RESEARCH ABSTRACT

PORK SAFETY

Title: Additional features to the porcine 3D model to teach the sub-primal and retail cuts of the pork carcass - **NPB#10-165** **revised-2**

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Scientific Abstract:

The objective of this project was to improve the stereoscopic porcine carcass anatomy 3D tutorial by adding the following features: separate and identify pork subprimal cuts and virtually display them in 3D; add fabrication videos of the subprimal cuts; virtually display chemical differences in muscles and highlight the bones of the pork skeleton. Using the 3D pork model from earlier, each pork subprimal cut was virtually separated and added to the program so the user can select a subprimal cut of interest and it will be displayed in stereoscopic 3D. Videos of fabrication of each subprimal can be viewed. Using the data collected by Iowa State University the chemical and physical characteristics were programmed in for each muscle. By selecting a range for a specific characteristic, muscles that fit in the range will be displayed. Bones were also separated, by selecting a bone it is displayed in 3D and anatomical information can also be accessed. Some of the uses of this program would be to: 1. Provide state of the art training aids for the Pork Industry (producers, packers, and processor) to assist in understanding carcass anatomy with out having to dissect a carcass each time 2. The program can be used to educate consumers and chefs on the anatomical location and the new uses of the pork cuts. The three dimensional view will also provide the "WOW" factor which will grab the attention of the consumers and help in selling pork.