

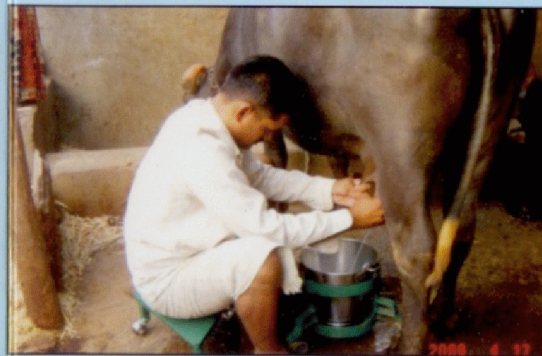
Useful features of the newly developed Milking stand & stool

- * Easy to Move
- * Simple in fabrication.
- * Useful on uneven surfaces
- * Suitable for any type of vessels
- * Low cost
- * Useful for resting the hands while taking break in milking
- * Easy to handle, carry and store
- * It helps to avoid wastage of milk.
- * Use of revolving stool for sitting while performing the activity improves the work posture from squatting to sitting & reduce the muscular pain of the body to a significant level.
- * Minimises the frequency of postural change, reduces the time of work and enhances work efficiency.



Revolving Milking Stand

Revolving Milking stool



Improved method of milking

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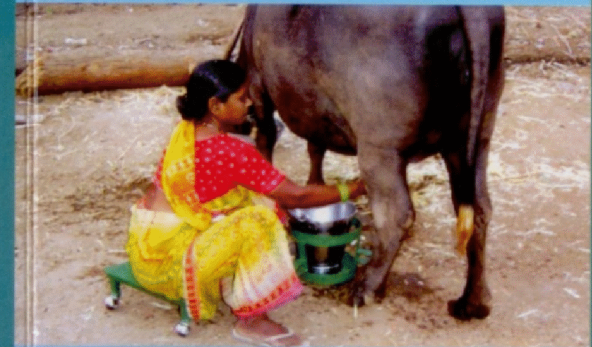
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Revolving Milking Stand & Stool



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Revolving Milking Stand & Stool

The dairy activity is comprised of milking, cleaning shed / collection of dung, feeding the animal, grazing the animal, care of animal and sale of milk and milk products. The gender participation in running the enterprise was studied and it revealed that men have major participation in the milking activity. Major problem faced by the milkman was due to movements of animal while milking. At the time of milking, when the vessel/bucket is kept under the animal, animal moves frequently. Particularly in the evening due to mosquitoes and insects' bites animal becomes irritated and movement of tail and legs gets increased. Much time milk gets spilt due to kick of animal. On an average loss of milk due to such accidents was 1-2 litres per month. To avoid this, in some of the dairy farms, legs of the animal are tied



Awkward posture while milking



Sometime legs of the Animals are tied with rope to avoid Animal kick

with rope. Milkman always experiences stress and fear that milk will get spilled off and losses will occur. It becomes difficult to move the vessel frequently. Some time milkman has to hold the vessel by one hand and carry out milking by other hand. Many times milk pot is hold between two legs and posture of milk man becomes awkward.

The observations of the milking activities revealed that milkman have mental stress at the time of milking because of the frequent movements of the cow/buffalo. To reduce the stress of milkman one movable stand for holding the vessel was designed. It was fabricated with the help of local artisan. When milking activity was performed by using newly developed milking stand, there was significant reduction in average heart rate and energy expenditure.

There was no change in the posture adopted when milking was performed by using only revolving stand. But when milking was performed by using both the tools i.e. revolving stand and stool, the angle of deviation at knee and ankle joint was reduced by 25° and 20° respectively. The improvement in posture was significantly increased when revolving stool was used for performing milking activity.



Milkman always experiences stress and fear that milk will get spilled due to kick of the animal



Milkman has to hold the container in one hand to avoid animal kick