Genetic and non-genetic aspects of the productive efficiency of the rabbits doe

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this study was carried ut at san el-hager agricultural company, san ei-ahager, sharkya govern rate. data, collected on 355 does and 1430purebred litters produced by b, cal and nzw rabbits during two successive years of productio (1992&1993), were used to investigatesome genetic and non-genetic e ects on litter traits (litter size, litter weight and mean bunny weight per i tter at birth, 21 days and at weaning at 30days and gain in litter weight u to 21 days and up to weaning). data wereanalyzed by the mixed model least-squares and maximum likelihoodmean weighted program o:fh ey (1990) and by using an animal modelprogram (single trait) of mi ztal (1988). the most important resultsobtained could be summarized a follows : 5.1 non-genetic factors- parity effects were found t be significant (p<o.05,p<o.01,p<0.001)on lsb in nzw rabbits; n ls21 in b and cal rabbits; on lsw in cal ones; on lg21 in b and cal rabbits and on lgw in cal ones. they were mostly significant (p<o.05,p<0.01, p<0.001) onlwb in band nzw rab its; on lw21 in b, cal and nzw rabbits and on lww in cal es. however, parity effects were mostly non-significant on mean b nny weight per litter traits in b, cal and nzw rabbits, year-season combination exerted significant effect (p<o.05,p<o.o1 or p<o.ooi)on lsh, l 21, mbwb, lg21 and lgw in band nzw rabbits; on ls2 l, l wand mbw21 in b rabbits and on lwb and lwwin b, cal and zw rabbits 5.2 doe effect - doe expressed significant (p<0.05,p<o.01or p<o.001)effect on all litter traits in b rabbits, on wb and mbww in cal rabbits and on lsb, ls21, lsw, l'vb, w21, lww, mbw21 and mbww on nzw rabbits, estimates of percentages 0 doe variance component for doe litter traits using either henders n 3 method or rl1m method show low to moderate values. the r ges of these values were mostly higher when obtained by rm!vl th those reached by henderson 3 method, percentages of doe vari ce component calculated by using henderson 3 method or method are, in general, higher in b rabbits than in cal and zw ones. the cal rabbits recorded the lowest estimates of percen ges of doe variance component, 5.3 common litter effect - common litter effect showe significant (p<o.05,p<o.olor p<o.ool)effect on litter traits in b d nzw rabbits except lw21 and lg21in nzw rabbits, the si ificant (p<o.oi) effect was detected on mbww only in cal rabbi s, percentages of variance c mponent of common litter were low to moderate in values, 5.4 repeatability repeatability estimates ob ained by either henderson 3 method orrmm method were 10 or moderate, but the ranges of these estimates obtained by he derson 3 method are smaller than those obtained by rmm method. estimates of repeatability than those in nzw and method or rmm method, all doe litter traits in b rabbits are higher al rabbits by using either henderson 3 5.5 doe breeding value amyl generally, ranges of all does an ranges of the top 30% does obtained by dm were higher than the orresponding ranges obtained by am method in the three breeds of bbits in this study, percentages of does having p sitive estimates of dbv for doe litter traits in this study were mos ly less than 50% either in dm or am, at the same time these perce tages were slightly larger when usingamthan when using d jv1 m thod, dbv, in general, was found t increase as age of the litter advanced from birth up to weaning, in general, the two ranges 0 breeding value of all does and the top 300/0 does were higher in b bbits followed in a descending order by nzw and cal rabbits either hen using dm or am methods.