

Sensory evaluation of meat

1. Taking samples

- from healthy animals
- from chilled carcasses 48 hours after slaughter
- from precisely defined body parts
- storing of samples in the refrigerator or freezer

2. Treatment of samples before their heat treatment

- evaluation of aged meat, time of aging depends on the ambient temperature
- pork – 4 days of ageing
- beef – 9 days of ageing



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pro konkurenceschopnost



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

General appearance:

- size, shape, surface cleanliness
- fat cover
- marbling (not less than 3% of fat)
- presence and proportion of connective tissue
- proportion of muscle, fat, and possibly skeletal tissues
- perfect hygiene of the premises
- aesthetic presentation of meat

- General appearance defects:

- deformation
- unusual colour



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INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

- excessive fat and connective tissue cover not meeting standards
- surface contamination
- surface slimness
- unfavourable impression, even aversion

Meat colour:

- is assessed under conditions of sufficient daylight
- depends on the content of myoglobin – varies according to the type of animal, muscle group, and individual muscles

Consistency (texture):

- is evaluated by pressing the meat

Aroma (smell):

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INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ

- is assessed on the surface and in fresh cut



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3. Heat treatment of samples

- Removal of surface fat and connective tissue
- The same size of samples - about 200g, cutting before or after heat treatment
- 20 – 30 g for evaluator
- Boiling, stewing, roasting, frying, grilling
- Most common - boiling in distilled or pre-boiled water (1:4) with the addition of 0.6% salt

4. Presentation of the samples

- 40°C bringing out smell and taste
- We recommend 4 samples
- + Compliance with the known rules (coding of samples, dishes, etc.)

Evaluation after heat treatment

Evaluation of broth

Evaluation of meat

Appearance and colour

- Matching colour, sample without surface and intramuscular fat deposits, or just in adequate amounts, without tendons, finely fibrous structure to
- colour with larger, more obvious defects, muscle meat with a disproportionately large amounts of surface and intramuscular fat

deposits, very sinewy, coarsely
fibrous

Aroma (smell)

- Distinctive, characteristic, without any odour to
- inexpressive, unclean, strong foreign odour:
- carnal odour
- intestinal smell - delayed evisceration
- acidic smell - souring, decay by microorganisms due to secondary contamination
- putrid smell
- smell of urine - kidney failure
- fish smell – with fat
- foreign odours - pharmaceuticals, disinfectants

Fibrousness (texture)

- finely fibrous to coarse structure

Consistency (chewiness, crispness)

- tissue is soft, crispy to dry

Juiciness

- tissue is very juicy to dry

Palatability of meat

- assessment at optimum temperature
- typical of and most common for given type and cut section

Meat defects

“Cold shortening”

- Not too frequent occurrence in our country - intensive cooling (ultrafast or shock) is not used

- By introduction of intensive cooling
 - can be compensated by electrical stimulation

PSE (pale, soft and exudative) meat defect

- Sensory defects:
 - Pale colour with shades of green and grey (remission is greater than 25%)
 - Soft consistency to the loss of the fibrous structure
 - Large release of meat juice under pressure by hand (more than 5%)

DFD (dark, firm, and dry) meat defect

- Sensory defects:
 - Dark colour (red-violet shade)
 - Stickiness at the fresh cut (meat juice does not release)