



### Profile:

Experienced Plant Breeder. Expert in wheat, maize, linseed and seed spices breeding. Developed high yielding, climate smart wheat, maize and high oil containing linseed varieties. Expertise in germplasm maintenance/characterization and seed production.

### Contact:

Sri Karan Narendra Agriculture University, Jobner-303329  
Email: smarker.pbg@sknau.ac.in

### Awards and Honors:

SAS Fellow  
Prof. M S Swaminathan Award  
Dr. Akhtar Hussain Distinguish Agriculture Scientist Award  
Scientist of the Year Award  
University Merit Scholarship

### Research Publications: 85

Publication on maize: 33  
Publication on wheat: 25  
Publication on linseed: 08  
Publication on other crops: 19

**H index:**15

**i-10 index:**22

**Total citations:**953

**Ph.D. Thesis Guided:** 07 as supervisor, 12 as co-supervisor

**Masters' Thesis Guided:**35 as supervisor

## Dr. SHAILESH MARKER

Professor (Genetics & Plant Breeding) and

**Principal Investigator, ICAR-All India Coordinated Research Project on Spices, Jobner (Jaipur)-303329, Rajasthan**

### EDUCATION

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#### Ph.D. in Plant Breeding and Genetics

Maharana Pratap University of Agriculture and Technology, Udaipur, Rajasthan, India  
2000 - 2004

**PhD Thesis Title:** Genetic studies in heterozygous populations of Maize (*Zea mays* L),

**O.G.P.A:** 7.79/10.0

#### Master's Degree in Plant Breeding and Genetics

Maharana Pratap University of Agriculture and Technology, Udaipur, Rajasthan, India  
1998 - 2000

**M.Sc. Thesis Title:** Studies on heterosis and combining ability in early maturing white seeded inbred lines of Maize (*Zea mays* L)

**O.G.P.A:** 3.86/4.0 (**Gold Medalist**)

#### Bachelor's Degree in Agriculture (Hons.)

Rajasthan Agricultural University, Bikaner, Rajasthan, India

### WORK EXPERIENCE:

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**21 Years** teaching, research, administration and consultancy, scientific report writing, research for seed spices, identification of research problems.

#### Research Officer :

Co-ordinate, plan, execute, research activities, departments, University, encourage, guide, research project, external funding, annual report, Director Research, publish, research papers, peer reviewed journals, impact factor, faculty members, seminar, conference, workshop, trainings, sensitization program, National, International, Research Fellowships, research scholars, support, compiling, Research Highlights

#### Head, Department of Genetics and Plant Breeding (Duration: 2010 to 2016)

Course curriculum, design, new courses, revised courses, teaching aids, smooth functioning, academic, research, administration, Faculty development, Student advising, Accreditation, Assessment and evaluation, Budget management, Grant writing, Institutional research, Program evaluation, Resource allocation, Strategic planning, Staff supervision, Academic advising, Curriculum assessment

## Capacity Building Training /Outreached Programs:

Five days Farmers Training Programme on “Agricultural Production, Protection Technologies and Value Addition” from 18-22<sup>nd</sup> September, 2009.

Co-organized Capacity Building Program for Doubling Farmers Income through protected cultivation of high value vegetables through farmers participatory approach in Prayagraj district during 2021-22.

Co-organized Capacity Building Program for Establishment of Poly-housed Hydroponic Facility for Soilless farming system and skill development of farmers in Prayagraj region.

Co-Organized ‘Short Term Training Courses’ at Integrated Pest Management Laboratory, during 2019-20, 2020-21 and 2021-22.

## Research Project Completed:

Networking project on identification of high temperature tolerant wheat genotypes suitable for growing under climatic conditions.

Sustaining composite maize farming: moderate Nitrogen semi-arid condition.

Development and promotion of Quality Protein Maize among the resource constraint farming community.

Identification, Collection, Documentation and Registration of maize, Millets, Pulses and Vegetables of Farmers Varieties (Under PPV & FR Act. 2001)

## International Projects:

CIMMYT, MEXICO  
IRRI, PHILLIPINES

## SKILLS

Teaching, Research, Academic Administration, Grant Writing, Publication, Mentoring, Conference/Workshop Organization, Planning, Management, consultancy, Agriculture, seed, agricultural scientist and rural development professional, Seed Production, Field Trials.

## SIGNIFICANT ACHIEVEMENTS

Developed dual purpose Maize variety **SHIATS Makka 3**, which have been ‘Notified’ by Ministry of Agriculture and Farmers Welfare, New Delhi for seed production and cultivation by the farmers. This variety is also suited for fodder purpose.

Developed bio-fortified Maize variety **SHIATS Makka 2**, which have been ‘Notified’ by Ministry of Agriculture and Farmers Welfare, New Delhi for seed production and cultivation by the farmers.

Developed Linseed variety **SHUATS ALSI 2** which have been ‘Notified’ by Ministry of Agriculture and Farmers Welfare, New Delhi for its multiplication and seed production at commercial level.

Developed Linseed variety **SHUATS ALSI 4**, which have been ‘Notified’ by Ministry of Agriculture and Farmers Welfare, New Delhi for its multiplication and seed production at commercial level.

Developed high oil (omega 3 & omega 6 fatty acids) Linseed variety **SHUATS ALSI 5**, which have been ‘Notified’ by Ministry of Agriculture and Farmers Welfare, New Delhi for its multiplication and seed production at commercial level.

Maintenance, characterization and cataloging of 100 maize germplasms, 190 linseed germplasms and 200 farmers varieties.

**Presently working on characterization of cumin, coriander, fennel and fenugreek germplasms.**

## Responsibilities of the Principal Investigator (PI) – Spices Project (AICRP on Spices)

### 1. RESEARCH PLANNING AND IMPLEMENTATION

- Formulate annual technical programmes based on national project objectives.
- Plan and supervise germplasm characterization, evaluation and conservation activities.
- Ensure proper execution of field trials, laboratory studies and data collection protocols.
- Identify research priorities addressing regional production constraints.

## **2. GERMPLASM MANAGEMENT**

- Coordinate collection, maintenance, and documentation of spice germplasm.
- Ensure accurate characterization using morphological, agronomic, and molecular descriptors.
- Facilitate safe conservation and utilization of genetic resources for breeding programmes.

## **3. COORDINATION AND COLLABORATION**

- Maintain liaison with AICRP cooperating centers and ICAR institutes.
- Coordinate multi-location trials and ensure uniform implementation of technical guidelines.
- Promote interdisciplinary collaboration with breeders, pathologists, agronomists, and molecular biologists.

## **4. DATA MANAGEMENT AND REPORTING**

- Compile, analyze, and validate experimental data.
- Prepare and submit periodic technical reports, annual progress reports, and research highlights.
- Present research findings in group meetings, workshops, and QRT reviews.

## **5. CAPACITY BUILDING AND EXTENSION**

- Organize training programmes, demonstrations and field days for farmers and stakeholders.
- Guide students, research scholars and project staff.
- Disseminate improved production technologies and varieties to end users.

## **6. TECHNOLOGY DEVELOPMENT AND TRANSFER**

- Facilitate development of improved varieties, production practices and value-addition technologies.
- Support variety release proposals, germplasm registration, and intellectual property protection.