

Fulfilling demand about organic meat: physical product development with a consumer mind

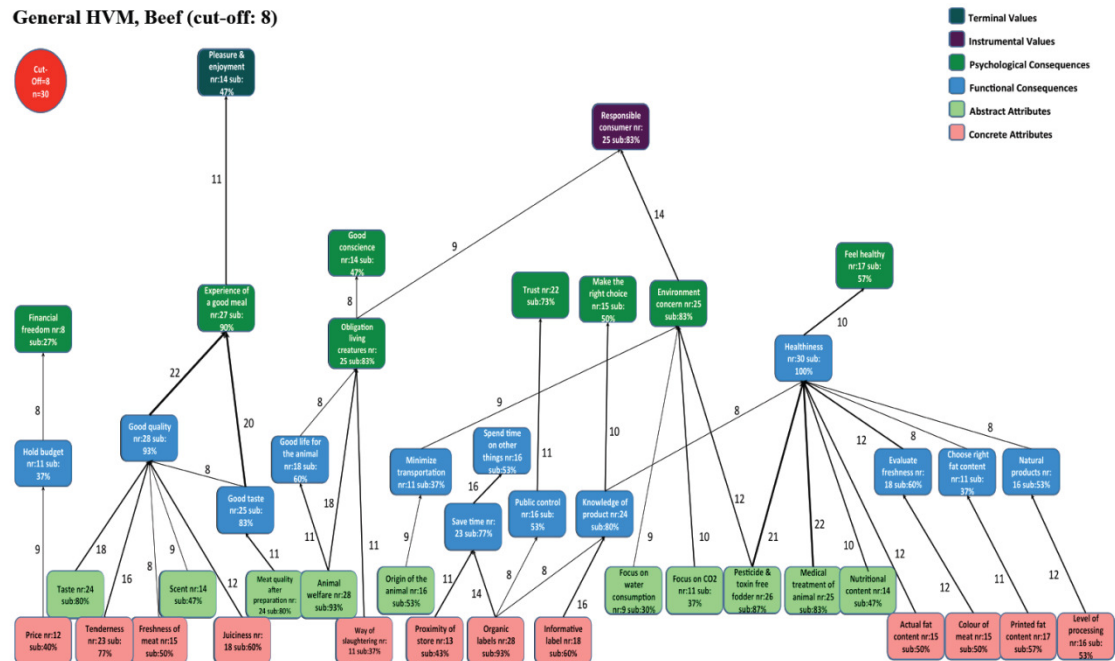
MARGRETHE THERKILDSEN, DEPARTMENT OF FOOD SCIENCE



ORGANIC MEAT FROM A CONSUMER MIND

- Animal welfare
- Healthiness
- Good eating quality

General HVM, Beef (cut-off: 8)



Master of Science in Marketing
Master Thesis

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Supervisor: Athanasios Krystallis

TO WHICH EXTEND CAN IMPROVED
TASTE BE REALISTICALLY COMBINED
WITH MORE "RESPONSIBLE" PRODUCT
POSITIONING?

THE "SUMMER" PROJECT INCLUDES

- Chicken
- Pork
- Beef



Superb and Marketabel Meat from Efficient
and Robust Animals - **SUMMER**

DESIGN

- Free range system
- > 10 m² per chicken with grass and herbs
- Two feeding strategies
 - HP** – pelleted organic standard feed
 - LP** – Locally produced choice feed



Hubbarb JA757



Sussex 51



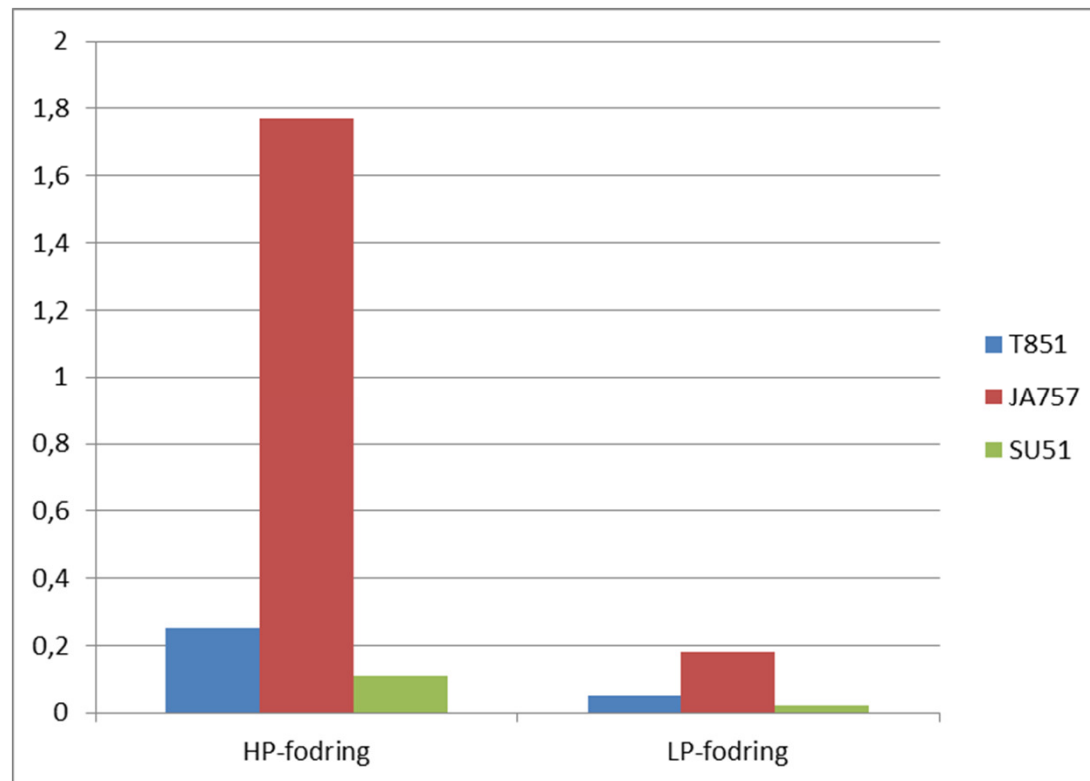
Sasso T851

Effect of protein source

JA757 fed either HP or LP, slaughtered
at 69 days



GAIT SCORE – INDEX OF WALKING ABILITY

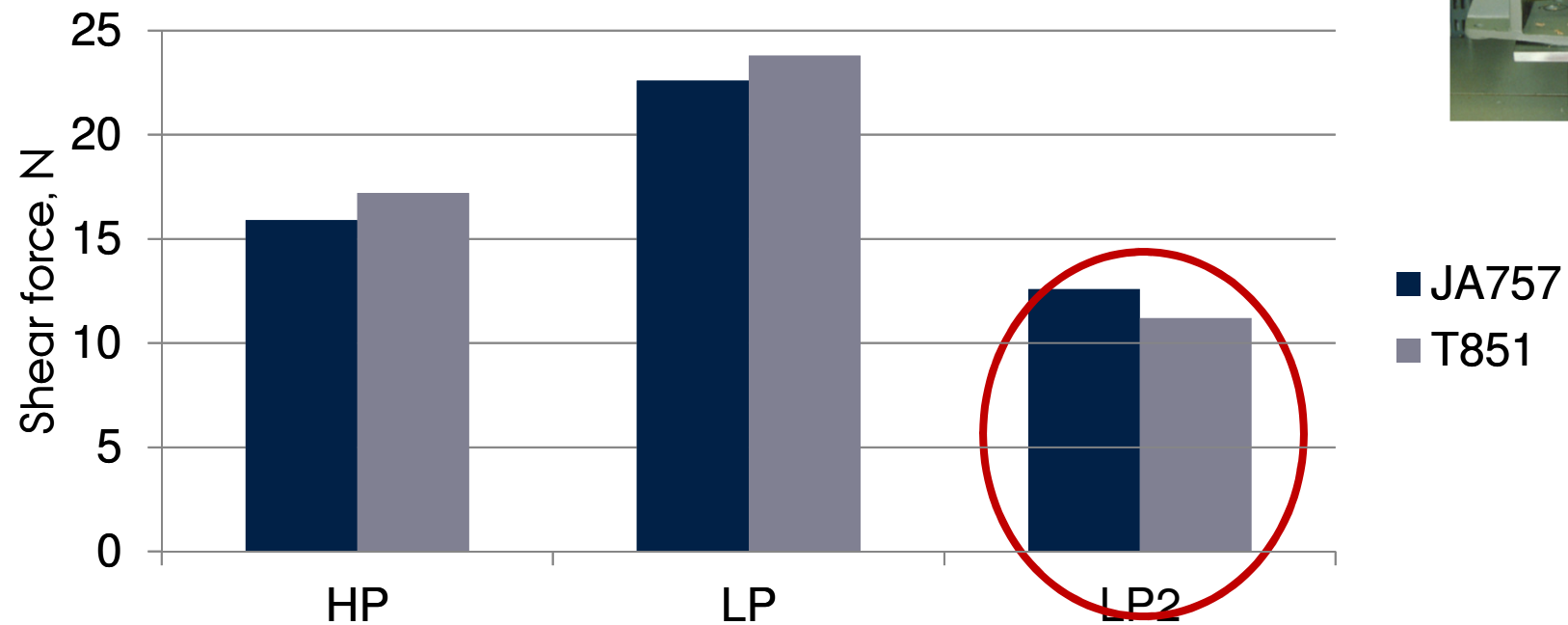


GENOTYPE

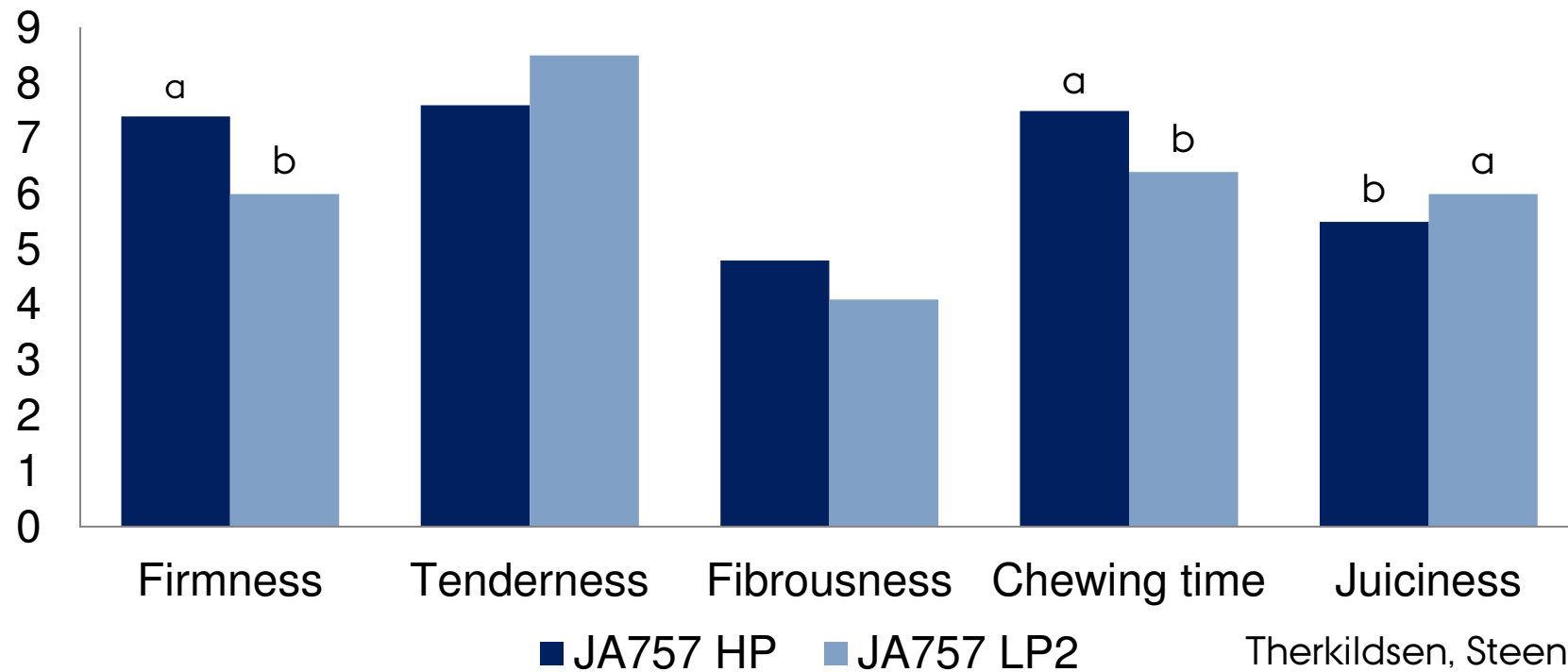
- > Color
- > Form – skinny chickens



SHEAR FORCE OF BREAST DEPENDING ON PROTEIN SOURCE



SENSORY EVALUATION OF TEXTURE OF BREAST FILET FROM BROILERS ON EITHER HP OR LP2 FEEDING STRATEGY



Therkildsen, Steinfeldt
& Horsted, 2013

CHANGED CONFORMATION OF CARCASS

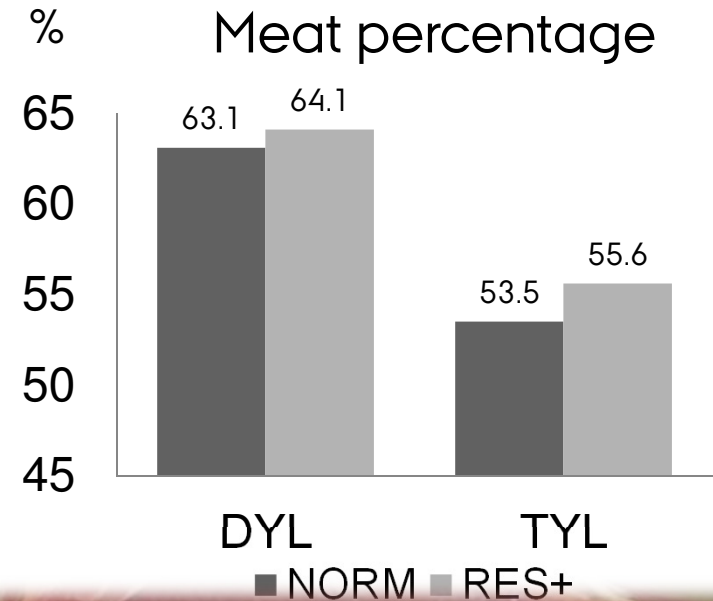
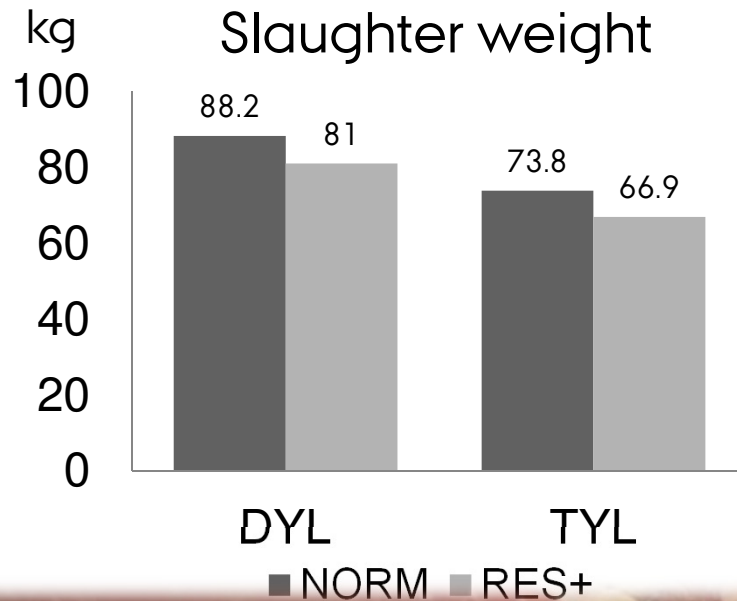




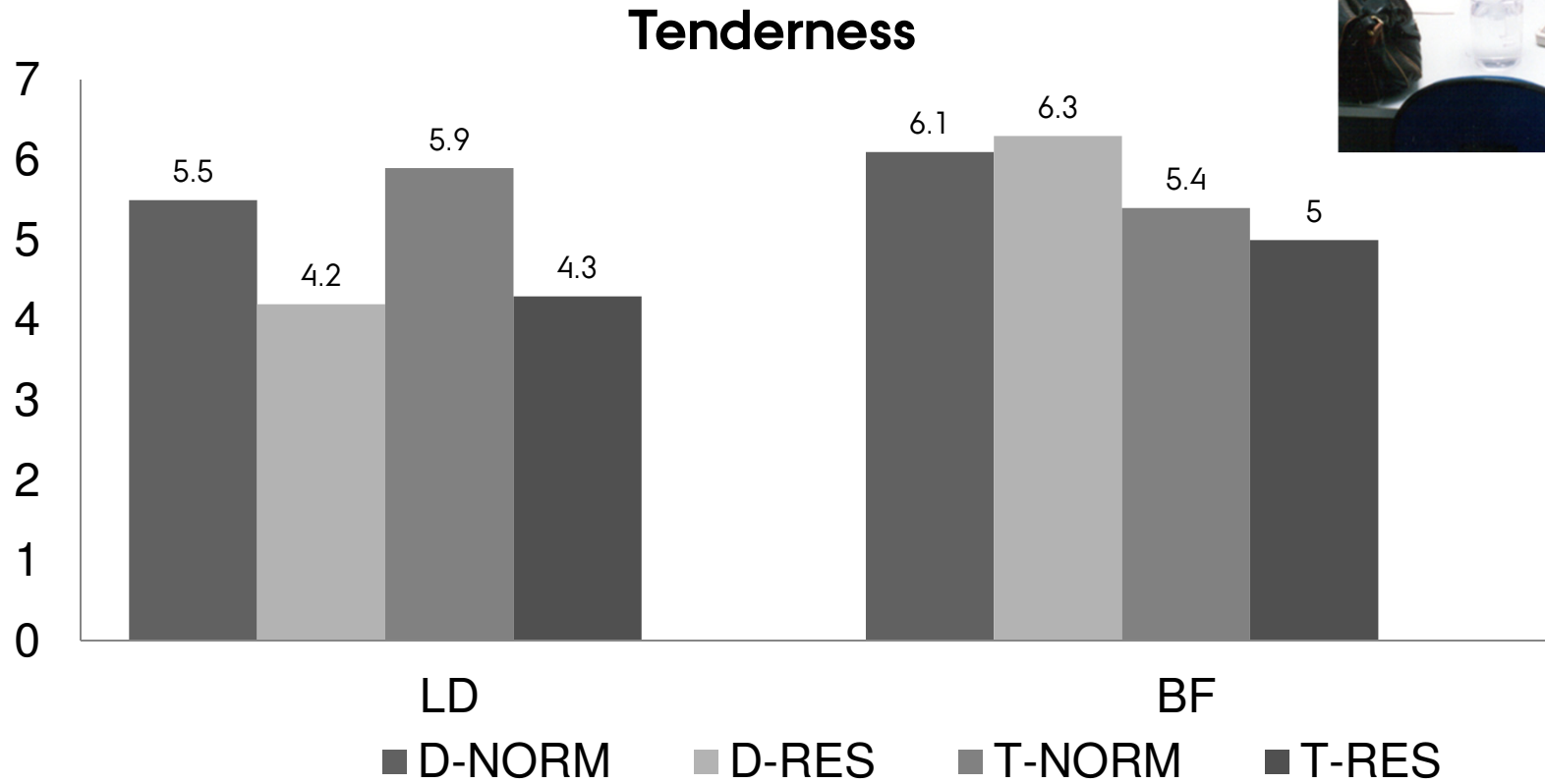
FREE RANGE ORGANIC SLAUGHTER PIGS
GROWING PIGS FORAGING GRASS CLOVER WITH HERBS AND CHICORY

05.09.2012

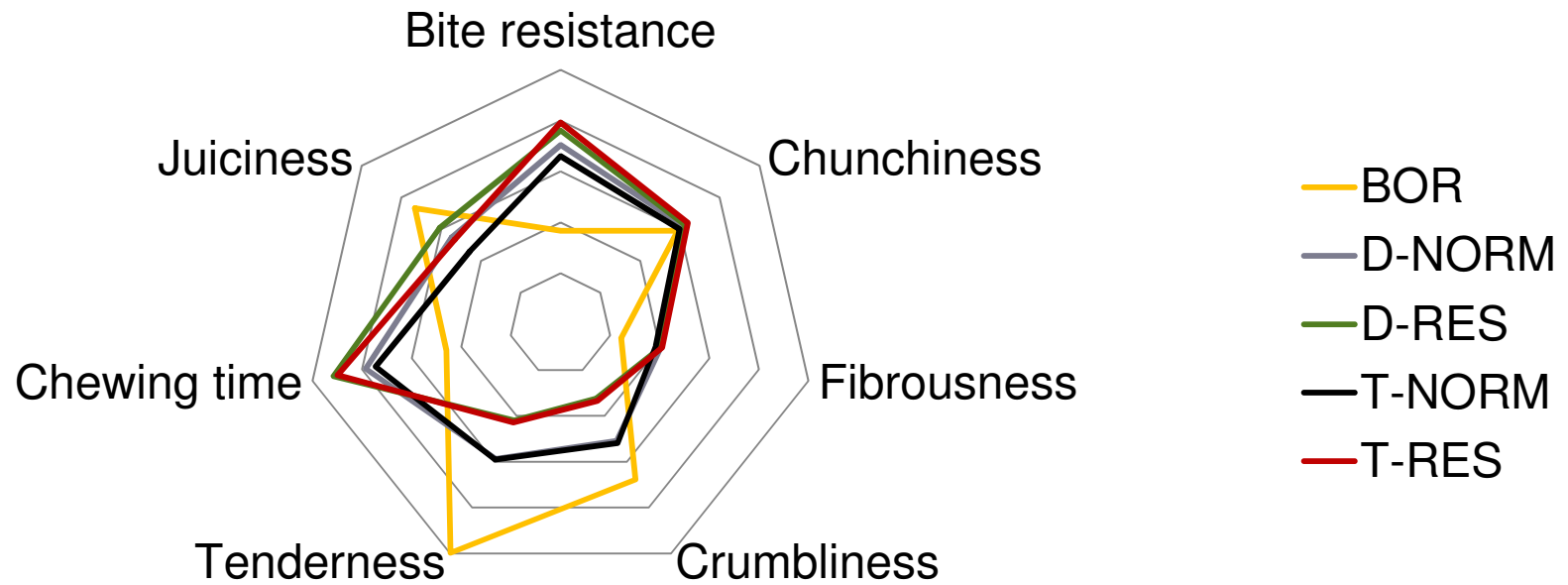
SLAUGHTER WEIGHT AND MEAT PERCENTAGE



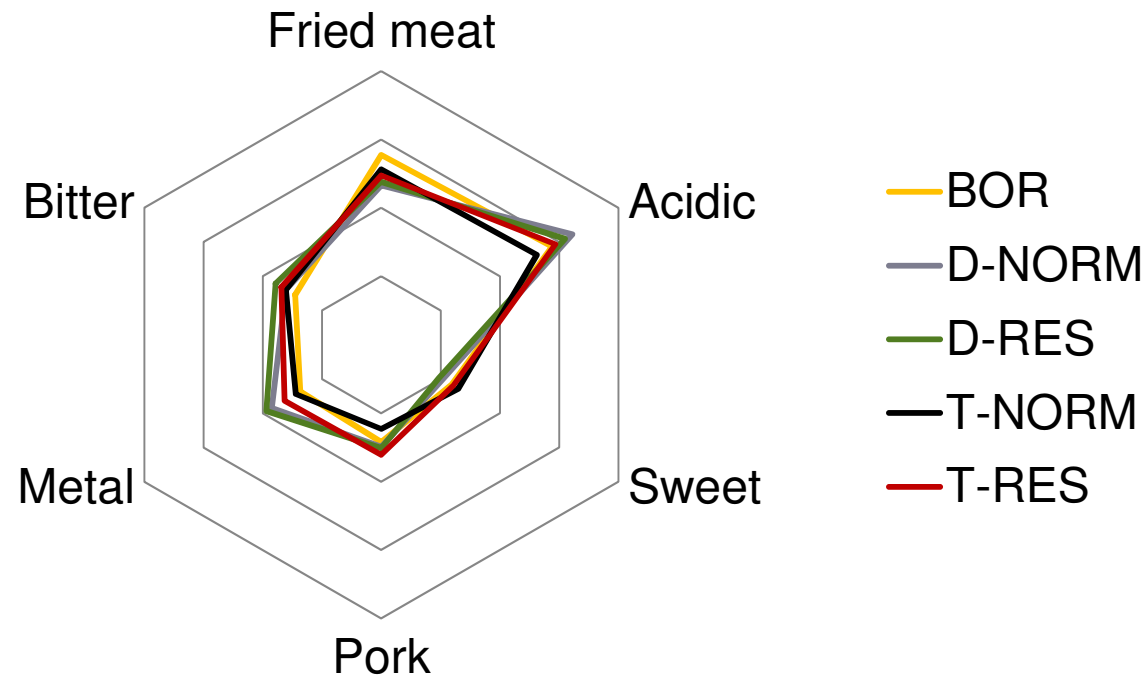
SENSORY EVALUATION - TEXTURE



SENSORY EVALUATION - TEXTURE



SENSORY EVALUATION - TASTE



ORGANIC BEEF FROM ORGANIC DAIRY FARMS

- Cross breed (Danish Holstein x Limousine)
- Intact males



HEALTHINESS SLAUGHTER DIRECTLY FROM PASTURE

- Low fat
- Healthier fat (more PUFA, more n-3 fatty acids, lower n-6/n-3 ratio)
- More vitamins (A and E-vitamin – antioxidants)



HANDLING OF FREE RANGE ANIMALS – RISK OF STRESS



- Dark meat
- Short shelf-life

MAIN POINTS

- Superior healthiness and eating quality of meat is **not a direct** consequence of animal welfare and vice versa
- Attention towards the effect of production methods on meat quality traits is necessary in order to **optimize quality in all further processing steps**
- **Weighting** of consequences – will the consumer accept a tougher steak if the meat is healthier?
- **Change in consumers mind** – (e.g. a skinny chicken might be the tastiest)
but also in the **price setting at the slaughterhouses** etc.

THANKS TO ALL SUMMER PARTNERS

- **Aarhus University**
 - Department of Agroecology
 - Department of Animal Science
 - Department of Food Science
 - MAPP Centre
- **Knowledge Center for Agriculture**
 - Cattle
 - Poultry
- **Center of Development for Outdoor Livestock Production**
- **Organic pig producers**
- **Friland**
- **Top-æg**
- **Sødams økologiske Fjerkræslagteri**
- **Uddannelsescenter Holstebro**

AND THANKS TO

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*FORSLAG TIL PROJEKT TIL DET STRATEGISKE
FORSKNINGSRÅD*

WORKING TITLE:

**ORGANIC MEAT FROM BEEF AND PORK TO
FULFIL SOCIETY AND CONSUMER
EXPECTATIONS**

>

- > **Objective: The objective is to optimize the efficiency in organic meat production with respect for organic principles and product quality traits.**
- > Anticipated results and impact related to both science and society
- > **Organic meat from pigs and cattle that are produced efficiently and in a volume so it can contribute to eg. the 300.000 public meals and also become a profitable export product, because of exploration of specific muscle characteristics and content of health beneficial composition – fatty acids and vitamins.**