

Peer Review

Review of: "Phenotypic Characteristics and Factors Associated with Assaf Lamb Body Weight and Morphology"

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This study provides valuable baseline data on Assaf lamb growth and conformation under Jordanian semi-intensive conditions, and its strengths include a relatively large overall sample size ($n=392$ across ages), comprehensive measurement of 13 linear traits, and practical development of prediction equations for body weight using easily obtainable morphometrics—particularly the strong weaning model ($R^2=0.848$), which has clear field applicability where scales are unavailable. The factorial evaluation of month of birth, sex, birth type, and dam age is relevant for breeding and management decisions, and the discussion is well contextualized within regional sheep literature. However, several methodological issues limit the strength of inference: the data are unbalanced across ages (different lambs at birth, weaning, and marketing), yet age is included in the model without clearly accounting for repeated measures or cohort structure; the GLM specification is not fully transparent regarding interaction terms; and stepwise regression raises concerns about overfitting and model stability without cross-validation. Additionally, assumptions of normality, multicollinearity diagnostics (given the high intercorrelations among traits), and external validation of prediction equations are not reported. The manuscript would be strengthened by clarifying whether the same individuals were followed longitudinally, applying mixed-effects models if repeated measures exist, reporting VIF values and residual diagnostics, validating prediction models using split-sample or cross-validation approaches, and presenting standardized effect sizes alongside p-values. A more concise discussion (currently repetitive), clearer biological interpretation of negative coefficients (e.g., chest depth in the marketing model), and inclusion of confidence intervals for regression parameters would substantially enhance rigor and publication impact.

Declarations

Potential competing interests: No potential competing interests to declare.