

## OBJECTIVES

### On-Station Research

- i. To undertake applied and adaptive research in integrated farming systems (IFS), especially on production technologies for improving system productivity and resource use efficiencies.
- ii. To develop efficient, economically viable and environmentally sustainable IFS models for different zones, with special reference to small and marginal farmers.
- iii. To undertake capacity building and human resource development in IFS.

### On-Farm Research

- i. To undertake characterization of existing farming systems for identification of production constraints and problem prioritization.
- ii. To undertake on-farm testing and refinement of system-based farm production technologies.
- iii. To optimize on-farm integration of farm enterprises for enhanced farm incomes, resource/ input use efficiencies, and employment opportunities, with special reference to small and marginal farmers.

## MISSION

Improve food, nutrition, livelihood and financial security of small and marginal households through climate smart Integrated Farming Systems (*to make marginal and small households as bountiful*)

## VISION

Management of natural resources for holistic improvement of small and marginal farmers through Integrated Farming Systems

## SIGNIFICANT ACHIEVEMENTS

- Region specific integrated farming system models (29 no's) suitable for 14 agro-climatic regions synthesized using farming system characterization, on-station and on-farm data. These models provide 2 to 4 time's higher production and profit besides meeting the nutrition requirement of a family.
- Alternative cropping systems identified to rice-wheat promises 22 (rice-onion-greengram at Jabalpur) to 241% (rice-broccoli-blackgram at Jammu) increase in net monetary returns. Alternative to rice-rice promises 6 (rice-maize at Rudrur) to 180% (rice-maize-greengram at Siruguppa) increase in net returns.
- Long term nutrient management in cereal-cereal cropping systems indicates substitution of 25-50% N with FYM or green manure in rice-wheat system was

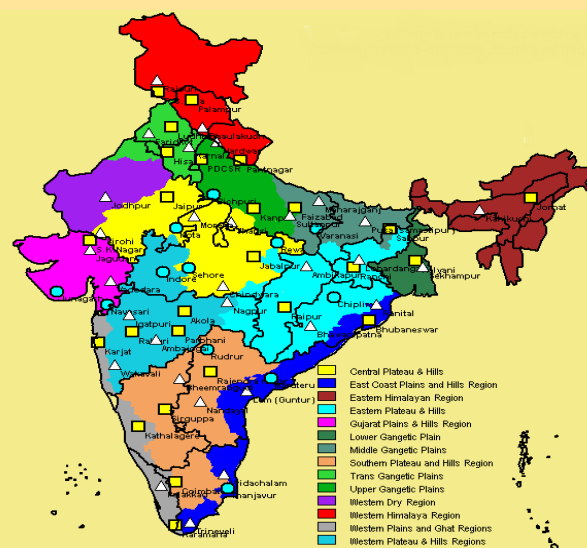
found to increase the productivity by 4%. In rice-rice system, green manuring increased the yield by 3.6%. Frequent application of organic manures (at least once in each crop cycle) is must for realizing the sustainable yield in pre dominant cereal-cereal food systems like rice-rice, rice-wheat and rice-maize.

- Farming System diversification in terms of cropping systems, livestock and product resulted in improvement of production (24%), marketable surplus (55%) and net income (29%) to the households.

## LOCATIONS OF REGIONAL STATIONS

Not Applicable

AICRP on IFS centres: 75 (25 main + 12 sub + 6 voluntary + 32 On-Farm Research)



## FIVE BEST TECHNOLOGIES/PRODUCTS

- One ha integrated Farming System (IFS) model comprising of cropping systems (rice-wheat-greengram, rice-potato-blackgram, rice-mustard-greengram and berseem+oat-maize+sorghum with hybrid napier on bund) in 0.52 ha + horticulture (Guava as main crop, Lemon & mango (Amarpali) as boundary crop and brocolii, Knol Khol, Cabbage, Cauliflower, Radish, okra as intercrops) in 0.32 ha + dairy (1 cow, 1 buffalo, 1 heifer) including bio-gas and vermicompost unit in 0.08 ha + fish cum poultry in 0.1 ha + mushroom (dhingri & button) developed for the mid to high altitude plain zone (JK-1) in Western Himalayas provides round the year production (21.52 t REY/year), profit (Rs 3.06 lakhs/year) and employment (731 man days/year).

## ICAR-AICRP ON INTEGRATED FARMING SYSTEMS, MODIPURAM

- One ha IFS Model comprising cropping systems + dairy + horticulture + boundary plantations developed at SK Nagar (Gujarat) provides annual net income of Rs 3.61 lakhs/year.
- IFS model comprising of cropping systems + dairy + horticulture at Ludhiana (Punjab) provides annual net return of Rs 3.80 lakhs/ ha.
- Documented the farmers perception on climate change and IFS as adaptation measure towards changing climate
- Documented 80 number of geo-referenced success stories from on-farm farming systems research. Promises 4-6 times higher net income to farmers than existing systems.

### NEW INITIATIVES

- Strengthening partnership in Integrated Farming Systems Research with identified ICAR institutes and linkage with other AICRPs
- Up-scaling of integrated farming system models through development schemes
- Capacity building in the area of farming systems design and modelling

### COLLABORATIVE PARTNERS

26 SAU's, ICAR-CIARI, Port Blair, ICAR RC-ER, Patna, ICAR RC-NEH, ICAR-RC-Goa, ICAR-CARI, ICAR-IIHR, ICAR-NIANP, ICAR-CISH, ICAR-NRC on Pig, ICAR-DWR, ICAR-CAFRI, ICAR-IGFRI, ICAR-DPR, ICAR-IIOR, ICAR-ATARI, Kolkata, ICAR-ATARI, Kanpur

### FLAGSHIP PROGRAMMES

- Development of regional and resource specific IFS models for marginal and small holders

### THRUST AREAS FOR XII PLAN

- Efficient integrated farming system model development, on-farm validation and refinement.
- District / zone-wise Farming Systems Characterization & mapping
- Cluster based farmer participatory farming systems research in tribal areas
- Farming Systems Diversification & Intensification
- Capacity Building in IFS Research & Development
- Up-scaling of IFS models involving KVKs as partners
- Strengthening IFS research through strong partnerships

### EXTERNALLY FUNDED PROJECTS /CONSULTANCY - Nil

### STAFF STRENGTH

	Sanctioned	Filled (As on 31/03/16)	Vacant	% vacant
RMP	-	-	-	-
Scientific	132	110	22	17
Technical	360	248	112	31
Administrative	69	53	16	23
Supporting	57	42	15	26
<b>Total</b>	<b>618</b>	<b>453</b>	<b>165</b>	<b>27</b>

### QRT

Period:2007 to 2012

Chairman: Dr Panjab Singh

Next QRT due for 2012 to 2017

### RAC

Period:10/09/2013 to 09/09/2016

Chairman: Dr I.P Abrol

Next RAC due for:10/09/2016 to 09/09/2019

### IMC

Not Applicable

### PUBLICATIONS (2014-15)

No. of papers in NAAS rated journals:

(a) No. of papers in score < 6 :52

(b) No. of papers in scores > 6: 24

Total: 76

Per scientist per year papers:0.69

### FINANCIAL OUTLAY For AICRP (Rs in lakh)

	XI Plan actual utilization	XII Plan proposed	Last year budget (2015-16)		
			RE	Actual Expenditure	% Utilization
Plan	7786.11	16800.00	2466.68	2466.68	100
Non-Plan	-	-	-	-	-
<b>Total</b>	<b>7786.11</b>	<b>16800.00</b>	<b>2466.68</b>	<b>2466.68</b>	<b>100</b>

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