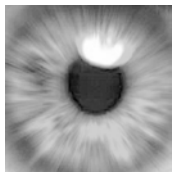

Individual pricing of beefs

Objective

To do individual pricing of each beef, demands knowledge of the amounts of meat, fat and fat stain. Further the distribution of fat is of utmost importance. Fat at the right places as fat stain in the meat or as a properly amount on the edge of the beef adds value, while fat in big lumps reduce the value of a beef. The amount of meet is of course the most important parameter.

Figure 1. An ICAM image of a beef.

Work done

After slicing the beefs to accurate thickness, the surface area is a sufficient measure of the amounts of meat, fat and bones. A simple pricing model could be linear in these amounts.

With ICAM images, it is possible to precisely separate meat from fat, even the fat as fat stain can be separated. By analysing the amounts of meat and fat and analysing the position, shape and distribution of fat it is possible to make a sophisticated price model for beefs.

An ICAM image of a beef is recorded. See Figure 1. With colour separation tools, the meat (Figure 2) and fat (Figure 3) is separated. By vision techniques the amount of meat, the fat stain percentage and the amount and distribution of fat is calculated. These values are then used to price each beef. Further the colour of the beef can indicate the quality and tenderness of the meat.

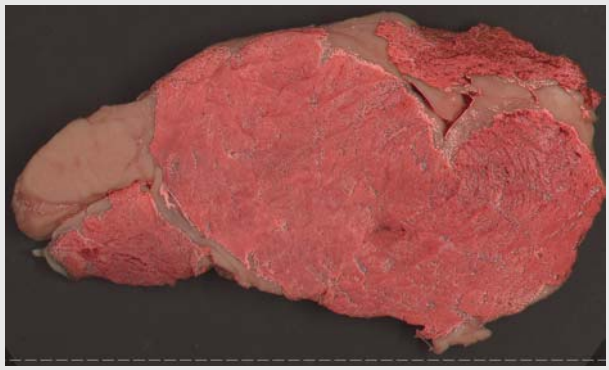

Figure 2. Here the meat is selected and the amount determined. Further the colour of the meat can be used as a quality parameter.

Figure 3. Here the fat is selected. The fat stain percentage inside the meat is calculated, and the amount, shape and distribution of the fat lumps are analysed.

Results and further development

The ICAM colour selection procedures showed very precise in separating fat from meat. It is possible to separate the very small areas with fat stain inside the meat. This shows the very powerful tool of 2D colorimetric imaging.

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