

## Panel discussion

### *Meat quality.*

Chairman: Professor **Arnoldus Schytte Blix**, Department of Arctic Biology, University of Tromsø.

Panel:

**Johan Mathis Turi**, Vice-chairman of the Saami Reider Herders Association of Norway, Kautokeino, Norway.

**Gunnar Malmfors**, Research group leader, Department of Meat Quality, Sweden's Agricultural University, Uppsala, Sweden.

**Mauri Nieminen**, Research scientist, RKTL/Porotutkimus, Rovaniemi, Finland.

**Knut Framstad**, Section leader, Norsk Kjøtt A.s, Oslo, Norway.

**Steinar Holme**, Product developer, Stabburet A.s, Fredrikstad, Norway.

**Bror Saitton**, Consultant, Swedish Saami Association, Umeå, Sweden.

**Veikko Huttu-Hiltunen**, Director, Paliskuntain Yhdistys, Rovaniemi, Finland.

### *Summary of the debate.*

Despite certain differences in the administration and organisation of the reindeer meat industry in the three countries represented, several problems are held in common. These are summarised as follows:

#### *1. Quality.*

It was emphasised that it is essential to be clear about exactly what «quality» means. One must distinguish between (a) Carcass quality and (b) Meat quality.

##### (a) Carcass quality

- carcass composition (meat, fat, bone)
- proportion of high priced cuts.

This represents the basis of good raw material. Even though carcasses may be acceptable in terms of hygiene and shelf-life, there is nevertheless a considerable difference in value between a thin and a well filled carcass. Those parts of a carcass which, in a well filled specimen, are suitable as sale as

«luxury product» may, in a thin specimen, be suitable only for processing less valuable secondary products. This has an important effect on what the industry is willing to pay.

##### (b) Meat quality

This refers to the quality of particular muscles with regard to colour, texture, eating quality, shelf-life, nutritional value and so on.

These two categories of «quality» are related. The meat off a thin carcass is often dry and tough.

Shelf-life is best determined by measuring pH.

There are two main problems with regard to meat quality.

a. The Dark, Firm and Dry (DFD) phenomenon in meat with too high pH at slaughter. This results in reduced shelf-life, especially in vacuum packed meat. The frequency of DFD increases from autumn to winter. The risk of DFD can be reduced by maintaining a high energy content (glycogen concentration) in the muscles. This is achieved by ensuring careful handling of the animals to minimise stress prior to slaughter.

b. «Cold shortening», which occurs if the temperature of the meat falls below 10°C within 10 hours of slaughter. Cold shortening can be avoided in cattle by electrostimulation which exhausts muscle stores of ATP. There is clearly a risk of cold shortening in reindeer and the problem should be properly addressed.

The need to agree on objective standard measurements of meat quality was emphasised.

#### *2. Objectives and possibilities.*

Objectives for marketing reindeer meat are:

- a. to sell all that is produced
- b. to sell at the highest possible price.

There was general agreement that there is no difficulty, or ought to be no difficulty, either practically or politically, to sell all reindeer meat that is produced on the home market. The reason for this is that reindeer meat represents so small a proportion of meat sales in each of the three lands: approximately 1% in both Norway and Finland and 0,5% in Sweden. The problems are, rather, how best to exploit the potential future «luxury» market and with which products to compete with «traditional» meats. Once good products have first been developed, the problem could easily become simply one of satisfying the demand.

### 3. Requirements for achieving these objectives.

#### a. Consistent quality.

Variation in sorting and classifying meat remains a major problem today. The industry demands tighter control to ensure the consistent quality which is necessary in type products.

#### b. Quality control.

Clear standards of quality covering slaughter procedures, raw material and products must be developed, agreed and applied. Currently, no such quality control exists. Instruction and motivation are essential to achieve introduction of new standards which will guarantee product quality.

#### c. «Luxury market».

Reindeer is regarded by many as a speciality and should, therefore, be able to command a high price. One problem, however, is that many old fashioned, everyday recipes for raw material like reindeer meat are being forgotten. Meals that come ready-prepared or which require only a minimum of preparation are increasingly popular. Consequently, more and more reindeer meat is being sold in fully or partly processed form.

Fresh reindeer meat is only available at certain times of year and, consequently, a large

proportion of the products must be sold frozen. Presentation, including cut and packaging, is extremely important.

### 4. Demands of the industry.

The food industry demands three things before it will be willing to invest in reindeer meat:

#### a. Consistent quality.

#### b. Guarantee of quality.

c. Improved carcass quality. In particular, more well-filled carcasses. This represents a clear message to the producers to husband their resources better in terms of grazing pressure.

### 5. Demands made to the producers.

#### a. Improved carcass quality.

The higher the proportion of well-filled carcasses the greater the possibility for obtaining highest possible prices. The better the carcass quality, the better raw material which can be delivered to the private customer and the industry. The relation between the quality of the products and its price is obvious. The conclusion is that optimal exploitation of pasture is essential. The consequence of overstocking is low carcass quality and low prices. The price must, in future, reflect product quality and market demand rather than the extent of government subsidisation.

b. Those involved in reindeer husbandry must take greater responsibility for marketing. Reindeer meat currently represents such a small fraction of the total meat market in Scandinavia that relatively small investment is likely to yield a large return, in terms of increased sales. For the reindeer industry itself, of course, meat is everything. Clearly, therefore, the reindeer industry must be made primarily responsible for marketing its products. This responsibility extends from the pasture to the slaughterhouse and then through every stage of processing and packaging all the way to the meat counter.