NALINEE IMBOONTA : GENETIC TREND OF AGE AT FIRST MATING IN BACKFAT SELECTED GILTS. THESIS ADVISOR : ASSOCI. PROF. CHANCHARAT REODECHA, Ph.D., THESIS CO-ADVISOR : THOMUS J.T.YU, Ph.D., 118 pp. ISBN 974-635-540-6

Performance test records collected from 1992 to 1996 from on-farm tests and reproductive records of Landrace, Yorkshire and Duroc gilts from 4 commercial farms were used to estimate genetic trend for age at first mating and backfat thickness. The number of gilt records after editing was 5,305. Genetic parameters of age at first mating and backfat thickness were analyzed simultaneously with multivariate animal model by derivative free-restricted maximum likelihood (DF-REML). Estimated heritabilities were 0.26 ± 0.04 and 0.44 ± 0.05 for age at first mating and backfat thickness respectively. Genetic correlation between age at first mating and backfat thickness were -0.30 ± 0.09. The breeding values were predicted by best linear unbiased prediction (BLUP). Estimated annual genetic trends for age at first mating of Landrace, Yorkshire and Duroc were 0.18 ± 0.03, 1.63 ± 0.04 and $1-0.11 \pm 0.06$ days, respectively and for backfat thickness they were -0.022 ± 0.001, -0.013 ± 0.01 and -0.034 ± 0.001 cm , respectively. The correlation and annual genetic trend observed indicated that reducing backfat thickness could result in increasing age at first mating of Landrace and Yorkshire but not Duroc.

ภาควิชา   สัตวบาล

สาขาวิชา   การปรับปรุงพันธุ์สัตว์

ปีการศึกษา   2539

ลายมือชื่อนิสิต   น ลี อิ่มบุญตา

ลายมือชื่ออาจารย์ที่ปรึกษา

ลายมือชื่ออาจารย์ที่ปรึกษาร่วม Thomas J. T. Yu