

Siriwat Thaisonthi 2010: Detection DNA Bands Related to Fighting Trait in Thai-Native Chicken by AFLP Technique. Master of Science (Agricultural Biotechnology), Major Field: Agricultural Biotechnology, Interdisciplinary Graduate Program. Thesis Advisor: Associate Professor Voravit Siripholwat, D.Agr. 54 pages.

This study is to detect DNA bands related to fighting trait in Thai-native chicken by coactions of AFLP and BSA technique. In this study, a total 24 primers of 16 *EcoRI/MseI* and 8 *EcoRI/TaqI* combinations were used to screen 34 Thai-native chickens from 5 families which were classified into 2 different groups according to their fighting trait. The results are 10-19 bands and 5-14 bands given by *EcoRI/MseI* and *EcoRI/TaqI*, respectively. E-ACA/M-TCA is the primer that gives the most average DNA bands and E-AGC/M-TCA is the primer that gives the least average DNA bands with 15.2 and 13.4 average DNA bands, respectively for *EcoRI/MseI*. E-ACA/T-CGA is the primer that gives the most average DNA bands and AGC/T-CTG is the primer that gives the least average DNA bands with 11.2 and 9.1 average DNA bands, respectively for *EcoRI/TaqI*.

The average polymorphic bands from *EcoRI/MseI* and *EcoRI/TaqI* combination are 11.31 and 12.25 bands/family, respectively. However, there are 2 bands of all polymorphic bands were identified to relate to fighting trait in Thai-native chicken which from *EcoRI/TaqI* combination. These are E-ATA/T-CTG and E-ACA/T-CGA with 290 and 400bp, respectively. The results from this study indicated that *EcoRI/TaqI* combination is more suitable for study in Thai-native chicken than *EcoRI/MseI* combination.

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Thesis Advisor's signature