

RESEARCH PAPER:

## Management of browsers in ravinous eco-system for livelihood security of resource poor farm families

H.G. PRAKASH, H.B. DWIVEDI, D.P. SINGH AND M.R. DABAS

*Asian Journal of Environmental Science (December, 2009 to May, 2010) Vol. 4 No. 2 : 190-193*

See end of the article for authors' affiliations

Correspondence to :

**H.G. PRAKASH**

Directorate of Research,  
C.S.A. Azad University  
of Agriculture and  
Technology, KANPUR  
(U.P.) INDIA

### Key words :

Management  
systems,  
Jamunapari,  
Economic traits

### SUMMARY

A study was conducted in the ravinous ecosystem of Yamuna river catchment area of district Firozabad and Etawah of UP to assess the economic performance of browsers i.e. Jamunapari or jamunapari type goats. The sample villages were dominated by Jamunapari or jamunapari type goat followed by non-descript (Deshi). Three management systems viz., extension, semi-intensive and intensive were taken into consideration. Significantly higher number of goat growers were feeding their goats in semi-intensive system as compared to extensive and intensive systems. Age at first puberty ( $433.0 \pm 18.9$  days) and conception ( $517.8 \pm 16.7$  days) of goat was significantly lower in semi-intensive system. Management systems had significant effect on the kidding interval. Lower kidding interval ( $314.2 \pm 8.7$  days) was also observed in semi-intensive system as compared to both the systems. The lactation length ( $190.0 \pm 35.4$  days) and lactation yield ( $1060.0 \pm 73.3$  g/day) of Jamunapari breed was significantly maximum in semi-intensive system. Management systems did not affect the birth weight of kid. Study concludes that management systems effect the economic traits of Jamunapari breed. Hence, it is suggested that benefited commercial production of Jamunapari may be achieved under semi-intensive system.

Goat, a dual purpose animal has been integrated in crop-animal production systems of resource poor farm families of ravinous areas. The goatary provides significant support to the economy of poor landless, small and marginal farm families of rural side of country in general and ravinous areas in particulars. Agro-climatic conditions of ravenous ecosystem of south western semi arid zone of UP are such that inspite of surplus and excess of green fodder during July to October, there is a large lean period of acute scarcity of green biomass during other months of the year. Hence, to sustain goat production in these area is very challenging job. To maintain ecological balance and increasing competition between human and animals for needed, nutrient is a matter of great concern. Therefore, an investigation was planned to assess the economic goat productivity in the ravinous ecosystems of Yamuna encatchment areas of south west semi-arid zone of U.P.

### MATERIALS AND METHODS

Investigation was conducted in five villages of ravinous area of south west semi-arid zone of U.P. The ecological condition of sample villages was semi-arid in nature having sandy

to sandy loam soil, erratic rainfall ranging from 493 to 804 mm. per annum followed by high air temperature during summer and fragile eco-system. The sample villages were also dominated by Jamunapari followed by Barbari and non-descript (Deshi). 100 goat growers having 1-50 goats of Jamunapari were selected for this study. The information on existing browse feed resources, management practices and economic traits of Jamunapari goat was collected by using participatory rural appraisal (PRA) tools and techniques. The green biomass generally consumed by goats was video-taped and representative samples of each tree/bush, grass and seasonal plant were collected and analysed for proximate principles as per AOAC (1980). The information on management practices and economic traits viz., age at first puberty (AFP), age at first conception (AFC), kidding interval (KI), gestation period (GP), lactation length (LL) and lactation yield (LY) of Jamunapari were compiled and statistically analysed as per Snedecor and Cockran (1967.)

### RESULTS AND DISCUSSION

The results obtained from the present investigation are summarized below :

Accepted :  
October, 2009