



Comparative production performance and egg quality of Kuzi Ducks (*Anas platyrhynchos*) and its crosses with Khaki Campbell

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Supplementary Table 1. Age of the flock at different level of production

Genetic group	First egg laid by the flock (day)	Age of the flock at 20% DDEP (day)	Age of the flock at 50% DDEP (day)	Age of the flock at 80% DDEP (day)
Kuzi	102.00±3.46	121.00±3.06 ^a	138.00±3.79 ^a	191.67±1.33 ^a
DK	105.00±1.53	116.33±0.88 ^{ab}	122.67±0.67 ^b	136.67±2.40 ^c
KD	104.67±1.20	111.00±0.58 ^b	125.00±0.58 ^b	155.33±1.20 ^b

KD, Khaki Campbell × Kuzi and DK, Kuzi × Khaki Campbell; DDEP, Duck day egg production. Means having even one superscript in common in a column did not differ significantly ($P \leq 0.05$).

Supplementary Table 2. Egg quality parameters at different weeks of age in Kuzi S2 generation and KD, DK (content % and shell thickness and Haugh unit)

Parameter	Genetic group	40 wk	44 wk	48 wk	52 wk	60 wk	68 wk	72 wk
Albumen %	KD	58.44±0.43 _A	59.21±0.46	58.25±0.52	57.90±0.38	55.82±0.37 _B	57.22±0.34 _B	57.50±0.56
	DK	58.35 ^{ab} ±0.34 _A	58.25 ^{ab} ±0.34	58.62 ^{ab} ±0.38	56.21 ^c ±0.61	58.03 ^{ab} ±0.40 _A	59.50 ^a ±0.60 _A	56.89 ^{bc} ±0.76
	Kuzi	56.75 ^{bc} ±0.36 _B	59.16 ^a ±0.31	57.46 ^b ±0.56	57.68 ^b ±0.48	55.52 ^c ±0.45 _B	56.89 ^b ±0.43 _B	55.96 ^{bc} ±0.32
Yolk %	KD	32.20±0.38	31.88±0.40	32.81±0.48	33.59±0.38	34.16±0.34 _A	34.03±0.29 _A	33.37±0.51
	DK	32.10 ^b ±0.30	32.64 ^b ±0.35	32.28 ^b ±0.39	35.10 ^a ±0.53	32.26 ^b ±0.45 _B	31.88 ^b ±0.55 _B	34.14 ^a ±0.74
	Kuzi	33.17 ^b ±0.37	32.01 ^c ±0.32	33.16 ^b ±0.48	33.62 ^b ±0.36	34.91 ^a ±0.46 _A	34.02 ^{ab} ±0.48 _A	34.92 ^a ±0.29
Shell %	KD	9.37 ^a ±0.25	8.92 ^{abc} ±0.17	8.94 ^{abc} ±0.21	8.51 ^c ±0.18	9.22 ^{ab} ±0.16	8.75 ^{bc} ±0.16	9.12 ^{abc} ±0.17
	DK	9.55 ^a ±0.17	9.11 ^{ab} ±0.13	9.10 ^{ab} ±0.15	8.70 ^b ±0.21	9.71 ^a ±0.17	8.63 ^b ±0.24	8.97 ^b ±0.29
	Kuzi	10.08 ^a ±0.26	8.83 ^{cd} ±0.11	9.38 ^{bc} ±0.22	8.70 ^d ±0.20	9.58 ^{ab} ±0.21	9.09 ^{bcd} ±0.17	9.12 ^{bcd} ±0.12
STM (mm)	KD	0.46 ^{ab} ±0.008 _A	0.42 ^c ±0.004 _B	0.44 ^b ±0.008	0.39 ^d ±0.007 _B	0.45 ^{ab} ±0.007 _A	0.46 ^a ±0.009	0.35 ^c ±0.005 _B
	DK	0.45 ^a ±0.004 _A	0.45 ^a ±0.007 _A	0.43 ^{ab} ±0.008	0.40 ^c ±0.007 _{AB}	0.43 ^b ±0.005 _B	0.44 ^{ab} ±0.010	0.33 ^d ±0.007 _C
	Kuzi	0.41 ^{cd} ±0.0069 _B	0.43 ^b ±0.005 _B	0.44 ^b ±0.007	0.42 ^{bc} ±0.007 _A	0.43 ^b ±0.007 _{AB}	0.46 ^a ±0.008	0.39 ^d ±0.007 _A
ST (mm)	KD	0.359 ^{ab} ±0.005 _A	0.37 ^a ±0.007 _A	0.339 ^{cd} ±0.006 _{AB}	0.328 ^d ±0.005	0.344 ^{bcd} ±0.005	0.354 ^{abc} ±0.008	0.301 ^c ±0.004 _B
	DK	0.360 ^a ±0.005 _A	0.352 ^a ±0.005 _B	0.325 ^b ±0.006 _B	0.324 ^b ±0.005	0.342 ^{ab} ±0.005	0.356 ^a ±0.008	0.271 ^c ±0.006 _C
	Kuzi	0.298 ^d ±0.005 _B	0.356 ^{ab} ±0.005 _{AB}	0.351 ^{ab} ±0.005 _A	0.334 ^c ±0.006	0.340 ^{bc} ±0.006	0.359 ^a ±0.008	0.332 ^c ±0.005 _A
Haugh unit	KD	91.95 ^a ±1.21 _A	91.63 ^a ±1.49	90.16 ^{ab} ±1.40	91.98 ^a ±1.56	86.85 ^b ±0.62	90.26 ^{ab} ±1.15	91.92 ^a ±1.11
	DK	93.52 ^a ±0.73 _A	89.24 ^{bc} ±1.57	90.80 ^{abc} ±1.95	88.80 ^c ±1.16	87.10 ^c ±1.16	93.12 ^{ab} ±0.99	93.19 ^{ab} ±1.16
	Kuzi	87.13 ^b ±1.11 _B	90.52 ^a ±0.97	88.92 ^{ab} ±1.49	91.18 ^a ±1.24	89.27 ^{ab} ±0.71	91.13 ^a ±1.12	92.25 ^a ±0.86

STM, shell thickness with membrane; ST, shell thickness; KD, Khaki Campbell × Kuzi; DK, Kuzi × Khaki Campbell. Means having even one common superscript in a row for a particular traits in a genetic groups at different ages did not differ significantly ($P \leq 0.05$). Average showing even one subscript in capital letters for a particular trait at same age between different genetic groups did not differ significantly ($P \leq 0.05$).

Supplementary Table 3. Mortality % during different period in the three genetic groups

Period	Kuzi (N= 88 at 20 week)	DK (n= 68 at 20 week)	KD (n= 69 at 20 week)
20-40 week	1.14	1.45	4.35
40-60 week	6.82	0.00	1.45
60-72 week	9.09	0.00	8.70
20-72 week	17.05	1.45	14.49
72 to 80 week	1.14	0.00	0.00

KD, Khaki Campbell $\times$ Kuzi and DK, Kuzi $\times$ Khaki Campbell.