

## 輔導民間土雞育成與應用

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為建立高產蛋數選育技術平台，選育高產蛋數土雞品種，進而輔導民間種雞場建立高產蛋數土雞群，提升種雞場種雞產蛋性能。以畜試土雞近親品系台畜一號(L7、L9、L11及L12四個近親品系)進行高產蛋數選育，經4個世代對產蛋數的選育，四個畜試土雞品系的母雞40週齡產蛋數在世代間存在顯著差異( $P < 0.001$ )，G4世代母雞的40週齡產蛋數皆較G0世代母雞者高，品系L7、L9、L11及L12分別增加39.1%(28/71.6)、51.5%(30.6/59.4)、37.8%(27.3/72.2)及36.1%(23.7/65.7)。雞隻16週齡平均體重與母雞40週齡平均蛋重在世代間亦存在顯著差異( $P < 0.001$ )，四個畜試土雞品系G4世代母雞40週齡蛋重亦皆較G0世代母雞者重。此外，雞隻16週齡平均體重、40週齡平均蛋重並未因產蛋數的增加而減輕，反而有顯著地提高。由本試驗應用小族群土雞系譜繁殖，以個體紀錄來進行土雞高產蛋數的選育，確實可有效地提升母雞40週齡產蛋數，且對雞隻16週齡的體重與40週齡平均蛋重亦有顯著的改善，可作為民間種雞業者改善母雞產蛋數的選育技術平台。此外，輔導兩家進駐本所育成中心的凱馨實業股份有限公司及台灣福基股份有限公司進行紅羽土雞種原固定與性能改良，分別育成凱馨桂丁土雞與豐輝下營紅牌雞，並完成命名登記。

關鍵語：土雞、產蛋、選育

## Counseling Folk Chicken Farm in Country Chicken Breeding and Application

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In order to improve egg number for Taiwan country chicken breeding farms, establishing the standard operating procedures is necessary. The platform was demonstrated by inbred selection. Egg number was the only major trait on the illustration selection. High egg number hens were selected for breeding from four lines of Livestock Research Institute (Inbred Lines, L7, L9, L11 and L12). After four generations of selection, significant differences of egg number up to 40 weeks of age were detected among the generations ( $P < 0.001$ ). Egg numbers of G4 generation are higher than G0 generation in the four lines, L7, L9, L11 and L12, which increased 39.1% (28/71.6), 51.5% (30.6/59.4), 37.8% (27.3/72.2) and 36.1% (23.7/65.7) of egg number, respectively. Average body weight of 16-week-old of chicken and egg weight at 40 weeks of age of hens differs significantly between generations ( $P < 0.001$ ). Furthermore, the average of body weight at 16-week-old of chicken and Egg weight at 40-week-old of hens in the G4 generation did not decrease with the increased egg number, but have significantly improved. Both traits of the G4 generation are higher than the G0 generation. Based of small population pedigree mating, selection of egg number on this illustration can achieve the breeding goals, increase egg number at 40 weeks of age and body weight at 16 weeks of age. The selection practice steps can be the standard operating procedures for breeding farms. In addition, we also counseling two companies, Kai Shing Trading Co., Ltd. and Taiwan Fuji Co., Ltd., which are stationed in Innovation Incubation Center of LRI, to carry out the purification and performance improvement of the red-feathered chicken and bred (KAISHING GUIDING native chicken and FENGHUI HSIAYING Red-Brand country chicken, respectively. And complete the naming registration.

Key Words: Native chicken, Egg production, Selection