Camel - a boon to hot arid agro ecosystem

Dr. CHAMPRAK BHAKAT,
N.R.C.C., Bikaner, Rajasthan

The camel, "Ship of the Desert" uses various adaptive mechanisms for survival in the hot arid ecosystem. In the dryland ecosystem camel rearing is regarded as a fairly resource for sustenance. The camel possesses many unique qualities which make it distinctly superior to other domestic livestock in the hot arid and semi-arid desert ecosystem. Rapid change in agroecological condition and industrialisation in the recent past has its impact on camel management practices. The total world camel population is estimated to be 19.286 million of which India has third highest camel population of 1.52 million after Somalia and Sudan.

The overall productivity of the livestock section in the arid zone is poor. The region is pronged with lack of adequate feeding resources, deficiency of macro and micronutrients, poor health cover for livestock. The animal husbandry under such degraded lands can be successful only if the livestock are basically a stable protective resource having long-term viability employment absorbing

capability and income generating capacity. The livestock should be compatible with crop cultivation instead of competing with it for land and water resource. Camel rearing enterprise fits well with such requirements.

The camel is a useful component of desert ecosystem where the flora of usually marginal land can hardly meet the requirement of human food and energy. It is associated with social culture of the societies inhabiting in the dry lands. Camel carts continue to play a crucial role in the farm economy as a cheap mode of short distance transportation of different agricultural commodities. Since 85% of the gross cultivated area of the Bikaner district is nonirrigated, camel carts hold a significant potential for financing.

Marketing of camel is considered an important trade in Rajasthan where it is widely used as draft animal. The camels are mostly marketed at big animal fair such as Nagour, Pushkar, Tilwara, Phalodi and Gogameri. The most important constraint in the camel husbandry in Rajasthan is the lack of organised marketing of camel and its products.

The supplementary and complementary connection between the crop sector and draught animal add to the importance of maintaining draught animals. Agriculture and draught animal go side by side in boosting farming business into a profitable enterprise. Hlefer Project International (HPI), a private non-profit development agency is assisting tribal minorities who seek gainful employment using camel for transporting agricultural and industrial products. There has been constant increase of camel driven carts even around big cities. Evaluation of IRDP in the arid lands has indicated that average increase in the income of the beneficiaries was one of the highest amongst people who were given loan for the purchase of camel and camel carts. In the state of Rajasthan major population of draft animals are bullock followed by camels. In comparison to other livestock species camel remained neglected until this century when it draw attention because of its unique adaptive characteristics for survivability in the harsh conditions of the desert Eco-system. For

Jute won't fall below MSP: Govt

The Govt has assured jute growers that it would not allow jute prices to fall below the Minimum Support Price but reiterated that it would not review the dilution of the Jute Packaging Act.

"We will not allow the raw jute prices to fall below the MSP but there is no question of a review of the Jute Packaging Act. We are committed to the roadmap for phased dilution of the Jute Packaging Act," the Textiles Minister, Mr. Kashiram Rana said.

He said that the Jute Corpn, of India was presently carrying on procurement operations and in the event of a fall in jute prices it would procure more jute to ensure that prices do not fall below the MSP.

The Minister said the Govt's decision to dilute the Jute Act in a phased manner had also been upheld by the Calcutta High Court in a recent decision.

instance cattle in the central desert of Australia with daily temperature of 40°C were reported have died without water in four days while camel survived for more than 15 days in the same environment. It has been estimated that a well-fed camel could carry some six months energy on its back while cattle are unlikely to have more than two-three months, if run out of food. Therefore, camel can tolerate high temperature, solar radiation and water deprivation and subsists on poor quality, thorny, vegetation. Camel energy is not only cost effective but also profitable and remunerable.

Farmers residing in the cities area are rearing their camel under semi-intensive system of management and they use their camel cart to transport different agricultural products (grain bags etc) from city area to purchaser point and farmers inhabiting at village level used their camel cart to transport different materials (viz; fuel wood, crop yield, fodder, water etc) in the village or surrounding villages and accordingly they are earning money in their day to day life. The popular fodders (crop residues) used for feeding the cart camel are Moth chara (*Phaseolus aconitifolius*), Guar Phalhathi (*Cyamopsis tetragonoloba*). Although some farmers are providing Mumfali chara (*Arachis hypogea*) and camel from this area are browsing Jhal, Khejri and Pala leaves in the rangeland, as a special feeding farmers offered Molasses, oil (ground nut/seasum), alam (hydrated aluminum Potassium Sulfate salt), and very few progressive farmers also offered Ghee.

the major use of camel are carting, ploughing, water carrying and breeding etc. The main objective of camel rearing in Rajasthan is obviously animal power for pulling a cart or ploughing. The primary activity of camel cart owner is agriculture followed by busines. Although few farmers are working as labourers (daily wage basis) where as no report regarding this is available from city area.

Major constraints

The three major problems / constraints of camel farmers are identified. The first major problem is non or less availability of fodder for feeding the cart camel due to shortage of common grazing lands. This problem has intensified during lean period (March to July). The second major problem is skin infection of cart camel. This is due to Mange (causative organism is *Sarcoptes scabiei*) infection and the third major problem is costly treatment of diseases of cart camel. The integrated animal health camp which should be conducted regularly at village level and improved nutrition has helped to increase the farmer's income through increase camel draftability.

Conclusion

Through this article is to create awareness among the farmers regarding the usefulness of camel in carting in drought prone arid - ecosystem. Though the income from the farm is low and the variability in income is high due to the constraining environment. But there is a sign of hope to explore the income through camel carting that exists for turning the farmer's economy viable. —SS

'Bottled' gourd charms crowd

A gourd in a bottle? Yes! A Pune farmer has the agriculturist community and agog with curiosity. Thanks to a brand new marketing idea he has devised.

Mr. Anand Thopte, a farmer from Marochi Chincholi, a village off Pune city, which is otherwise known for its huge population of peacocks, has just unveiled the ordinary bottle gourd in a most unusual form - grown in a plastic bottle!

The 'bottled gourd' is a crowd puller these days in the large Gultekdi market yard where a wholesale agent Mr Vilas Bhujabal has given it a modern day marketing touch by promoting it as the solution to the prevalent concern about consuming vegetables

sprayed with pesticide and touched by unhygienic hands.

The gourd itself in its new avatar is a result of experiments by Mre Thopte who attaches a plastic bottle to the flower of the gourd on the plant itself as soon as it flowers. Mother nature takes its course and the gourd now grows with the protective cover of the bottle which shields it from pesticides and other spays. Once the gourd ripens, the bottle is solit open for nature fresh, untouched, 1 kg of gourd.

He is firming up plans to roll out the product into different markets but is silent now about his plans to make this common man's vegetable a sought-after community.