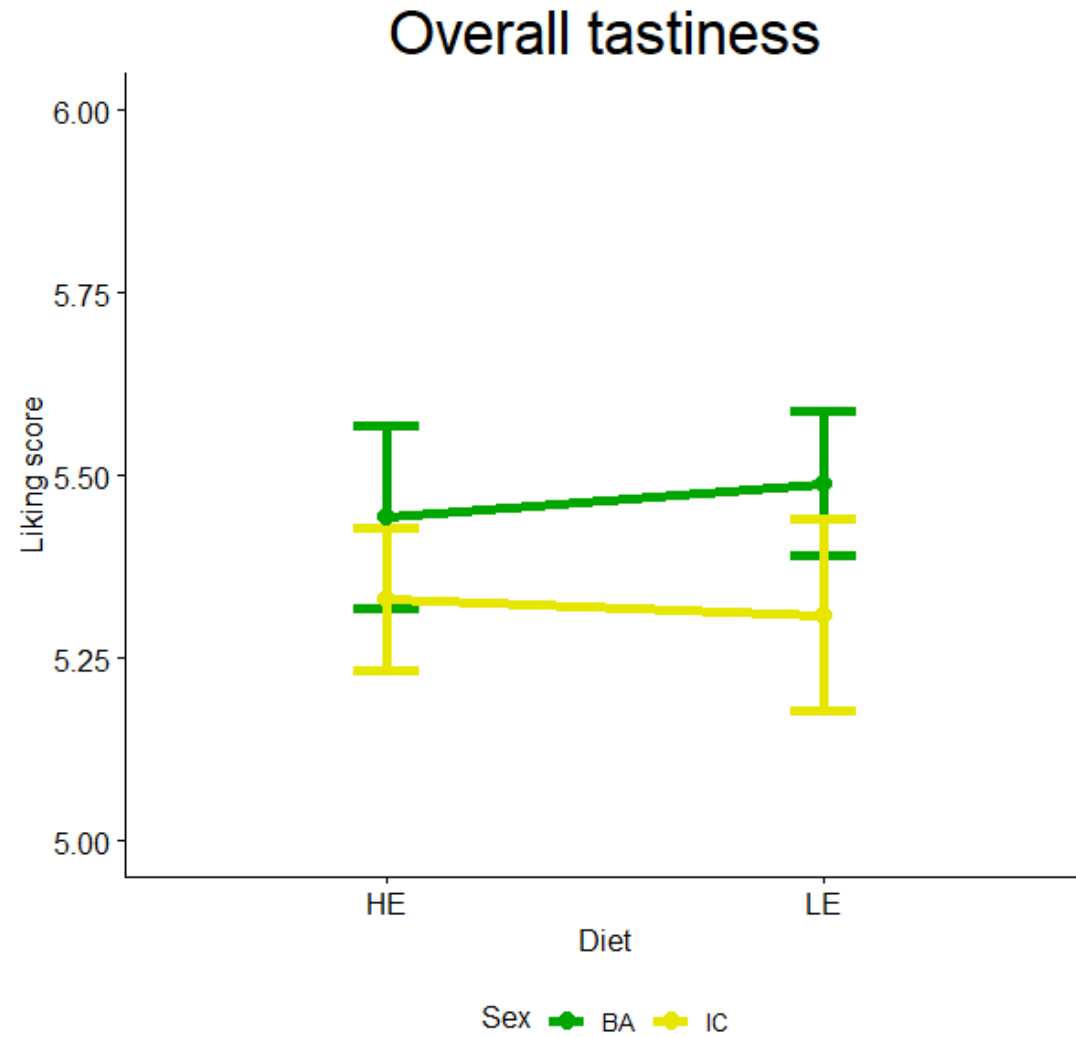
IMMUNOCASTRATES



■ HE ■ LE

RESULTS

CONSUMER PANEL



CONCLUSIONS

Measurements

- Drip & cooking loss: BA < IC at LE
- IMF: BA > IC
- Shear force: BA < IC

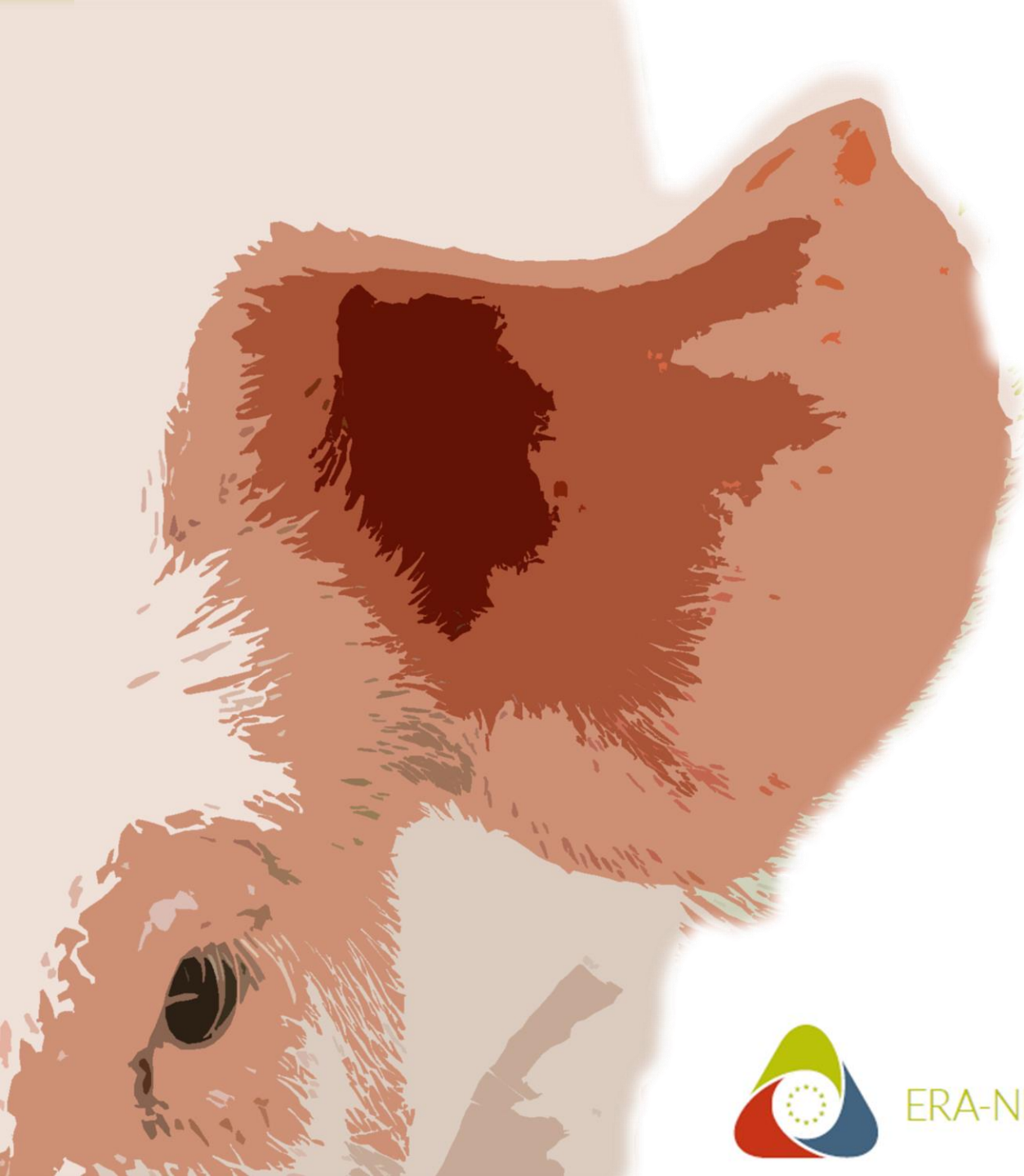
Experts

- Frying odour: BA > IC at LE
- Overall tastiness: BA < IC

Consumers

- Preference HE vs LE: $\approx 50\%$

- ✓ DIFFERENCE BETWEEN SEXES
- ✓ INCREASED SEX DIFFERENCE IN WHC AT A LOW ENERGY DIET?



**Thank you
for your
attention !**



ERA-NET **SUSAN**

AGENTSCHAP
INNOVEREN &
ONDERNEMEN



Vlaanderen
is ondernemen

ILVO

INGREDIENTS (%)	HE	LE
Barley	20	20
Wheat	33	34
Maize	15	5
Soybeanmeal	15	8
Wheat middlings	0	5
Zonbloemschroot	3	5
Molasses	4	4
Animal fat	3	0
Palmpitschilfers	1	2
Sugar beet pulp	1	6
Koolzaadschroot	1	6
Celit	1	1
Premix	1	1
Voederkrijt	1	1
Keukenzout	0,4	0,4
Fytase	0,01	0,01
Lysine	0,26	0,34
Methionine	0,03	0,02
Valine	0,02	0,01
Threonine	0,06	0,08