

Development of measurement platform for water retention of meat

1. Developing Staff Members : Development of measurement platform for water retention of meat

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3. Development Idea

Meat water retention is one of the important indicators to evaluate the water retention of meat tissue after slaughtering, cutting, storage and other processes. At present, the water retention of meat is commonly measured by the filter paper press method. The ratio of the surface area of the meat to the total surface area is determined based on the moisture permeated on the test paper. The higher the value, the better the water retention. Generally, the water retention of meat is measured by the filter paper press method. The operation process is all for large-scale testing, and this method is time-consuming and time-consuming. This research hopes to develop a real-time image

recognition system that can reduce labor and time costs and be used by the livestock processing industry.

4. Technological Competition and

Industrial Application

This study focuses on pork, whose taste, flavor and other indicators are directly related to water retention capacity. With the above-mentioned information being increasingly collectivized in animal husbandry, the slaughtered carcasses can be tested and fed back to the breeding farms, and adjustments can be made to feeding methods, feeds, etc., or the stress caused during slaughtering can also cause maintenance problems. Changes in hydraulic power, so the results of this study can be applied to the research of the livestock industry. At present, the water retention of meat is still evaluated by manual tracing as the main test result. This research does have opportunities for commercialization and practical application in industry.

5. Merchandise Statement of Achievement

This research develops an image processing software for the filter paper pressurization method experiment. It can filter the point-level noise and average it through the image processing method, and

perform brightness correction and calculation through image processing and hardware structure design. The water retention area and the entire surface area of the test paper were analyzed for moisture retention, and verified through an integrator. This research and development platform has considerable accuracy and reliability.

