

The effect of artificial rearing on kid growth and milk production of Damascus goats

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Introduction

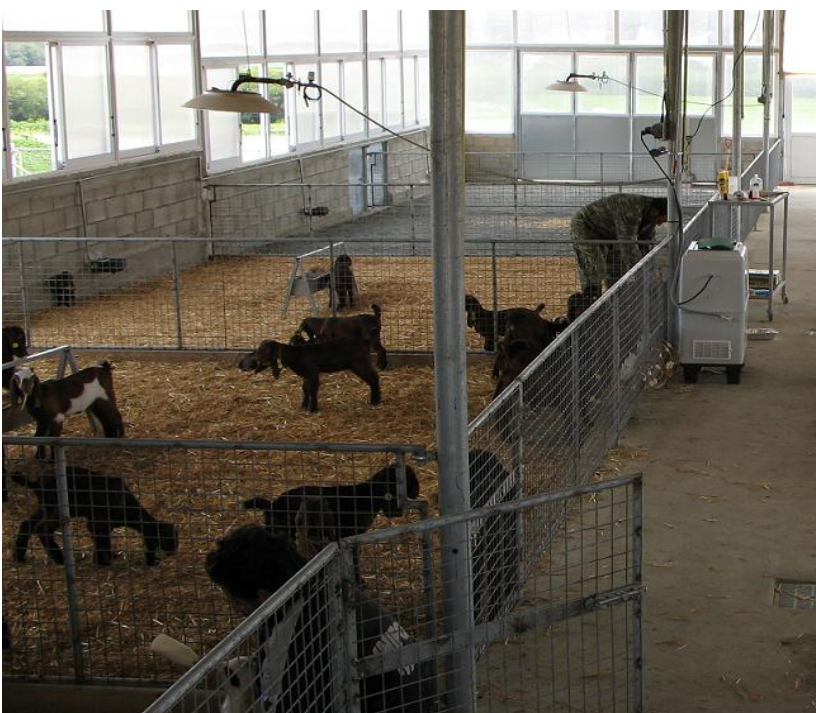
The Damascus goat breed is utilized for meat and milk production and is characterized by high prolificacy (~ 2 kids) and good milk yield (400 kg per lactation after weaning). In Cyprus, the Damascus goat and its crosses are raised under intensive or semi-intensive systems and the milk produced, is used for cheese making and other high added value milk products.

Objectives

- To study the pre weaning and post weaning growth of kids reared artificially on milk replacer.
- To investigate the effect of artificial rearing of kids on the milk production of their dams.

Materials and Methods

- Yearling Damascus goats were randomly assigned to either natural suckling (NS) of kids (22) or separated from their kids at birth (24).
- Separated kids received colostrum for 24h by bottle and were then reared artificially (AR) on milk replacer.
- All kids were weaned at 49±3 days of age.
- Milk yield of goats was recorded at 28 days after kidding and at monthly intervals until dried off (less than 300 g/day).
- Milk fat and protein contents (%) were recorded at 28, 58 and 88 days post kidding.
- 15 male kids from the NS group and 15 from the AR group were fattened for 70 days.
- Feed consumption and live weight of lambs were recorded every 14 days.



Results

Table 1. Pre weaning performance of kids

	NS	AR
No. of kids	46	58
Birth wt (kg)	4.1	4.1
Weaning age (day)	47.5	50.5
Weaning wt (kg)	14.7 ^a	13.8 ^b
Daily gain (g)	223 ^a	191 ^b

Table 2. Post weaning growth of ♂ kids

	NS	AR
No. of kids	15	15
Initial wt (kg)	15.7	15.1
Final wt (kg)	35.1 ^a	36.0 ^a
Daily gain (g)	269 ^a	291 ^a
Feed intake (kg)	67.9	72.0

Table 3. Marketable milk yield and milk composition

	NS	AR
Milk yield (kg)	301 ^a	273 ^a
Milk till weaning (kg)	31	118
Total milk (kg)	332 ^b	392 ^a
Days milked	192	190
Fat content (%)	3.88 ^a	4.16 ^a
Protein content (%)	3.96 ^a	4.03 ^a

Conclusions

- Kids on NS grew faster till weaning than AR kids.
- NS and AR kids reached the same live weight at 120 days of age with a similar growth rate.
- Marketable milk of goats increased when kids were reared artificially.
- Artificial rearing may increase farmer's income without adverse effects on kid growth.