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DEVELOPMENT ; M.Sc. (APPROPRIATE TECHNOLOGY FOR  
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KEY WORDS : DRIED GROUND GOLDEN APPLE SNAIL / FISHMEAL / LAYER.

SOMSAK PETCHPANKAN : STUDY ON THE DIETARY REPLACEMENT OF  
FISHMEAL BY USING DRIED GROUND GOLDEN APPLE SNAIL *Pomacea canaliculata*,  
Lamarck : AMPULLARIDAE MESOGASTROPODA FOR LAYING HENS DURING 36 – 45  
WEEKS OF AGE. THESIS ADVISORS : VIROJ KITIKOON, D.V.M., Ph.D., RUNGJARAT  
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The objective of the study is to use dried ground golden apple snail (DGGAS) as a replacement for fishmeal for laying hens. The study was conducted with 480 laying hens which were 36 weeks of age at the beginning of the 10 weeks study period. Hens were fed in suitable cages located at Suphanburi College of Agriculture and Technology. A completely randomized design, with 5 replications of 16 hens which consumed 6 feed formulas, was used during the study. The first 5 formulas comprised DGGAS (ground with shell) to substitute for fishmeal in level of 0, 25, 50, 75, 100 percent. The last formula contained dry meat of DGGAS (ground meat only), 100 percent. Each hen layer will received an average feed of 120 grams/day.

The results indicated that the performance of the layers as average of egg production percent hen-day, an average of daily feed intake, average of feed intake required to produce a dozen eggs, average of color quality of yolk, and average of thickness of egg shell were not significantly different among all of formulas used. However, as far as the cost and the compensation are concerned, formula 5 allowed hens to produce an average of a dozen of eggs at the lowest cost or gave a higher compensation per egg per hen per day. Therefore it is quite possible to use DGGAS as a source of protein in laying hens, diets at any place or any time depending on the availability of golden apple snail in the area.