

Research Projects

International Projects

1. ACIAR/CIM/2006/094 : Enhancing farm profitability in North-West India and South Australia by improving grain quality of wheat
2. DFID Project: Participatory research to increase the productivity and sustainability of wheat cropping systems in the Eastern Subcontinent of South Asia
3. USAID Project: Accelerating the tillage revolution in the Indus Ganges basin: Fostering adoption of resource conservation technologies to promote economic growth, resource conservation and food security
4. NATP/PSR/65(5.5): Accelerating the adoption of resource conservation technologies (RCTs) for farm level impact on sustainability of rice-wheat systems of the Indo- gangetic plains
5. NATP/MM-53: Development of adaptable IPM in rice-wheat cropping system
6. Expert system on wheat crop management

Ongoing Institutional Research Projects

Project title	Project leader and associate
Weed Management Strategies at Farmers' Field in India	Dr. Randhir Singh (PI) Dr. Satyavir Singh (Co-Investigator) Dr. Anuj Kumar (Co-Investigator)
Factors Affecting Wheat Yield in Western UP	Dr. Satyavir Singh (PI) Randhir Singh (Co-Investigator) Dr. Anuj Kumar (Co-Investigator)
Impact Assessment of Resource Conservation Technologies in Haryana	Dr. Anuj Kumar (PI) Dr. Randhir Singh (Co-Investigator) Dr. Satyavir Singh (Co-Investigator)

Major Achievements

- Wheat and barley Front Line Demonstrations (WFLDs) were conducted in 18 states.
- Zero tillage technology gave significant wheat yield gain in NEPZ and NWPZ. In case of FIRB technology, no significant yield gain was observed. There was significant yield gain due to Biofertilizer technology in NWPZ.

- The ACIAR project for enhancing farm profitability has been successful in demonstrating varieties good for chapatti making and created awareness among the farmers, extension workers and scientists. The project provided opportunity to Indian farmers, state officials, agribusiness experts to visit Australia and interact with their farmers, scientists and development officials.
- Survey conducted in two barley growing districts of Rajasthan indicated scope of malt barley cultivation in the state.
- Under the entrepreneurship development project, rural women were enthusiastic to make Dalia, Suji and macroni from wheat. Most of the SHG members were satisfied with the flavor, colour & texture, etc. of wheat products.
- The Directorate organized exhibitions, farmers' days, Training programs, foundation day of the Directorate, delivered TV talks and coordinated visits for farmers, VIPs and international delegations. Farmers/entrepreneurs were advised on various aspects of wheat & barley production technologies. The Directorate has received four awards for the best exhibition stalls.

Yield gain under wheat front line demonstration (1993/94 to 2009/10)

Zone	Wheat FLDs Mean Yield (q/ha)	Regional Mean Yield (q/ha)	% increase over Regional Mean
NHZ	27.80	17.98	54.62***
NEPZ	37.56	25.07	49.82***
NWPZ	48.59	40.30	20.57***
CZ	38.55	27.76	38.87***
PZ	36.45	28.02	30.08***
SHZ	28.08	12.70	121.10
All India	36.17	25.30	42.96***

*** - Significant at 1 per cent level

During the period from 1993-94 to 2009-10, the average yield gain under the FLDs ranged from 20.57 per cent to 121.10 per cent. In Southern Hills Zone (SHZ), wheat crop is a new introduction so very high yield gain (121.10 %). There was significant yield gain in North Western Plains Zone (20.57%), NEPZ (49.82%), Central (38.87%) and Peninsular (30.08%) zones.

Enhancing wheat production by bridging the yield gap

Zones	Area under wheat (million ha)	Yield Gap (ton /ha)	Estimated Wheat Production (million ton)
NHZ	00.80	1.249	0.99
NEPZ	09.20	0.829	7.63
NWPZ	11.20	1.076	12.05
CZ	05.00	0.843	4.21
PZ	01.50	0.902	1.35
SHZ	00.10	1.538	0.15

Total	26.38
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There exist yield gaps across all the wheat growing zones. With the available wheat production technologies, an additional wheat production of 26.38 million tons can be produced to achieve the target.

Infrastructure Facilities

1. Seminar Hall: The directorate has two seminar halls with a sitting capacity of 135 and 40 persons.
2. Farmers' Training Centre: The directorate has a training centre with a sitting capacity of 50 farmers/delegates.
3. Help line: The farmers can call at the directorate on 0184-2265632 for wheat and barley related issues.