Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs. The Success Stories / Case Studies need not be restricted to the reporting period).

1. **Introducing new horticulture crop (Dragon fruit) in regular cropping system to overcome agricultural challenges and to increase allover agricultural income"**

Name: **Ranchhodbhai Gordhanbhai Karsariya**
Village: Ranjitgadh, Block: Jasdan, District: Rajkot, State: Gujarat
Mobile No.: +91 7874089404
Age: 56 Year
Education: 7th Standard
Land holding: Total: 1.28 ha (Irrigated: 1.28 ha, Non-irrigated: Nil)
Source of Irrigation: Well-2 No. and Bore-1 No.
Farming Experience: 35 Year
Crops grown:
Kharif: Groundnut (0.8 ha)
Rabi: Wheat (0.4 ha) and Coriander (0.4 ha)
Summer: Nil
Horticulture crop: Dragon Fruit (0.4 ha)
Other horticulture crops: Anola (5 trees) and Sweet Lime/Mousambi (2 trees) since last 2 years and Avocado (20 plants), Mango (70 plants), Lichee (15 plants), Banana (300 plants), Apple (2 plants), Gauva (5 plants), and Custard Apple (5 plants) planted during Jun-2023.
Livestock: 3 Cows (2 Gir and 1 Deshi breed)

Shri Ranchodbhai Gordhanbhai Karsaria is a progressive farmer residing at Ranjitgadh village of Jasdan block of Rajkot district. He is holding very less agricultural land for farming and with these limited sources initially he practiced regularly in his field like other farmers. He actively participated in various programs organized by Krishi Vigyan Kendra, Targhadia (Rajkot) regularly and also visited Junagadh Agricultural University Junagadh. Financial crisis is always a major issue for purchasing various agricultural inputs like seeds, fertilizers, pesticides/insecticides etc. for them. To mitigate or overcome such problems he finally made him decides to divert from his traditional agricultural practices and to planting a new horticulture crop which was new to those region i.e. "Dragon Fruit".

Before adopting the GAPs, he grows regular major oilseed crop like groundnut in kharif season while wheat and coriander in rabi season, in total 1.28 ha field. During the year he produced average 35.2 Qt/ha groundnut while wheat and coriander @ of 28.8 Qt/ha and 12.37 Qt/ha respectively. With these practices he earned net average of Rs. 2,26,000 per year from his total 1.28 ha land. After adoption of GAPs he planted Dragon fruit plants in 0.40 ha out of total 1.28 ha land and in 0.8 ha land he grow regular kharif and rabi crops as mention earlier and in remaining 0.08 ha he planted other valuable horticulture crops. With these practices he earned net average of Rs. 9,35,000 per year from his total 1.28 ha land in which net Rs. 850000/year from Dragon fruit crops while net Rs. 85000/year from other regular seasonal crops. So, with adopted GAPs he earned net Rs. 7,09,000 per year more from his total 1.28 ha land with compare to previous practices. Moreover, in future he can earn more income from other horticulture crops planted recently. In addition to it he gets cow milk regularly for his family and other byproducts like cow dung and cow urine for his field around the year.

Table-1: Economical evaluation of two agricultural practices

Crop Pattern	Before GAP					After GAP					Income increases after adoption of GAPs (Rs. /year)
	Area (ha)	Quantity (Kg.)	Gross Income (Rs.)	Cost of cultivation (Rs.)	Net Income (Rs.)	Area (ha)	Quantity (Kg.)	Gross Income (Rs.)	Cost of cultivation (Rs.)	Net Income (Rs.)	
Groundnut	1.28	3520	176000	80000	96000	0.80	2200	110000	80000	30000	
Wheat	0.64	2800	140000	55000	85000	0.40	1750	87500	55000	32500	
Coriander	0.64	1200	60000	15000	45000	0.40	750	37500	15000	22500	**7,09,000**
Dragon Fruit	-	-	-	-	-	0.40	10000	1000000	150000	850000	

Note: Table showing average values of last five years.

Considering environmental benefits of these GAPs due to minimum or no use of chemical fertilizers or insecticides/pesticides, the soil deteriorations can be minimized and soil fertility increase over time period and hence the quality as well as quantity is also increased. According to natural farming theme, various natural preparations like, Jivamrut, Cow dung, Cow urine, Buttermilk etc. use during farming practices along with authentic bio fertilizer and bio pesticides available in market.

After seeing the successful attempts of Dragon fruit farming by Shri Ranchhodbhai Karsariya, many other farmers of surrounding regions adopted this new practice in their field and currently 10 to 15 farmers are successfully doing of dragon fruit cultivation in about 12 to 15 acres of land.

"Dragon fruit farm" field

2. Natural Farming

Name of Farmer : Jadeja Shaktisinh Vanrajsinh
Village : Khokhari (Ghanshyamgadh)
Taluka : Paddhari
District : Rajkot (Gujarat)
Education : M.A., B.Ed.

Introduction:

- Mentor in Natural farming & Input Preparation
- Developing Master Trainers at Village level for Natural farming
- Awarded Best ATMA Farmer Award at District Level
- Developed various inputs to control pest and diseases in Farming

Training and guidance of KVK:

- He initiated Organic Farming in 2015 and then converted into Natural Farming in 2017 under the guidance of KVK, Rajkot-1.
- He had started to take training at KVK, after that he created farmers group for Natural Farming and guided them with the support of KVK.
- Under the guidance of KVK, he has participated in trainings and workshops of Natural Farming at State and National Level.

Practices adopted:

- Practiced in-situ crop residue management with zero burning.
- He also using stubble mulch for weed management and moisture conservation.
- Use of digital media tools like WhatsApp, Facebook, Instagram and YouTube for dissemination of information.
- He created WhatsApp group for selling own products directly.
- He adopted the use of Bijamrut as seed treatment, Use of Jivamrut and Ghan Jivamrut as nutrient management, use of Dasparni Ark, Agniastra, Brahmastra, Nimastra as Insect-Pest and Disease management in Natural Farming.

Comparison between Natural Farming and Conventional Farming

Parameters	**Natural Farming (Area in ha)**		**Conventional Farming (Area in ha)**	
Name of Crop	**Groundnut (1.62ha)**	**Wheat (0.81 ha)**	**Groundnut (1.62ha)**	**Wheat (0.81 ha)**
Cost of cultivation (Rs)	68,000	32,500	58,000	27,500
Production (q)	34	38	28	35
Gross return (₹)	1,78,500	80750	1,19,000	61,250
Net return (₹)	1,10,500	48250	61,000	33,750
B:C ratio	2.63	2.48	2.05	2.22

Benefits and achievements:

- Input Cost Reduction
- Labour Cost Saving
- Time Saving in Farming
- Quality Seed Availability
- Utilized crop residues for mulching.

- Improved Soil Health.
- Created employment.
- Created higher income through value addition of produce.
- Consulted by many farmers for natural farming
- Increased net income with the use of natural fertilizers and insecticides.

Impact of the Technology:

- Benefitted more than 100 farmers in the Rajkot district and provided quality seeds to farmers.
- Formed FPO (Siddhagiri Natural Farmer Producer Company) with 500 members and disseminated information about various technologies through seminars with the help of KVK Scientists.
- Created awareness by participating in kisan melas, kisan club meetings organized by KVK and Department of Agriculture and Farmers Welfare, Gujarat.
- Provided guidance of natural farming to farmers of other states also.