Title: Prediction of pork quality using online computer vision system #15-084

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Scientific Abstract:
Currently pork color and marbling is assessed subjectively in the industry, because of the limited methods and tools that are suitable for the industry. In this project, we are devoted to developing a computer vision system for objective measurement of pork, which suits the industrial needs. Color images of pork loin samples were acquired using a Computer Vision System (CVS). Subjective color and marbling scores (SMS) were determined according to the National Pork Board standards (NPB, 2011) by a trained evaluator. Objective color measurement (Minolta Camera Co., Osaka, Japan) from colorimeter and crude fat percentage (CF%) according to ether extract method (AOAC, 1990) were used as control measurement. The results showed for pork loin color quality attribute, CVS reached the highest regression coefficient of determination ($R^2$) value to 0.90. For pork loin marbling attribute, the $R^2$ was reached highest value of 0.62 by using CVS. For tenderness, the CVS reached the regression $R^2$ to 0.89 highest. For pork juiciness, the CVS reached the regression $R^2$ to 0.92 highest.