



## Animal By-Products Utilization: Environmental Safety and Livelihood Security

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Animal Husbandry is an economic enterprise and it provides livelihood security to two-third of rural community giving employment to large population of unskilled youth as well as supporting livelihood of the rural population especially marginal, small and landless farmers of our country. The performance of small and marginal farmers depends upon the future of sustainable agriculture growth and food security in India. Livestock provides protein rich products *viz.* milk, meat, egg as well as draught power, dung as organic manure, domestic fuel, hides and skin, and are a regular source of cash income for rural households in Indian scenario. The proper utilization of animal byproducts and excretory material leads to maintaining the sanitary and hygienic condition of animal's premises.

Processed animal proteins, fats, milk, egg byproducts and former food products represent a potentially valuable resource for feeding livestock indicates the significance of animal byproducts as well as earning income by reducing the feeding cost of our animals. The various animal byproducts like skim milk, butter milk, whey and ghee residues have a very useful and nutritive value for human nutrition, which have good medicinal and therapeutic values. These byproducts are further used for manufacturing and value addition by using different processing methods such as pasteurization, sterilization, fermentation, coagulation and drying processes of animal byproducts for earning maximum benefit and improving their shelf life. Proper and judicious utilization of ani-

mal's byproduct has direct impact on the national economy and environmental safety as well as for improving socio-economic condition of the livestock farmers. Dung and urine is a very good source for making organic compost maintaining the production capacity of soil and enhances the microbial population of the soil. Wide applications of the manure in the field of agriculture, energy resource, biogas production unit, environmental protection and therapeutic applications. Sometime cow dung can also be used as a bio-fertilizer, bio-pesticides and pest-repellent. Several Products like soap, toothpaste, floor cleaners, hair oil, incense, shaving cream and face wash has been prepared now a days from the cow dung to earn money. Non-utilization of animal byproducts may create major aesthetic and catastrophic health problems in animals as well as in human being also. Panchgavya, Jeevamrit and Gau-mutra ark etc. are also prepared for protection of herb, crops, health and betterment of socio-economic status of farmers as well as for healthy environmental issues. We should also emphasize to improve the performance of livestock by making a suitable environmental protection so that the blood profile and health measurements of animals and humans will be in good condition.

So, it may be concludes that animal byproduct has direct impact on the income generation and to reduce environmental pollution of the country as well as for the betterment of socio-economic status of the farming community. Hence, there is great need of judicious and efficient utilization of animal byproducts to secure the livelihood, animal welfare and environmental protection [1-12].

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