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**NEW INITIATIVES
AT RARI, DURGAPURA
(2013-14)**



Rajasthan Agricultural Research Institute
(Sri Karan Narendra Agriculture University, Jobner)
Durgapura, Jaipur- 302 018

About RARI:

The institute came into existence in the year 1943 as a testing and verification centre of Department of Agriculture, Government of Rajasthan. After the trifurcation of the parent university (SKRAU) in the year 2013, the Rajasthan Agricultural Research Institute is now the constituent research and teaching campus of Shri Karan Narendra Agriculture University, Jobner. All along since its inception, the institute carved for itself an important place in the state's agricultural development. Adding feather to its functions, the institute started Ph.D. programme in five disciplines viz., Agronomy, Plant Breeding, Horticulture, Plant Pathology and Entomology from 2012-13.

Rajasthan Agricultural Research Institute is the biggest research institute of Sri Karan Narendra Agriculture University, Jobner. The Institute is housed on 78.34 hectare land having sufficient infrastructural facilities like well built laboratories, experimental farm, farm machinery and residential quarters for the staff. This institute has well equipped soil, water and nutrient testing laboratories helpful to conduct research in the identified thrust areas. The institute constitutes of the following divisions and projects to address various issues in agricultural research of the state.

Plant Breeding & Genetics	Horticulture
Agronomy	Seed Technology Research
Soil Science	Agricultural Engineering
Plant Pathology	Statistics
Entomology	Agricultural Economics
Nematology	Post Harvest Technology
Plant Physiology	Agromet
Biochemistry	

The institute is equipped with advanced facilities for conducting research viz., Pesticide residue laboratory, White grub & other soil Arthropods Lab, Seed Technology Research Lab, Crop Physiology Lab, Wheat Quality Lab, Pathology Lab, Microbiology Lab, Vermicompost Lab, Plant health clinic and Post Harvest Technology Lab. A Central Laboratory facility is also created to house premium research equipment of common use. This station also has some general facilities like CIMCA (Centre for Information Management and Computer Application), Library & Information Centre, Workshop, etc.

- ⊕ The primary mandate of the institute is research.
- ⊕ At present 14 All India Coordinated projects and 5 adhoc projects are operating in the institute.
- ⊕ The institute has close linkages with the Govt. of Rajasthan. Interacts with the Govt. through periodical ZREAC meetings. Expert advice and policy planning.
- ⊕ The institute also is a showcase for the modern technologies for farmers. The institute has vast green houses for the production of quality planting material and research.

New initiatives for strengthening of research programmes:

- ⊕ Establishment of Central Lab for the benefit of farming community.
- ⊕ Establishment of IFS Model for marginal farmers
- ⊕ Establishment of Seminar Cum Conference hall
- ⊕ Establishment of bio-fertilizer Unit

- ✦ Multiplication of quality vegetable planting material
- ✦ Hi-tech horticulture production in green houses for cucumber, tomato, papaya and gerbera (Rs. 52 lakh ,NHM)
- ✦ Establishment of Medicinal Park cum Museum (Rs. 4 lac)
- ✦ Establishment of mother plant nursery for high pedigree planting material of fruit crops (Pomegranate, Jamun and Bael) (Rs. 43 lac,NHB)
- ✦ Initiated production of quality vegetable seedlings for supply to farmer at reasonable cost.
- ✦ Initiated vegetable seed production programme(brinjal,tomato etc.)
- ✦ Establishment of Mushroom unit
- ✦ Establishment of high density plantation of guava, mango and pomegranate.(Rs,23 lakh, NHM)
- ✦ Establishment of mother plant nursery of rose and chrysanthemum.
- ✦ Establishment of sale point.
- ✦ Digging one tube well, installation of sprinkler set and levelling of land completed at kherwari farm
- ✦ Digging three tube wells and installation of generator set at RARI farm.
- ✦ 4250 farmers are covered under agro advisory services through SMS twice a week
- ✦ In PHT, value added research programmes has been initiated (Aloe-vera & Aonla) to transfer the new technology for the entrepreneur to earn maximum returns from post harvest management..

New initiatives for advancement of horticultural research:

- ✦ Enhancement of Quality Vegetables Seedling production under Vegetable Initiative Programme (Project cost: Rs 52.00 Lakh)
- ✦ Project on Establishment of Hi-Tech Nursery for Production of Elite Planting Materials of Pomegranate, Jamun and Bael Fruit Crops (Project cost: Rs 43.0 Lakh)
- ✦ Establishment of Medicinal Plant Nursery for Production of Quality Planting Materials for Increasing the Area of Medicinal Plants in Rajasthan (Project cost: Rs 4.0 Lakh)
- ✦ Project On Establishment Of Model Nursery For Production Of Quality Planting Materials Of Fruit Crops (Guava, Pomegranate, Mango & Citrus) - Project cost: Rs 25.0 Lakh
- ✦ Vegetable Seed Production Programme.

WORK IS IN PROGRESS.

- ✦ Mass multiplication of economically important and highly remunerative horticultural plants
- ✦ Development of high yielding varieties requiring less water suiting to climate change scenario
- ✦ Establishment of agro museum cum farmer convention centre
- ✦ A project has already been sanctioned under RKVY.
- ✦ Post harvest management of important horticultural and medicinal plants
- ✦ Strengthening of biotechnology research for climate mitigation.
- ✦ Development of campus based and field based water harvesting systems to utilize the every drop of rain water in agriculture research programme.

New projects recently sanctioned:

- Establishment of ITC based Agriculture Technology Knowledge Centre (RKVY) -Project cost: Rs 4.6 Crore.
- Testing and performance of evaluation of agricultural implements and machinery- Project cost: Rs 84.14 lakh.
- One Year Training course for Rural Youths (Horticulture supervisors)- Project cost: Rs 20.0 lakh.

Future plan of works:

The institute has put for itself long term and short term goals for maintaining its premier position in agricultural research in the state as well as country. Some of the important short term and long terms goals are listed here.

Short term

- Development of agro-technology for organic farming in mandate crops including medicinal plants.
- Development of *in-situ* moisture conservation technology.
- Development of farming system modules for raising economic status of farmers.
- Enhancement of seed production of mandate crops with particular emphasis on pearl millet, groundnut and vegetables.
- Enhancement of medicinal plant cultivation.
- Management of white grubs through EPN.
- Management of insect pests and diseases through eco-friendly techniques and the use of bio-pesticides/herbal products.
- Development of bio-agents for various pest controls.
- Isolation of Pheromones for eco-friendly pest management.
- Suitable storage technology for reducing losses in different mandate crops.
- Establishment of model demonstration-cum-HRD.
- Development of package for organic farming in different crops.
- Development of suitable processing techniques for value addition in different crops.

Long term

- Development of heat and moisture stress tolerance in wheat, barley, chickpea, pearl millet, groundnut and other *kharif* crops.
- Development of varieties in mandate crops resistant to various diseases and pests.
- Development of dual purpose (grain and fodder) varieties in pearl millet and barley.
- Development of high quality malt varieties in barley.
- Quality development in seed spices for export purpose.
- Molecular characterization of varieties.
- Characterization of drought tolerance mechanism in chickpea and pearl millet.
- Studies on quality characteristics in wheat.

RARI Working for Better Tomorrow of Farmers'