

Rural Entrepreneurship through Cow Based Products

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Abstract

Indian agriculture is typically characterized by an essential symbiosis of crop and livestock production. Cattle rearing contribute substantially to economic and nutritional security of rural households. Lately, there has been a concern about viability of cattle husbandry at domestic household level mainly because of low milk yield and increased cost of maintaining cattle without substantial land under farming. The Department of Rural Studies and Sustainability at Dev Sanskriti Vishwavidyalaya (DSVV), Haridwar has developed eleven technologies for cow urine and cow dung based products viz. soaps, face pack, tooth powder, dhup batti, eye drops, distilled cow urine (Ark), pain-relief massage oil etc. These value added products has helped over 52 cattle owners to make cattle husbandry a profitable enterprise. Besides promotion of cow based therapies, it has provided substantial opportunities for employment of unskilled and semi-skilled youths in rural areas. Over 50 large cow urine and dung based products production units are presently operating in various parts of the country based on the training imparted at DSVV. The paper describes value added products which can be manufactured using cow dung and urine and can help in enhancing income of cattle owners.

Keywords. Cow dung, distilled cow urine, rural entrepreneurship, self-employment.

Introduction

The present cattle population in India is 192.52 million (Basic Animal Husbandry Statistics, 2019). Cow has been a cornerstone of Indian agriculture for centuries and has served as source of nutrition for farmer's families through milk and milk products, as well as providing draught animal power for both agricultural operations such as ploughing and tilling the land, as well as for transportation of goods. Nearly all basic necessities of life were woven around the cow, with contributions in all aspects of life, including farming and manure, food and nourishment, transport, fuel (burning of dried cow dung cakes and medicinal usage of cow dung and cow urine(National Commission on Cattle, 2002)

Livestock plays an important role in Indian economy. Livestock sector contributes 4.11% GDP and 25.6% of total Agriculture GDP (Basic Animal Husbandry Statistics, 2019). Livestock production is an important source of income for the rural poor in developing countries, like India, where 70% of the livestock is in the hands of small and marginal farmers and landless labourers, who own less than 30% of the land area. Production Systems are based on low cost agro-byproducts as nutritional inputs, using traditional technologies for production. A sizeable percentage of livestock owners are below the poverty line. (National Commission on Cattle, 2002)

Rearing of cattle is an enterprise, which enables poor and landless farmers to earn income using common-property resources and land that has no other sustainable agricultural use. Animal Husbandry sector provides large self-employment to millions of households in rural areas. A cattle rearing, as it exists today in India at the subsistence farming level, is quite financially unviable. As long as the cow is in milk, the farmer is willing to maintain her, but once it becomes permanently dry, the scenario

changes. So is the case with bullocks which become aged and infirm. Male cow-calves are often sold at very young ages, with the farmer-owner knowing full well that the calve he is selling will definitely land under the butcher's knife. The answer lies in the harnessing of all cattle by-products such as cattle dung and urine for various purposes. It is also possible to increase the profitability of the ventures by increasing the unit size and using current technologies, thereby generating wealth and employment. (National Commission on Cattle, 2002)

During the productive life of the animal, whether mulch or draught cattle, as well as after the productive life, cattle give dung, which is an invaluable input for producing organic manure, which is put back in the land for enrichment of the soil in terms of restoring the nutrients. Dung is also used as fuel in the form of dried cakes for cooking and heating as well as for production of bio-gas. Slurry, which is a by-product of bio-gas is an eminently rich source of manure and is, in turn, usable for enrichment of the soil. Cow urine is also of immense medicinal value. Research in cow urine is gaining immense significance in cure of some diseases like cancer, renal failure and so on. Cattle urine is also a powerful natural pesticide and, if used properly can save human beings from the harmful effects of pesticide residues in everything he eats and drinks (National Commission on Cattle, 2002)

The medicinal importance of products obtained from the cow knows no bounds. Panchgavya, a mixture of five products of the cow viz. milk, urine, dung, ghee and curd / butter milk is a formulation of *Ayurveda*, which possesses healing properties against many disorders. Physicians from the *Ayurveda* system of medicine have been using remedies based on cow's products, either singly or in combination as Panchgavya, for centuries. In recent years,

results of scientific investigations in India and abroad into the medicinal and curative properties of these products have created a lot of enthusiasm and hope, as they could be potent anti-cancer and anti-HIV agents.

Cow urine enhances immune status through activating the microphages and augmenting their engulfment power as well as bactericidal activity. Its therapeutic uses of cow urine is described in *Sushrita Sanhita* and *Ashtang Sangrah* as the most effective substance /secretion of animal origin with innumerable therapeutic values. In Vedas – it is referred as 'Amrita', the nectar of the God (beverage of immortality). Cow urine is anti-bacterial, anti-fungal, anti-viral, anti-neoplastics, anti-convulsive and non-toxic. Cow urine is used for various therapeutic applications (skin diseases-itching, sun burn, eczema, psoriasis, acne, dandruff, Stomach, Kidney and heart ailments, Stones (Kidney and Gallbladder, Diabetes, Liver problem (cirrhosis and hepatitis) and Anti-convulsant agent (when used with some herbs). It is also used as bio-enhancer (for promoting bioactivity and bioavailability of various drugs) and for its anti-cancer properties (antisucidual action in lymphocytes and repair DNA damage)- US Patent No. 6896907 has been granted. Its other therapeutic applications include conjunctivitis and glaucoma, sinusitis and rhinitis, uterine and throat problems, snake bite, chemical intoxication, chicken pox and small pox, constipation, enteritis, baldness, leprosy, obesity, depression, tuberculosis, asthma, tetanus, Parkinson's disease, chronic malaria, morning sickness and fatigue, blood disorders and leucorrhoea (Dhama et.al, 2013)

The National Commission in its report observed that the cow urine therapy is already gaining recognition. The use of Panchgavya for curing a variety of ailments and diseases has already been described. The Committee suggested that:

- Special efforts may be made to popularize the use of Panchagavya treatment, by spreading awareness about its efficacy in curing various diseases.
- Similarly, the efficacy of cow urine therapy, based on properly documented trials and research studies, may be made known to the general public.

Dev Sanskriti Vishwavidyalaya (DSVV) was established by Shantikunj, Haridwar in Uttarakhand in 2002 for the global cultural and spiritual renaissance. The Department of Rural Management (now Department of Rural Studies & Sustainability) of the University has been working on developing entrepreneurship among rural youths through training in the area of agriculture, animal husbandry and cottage and home based industries since its inception. In order to make cattle husbandry viable for small and marginal farmers, the department has been imparting training on production of various cow based products. These products are the propriety of DSVV/Shantikunj and have helped over 50 entrepreneurs to set-up own commercial production units of cow based products. All these unit are not only running profitably but also generated substantial employment for local people. A detailed description of 11 cow based products developed at DSVV/Shantikunj is given in the following section.

Kamdhenu Dhup Batti

Used as scented stick, the Kamdhenu Dhup Batti is prepared using various ayurvedic constituents such as deshi cow dung, havan samgri, nagar motha (*Cyprus scariosus*), kapur kachri (*Hedychium spicatum*), Devdar (*Cedrus deodara*), coal of cow Dung, sugandh kokila (*Cinnamomum cecidodaphe*), maida lakdi (*Litsea glutinosa*), and water.

Gomay Soap

Suitable for all skin diseases, face radiance, skin freshness and health booster and meant for

external use only. Its ayurvedic constituents include urine of desi cow, fuller's earth clay, gairik raktdhatu kshiti (sona geru), turmeric (*Curcuma longa*), gram (*Cicer arietinum*), sesamum (*Sisamum indicum*), neem (*Azadirachita indica*) and water.

Gomay Face Pack

Beneficial against pimples, face radiance, skin nourishing and wrinkle deterrent and meant for external use only. Its ayurvedic constituents include urine from desi cow, fuller's earth clay, gairik raktdhatu kshiti (sona geru), turmeric (*Curcuma longa*), gram (*Cicer arietinum*), Kapur kachri (*Hedychium spicatum*), kadvi bach (*Acorum calamus*), badi harad (*Terminalia chebula*) neem (*Azadirachita indica*) and rose Petals (*Rosa sp.*).

Kamdheni Tooth Powder

Beneficial against tooth sensitivity, gum swelling, foul smell, tooth pyorrhea, tooth decay. Its ayurvedic constituents are dung from desi cow, sendha namak (Potassium Chloride), ajwain (*Corum copticum*), bhimseni kapur (*Dryollalanops camphora*), piperment (*Mentha piprata*), clove (*Caryophyllus aromaticus*), rapeseed (*Brassica campestris*), allum and water.

Kamdheni Shampoo

Beneficial against hairfall, dandruff and premature hair whitening etc. Its ayurvedic constituents are urine from desi cow, reetha (*Sapindus mukorossi*), aonla (*Phyllanthus embelica*), shikakai (*Acacia concinna*), fenugreek (*Trigonella foenum-graecum*), mehdi (*Lawosia inermis*), neem (*Azadirachita indica*) and lemon grass (*Cymbopogon citratus*).

Kamdheni Massage Oil

To be used as massage oil against arthritis, joint pain, sciatica etc. Its ayurvedic constituents are cow dung, cow, urine (both from desi cow), sesamum (*Sisamum indicum*), fenugreek

(*Trigonella foenum-graecum*), ajwain (*Trachyspermum ammi*), piperment (*Mentha piprata*), garlic (*Allium sativum*), dhatura (*Datura stramonium*), kuchla (*Strychnos nuxvomica*), ratanjot (*Geranium wallichianum*), bhimseni kapur (*Dryollalanops camphora*), pinus (*Pinus longifolia*).

Kamdheni Harad

Kamdheni Harad is useful in problems like flatulence due to gas, loss of appetite, constipation, piles, arthritis, jaundice and as a common digestive. Its ayurvedic constituents include urine from desi cow, harad (*Terminalia chebula*), ajwain (*Trachyspermum ammi*), cumin (*Cuminum cyminum*), black pepper (*Piper nigrum*), javakhar (Potassium carbonate), Cow Ghee (deshi), heeng (*Ferula asafetida*), castor (*Ricinus communis*), sendha namak (Potassium Chloride), kala namak or black salt (Unagua Sodium Chloride).

Kamdheni Haridra Ghanvati

It is beneficial in all kind of gout disorder, skin diseases, obesity, heart ailments, abdominal diseases, Hepatic colic, swelling, fever, premenstrual syndrome etc. Its ayurvedic constituents include cow urine (Deshi), babul (*Acacia arabica*) and turmeric (*Curcuma longa*).

Kamdheni Madhumeyhari Ghanvati

It is beneficial in diabetes, skin diseases, obesity, gout disorder, obesity, heart ailments, abdominal diseases, Hepatic colic, swelling, fever, premenstrual syndrome etc. Its ayurvedic constituents include fresh cow urine (Deshi), neem (*Azadirachita indica*), jamun (*Eugenia jambolana*) bel (*Aegle marmelos*), giloy (*Tinospora cardifolia*), gudmar (*Gymnema sylvestre*), tejpatra or bay leaf (*Cinnamomum tamala*), kalmegh (*Andrographis paniculata*) and babul (*Acacia arabica*).

Panchgavy Ghrut

It is beneficial in chronic cold, sinus, epilepsy, weakness of mind, anemia, inflammation, jaundice, piles, abdominal tumor, grah badha (Planet Barrier), odd fever, mentally retarded, loss of memory etc. Its ayurvedic constituents include cow dung, cow urine, cow milk curd, cow ghee and cow milk (all ingredients obtained from deshi breed).

Kamdhenu Ark

It is beneficial in all kind of gout disorder, skin diseases, obesity, heart ailments, abdominal diseases, Hepatic colic, swelling, fever, premenstrual syndrome etc. Their ayurvedic constituent is fresh cow urine (from deshi breed).

Conclusion

Cow based products offer great opportunity for cattle owners, dairy farms and gaushalas an attractive source of revenue to make their cattle husbandry profitable. With self-employment the entrepreneurs will be able to generate enormous employment opportunities for local youths in rural areas. With increased awareness, there has been growing demand for cow based products for various therapeutic applications in both rural and urban areas. If adopted properly, it can increase the availability of organic manure manifold for crop husbandries at the same time drastically reduce the problem of stray cattle, a growing menace.

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