

Abstract. The current study aimed at generating essential information on breeding practices and traits of economic importance of indigenous chicken (IC) farmers in the three historical regions of South Sudan (Bhar el Gazel, Upper Nile and Equatoria). Data on perceived important traits according to farmers (n=385), marketers (n=100) and consumers (n=100) were collected and analyzed through computation of indices which represented the average weight of all ranks of a specific trait. The results of the indices indicated that farmers selected body weight (3.16), disease tolerance (3.02), drought tolerance (2.70) and fast growth rate (2.44) for breeding cocks. For hens, high indices were observed on disease tolerance (2.95), hatchability (2.78), egg size (2.63), egg number (2.48). Large Baladi (LB) and Naked Neck (Na) genotypes were the dominant genotypes raised by 64.8% and 27.7% of all farmers, respectively, for their superiority in mothering ability (40%), heat tolerance (20%) and disease tolerance (17%). Traits perceived by farmers as the primary economic importance were body weight (0.207), survival rate (0.11), egg yield (0.084) and meat quality (0.084). While marketers perceived body weight (0.234), egg yolk colour (0.150), disease tolerance (0.145), and plumage colour (0.133) as the most important traits, consumers emphasize egg yolk colour (0.202), plumage colour (0.204), and survival rate (0.156) as crucial. Body weight had a positive and favourable significant correlation with growth rate (0.561), egg fertility (0.412), disease tolerance (0.062), and a negative and unfavourable correlation with meat quality (-0.191). Meat quality was negatively correlated with fertility (-0.312) and growth rate (-0.381). Prolificacy had positive and favourable correlations with drought tolerance (0.603), disease tolerance (0.091) and heat tolerance (0.091). Regarding preferences rank correlation of marketers and consumers, positive and significant correlations were reported for body weight with growth rate (0.092) and meat quality (0.056). IC ecotypes that can perform well and are adaptable to the local environments in South Sudan should be identified. Selections should be based on traits preferred by farmers, marketers, and consumers.

Keywords: breeding practices, indigenous chicken, trait preferences, South Sudan