Pongsak Nakharach 2012: The Supplementation of Raw Fiber Concentrate on Gizzard Weight and Production Performances of Pullet and Laying Hen. Master of Science (Animal Nutrition and Feed Technology), Major Field: Animal Nutrition and Feed Technology, Department of Animal Science. Thesis Advisor: Mrs.Yuwares Ruangpanit, Ph.D. 119 pages.

The objective of this study was to determine the supplementation of raw fiber concentrate (RFC) on gizzard weight and production performances of pullet and laying hen. During pullet period, a total of 720 pullets at 7 WOA were divided into 2 dietary treatments, including diet containing crude fiber (CF) 5.5% from diet and 5.5% (4.83% from diet + 0.67% from RFC). Bird received diet containing 0.67% fiber from RFC had significant higher relative empty gizzard weight at 18 WOA ($P<0.05$). However, no significant difference in growth performances were observed between the two treatments ($P>0.05$). During laying hen period, 288 pullets from each group in pullet period were divided into 3 dietary treatments, including crude fiber 3.5% and 4.0% from the diet and 4.0% (3.5% from diet + 0.5% from RFC). No significant differences in production performances, egg quality, gastrointestinal tract and gizzard weight, cecal microbial population, volatile fatty acid and pH in cecal content, histology of ileum and ammonia and moisture in excreta were observed among dietary treatments. However, the supplementation of 0.5% fiber from RFC in diet significantly increased egg weight ($P<0.05$).

_____ _____ ___ / ___ / ___

Student's signature Thesis Advisor's signature