

**Title:** Pork fibrin used as a meat binder in pork variety and offal meats **NPB Project #13-250**

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### Scientific Abstract

The objective was to conduct a proof of concept for the use of fibrin from pork blood to create value-added export items from various pork offal items and variety meats. Fibrin is a cold set binding product that is created by recombining the two blood components thrombin and fibrinogen. Fibrin naturally occurs when the protein fibrinogen is combined with the enzyme thrombin, thereby forming a strong bond of muscle tissues. Fibrin can be added to fresh meat to bind multiple products together into one. Fibrin is currently marketed as Fibrimex® by Sonac, however, the patent for producing fibrin has expired which leaves the potential for U.S. pork operations to begin to produce their own fibrin and add it to certain pork items to create their own value-added products.

A total of eight finished products were created in this study using only Fibrimex® and pork offal/variety meats. The products created include a boneless baby back made from pork jowl, a steak made from diaphragms, a boneless hock, a log of skinned pork tongues, a pinwheel with pork diaphragm and cheese, a steak made from course ground heart and back fat, fresh bacon made from pork jowl, and a bung roll stuffed with liver, heart, and kidneys. These products are examples that show the binding capabilities of fibrin on different textured meats. All of the final products are believed to have the potential to be successful export items. It must be noted though that fibrin can be added to many other meats to create an endless number of products, including products that are of value within our country's own markets.

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