ASHEESH K. SINGH
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EDUCATION

2003-2007 Ph.D. University of Guelph, Plant Genetics and Breeding, Maize Breeding.
1998-2001 M.Sc. University of Saskatchewan, Plant Science, Barley Breeding.
1994-1998 B.Sc. Agriculture and Animal Husbandry, G.B. Pant University.

APPOINTMENTS/ POSITIONS

2024 G.F. Sprague Chair in Agronomy, Iowa State University.
2022-2024 C1 division of Crop Science Society of America, Chair (2022-23).
2021- Associate Chair, Discovery and Engagement, Department of Agronomy, Iowa State University.
2022 Professor (courtesy appointment with graduate faculty status), Department of Agricultural and Biosystems Engineering, Iowa State University.
2020 Professor, (Soybean Breeding, Genetics, Genomics, Phenomics), Department of Agronomy, Iowa State University. *Nine months appointment: 80% Research, 20% Teaching.*
2018-2022 Director of Graduate Education (Plant Breeding).
2018-2021 Associate Editor, Science Partner Journal Plant Phenomics.
2017-2020 Associate Professor, Department of Agronomy, Iowa State University. *Nine months appointment: 80% Research, 20% Teaching.*
2013-2017 Assistant Professor, Department of Agronomy, Iowa State University. *Nine months appointment: 80% Research, 20% Teaching.*
2013-2015 Associate Editor, Canadian Journal of Plant Science.
2007-2013 Research Scientist, Durum wheat breeder (Permanent position), Agriculture and Agri-Food Canada. *12 months appointment: 100% research.*
2001-2002 Research Assistant, Crop Development Center, Univ of Saskatchewan (Barley and Oat breeding).

HONORS, AWARDS, FELLOWSHIPS

2023 George F. Sprague Endowed Chair, ISU.
2023 Fellow, Crop Science Society of America.
2021 CALS Team Award for Soynomics team, ISU.
2020 ISU Award for Mid-Career Achievement in Research, ISU.
2020 CALS Mid-Career Achievement in Research Award, ISU.
2020 Raymond and Mary Baker Agronomic Excellence Award, ISU.
2018 CALS team award (Plant Breeding Education in Africa), ISU.
2017 Faculty Fellow, Plant Sciences Institute, ISU.
2013 Faculty Fellow, R F Baker Center for Plant Breeding, ISU.
2013 Sustainable Futures Award, Agricultural Institute of Canada.
2013 Monsanto Chair in Soybean Breeding, ISU.

SUMMARY OF CAREER FUNDING

- More than 70 competitive grants for research
- Total career funding in grants as PI or co-PI: >$100 million
- Total funding to AK Singh (AKS): >$15 million

$ Includes $US and $CDN; * best faith estimates.

SUMMARY OF PEER REVIEWED PUBLICATIONS

- **162 peer reviewed papers** in journals and conference proceedings.
  - 130 peer reviewed journal articles (published).
  - 32 peer reviewed conference full papers (including accepted)

SUMMARY OF PLANT BREEDING OUTPUTS

- Soybean (USA): Four varieties commercialized; 19 Invention disclosures made at ISU.
- Wheat (Canada): 42 cultivars received registration support, and 13 germplasm lines developed.

THREE MOST NOTABLE PUBLICATIONS (last five year)

- Sarkar S*, B Ganapathysubramanian, A Singh, F Fotouhi, S Kar, K Nagasubramanian, G Chowdhary, SK Das, G Kantor, A Krishnamurthy, N Merchant, **AK Singh***. 2023. Cyber-agricultural systems for crop breeding and sustainable production. Featured review in Trends in Plant Science. DOI:https://doi.org/10.1016/j.tplants.2023.08.001.
- Herr AW, A Adak, ME Carroll, D Elango, S Kar, C Li, SE Jones, AH Carter*, SC Murray, A Paterson, S Sankaran, A Singh, **AK Singh**. 2023. Unoccupied aerial systems imagery for phenotyping in cotton, maize, soybean, and wheat breeding. 63(4): 1722-1749.
- **Singh AK**, B Ganapathysubramanian, S Sarkar, A Singh*. 2018. Deep learning for plant stress phenotyping: trends and future perspectives. Trends in Plant Science. 23(10): 883-898.

TEXTBOOK

- Singh DP, **AK Singh**, A Singh (2021). Plant Breeding and Cultivar Development. Academic Press. ISBN: 978-0-12-817563-7. [https://www.elsevier.com/books/plant-breeding-and-cultivar-development/singh/978-0-12-817563-7]
- Crop Improvement. 2023. by Walter Suza (Editor); Kendall Lamkey (Editor); **Asheesh Singh**; Teshale Mamo; Arti Singh; Jessica Barb; Shui-Zhang Fei; and Anthony A. Mahama. Iowa State University Digital Press. A.K. Singh contributed to 14 chapters of the open source book.

INVITED PRESENTATIONS (National and International): 75, and >100 media engagements with magazines, radio stations, extension talks, national and international tours.

RESEARCH MENTORING AND SUPERVISION AT ISU (including former members): Undergraduates: >100; M.S. students: 9; Ph.D. students: 16; Post-Doctoral Fellows: 9; Professional and Scientific staff: 12.

COURSE LEAD: Principles of Cultivar Development (AGRON 521), Field Methods in Plant Breeding (AGRON 522)

NOTABLE SYNERGISTIC ACTIVITIES

- Associate Editor: Science Plant Phenomics (2018- 2021).
- Examples of service to the scientific community: International workshop on machine learning for cyber-agricultural systems; World Soybean Research Conference; Asia-Pacific Federation for Information Technology in Agriculture (AFITA), World Conference on Computers in Agriculture (WCCA) on Research Frontiers in Precision Agriculture; International Plant Phenotyping Symposium, Soybean Breeders Workshop, Crop Science Society of America.
- Served on numerous committees (institutional).
- Expert reviewer (grant proposals): 16 organizations (national and international).
- Expert ad-hoc (manuscript peer-review): 18 journals.
- Contributions to farm and national economy through product development: Commercially varieties developed by Singh (as main or co-developer) are grown in ~10 million acres each year (Source: Canadian Grains Commission).