

Adding Value through Improved Milking Hygiene



A view of outskirts of village Lodhy, Tehsil Gujar Khan



Locally improvised cheap CMT kits helped to continue sub-clinical mastitis detection activity



Locally improvised cheap antiseptic kits have helped to sustain the mastitis control program

Contributor: Tariq Aziz, PSO, Dairy and Meat Technology Program, ASI, NARC, Islamabad-45000

Challenge

- In Pakistan, unhygienic milk production is the first limiting factor in adding quality and value to milk.
- Widespread prevalence of sub-clinical mastitis (SCM) is also an important contributory factor in poor quality of milk. Mastitis is indirectly responsible for low lifetime productivity.
- The above referred activity carried out in village Lodhy, Tehsil Gujar Khan, showed very encouraging results, particularly to prevent clinical mastitis and reduce severity of sub-clinical mastitis while working with poor smallholders involving their womenfolk.

PARC Intervention

- Different hygiene practices necessary for clean milk production (personal, animal/udder and environmental etc) which determine bacterial quality / keeping quality of milk were introduced in the target community.
- A program for control and monitoring of mastitis was introduced by application of antiseptic teat-dips and CMT (California Mastitis Test) kits respectively.
- After repeated demonstration and knowledge exchange sessions the community members steadily picked and adopted clean milk production practices.
- In the start, 11 farmers (with 30 to 35 milk animals) were registered for this intervention. After winning confidence of farmers in this intervention it was expanded steadily to the whole village (140 to 150 animals).

Outcome

- None of animals among the “treatment group” (about 80 to 95 animal group: number varied due to sale/purchase etc of animals) was reported clinically mastitic over a period of two years whereas among the “control group” (30 to 40 animals) 5 animals were reported clinically mastitic — one quarter of 3 animals was reported permanently lost and two each with two and three quarters lost. This group was also sub-clinically 1 to 4 plus positive as revealed by CMT.
- Impact of hygienic practices was measured by monitoring raw milk bacterial count: average aerobic plate count was $2.3 + 0.5$ million/ ml for control group and it was $0.5 + 0.1$ million /ml in treatment group.
- In order to ensure sustainability of interventions master trainer program remained a characteristic feature of this activity: two groups of 5 male and females were trained for clean milk production.
- One male was trained as master trainer on use of CMT kit and on formulation/preparation of teat dips using locally available cheap ingredients, thereby cutting the cost of these consumables supplies to almost 1/4th.
- The net gain is that the village herd is healthy and clinically mastitis-free and the hygienic milk produce empowered farmers in their bargaining strength and are fetching premium price compared with produce of neighboring villagers.

Way Forward

- Upscaling training of farmers and adoption of hygienic milk production practices.
- Increasing awareness on hygiene for improved quality of villagers’ life and animal productivity.