

Doubling income of goat farmers

through breed improvement

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With the aim to improve local goat breed reared by farmers of the adopted villages in (Balarwa, Manai and Binjwariya of Jodhpur) Farmer FIRST Programme, 25 bucks of Sirohi goat breed were purchased in March 2017 from Livestock Research Centre, Bosunda of Rajuvas, Bikaner. These bucks were kept with the flock of 10-15 goats (of the farmers) for breed improvement purpose. The Sirohi buck delivered at farmer's field through breeding of Sirohi breed gave extra net return of ₹ 1,350/buck due to extra weight gain with the same feed at one year age. The market preference was also higher for Sirohi buck. Farmers have shown satisfaction towards performance and the progeny of Sirohi bucks due to high income and good adoptability.

Key words: Breed improvement, Goat, Livestock, Sirobi breed

GOAT farming by keeping 10-15 goats is one of the most important component of Integrated Farming System in the adopted villages and it is part of livelihood security of Western Rajasthan. Goat keeping is a good source of increasing household income of farmer as these small unit of goats are raised on the by-products of farm without any additional effort. *Prosopis cineraria* (Khejri tree) is an integral part of farming system in Western Rajasthan and its dried leaves are fed to animals, especially to the goat. Farmers generally keep locally available breed as they are tough and better bearer of aberrant weather prevailing in Western part of Rajasthan. The Sirohi breed goats reared in Ajmer district, are also well adapted to the agro-climatic condition prevailing in Western Rajasthan. These goats are medium to large in body size, brown to brick red in colour with white spots, dual purpose with special attribute of higher body weight of buck (25-35 kg in 12 months). The kidding rate of Sirohi goat is also high (1.3) as compared to local ones. Looking to these specialities and high adaptability, 25 bucks of Sirohi breed were kept with the herds

of different farmers for breed improvement purpose in three adopted villages under Farmer FIRST programme.

Technology

Scientific goat rearing, Healthcare

and Management Technology of Sirohi Breed of Goat (Fig. 1.), has been started in selected focus group (mainly marginal farmers and landless agricultural labourers) to provide substantial income generation in sustainable way.



Fig. 1. Sirohi breed of goat

Implementation and support

Under this invention, a total of 25 bucks of Sirohi breed were reared at the selected goat owners for the purpose of breed improvement of the local goats under Farmer FIRST Programme by Agriculture University, Jodhpur. The bucks were provided to the farmers in the month of March, 2017 with the MOU that they will be solely used for breeding purpose. The first generation bucks of Sirohi breed were delivered in the beginning of winter 2017 and 10 bucks of this first generation were sold by the farmers in the month of November, 2018.

Uptake, benefits and spread

The comparative economics of one year old bucks of Sirohi breed is presented in Table 1. Results revealed that the first generation, one year old buck gained average weight of 28 kg that was 27.3% higher over one year buck of local breed raised with same type of feed under same environment and other management practices. The market preference of Sirohi bucks was higher because of their red skin and dark or light patches on the body as compared to the local bucks which were having brown black skin color. Because of the high body weight, farmer earned an additional net return of ₹ 1,350/buck. The rainfed environmental conditions prevailing in the adopted village are well suited to the Sirohi breed and farmers earned extra income by supplying these bucks to the other farmers for breeding purpose as well local meat market.

Amongst them, the goat herd of farmer Shri Parbat Singh s/o Shri Dungar Singh got maximum success



Table 1. Comparative economics of one year old buck of Sirohi breed delivered at farmers' fields of adopted villages under the intervention: Goat Breed improvement through Sirohi Bucks (Average of 10 bucks)

Breed of Goat	Body weight of buck (kg)	Cost for raising one year old buck (₹/buck)	Gross return by sale of buck (₹/buck)	Net return (₹/buck)	B:C ratio
Local	22	3,800	6,250	2,450	1.64
Sirohi	28	4,200	8,000	3,800	1.90

as he was having a larger herd of 40 goats with sufficient provision of open as well as covered space with suitable housing management for goats. Because higher number of goats conceived in the first season, he got 12 kids from the present herd in first season, out of them, 8 were buck. Looking at the success rate and interest of Shri Parbat Singh in goat rearing, he was given the responsibility of transfer of technology of this intervention to other goat keepers of the adopted villages under Farmer FIRST

Programme. Self Help Group was formed by a team of scientists for motivation and popularization of package of improved goat management practices. Since the adopted villages are located in the nearby periphery of Jodhpur, there is a high demand of chevon in local market as well as in Army butchery.

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