Curriculum vitae of Sruba Saha

Personal Details

Name : **Dr. Sruba Saha**

Date of birth : 02.07.1987

Nationality : Indian

Gender : Female

Family status : Married

Contact Address

Quarter No.- 303, Rishi Aurobindo Residential
Block-I, The Neotia University, D. H. Road,
South 24 Parganas, West Bengal- 743368,
Mobile: +917602221920
E-mail: sruba.saha@gmail.com

Permanent Address

26/1 K.G.R.S. Path, 1 No. Banagashreepally
P.O.- Angus, Bhadreswar, Dist.- Hooghly
PIN- 712221

Educational Background

- **Qualified NET-2018 conducted by A.S.R.B.- I.C.A.R. in Genetics and Plant Breeding**

Degree/ Examination	Institute/University/ Board	Subject	Year of passing	Percentage of marks
Ph. D.	Visva-Bharati	Genetics and Plant Breeding	2020	-
M.Sc. (Ag.)	University of Calcutta	Genetics and Plant Breeding	2011	78.20
B. Sc. (Botany Hons)	University of Calcutta	Botany	2009	55.38
Higher Secondary	W.B.C.H.S.E.	Science	2005	50.90
Secondary	W.B.B.S.E.	General	2003	60.75

Professional Experience

- Presently working as **Assistant Professor** in The department of Genetics and Plant Breeding, SAAS at The Neotia University, South 24 Parganas. (DOJ: 03.01.2020).
- Prepared Practical Manuals on three courses of B.Sc. Agriculture (Hons.) namely Fundamentals of Plant Breeding, Crop Improvement I (*Kharif crops*), Crop Improvement II (*Rabi crops*).
- Participated in the 5 days International Faculty Development Programme "Writing and Publishing Quality Research Paper" organized by The Neotia University from December 26-30, 2022.

- Participated in the 5 days International Faculty Development Programme "Idea generation to Entrepreneurship Development- The journey from education to industry" organized by the Innovation & Entrepreneurship Cell, The Neotia University from September 05-09, 2022.
- Participated in the 6 days Faculty Development Programme "An approach towards the development of human resources in Life and Allied Sciences" organized by The Neotia University from March 22-27, 2021.
- Contributed in signing MoU between The Neotia University and Mali Agri Tech Pvt. Ltd. for R&D Activities, Internship Opportunity, and Related Services.
- About one year of work experience as **Assistant Professor** in Genetics and Plant Breeding at Seacom Skills University, Birbhum.
- Five years of research experience during Doctoral Degree Programme in the Department of Genetics & Plant breeding, Palli Siksha Bhavana, Visva-Bharati on the thesis entitled **"Gamma rays induced genetic variability in sesame".**
- Four and half years research experience as a **Senior Research Fellow** in the project entitled **"Genetic improvement of sesame through induced mutation"** sponsored by BRNS-DAE, BARC, Mumbai from 28th September, 2014 at Visva-Bharati.
- 5 months research experiance, worked as **Executive Research Trainee** at PAN Seeds Pvt Ltd. (formarly Annapurna Seeds Pvt.Ltd.). Involved in Rice Breeding Program for development of hybrid varieties.
- One and half year experience at M/S Krishi Rashayan Pvt Ltd. (pest control division) as **All India Technical Manager**.

Ph.D. Thesis

Duration	: 09.09.2014 to 06.09.2019
Thesis title	: **"Gamma rays induced genetic variability in sesame"**
Thesis topic	: Identified and selected non-shattering, determinate, early maturing, dwarf, cluster capsule, cluster capsule with multi locules and non-shattering with early matured plants in M_2 generation through gamma irradiation and studied their performance as well as genetic variability based on agro-morphological characters in M_3 and M_4 generation.
Institution	: Department of Genetics and Plant Breeding, Palli Siksha Bhavana, Visva-Bharati

Master Thesis

Duration : 01.02.2011-01.08.2011

Thesis title : ***"Genetic diversity of germplasm and mutant in sesame"***

Thesis topic : Studied on genetic diversity based on agro-morphological characters through phenotypical observation and biometrical analysis of various qualitative and quantitative traits, in different germplasm of sesame and identification of induced variability using gamma ray irradiation in M_2 generation.

Institution : Department of Genetics and Plant Breeding, Institute of Agriculture, University of Calcutta, Kolkata, India

RESEARCH EXPERIENCE

PUBLICATIONS

PhD Thesis

- **Saha, S. (2020)**. Gamma ray induced genetic variability in sesame. **Department of Genetics and Plant Breeding, Palli Siksha Bhavana (Institute of Agriculture). Visva-Bharati**. West-Bengal. India.

M.Sc. Thesis

- **Saha, S. (2011)**. Genetic diversity of germplasm and mutant in sesame. **Department of Genetics and Plant Breeding. Institute of Agriculture. Calcutta University**. West-Bengal. India.

Research Papers

- **Saha, S.,** Banerjee A., Manna T., Barik, S. and Kothari, SK. **(2023).** Evaluation of sesame (*Sesamum indicum* L.) germplasm based on agro morphological traits under soil salinity stress. ***The Pharma Innovation***, 12(2): 2131-2132.
- **Saha, S.** and Kothari, SK. **(2022).** Evaluation of sesame (*Sesamum indicum* L.) germplasm based on agro morphological traits under soil salinity stress. ***International Journal of Chemical Studies***, 11(1): 01 – 05.
- **Saha, S.** and Kothari, SK. **(2022).** Biomass and essential oil yield of Ocimum basilicum L. in south 24 Parganas of West Bengal. ***International Journal of Chemical Studies***, 11(1): 38–40.
- **Saha, S.,** Barik S., and Kothari, SK. **(2022).** Genetic variability for yield and yield attributing

traits in sesame (Sesamum indicum L.) genotypes under soil salinity stress. ***Journal of Pharmacognosy and Phytochemistry***, 12(1): 101- 104.

- **Saha, S.** and Paul, A. **(2019).** Radiation induced mutagen sensitivity and chlorophyll mutation frequency on sesame seed. ***Journal of Environmental Biology***, **40**(2): 252-257.
- **Saha, S.** and Paul, A. **(2017)**. Gamma irradiation effect on yield and yield attributing traits of Sesame (*Sesamum indicum* L.) in M_1 generation. ***Journal of Pharmacognosy and Phytochemistry***, **6**(5): 1311-1315.
- **Saha, S.** and Paul, A. **(2017)**. Effectiveness and efficiency of gamma rays on sesame (*Sesamum indicum L.*) genotypes. ***The Bioscan***, **12**(2): 1233-1237.
- **Saha, S.** and Paul, A. **(2017)**. Gamma Ray Induced Macro Mutants in Sesame *(Sesamum indicum* L.). ***International Journal of Current Microbiology and Applied Science***, **6**(10): 2429-2437.
- **Saha, S.** and Paul, A. **(2017)**. Frequency spectrum and segregating pattern of chlorophyll mutation in sesame (*Sesamum indicum* L.). ***International Journal of Chemical Studies***, **5**(6): 1577-1579.
- **Saha, S.,** Begum, T. and Dasgupta T. **(2017)**. Effects of gamma rays on some yield parameters of four Indian sesame (*Sesamum indicum* L.) cultivars in M_2 generation. ***Journal of Crop and Weed***, **13**(2): 15-19.

Book Chapter

- Saha, S., Chattopadhyay, R. and Kothari SK. (2023). Advances in Breeding Strategies: Sesame (*Sesamum indicum* L.). ***Advances in Biotechnology and Bioscience***, Vol 13.

Articles

- **Saha, S**. and Paul A. **(2018)**. Application of reverse genetics by TILLING for crop improvement. ***Indian Farmer***, **5**(4): 459-465.
- **Saha, S. (2017)**. Genetic improvement of pigeon pea (*Cajanus cajan* L.) through conventional and modern genetic approaches. ***Agrobios Newsletter***, **16**(4): 84-85.
- **Saha, S. (2017)**. Genetic Improvement of Sesame through Induced Mutation. ***Agrobios Newsletter***, **16**(5): 85-87.
- **Saha, S. (2017)**. TILLING and Eco-TILLING: Methodology and Application in Crop Improvement. ***Agrobios Newsletter,*** **16**(6): 75-77.
- Sen, K., Samanta, A., **Saha, S.** and Bakshi, P. **(2017)**. Effect of Climate Change on Insect Pests of Agricultural Importance. ***Agrobios Newsletter,*** **15**(11): 121-123.
- **Saha, S**. and Paul A. **(2017)**. Implementation of Radiation Technology for Improvement

of Sesame. ***Indian Farmer***, **4**(7): 566-574.

- Samanta, A., Sen, K., Bakshi, P. and **Saha, S. (2017)**. Entomopathogenic Nematodes: Potential Biological Control Agents against Insect Pests. ***Indian Farmer***, **4**(5): 383-392.

SEMINAR/SYMPOSIUM/CONFERENCE/WORKSHOPS

Seminars and Symposiums

A. Poster Presentation

- **Saha, S.**, Paul, A. and Jambhulkar, S.J. **(2018).** Spectrum, frequency and segregating pattern of some useful macro mutants in sesame (*Sesamum indicum* L.) through induced mutation. **FAO/IAEA International Symposium on Plant Mutation Breeding and Biotechnology**, Vienna, Austria, 27-29 August, 2018.
- **Saha, S.** and Paul, A. **(2018)**. Advance breeding techniques for crop improvement suitable for organic farming: A review. "**National Seminar on Mixed Farming Traditional Practices to Enhance the Income of a Farmer (MFTPEIF)**." 24th- 25th March, 2018.
- **Saha, S.**, Paul, A. and Jambhulkar, S. J. **(2018)**. Frequency, spectrum and segregating pattern of chlorophyll and macro mutations in Sesame (*Sesamum indicum* L.) **XXXXII Annual conference on Environmental Mutagen Society of India (EMSI) and National conference on "Environmental Mutagenesis: Integration of Basic Biology and Omics to improve human health."** 25th – 27th January, 2018.
- **Saha, S.** and Paul, A. **(2017)**. Performance and breeding behavior of some macro mutants in M_3 generation of sesame (*Sesamum indicum* L.). **National seminar on "Hindi Vigyn Sahitya Parisad, BARC-Visva-Bharati."**, 17th -18th, November, 2017. (Won second prize in poster presentation)
- **Saha, S.,** Begum, T. and Dasgupta T. **(2017)**. Effects of gamma rays on some yield parameters of four Indian sesame (*Sesamum indicum* L.) cultivars in M_2 generation. **International symposium on "Eco-Efficiency in Agriculture and Allied Research". Crop and Weed Science Society. Bidhan Chandra Krishi Viswavidyalaya.** 20th – 23th January, 2017.
- **Saha, S.** and Paul, A. **(2016)**. Selection of some useful mutants in sesame (*Sesamum indicum* L.) through induced mutation**. National symposium on "Radioisotopes and Radiation Technology in Industry, Healthcare and Agriculture". Thapar University, Patiala, Punjab**, India. 28th-29th November, 2016. (Won first prize in poster

presentation.)

- **Saha, S.** and Paul, A. **(2016)**. Gamma rays induced mutagen sensitivity in M_1 generation of Sesame (*Sesamum indicum* L.). **National seminar on "Resource based Inclusive Agriculture and Rural Development". Ramkrisna Mission Vivekananda University (RKMVU)**, West Bengal, India. 15th – 16th January, 2016.
- **Saha, S**. and Paul, A. **(2016)**. Genetic Improvement of Pigeon pea (*Cajanus cajan* L.) in India - A Review. **National conference on Self Sufficiency in Pulses: Challenges and Way Forward." Institute of Agriculture. Visva-Bharati.** 19th-20th November, 2016.

B. Oral presentation

- **Saha, S.** and Kothari, SK. **(2023).** Salinity influences on germination and seedling height of sesame varieties. **"International conference on Biotic and Abiotic Stress of Crop Plants and their Sustainable Management". Department of Plant Pathology, Palli Siksha Bhavana (Institute of Agriculture). Visva – Bharati.** 2nd – 3rd February, 2023. Won first prize in oral presentation.

- **Saha, S.** and Paul, A. **(2017)**. Gamma rays induced chlorophyll mutation in sesame (*Sesamum indicum L*.). **International conference on Bio-resource, Environm zent and Agricultural Sciences (ICBEAS-2017). Visva-Bharati**. 4th-6th February 2017.
- **Saha, S.,** Begum, T. and Dasgupta T. **(2012)**. Analysis of Genotypic Diversity in Sesame Based on Morphological and Agronomic Traits. **Conference on International Research on Food Security, Natural Resource. Tropentag 2012, Gottingen, Germany**. 19th-21th September, 2012.
- **Saha, S.** and Paul, A. **(2018)**. Effect of gamma radiation on morphological characters of sesame (*Sesamum indicum L*.). **National Symposium on Role of Resource Management in Agriculture in the Context of Food Security, Nutrition and Economy. Institute of Agricultural Science, University of Calcutta.** 15th -17th December, 2018.

C. Workshops

- A workshop on Introduction to Statistical Methods. Department of Statistics. Visva-Bharati, Santiniketan. 24-25th March, 2017.
- A workshop on Research Methodology. Visva-Bharati Library Network. 27th -28th March, 2017.

D. Conference Proceedings

- Saha, S. **and Kothari, SK.** (2023). Salinity influences on germination and seedling

height of sesame varieties. **"International conference on Biotic and Abiotic Stress of Crop Plants and their Sustainable Management". Department of Plant Pathology, Palli Siksha Bhavana (Institute of Agriculture). Visva – Bharati.** 2nd – 3rd February, 2023.

- **Saha, S.** and Paul, A. **(2017)**. Gamma rays induced chlorophyll mutation in sesame (*Sesamum indicum L.*). **International conference on Bio-resource, Environment and Agricultural Sciences (ICBEAS-2017). Visva-Bharati**. February 4-6, 2017.
- **Saha, S.,** Begum, T. and Dasgupta T. **(2012)**. Analysis of Genotypic Diversity in Sesame Based on Morphological and Agronomic Traits. **Conference on International Research on Food Security, Natural Resource. Tropentag 2012, Gottingen, Germany**. September 19-21, 2012.

Membership

- Member of ATSAF E.V., Council for Tropical and Subtropical Agricultural Research (*Arbeitsgemeinschaftfür Tropische und Subtropische Agrarforschung*), University of Hohenheim, Stuttgart, Germany.

Technical Skills

Statistical software : MS Excel 2007, PAST (open access), Mstat, Gen Stat, SPAR 1, INDOSTAT 9, Genres, SPSS (version: 20), R Statistical Programme.

Laboratory : DNA Extraction, Gel Electrophoresis, Irradiation using Gamma Ray, any laboratory work related to genetics and plant breeding.

Statistics : Analysis of Variance, Analysis of Co-variance, Genetic variability study, Correlation and Regression, Path Analysis, D^2 statistics, Cluster analysis, Diallele test, Principal Component Analysis (PCA), Stability analysis.

Artistic Skills

Painting : Water colour, oil paint

Recitation : Bengali poems

Language Proficiency

Mother tongue : Bengali

Other languages : English (Proficient user), German (basic user "*Goethe-Zertifikat A1, Start*

Deutsch 1" from Goethe Institute, Max Müller Bhavan, Kolkata) and Hindi.

Achievements

- Awarded Travel Grant sponsored by FAO/IAEA, Vienna, Austria for poster presentation in **"International Symposium on Plant Mutation Breeding and Biotechnology".**
- Awarded with Research Fellowship sponsored by BRNS-DAE, Govt. of India, BARC, Mumbai during Ph.D. studies

Sports	**Hobbies**
Badminton	Reading, Painting, and Cooking

I do hereby declare that the information furnished above are true and correct to the best of my knowledge.

Date:

Place: **(Sruba Saha)**