

Farpailin Maneelertu-dom 2012: System for Gastrointestinal Disease Diagnosis in Swine. Master of Science (Information Technology for Agriculture), Major Field: Information Technology for Agriculture, Faculty of Agriculture at Kamphaengsaen. Thesis Advisor: Associate Professor Sujate Chaunchom, Dr.Med.Vet. 87 pages.

The objective of this paper is about the creation of a computer program named “System for Gastrointestinal Disease Diagnosis in Swine”. The researcher has designed the program for ease of use with a help menu to assist users. The Program has been designed by applying the programs namely Microsoft Visual Basic, Microsoft Access and Crystal Report. Meanwhile, the references about gastrointestinal system in swine used in the Program are acquired from those in The Guidance Book for Diagnosis, Treatment and Control Swine Disease by Kitja (1994). The researcher not only had the program tested among the target samples-swine farmers but also conducted a users’ satisfaction survey on various aspects of the Program, a tool for swine farmers in their decision on proper initial treatments for their swine under veterinarian’s absence.

This study consists of two parts. The first one is “The System” for gastrointestinal disease diagnosis in swine includes 17 diseases, 12 symptom groups, 38 symptoms and 31 fecal characteristics. This system helps solving the problem of lacking the experts and saving time in diagnosing diseases. Apart from diagnosing the swine diseases, the system can be used to record information of their swine farming, the histories of their diagnosis and treatments. These can be useful for veterinarian to arrange more effective farm management. However, the system for gastrointestinal disease diagnosis in swine can make initial diagnosis but not completely certain since some swine diseases must later be confirmed by laboratory examination. Once the system was tested among the samples, they express their high satisfaction at an average of  $3.83 \pm 0.67$ . The system can also suggest the methods to initially prevent and treat swine diseases. Moreover, it can be a tool for farmers to choose proper methods for prevention and treatment which can further reduce the severity of diseases and which can increase their profits.

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Thesis Advisor’s signature