

1. Title: Success story of a dairy and backyard poultry farmers

2. Category: Animal Husbandry

3. Challenges :

Geographically, Ahmednagar falls into the “Rain shadow region” of Maharashtra, lying to the west of the Sahyadris. It is characterized by a hot and dry climate for most part of the year. Annual average rainfall rarely exceeds 70 cms. In such harsh conditions, several restrictions are imposed on farming activity. Lack of irrigation limits agricultural growth, though fertile black soil is available near the river valleys of Pravara and Mula. Most crops grown in the district are the dry and rainfaed crops such as Bajra, Jowar and pulses. As 73% area of the district is rained, only Kharif crops can sustain. Only the areas having some source of irrigation can practice rabi cropping. In such conditions, there is a limited dependability on farming, wherein farmers would need an additional economic activity to sustain them. Dairy farming would provide an ideal source of extra and permanent income to farmers in Ahmednagar district. Being the largest district in Maharashtra, availability of pastures, or need of open spaces can be easily solved. Moreover, such open areas can be used for fodder cultivation as well. Thus, in terms of physical factors, Ahmednagar district provides a good scope of developing dairy farming activity as an effective alternative to agriculture.

4. Initiative

Application of the latest agricultural technologies evolved by the University is one of the major mandates of the university. Farmer FIRST aims at enriching farmers-scientists interface for technology development and application. It will be achieved with focus on innovations; feedback; multiple stakeholders participation, multiple realities, multi method approaches, vulnerability and livelihood intervention.

Initially, a farmers meeting was organized in the month of May to June 2015 at respective villages. The problems in Animal Husbandry, willingness of participation of farmers in the project, objectives of the project and activities during the project were discussed in the meetings. Then, registration of farmers willing to participate in the project was done. The block demonstrations on Animal Component technology were organized in the selected villages cluster during each year of reporting with critical inputs. Year wise details of technology package are given as per the cost norms of RKVY of Rs. 7,818/- per demonstration. The package was finalized by the Subject Matter Specialist (Animal Science). In Ahmednagar district, package on Animal Component were demonstrated during all the year 2016-17 and 2017-18. The scientist from the University provides technical information regarding

management practices to increase milk production and how to overcome shortage of fodder by silage making to fulfill the animals fodder requirement by efficient way.

5. Key result/insight/interesting fact

The data of milk production for the year 2016-17 and 2017-18 are presented in Table 1 and 2. It was revealed that the per cent increase over farmers practice for the was 2.37 (2016-17) and 2.82 (2017-18), respectively. However, the average B: C ratio was maximum in University intervention as compared to farmers practice for the year 2016-17 and 2017-18.

In poultry the number eggs production for the year 2016-17 and 2017-18 was 8693, 17865. However the chicken meat production was 1372, 2902.50 kg, respectively. The B: C ratio for eggs and chicken production during the year 2016-17 and 2017-18 was 1.19, 1.15; 1.22, 1.14, respectively.

From above findings it is concluded that farmers fetches maximum income through University interventions as compared to farmers practice.

6. Impact

1. The production and reproduction performance milch animals were increased due to supply of animal feed and mineral mixture according to recommended nutrition.
2. There has been an increase in the awareness among the farmers about the cleanliness of animals and cow shade, hygenic milk production and health problems of animals.
3. The intervention has helped improve the farmer's annual income from milk production and rearing of poultry birds. Their daily needs were taken care off by the poultry enterprise.
4. Poultry is emerging as a side business for the farmers
5. Shri. Shivaji Thorat, A/P- Manori, Tal-Rahuri, Dist- Ahmednagar is icon farmer for Dairy farming, Backyard poultry in his area. The Dairy farming, Backyard poultry along with full package of practices was given through RKVY (Farmer First), MPKV, Rahuri. He cherished the farmer for dairy farming and backyard poultry in his region by creating pathways. Income from dairy farming is used for **education purpose of children's**. The income from backyard poultry farming is invested in the '**Sukanya Yojana**' saving account in the village Post Office.

Table 1: Average production and economic indices of demonstrations (2016-17)**(n= 50)**

Animal Component	Average Production		Average cost of production (Rs.)	Market rate (Rs.)	Gross monetary returns (Rs.)	Average B:C Ratio
Dairy Component (For two crossbred milch animals)	Farmers practice	1661.50 Liters milk/ lactation	Rs. 32,399.25/-	Rs.20.00/- per lit.	Rs. 37,044/-	1.14
	University intervention	1701.00 Liters milk/ lactation	Rs.29,76750/-	Rs. 22.30/- per lit.	Rs. 37,941/-	1.27
	Difference	39.50 Liters milk/ lactation	2631.75	2.30 per lit.	897.00	0.25
	Per cent increase over farmers practice	2.37 %	8.12%	11.5 %	2.42 %	-
Poultry component	Egg Production	8693 eggs from 882 hens	Rs.36,500/-	5 per egg	Rs.43,465/-	1.19
	Chicken Production	1372 kg meat production from 915 birds	Rs.1,92,150.00	Rs.161.08 per kg.	Rs. 2,21,001/-	1.15
Total (Rs.)					2,65,363/-	

Table 2: Average production and economic indices of demonstrations (2017-18)**(n= 100)**

Animal Component	Average Production	Average cost of production (Rs.)	Market rate (Rs.)	Gross monetary returns (Rs.)	Average B:C Ratio	
Dairy Component (For two crossbred milch animals)	Farmers practice	3326 Liters milk/ lactation	Rs. 64,857/-	Rs.22.30/- per lit.	Rs. 74,291.50/-	1.14
	University intervention	3420 Liters milk/ lactation	Rs.59,850/-	Rs. 22.30/- per lit.	Rs. 76,382/-	1.27
	Difference	94 Liters milk/ lactation	5007	-	2090.50	0.13
	Per cent increase over farmers practice	2.82 %	7.72 %	-	2.81 %	-
Poultry component	Egg Production	17865 eggs from 1743 hens	Rs.73,000/-	5 per egg	Rs.89,325/-	1.22
	Chicken Production	2902.50 kg meat production from 1935 birds	Rs.4,06,350/-	Rs. 160/- per kg.	Rs. 4,64,53.50/-	1.14
Total (Rs.)				5,57,869/-		



Dairy farming



Backyard poultry farming



Farmers participation in University programme



Field visit

Additional information

1. List of all project partners and/or donors who supported the work

Sr. No.	Name	Designation
1.	Prof. M. M. Desai	Principal Investigator, RKVY, Farmer FIRST project
2.	Dr. S. B. Adangale	Co-Principal Investigator, RKVY, Farmer FIRST project

Guidance

Sr. No.	Name	Designation
1.	Dr. K. P. Vishwanatha	Hon. Vice-Chancellor, MPKV, Rahuri
2.	Dr. S. R. Gadakh	Director of Research & Direction of Extension Education, MPKV, Rahuri