

## ABSTRACT

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### **ISOLATION AND IDENTIFICATION OF *Bacillus* sp. FROM GASTROINTESTINAL TRACT OF LOCAL PIG**

( xiii + 84 pages: 7 figures; 9 tabels; 8 appendixes)

The exploration of bacteria isolated from pig that have beneficial roles and can be regarded as probiotics are still limited. The study explored the diversity of *Bacillus* sp. from local pig's digestive tract. Isolates of *Bacillus* sp. from parts of the digestive tract such as, small intestines, colon, cecum, and rectum are identified with morphological, biochemical, and molecular assays.

This study showed that five isolates possess similar characteristics of genus of *Bacillus* genus. 16S rRNA analysis showed that these five isolates were identified as *B. cereus* and *B. amyloliquefaciens/B methylotrophicus*. In addition, they showed various enzymatic activities such as, amylase, protease, and cellulase. Therefore, this study suggests that *B. cereus* and *B. amyloliquefaciens/B. methylotrophicus* could contribute to increase the feed efficiency and productivity.

References : 45 (1989-2015).

Keywords : *Bacillus*, digestive enzymes, gastrointestinal, pig.