optiSCAN Accuracy and Informative Value

A reliable indication of the expected slaughter weight is key when selecting individual fattened pigs for slaughtering or monitoring their growth. This is what optiSCAN provides to the user.

During a day the individual weight changes

The weight of each individual pig varies by about 5 kg during a day, depending on the latest status of eating and dejection. The graph on the right shows the measured weight of one animal during a day and on several consecutive days. The average weight increases steadily over time the results vary by about 5 kg during a day.

When the pigs are weighed with mechanical scales and the results are used to select the heaviest pigs it happens, that a pig with a full stomach weights heavier than one with empty stomach, even the animal would be lighter when comparing

their weight at the same status of eating and dejection. Therefore, using a mechanical scale does not necessarily lead to the selection of the best pigs to optimize the slaughter weight.

Size and body composition determine the slaughter weight

When the pigs arrive at the slaughterhouse, their slaughter weight is determined by size and body composition. Short term effects based on eating and dejection are less relevant as the loading and transport has led to similar level of dry out of all animals.

The optiSCAN measures the pig's size and body composition using a 3D-camera. Millions of measurements of more than 6.000 pigs have been made to develop and validate an algorithm, which calculates the pigs weight based on the measured size and body composition. Reducing the impact of short term variation, the measurement with the optiSCAN device provides a better indication of the slaughter weight than single measurements of a mechanical scale.

Short term weight vs. weight derived from size and body composition

Comparing the measurement results of a mechanical scale with the results of the optiSCAN, more than 50% of the data sets deviate by less than 2,5kg (graph on the right). As mechanical scales directly include the filling of stomach, bladder and bowel while the optiSCAN results are less influenced by these short-term effects, the variations between the two measures are plausible. It is not an indicator for limited accuracy but simply a sign of different measurement concepts: The mechanical scale measures the weight at one single



moment; the optiSCAN indicates the pigs' weight independent of short term effects.



WWW.SECREPRO.COM Ange-Gardien, QC 1.888.446.4647



LOUIS BONNEVILLE President and sales director louis@secrepro.com



