

Research priorities

Besides human resource development through teaching at Undergraduate and Postgraduate levels, training and capacity development of various stakeholders, the University is mandated to undertake research in agricultural sciences including horticulture, forestry, animal husbandry, animal health and fisheries. The main campus at Jhansi for agricultural, horticultural and forest sciences has already been established and started the research activities, while the animal husbandry and fisheries are yet to be developed at the Datia campus of the University.

The major research priorities are as follows:

Agricultural sciences

- Rainwater management *in situ* and *ex situ*, and development of cost-effective water-saving technologies for improving productivity of crops and cropping systems
- Integrated farming systems involving combination of farm enterprises and non-farm activities for improving livelihood security
- Resource conservation techniques aimed at improving efficiency of soil, water, nutrients, energy, and other agro-chemicals
- Soil health improvement through integrated nutrient management, organic farming, natural farming and holistic land development
- Development of varieties / hybrids having resistance/tolerance to biotic and abiotic stresses of crops important for the region
- Development of short-duration varieties of pulses and oilseeds
- Validating integrated crop management technology modules for yield maximization
- Establishment of seed hubs with focus on low water-requiring crops like pulses, oilseeds and millet crops, and ensuring quality seeds to the farmers of the Bundelkhand region.

Horticultural sciences

- Identification of promising fruit, vegetable and flower crops and their varieties / hybrids for higher productivity and quality
- Enhancement and evaluation of genetic stocks of horticultural crops
- Production of quality seeds and planting materials of horticultural crops
- Precision nutrient, water and weed management studies in horticulture-based cropping system
- Standardizing the protocols for organic horticulture
- Promotion of protected cultivation for high-value crops
- Development of agri-horticultural systems and models
- Post-harvest management and value addition in horticultural crops

Forestry

- Collection, characterization and maintenance of important forest and multi-purpose tree species
- Development of agro-forestry and agri-silvicultural systems for effective utilization of degraded lands
- Techniques for raising quality planting material and establishment on rocky terrains
- Exploring the potential of medicinal and aromatic plants, and their processing and value addition