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Knowledge level and adoption of scientific kid health management among goat owners under field conditions

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The goat is a source of supplementary income and family nutrition among the resource poor goat owners. Goat farming is highly prone to a number of diseases and the mortality in kid is a major concern. Sabapara and Despande (2010) reported that the mortality rate was highest in 0 to 3 months age (11.8%) followed by 3–12 months age (8.1%) and adult (6.1%). As per the National Sample Survey Organization (NSSO 2005), only 5.1% of the farmer households in India are able to access any information on animal husbandry. The present study was undertaken to assess the knowledge level and adoption of scientific kid health management practices among the goat owners under field conditions.

The study was conducted in West Bengal (WB) and Uttar Pradesh (UP) on the basis of high goat populated states in the country. North 24 Parganas district from West Bengal and Mathura district from Uttar Pradesh were randomly selected for the study. Two blocks (from each districts) and 45 farmers (from each block) were selected randomly for data collection on scientific kid health management practices (Cleaning of mucous from mouth and nostrils just after birth, feeding of colostrums as early as possible, cutting of naval cord with sterilized blade, dipping of naval cord with antiseptic solution, providing warmth in winter month, deworming of new born within a month, antibiotic coverage of neonatal kid and weaning at 3 month of age) using semi structured interview schedule. Thus, 180 respondents form the total sample size. The knowledge level was measured using eight questions related to kid health management. Every right answer was given a score of 1 and the total obtainable score was calculated. For measuring adoption, the response of the respondents were taken against each of the scientific kid health management practices on 3 point continuum representing full adoption, partial adoption and non-adoption with scores 3, 2 and 1, respectively. The respondents were divided into low, medium and high categories of adoption on the basis of equal class intervals between minimum and maximum obtainable scores on kid health management. Adoption index was calculated from mean adoption score obtained for the kid health management (Adoption index = Mean adoption score obtained/ Maximum obtainable score × 100). The data were analysed using SPSS package.

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Health problem of kids

Majority (78.9%) of the respondents had reported that PPR was the major problem faced in kids along with adult goat followed by diarrhoea (32.8%), tetanus (16.1%) and contagious ecthyma (14.4%). Further, the study has shown that the occurrence of PPR in kid along with adult goats was reported to be higher in West Bengal (83.3%) than in Uttar Pradesh (78.9%). Occurrence of kid diarrhoea was reported by higher number of respondents in Uttar Pradesh (41.1%) than in West Bengal (24.4%). Similarly, occurrence of tetanus was reported to be higher in Uttar Pradesh (18.9%) than in West Bengal (13.3%). Similar findings were reported by Roy *et al.* (2015).

Knowledge level and adoption of kid health management

Majority (74.4%) of the respondents had knowledge about cleaning of mucous from nostril just after birth. The study further showed that 45.6% and 29.4% of the goat owners had fully and partially adopted this practice. The study revealed that majority (64.4%) of the goat owners had knowledge about feeding of colostrum as early as possible. Results revealed that feeding of colostrum was fully and partially adopted by 37.2% and 26.7% of the respondents, respectively. Majority (61.1%) of the goat owners had knowledge about cutting of naval cord with sterilized blade. The study showed that majority (50.6%) of the respondents were partial adopter of this practice. Only 5.6% were found to be full adopter. Dipping of naval cord with antiseptic solution was known to 51.7% of the goat owners. Further, the study showed that dipping of naval cord with antiseptic solution was fully and partially adopted by only 22.2% and 25.6% of the goat owners, respectively.

Similar to the present findings, Thombre *et al.* (2010) also reported very low adoption in case of naval cord treatment.

Providing warmth in winter months by straw, gunny bags, dry leaves etc., was known to 89.4% of the goat owners. Full and partial adopter of this practice were 51.7% and 32.2% of the respondents, respectively. Sagar *et al.* (2012) reported that majority (68%) of the goat owners in dry land area did not provide bedding material for new born kid. Deworming of new born within a month was known to only 21.1% of the goat owners. The study further showed that only 1.1% and 13.9 % were found to be full and partial adopter, respectively. None of the respondent had knowledge of weaning at 3 months of age and antibiotic coverage for neonatal kid. This might be due to the fact that they did not have knowledge and provision for weaning in very small flock size. Antibiotic coverage for neonatal kid might have not been adopted due to insufficient knowledge (Rashmi 2010).

Mean knowledge score of the goat owners from 8 packages of practices on kid health management was medium (3.6); it was 3.9 in West Bengal and 3.3 in Uttar Pradesh on eight point score. Kumar *et al.* (2014) also reported that majority of the respondents belong to medium adopter category in their study in Uttar Pradesh. The result also showed that majority of the goat owners had medium (60%) followed by low (27.2%) and high (12.8%) level of knowledge in kid health management. Results revealed that there was highly significant difference between two states with respect to knowledge level in kid health management. Mean adoption index of the goat owners from eight package of practices on kid health management was low (31.6) whereas it was found to be medium (34.8) in West Bengal and low (28.3) in Uttar Pradesh. The result also showed that majority of the goat owners were non-adopter (55%) followed by partial (43.3%) and full adopter (1.7%) in kid health management. The results also revealed that there was highly significant difference between two states with respect to adoption level in kid health management. This might be due to difference in knowledge, family education status and accessibility to formal interpersonal information sources between the two states. Study revealed that family education status, flock size, farming experience and income in goat farming had significant and positive correlation with knowledge level in kid health management (0.17 to 0.30), while income in goat farming, farming experience and family education status were the main contributing factors to farmers' knowledge level (R^2 value=0.505) explaining 50.5% variance in knowledge level in kid health management. The study also revealed that education, knowledge level and mass media exposure had significant and positive correlation with adoption index (0.17 to 0.87). The knowledge level and social participation explained 76.6% variability (R^2 value=0.76) with regards to farmers' adoption level of kid health management practices. Kumar (2012) also reported similar findings. In conclusion, the mean of knowledge score and adoption index of goat owners in kid health management was medium and low, respectively.

SUMMARY

The present study was taken up with the objective to assess the knowledge level and adoption of scientific kid health management practices among the goat owners under field conditions. The study showed that majority of the respondents had knowledge on cleaning of mucous from mouth and nostril just after birth, feeding of colostrums as early as possible, cutting of naval cord with sterilized blade, dipping of naval cord with antiseptic solution and providing warmth in winter months. It was revealed that the mean knowledge score of goat owners in kid health management was medium and the mean adoption index was low. It was revealed that the income in goat farming, farming experience and family education status were the main factors associated significantly with the goat owners' knowledge on kid health management while knowledge level and social participation were the main factors associated with adoption of kid health management.

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