Priority Areas of Study

The ICAR International Fellowships are available in frontier areas of Agriculture and allied sciences at the recognized agricultural universities/ institutions in India and abroad. The identified priority areas are-

Biotechnology in plants, animals and fisheries: Gene knock-down technology, marker assisted selection (MAS), allele mining, transgenic technology, microbial molecular taxonomy, diagnostics and vaccines, molecular breeding, genome resource conservation, bio-prospecting, bioremediation, bio-security, non-chemical non-thermal processing and membrane technology, apomixes, stem cell research, fermentation technology, nutri-genomics, nutra-ceuticals.

Nanotechnology applications in agriculture comprising plant, animal and fisheries sciences, natural resource management, Food processing etc.

Climate Change: Adaptation, mitigation, carbon trading/carbon sequestration, methane mitigation in livestock etc.

Micro-molecules

Bioinformatics

Sensor-based applications including bio-indicators, bio-sensors

Endophyte biology

Agriculturally important biodiversity

Herbivory process

Precision farming, Hi-tech Horticulture, Aeroponics, Controlled environment agriculture

Post harvest management, Novel techniques for storage of food grains, **Processing and value addition, Extrusion processing, Designer fish foods, Value chain management, Smart/modified atmosphere packaging**

GIS & remote sensing, geo-informatics, image processing

Soil & water conservation

Computer aided designing of implements and processing plants

Bio-fuels

Veterinary health

Marine finfish breeding and culture

Pearl culture

Intensive aquaculture (cage culture, raceways)

Organic aquaculture

Food safety and quality assurance

Market intelligence, Multi-market modeling

Research evaluation and impact assessment

Institutional economics.

Note: The other frontier areas in agriculture and allied sciences may also be appropriately considered.