Genetic V Evaluation of Egg .Production Tl'aits in PlJn~~}II/ICross Bred Chickens in South \Vestcrn: Nigeria

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T!iis stildy \\'(/.\('ol/chick" /I.\'ing5 dickcngcl/olYfJ(!sco111pl'isi/1g 3 exotic p/~eb,.eds:.!Yera Black (Nfl), White Legh()rn'(WL) and Giriraja (Gi~, Nig(::.~ianLocal chiCkenstrain(L) and ii1lprowallocaf (8 Alpha cross/irad). The layingpei:!ormanceojthese clzic:keils was : monitored to evaluate genotype effect on eggproduction traits: The egg productiol1 traits' manitoret/were age at first egg, body v, ieight 'ftt first egg, weight affirS/egg, egg number and egg w.eight, Hen- day egg produ(tion, Hen-house~l egg pl'oduc;tion, egg number/ him/year and t(lying ll1orlali~yA lolal of 496 pullets were evaluated/or effect of genotype on. laying pc/jimY/once throughout the experimental period. Genotype significantly (P'<001) aUected all production traits. Age at irs! egg W-:-IBowest in White Leghom $(138.24 \pm 1.86 d(l)'s)$, Jollowed by Giriraja, B-Alpha, Local and Nera lJ, lackwith the corresponding means of 160, 76±2.35, $177.00 \pm 1'.31$, i88.73 ~ 1.12 and 190.93 ± 4.14 da.~s resp~ctiveIY: Giriraja had the hi,~hcs(body weight atfir5tefg (21()7.00 \pm 4.0.Jg) while White Leghorn had the lowest (1259.62 ± 9.83g.J. Howevl?r-Nera Blackhad the .highesfweisht offirst egg (48,52 \pm a.52g) compared with 33.11 \pm a.Oig by White Leghorn which was Ihe lowe5t. Mean vahies for egg number pel' bird per week, Hen- day egg' production (%), egg Illnib, erperl enperycor and percent laying mortality, washighestin White Leghorn, while VallleS/Or ~gg weight, per hirdper week. Hen-hdusedegg. productioll (%) was highest in Ner(1 mQck The iJerj'ormlJllce in terms of hybrid vigour exhibited hy II A '/)]/(/over-the lwucxlrcl1lc parents (Nfl lInd L) howeve/; suggested that the genetic potential of the Nigerio.n inrligellouschi(tens .C(Albe effectivety exploited by crossing with improved eXJlic strainsjbr increased laying performance.

Key words: Egg productio r.~ age, body weight, gcriotypcs