

Public Abstract

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Title:COOLING SYSTEM FOR MICRO SCALE FOOD TRANSPORT PROCESS

For the purpose of food safety during food transport in micro scale businesses with non-refrigerated trucks, coolers are one of the main containers that can be used to meet food safety regulations. In this research, a computer model has been developed to calculate the quantity of coolant that can maintain the safe level of temperature required depending on type of food, cooler, and coolant. Also, prototype software and hardware based on the model have been designed for helping to prevent the product from reaching the danger temperature zone so that users can transport food safely along the way. Some sample experiments have been designed and carried out to validate the model. The model shows good agreement with experimental results. Additionally, advantages and disadvantages of each type of coolers and each type of coolants are summarized.