Objectives

1) Evaluate growth rate, blood components and organ weights of Capretto as compared to their pasture counterparts
2) Evaluate the physico-chemical, nutritional and organoleptic value of meat from such goats when slaughtered at different ages reaching 2 months of age.

Results ...

Materials and Methods

24 male newborn goats

- Fed milk free choice (24 d post-natal)
- Control: 9 kids fed pasture grass & milk
- Capretto: 15 kids fed milk AM & PM

All Raised in 70 x 70 x 70 cm³ box

- In Byblos at 100 m alt. (Ag. Station, USEK)

Blood Components Analysis

- Jugular blood collected every 6 d & at slaughter
- Na, K, Ca, Fe, glucose and serum proteins analyzed using flame photometry and spectrophotometry.
- Hemoglobin determined colorimetrically by complexion with Drabkin reagent

Meat Physico-chemical & Organoleptic

- 300 - 400 g from different parts of carcass
- Total fat by ether extraction, Meat protein by Kjeldhal method & Minerals by carbonization
- Rigor mortis carried for 12 - 16 h (4 °C)
- Tenderized grilled kabobs or pan-fried by specialized cooks.
- Pan-fried, roast or stew by housewives.
- Organoleptic criteria by regular consumer panel
- Color: Red=1 - white = 4, taste: acid - nice
- Odor: Not desirable - specific
- Richness: Low - high or juiciness: 1 - 5
- Tenderness and overall appreciation scored by housewives

Statistical Analysis

Data were analyzed using ANOVA using SPSS 10.0, means compared using the LSD, presented LSMeans ± SEM

Implications

Lebanon is recognized for low quality pastures, narrow grazing areas and transhumance rearing of local Baladi goats.

- Twin or weak Baladi kids are not incorporated in a traditional rearing system
- Possibility of raising these kids up to 8 weeks on milk alone (Capretto), with little physiological side effects.
- Same characteristics of a young meat in regards to juiciness, chewiness, color and smell when grilled.

Conclusion

Meat organoleptic characteristics were desirable at weeks 4 and 6 for both kids, whereas only Capretto meat stayed desirable at week 8.

Capretto kids have similar properties to their traditional counterparts, with added desirable properties for a longer growing period, in addition to the increased health benefit of lower fat.