



## Improvement of Livelihood of Tribal Families through Scientific Backyard Piggery Farming

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### ABSTRACT

Backyard piggery rearing has always been an excellent enterprise which can be a feasible means for curtailment of poverty and unemployment in tribal belt. Almost every household in Chandel district is already in traditional backyard piggery for their personal consumption, but remunerative returns is still beyond the reach of the farmers. In this regards, Krishi Vigyan Kendra, Chandel identified the existing technological gaps in and around the villages by conducting various PRAs, field visits and diagnostic visits to the existing traditional piggery units and mobilised the farmers to replace the existing local pigs with improved cross breed Hampshire pigs which would be highly profitable as well rewarding. Due to the high proximity of the Chandel district to international border, the local pigs are highly susceptible to numerous heat and cold stress induced parasitic infections and non-specific viral/bacterial fever affecting their body growths well as high mortality rates as a result of which pig farmers often incurred huge losses. Also, low feed conversion ratio (FCR) is a common trait in the traditional local pig breed. The cross breed Hampshire pigs were found to be resistant to heat stress induced parasitic infections of skin and gastro intestine & non-specific viral/bacterial fever, showed better FCR and impressive body weight gain (105-110 kg/pig in 9 months) as compared to 48-50 kg in traditional pigs. In order to improve the skills and technical knowhow of these farmers, several training and capacity building programmes were held. They were trained on various aspects of scientific piggery farming along with provision of all the necessary inputs for the same. Being guided and nurtured by the KVK experts, a huge tremendous and fantastic change was seen in the life of these farmers. Farmers who were earlier having a meagre income are now not only earning around Rs. 112875 per unit with a B:C of 2.49 on an average but are also enjoying a good social status. The successful farmers are now congregated and have pooled in their activities in the form of a Self Help Group.

### Situation analysis

A lot many of the farmers in Chandel district are either landless cultivators or have small land holdings who are mainly engaged in activities of backyard piggery farming in their backyard. But they are unable to reap good returns from the traditional backyard piggery due to adoption of crude and obsolete traditional practices. They reared local pigs in the backyards on household wastes with hardly any other extra attention or efforts invested. With close proximity to international border, local pigs are prone to numerous heat and cold stress induced parasitic infections and non-specific viral/bacterial fever

affecting their body growths well as mortality rates. Besides being highly susceptible to disease, low feed conversion ratio (FCR) is a common trait in the traditional local pig breed. Notably, in such cases, there was lesser body weight gain of the pigs. Predictably, these piggery units were just good enough to suffice for family needs and consumption.

### Plan, implementation and support

With the intervention of KVK Chandel, backyard piggery rearing has now been accepted as a promising enterprise for mitigating poverty and unemployment and has a strong potential for employment generation among the tribal youths.



**Fig 1 Different scenario of the cross breed Hampshire pigs in backyard piggery units**

But obsolete and age-old system practiced by the majority of the farmers in the district has made this enterprise far from being remunerative. In this context, Krishi Vigyan Kendra, Chandel chalked out a proper strategy for making the farmers achieve a sustainable livelihood and profitable activity through implementation of various scientific interventions. They have identified the huge technological gaps through several PRAs, field visits, diagnostic visits and group discussions and finally motivated the tribal farmers to replace the existing pigs with improved cross breed Hampshire pigs which suits the demand of rural masses in terms of higher body weight gain, earlier sexual maturity, better litter size, improved feed conversion ratio (FCR) and disease resistance. Several On-Farm-Trials conducted by KVK Chandel clearly indicated that the cross breed Hampshire pigs procured from ICAR National Research Centre on Pig, Guwahati proved to be a promising breed to cater to the present needs of the farmers of the district.

With the age-old habit of pig rearing, KVK Chandel focussed on improvising the present skills and know-how of the tribal farmers of the district through several training and capacity building programmes on “Backyard Piggery Farming”. They were trained and sensitised on

various aspects of pig rearing like pig sty management, sanitation, feeding, disease management, vaccination, etc to ensure higher output and better returns. To set up an example and to further make the demonstrations effective, KVK, Chandel established a piggery demonstration unit at its premises to make the piglets available to the farmers. The beneficiary farmers were provided 3 numbers of 6-month-old piglets each. The piggery units at the farmers' backyards were regularly monitored by KVK experts and all the necessary technical support were provided.

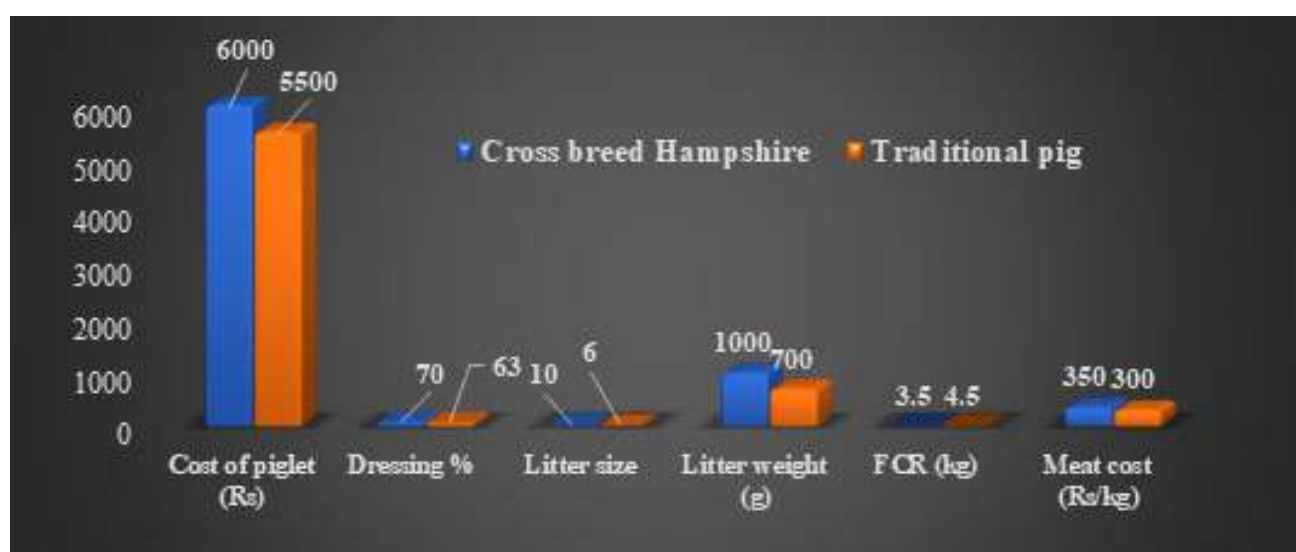
### **Output**

The improved piggery breed thrives and performs well in the local conditions (Table 1). The pigs in the district are susceptible to a lot of heat stress induced parasitic infections of skin and gastro intestine & non-specific viral/bacterial fever. The cross breed Hampshire is widely desired by the farmers as it is more disease resistant to these infections. As is seen in Figure 1, the improved cross breed Hampshire showed impressive litter weight (1 kg) as against 700 g in case of the traditional breed. The litter size too was on an average 10 compared to 5-6 in old breed. The feed conversion ratio (FCR) was recorded to be 3.5 in the improved demonstrated breed

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**Table 1 Economic analysis of the improved piggery farming**

Technology adopted/ demonstrated	BW/animal	Selling price (Rs/animal)	Cost of production (Rs/animal)	Gross returns (Rs./unit)
Cross breed Hampshire	105-110 kg/ animal	@ Rs. 350/kg 37625/-	15100	112875
Traditional breed in open rearing system	48-50 kg	@ Rs300/kg 14,700/-	12,100	44,100



**Fig 1: Comparison of Cross breed Hampshire and traditional pig**

whereas it was 4.5 in the old system.

The improved cross breed pigs displayed earlier sexual maturity (at 9 months) and have good resistance power to heat stress induced parasitic infections of skin and gastro intestine & non-specific viral/bacterial fever.

### **Impact**

After the adoption of the improved breed, a tremendous change in the lives of these tribal farmers has been noticed. In addition to achievement of financial and economic independence to the 35- 45 tribal families, a huge

moral boost has been injected in them as a result of improved social status. It has also indirectly helped in overall socio-economic development of their respective villages. With the prevalent cost of meat of Rs. 350 per kg, the tribal farmers are now earning on an average Rs.11,2875/unit. Encouraged by the interventions, KVK Chandel is now flooded with more and more numbers of interested and inquisitive tribal farmers who definitely want to empower and improve their livelihoods through remunerative backyard piggery.