Dr. Somayanda Impa Muthappa

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Academic and professional appointments

- Associate Professor – Texas Tech University, TX, USA, Sept 2025 - To date
- Research Assistant Professor -– Texas Tech University, TX, USA, April 2022 – Aug 2025
- Research Manager -– Kansas State University, KS, USA, Dec 2020 - March 2021
- Research Associate – Kansas State University, KS, USA, July 2015- Nov 2020
- Project Scientist – Micronutrient and heavy metal uptake, Soil Science, Crop and Environmental Sciences Division (CESD), International Rice Research Institute (IRRI), Philippines April 2014 - April 2015
- Visiting Research Fellow – Department of Environmental Systems Science, ETH, Zurich, Switzerland, May 2011- Oct 2011
- Postdoctoral Fellow – Soil Science, CESD, IRRI, Philippines Oct 2009 - March 2013
- Postdoctoral Fellow – Drought Physiology, CESD, IRRI, Philippines Dec 2006-Dec 2008

Professional qualification

- M. S. and Ph.D. in Crop Physiology, University of Agricultural Sciences, GKVK, Bangalore, India.

Successful grant proposals as PI and Co-PI

*Total funds generated towards my program from April 2022 to Dec 2024 is **546,975 USD***

- Quantifying fiber quality traits in diverse cotton varieties with different maturity and irrigation levels. Cotton Incorporated (28,000 USD) for 2024 – 2025. (**My share as PI: 28,000 USD**)
- Phenotyping for high day and warm night stress tolerance in cotton cultivars grown under field-based heat tent facility. Cotton Incorporated ($35,650 USD) for 2025. (**My share as Co-PI: 8,912 USD**)
- Establishing climate smart commodities with reduced greenhouse gas footprints to enhance environmental and economic sustainability in the Texas High Plains. Funded by USDA Climate Smart Commodities (4,945,552 USD) for 2023 to 2028. (**My share as Co-PI: 356,318 USD**)
- Climate-smart CO_2 responsive cotton equipped with enhanced root biomass and. carbon sequestration for sustainable production. Project Revolution funded by BASF ($266,597) from 2024 to 2026. (**My share as Co-PI: 53,319 USD**)
- Sorghum cotton rotation- a pragmatic route to improve farm profitability and environmental sustainability in water limited environments of the southwest High Plains. Funded by USDA-NIFA-AFRI (294,000 USD) for 2023 -2025. (**My share as Co-PI: 44,100 USD**)
- Field phenotyping using machine learning tools integrated with genetic mapping to address heat and drought induced flower abortion in soybean. Funded by Multi Regional Soybean Checkoff (1,201,188 USD) for 2023-2025. (**My share as Co-PI: 41,326 USD**)
- Heat stress impact on cotton yield and quality-Current status and future research. Funded by Cotton Incorporated (60, 000 USD) for 2022 -2024. (**My share as Co-PI: 15,000 USD**)

Graduate and undergraduate teaching

- PSS 3321 & PSS 5328 : Theory classes taught as a part of PSS 3321 (undergraduate) and PSS 5328 (graduate) – "Forage & Pasture Crops" in Spring 2024 & 2025 (on-going).

- AGRON 840: Practical classes taken for M.S. and Ph.D. students as a part of AGRON 840 in Fall 2015 and Spring 2017 at Kansas State University, focusing on measurement of gas exchange parameters using LI-6400XT photosynthesis system, Chlorophyll fluorescence using dark adapted chlorophyll fluorometer OS30p+ and Chlorophyll index using SPAD chlorophyll meter.

Graduate student supervision

Student Name	Graduate degree at TTU	My role
Mr. Mayank Bangari	PhD	Co-major advisor
Ms. Yusa Ichinose	MS	Co-major advisor
Ms. Alondra Cruz	PhD	Co-major advisor

Awards and Certification

- 2025 - Davis College International Impact Award, Texas Tech University
- 2024 - Davis College Dean's Research Grant Award
- PRINCE 2 certified

Peer-reviewed Publications (*= Corresponding author; IF= Impact Factor); Citations = 3823 and H index = 29 as of Sept 3rd, 2025.

2025: Ostmeyer T, Saini DK, **Impa SM***, Peiris KHS, Bean SR, Ritchie G, Hayes CM, Bean B, Jagadish SVK. 2025. Impacts of irrigation and N management on yield, protein, and amino acid composition in grain sorghum. Cereal Chemistry, https://doi.org/10.1002/cche.70004 (IF:2.4)

2025: Bakshi A, Pramanik S, Caragea D, **Impa SM**, Kumar R, Bangari M, Bean SR, Emendack Y, Hayes C, Jagadish SVK. 2025. Sorghum-grain-count: A large image dataset and benchmark for sorghum grain count estimation. Smart Agricultural Technology, 12, 101218. https://doi.org/10.1016/j.atech.2025.101218 (IF: 5.7)

2025: Saini DK, Hein NT, **Impa SM**, Bheemanahalli R, Ostmeyer T, Jagadish SVK. 2025. Genetic mapping and haplotype analysis identify novel candidate genes for high temperature tolerance in winter wheat. Plant Genome. https://doi.org/10.1002/tpg2.70075 (IF: 3.8)

2025: Saini DK, Bardhan K, Impa SM, Bahuguna RN, Jagadish SVK. Translational research progress and challenges for developing drought resilient rice. Plant stress, 15, 100751. https://doi.org/10.1016/j.stress.2025.1000751 (IF:6.8)

2025: Sharma N, Saini DK, Pushkar S, Impa SM, Jagadish SVK, Anand A. 2025. Reprogramming assimilate portioning in the second half of the night supports grain filling in inferior spikelets under high temperature stress in rice. Plant stress, 15, 100773. https://doi.org/10.1016/j.stress.2025.100773 (IF:6.8)

2024: Ostmeyer TJ, **Impa SM***, Peiris KH, Bean SR, Ritchie G, Jagadish SVK. Grain protein and amino acid dynamics in sorghum with in-season split-nitrogen application. *Cereal Chemistry*, 101(4), 833.846. https://doi.org/10.1002/cche.10783 (IF:2.4)

2024: Yuan A, Kumar SD, Wang H, Wang S, **Impa SM**, Wang H, Guo J, Wang Y, Yang Q, Liu XJA, Jagadish SVK, Shao R. Dynamic interplay among soil nutrients, rhizosphere metabolites and microbes shape drought and heat stress responses in summer maize. *Soil Biology and Biochemistry*, 19, 109357. https://doi.org/10.1016/j.soilbio.2024.109357 (IF:5.8)

2024: Laosuntisuk K, Vennapusa A, **Impa SM**, Leman AR, Jagadish SVK, Doherty CJ. 2024. A normalization method that controls total RNA abundance affects the identification of differentially expressed genes, revealing bias toward morning expressed responses. *The Plant Journal*, 118(5), 1241-1257. https://doi.org/10.1111/tpj.16654 (IF:7.01)

2024: Hein NT, Tiwari M, Kumar R, Cook L, Ostmeyer T, **Impa SM**, Ross JR, Ayalew H, Wagner D, Neilsen ML, Jagadish SVK. 2024. Post-flowering high night-time temperature stress impacts physiology and starch metabolism in field-grown maize. *Agrosystems, Geosciences and Environment*, 7, 3, e20522. https://doi.org/10.1002/agg2.20522 (IF:1.3)

2023: Saini DK, **Impa SM***, McCallister D, Patil GB, Abidi N, Ritchie G, Jaconis SY, Jagadish SVK. 2023. High day and night temperatures impact on cotton yield and quality – current status and future research direction. *Journal of Cotton Research*, 6, 16, https://doi.org/10.1186/s42397-023-00154-x (IF:2.6)

2023: **Impa SM***, Bean SR, Loerger BP, Hayes C, Emendack Y, Jagadish SVK. 2023. Comparative assessment of grain quality in tannin versus non-tannin sorghums in the sorghum association panel. *Cereal Chemistry*, 100(3), 663-674. https://doi.org/10.1002/cche.10643 (IF:2.4)

2023: Ostmeyer T, **Impa SM**, Bean SR, Dhillon R, Hayes CM, Ritchie G, Asebedo AR, Emendack Y, Jagadish SVK. 2023. Impact of in-season split application of nitrogen on intra-panicle grain dynamics, grain quality and vegetative indices that govern nitrogen use efficiency in sorghum. *Journal of Plant Nutrition and Soil Science*, 186(6), 647-660. https://doi.org/10.1002/jpln.202200325 (IF:2.6)

2023: Bonnot T, **Impa SM**, Jagadish SVK, Nagel DH. 2023. Time of day and genotype sensitivity adjust molecular responses to temperature stress in sorghum. *The Plant Journal*, 116(4), 1081-1096. https://doi.org/10.1111/tpj.16467 (IF:7.01)

2023: Shi W, Zhang X, Yang J, **Impa SM**, Wang D, Lai Y, Yang Z, Xu H, Wu J, Zhang J, Jagadish SVK. 2023. Irrigating with cooler water does not reverse high temperature impact on grain yield and quality in hybrid rice. *The Crop Journal*, 11(3), 904-913. https://doi.org/10.1016/j.cj.2022.09.006 (IF:6.0)

2022: Sprague SA, Tamang TM, Steiner T, Wu Q, Hu Y, Kakesh T, Park J, Yang J, Peng Z, Bergkamp B, **Impa SM**, Peterson M, Garcia EO, Hao Y, Amand P, Bai G, Nakata PA, Rieu I, Jackson DP, Cheng N, Valent B, Hirschi KD, Jagadish SVK, Liu S, White FF, Park S. 2022. Redox engineering enhances maize thermotolerance and grain yield in the field. *Plant Biotechnology Journal*, 20(9), 1819-1832. https://doi.org/10.1111/pbi.13866 (IF:9.8)

2022: Hein NT, **Impa SM**, Wagner D, Bheemanahalli R, Kumar R, Tiwari M, Prasad PVV, Tilley M, Wu X, Neilsen M, Jagadish SVK. 2022. Grain micronutrient composition and yield components in field-grown wheat are negatively impacted by high night-time temperature. *Cereal Chemistry* 99(3): 615-624. https://doi.org/10.1002/cche.10523 (IF:1.98).

2022: Nadaradjan S, **Impa SM**, Parasuraman B, Hukkeri S, Parsi SG, Sreeman S, Udayakumar M, Ganesh P. 2022. Dissecting the dependence of total biomass on physiological traits through path analysis. *Plant Physiology Reports*, 27, 207-212. https://doi.org/10.1007/s40502-022-00649-w (IF: 0.9)

2022: Shi W, Zhang X, Yang J, **Impa SM**, Wang De, Lai Y, Yang Z, Xu H, Wu J, Zhang J, Jagadish SVK. Irrigating with cooler water does not reverse high temperature impact on grain yield and quality in hybrid rice. *The Crop Journal*, 11(3), 904-913. https://doi.org/10.1016/j.cj.2022.09.006 (IF:6.0)

2022: Shi W, Yang J, Kumar R, Zhang X, **Impa SM**, Xiao G, Jagadish SVK. 2022. Heat stress during gametogenesis irreversibly damages female reproductive organ in rice. *Rice*, 15, 32. https://doi.org/10.1186/s12284-022-00578-0 (IF:4.8)

2022: Wang C, Caragea D, Narayana NK, Hein NT, Bheemanahalli R, **Impa SM**, Jagadish SVK. 2022. Deep learning based high-throughput phenotyping of chalkiness in rice exposed to high night temperature. *Plant Methods* 18:9. https://doi.org/10.1186/s13007-022-00839-5 (IF:5.1).

2021: **Impa SM,** Raju B, Hein NT, Sandhu J, Prasad PVV, Walia H, Jagadish SVK. 2021. High night temperature effects on wheat and rice – current status and way forward. *Plant Cell and Environment,* 44(7): 2049-2065. https://doi.org/10.1111/pce.14028 (IF:6.2)

2021: Wang Y, **Impa SM**, Sunkar R, Jagadish SVK. 2021. The neglected other half-role of the pistil in plant heat stress responses. *Plant Cell and Environment* 44(7): 2200-2210. https://doi.org/10.1111/pce.14067 (IF:6.2)

2021: Vennapusa AR, Assefa Y, Sebela D**, Impa SM**, Perumal R, Riechers DE, Prasad PVV, Jagadish SVK. 2021. Safeners improve early-stage chilling-stress tolerance in sorghum. *Journal of Agronomy and Crop Science,* 207(4), 705-716. https://doi.org/10.1111/jac.12503 (IF: 3.06)

2020: **Impa SM,** Vennapusa AR, Bheemanahalli R, Sabela D, Boyle D, Walia H, Jagadish SVK. 2020. High night temperature induced changes in grain starch metabolism alters starch, protein and lipid accumulation in winter wheat. *Plant Cell and Environment*, 43(2): 431-447. https://doi.org/10.1111/pce.13671 (IF:6.2)

2020: Bheemanahalli R, **Impa SM**, Krassovskaya I, Vennapusa AR, Gill KS, Obata T, Jagadish SVK. 2020. Enhanced N-metabolites, ABA and IAA-conjugate in anthers instigate heat sensitivity in spring wheat. *Physiologia Plantarum*, 169(4): 501-514. https://doi.org/10.1111/ppl.13109 (IF:4.1)

2020: Vennapusa AR, **Impa SM**, Doherty CJ, Jagadish SVK. 2020. A universal method for high quality RNA extraction from plant tissues rich in starch, proteins, and fiber. *Scientific Reports*.10:16887. https://doi.org/10.1038/s41598-020-73958-5 (IF:3.99)

2020: Sabela D, Bergkamp B, **Impa SM**, Fritz A, Jagadish SVK. 2020. Spike and flag leaf senescence tracked through temporal chlorophyll fluorescence signals in winter wheat exposed to post flowering heat stress. *Agronomy Journal*, 112: 3993-4006. https://doi.org/10.1002/agj2.20360 (IF:1.7)

2019: **Impa SM**, Sunoj VSJ, Krassovskaya I, Bheemanahalli R, Obata T, Jagadish SVK. 2018. Carbon balance and source-sink metabolic changes in winter wheat exposed to high night-time temperature. *Plant, Cell & Environment*, 42(4): 1233-1246. https://doi.org/10.1111/pce.13488 (IF:6.2)

2019: **Impa SM**, Perumal R, Bean SR, Sunoj VSJ, Jagadish SVK. 2019. Water deficit and heat stress induced alterations in grain physico-chemical characteristics and micronutrient composition in field grown grain sorghum. *Journal of Cereal Science*, 86:124-131. https://doi.org/10.1016/j.jcs.2019.01.013 (IF:2.3)

2019: Moghimi N, Desai JS, Bheemanahalli R, **Impa SM**, Vennapusa AR, Obata T, Jagadish SVK. 2019. New candidate loci and marker genes on chromosome 7 for improved chilling tolerance in sorghum. *Journal of Experimental Botany*, 70(12): 3357-3371. https://doi.org/10.1093/jxb/erz143 (IF:5.4)

2019: Goloran JB, Johnson-Beebout SE, Morete MJ, **Impa SM**, Kirk GJD, Wissuwa M. 2019. Grain Zn concentrations and yield of Zn-biofortified versus Zn-efficient rice genotypes under contrasting growth conditions. *Field Crops Research*, 234:26-32. https://doi.org/10.1016/j.fcr.2019.01.011 (IF:3.1)

2018: Bergkamp B, **Impa SM**, Asebedo AR, Fritz AK, Jagadish SVK. 2018. Prominent winter wheat varieties response to post-flowering heat stress under controlled chambers and field-based heat tents. *Field Crops Research*, 222:143-152. https://doi.org/10.1016/j.fcr.2018.03.009 (IF:3.1)

2018: Sun A, **Impa SM**, Sunoj VSJ, Singh K, Gill KS, Prasad PVV, Jagadish SVK. 2018. Heat stress during flowering affects time of day of flowering, seed-set and grain quality in spring wheat (*Triticum aestivum* L.). *Crop Science*, 58:380-392. https://doi.org/10.2135/cropsci2017.04.0221 (IF:3.1)

2017: Sunoj VSJ, **Impa SM**, Chiluwal A, Perumal R, Prasad PVV, Jagadish SVK. 2017. Resilience of pollen and post-flowering response in diverse sorghum genotypes exposed to heat stress under field conditions. *Crop Science,* 57:1-12. https://doi.org/10.2135/cropsci2016.08.0706 (IF:1.6)

2016: Tuyogon DSJ, **Impa SM**, Castillo OB, Larazo W, Johnson-Beebout SE. 2016. Enriching grain Zn through Zn fertilization and water management in rice. *Soil Science Society of America Journal*, 80:121-134. https://doi.org/10.2136/sssaj2015.07.0262 (IF:1.92)

2016: Izquierdo M, **Impa SM**, Johnson-Beebout SE, Weiss DJ, Kirk GJD. 2016. Measurement of isotopically-exchangeable Zn in Zn-deficient paddy soil. *European Journal of Soil Science*, 67:51-59. https://doi.org/10.1111/ejss.12303 (IF:2.64)

2015: Slamet-Loedin IH, Beebout SE, **Impa SM**, Tsakirpaloglou N. 2015. Enriching rice with Zn and Fe while minimizing Cd risk. *Frontiers in Plant Sciences*, 6:121. https://doi.org/10.3389/fpls.2015.00121 (IF = 3.68)

2013: **Impa SM**, Morete MJ, Ismail AM, Schulin R, Johnson-Beebout SE. 2013. Zn uptake, translocation and grain Zn loading in rice (*Oryza sativa* L.) genotypes selected for Zn deficiency tolerance and high grain Zn. *Journal of Experimental Botany*, 64:2739–2751. https://doi.org/10.1093/jxb/ert118 (IF = 5.4)

2013: **Impa SM**, Gramlich A, Tandy S, Schulin R, Frossard E, Johnson-Beebout SE. 2013. Internal Zn allocation influences Zn deficiency tolerance and grain Zn loading in rice (*Oryza sativa* L.). *Frontiers in Plant Sciences*, 4:53. https://doi.org/10.3389/fpls.2013.00534 (IF = 3.68)

2013: Mabesa RL, **Impa SM**, Grewal D, Johnson-Beebout SE. 2013. Contrasting grain-Zn response of biofortification rice (*Oryza sativa* L.) breeding lines to foliar Zn application. *Field Crops Research,* 149: 223-233. https://doi.org/10.1016/j.fcr.2013.05.012 (IF = 3.1)

2013: Rose TJ, **Impa SM**, Rose MT, Pariasca-Tanaka J, Mori A, Heuer S, Johnson-Beebout SE, Wissuwa M. 2013. Enhancing phosphorus and zinc acquisition efficiency in rice: a critical review of root traits and their potential utility in rice breeding. *Annals of Botany*, 112: 331-345. https://doi.org/10.1093/aob/mcs217 (IF = 4.04)

2013: Qin J, **Impa SM**, Tang Q, Yang S, Yang J, Tao Y, Jagadish SVK. 2013. Integrated nutrient, water, and other agronomic options to enhance rice grain yield and N use efficiency in double season rice crop. *Field Crops Research,* 148:15-23. https://doi.org/10.1016/j.fcr.2013.04.004 (IF = 3.1)

2012: **Impa SM,** Johnson-Beebout SE. 2012. Mitigating zinc deficiency and achieving high grain Zn in rice through integration of soil chemistry and plant physiology research. *Plant and Soil*, 361: 3-41. https://doi.org/10.1007/s11104-012-1315-3 (IF = 2.97)

2011: Venuprasad R, **Impa SM,** Gowda VRP, Atlin G, Serraj R. 2011. Rice near-isogenic lines (NILs) contrasting for grain yield under lowland drought stress. *Field Crops Research*, 123:38-46. https://doi.org/10.1016/j.fcr.2011.04.009 (IF = 3.1)

2011: Cairns JE, **Impa SM**, O'Toole JC, Jagadish SVK, Price AH. 2011. Influence of the soil physical environment on rice (*Oryza sativa* L.) response to drought stress and its implications for drought research. *Field Crops Research,* 121:303-310. https://doi.org/10.1016/j.fcr.2011.01.012 (IF = 3.1)

2011: Jagadish SVK, Cairns JE, Kumar A, **Impa SM,** Craufurd P. 2011. Does susceptibility to heat stress confound screening for drought tolerance in rice? *Functional Plant Biology*, 38:261-269. https://doi.org/10.1071/FP10224 (IF = 2.49)

2009: Bernier J, Serraj R, Kumar A, Venuprasad R, **Impa SM**, Gowda VRP, Oane R, Spanner D, Atlin G. 2009. The large effect drought resistance QTL *qtl12.1* increase water uptake in upland rice. *Field Crops Research,* 110:39-46. https://doi.org/10.1016/j.fcr.2008.07.010 (IF = 3.1)

2006: Nadaradjan S, **Impa SM**, Shashidhar G, Sheshshayee MS, Prasad TG, Udayakumar M. 2006. Molecular mapping of QTLs associated with whole plant Water Use Efficiency (WUE). *Rice Genetics Newsletter*, 23: 62-66.

2006: **Impa SM**, Nadaradjan S, Sheshshayee MS, Prasad TG, Udayakumar M, Shailaja H. 2006. Identification of markers for mean transpiration rate and oxygen isotope enrichment ($\delta^{18}O$) in recombinant inbred lines of rice. *Rice Genetics News Letter,* 23:77-74.

2005: **Impa SM**, Nadaradjan S, Boominathan P, Shashidhara G, Bindumadhava H, Sheshshayee MS. 2005. Carbon isotope discrimination accurately reflects variability in WUE measured at a whole plant level in rice (*Oryza sativa* L.). *Crop Science,* 45: 2517-2522. https://doi.org/10.2135/cropsci2005.0119 (IF = 1.6)

2005: Nadaradjan S, **Impa SM**, Sheshshayee MS, Udayakumar M, Prasad TG. 2005. Overlapping QTLs for WUE and Carbon isotope discrimination in DHLs of rice. *Journal of Plant Biology,* 32(2): 117-124. (IF = 1.46)

Book Chapters

- Bardhan K, Bangari MPS, **Impa SM**, Jagadish SVK. 2025. Moecular engineering of sorghum root phenes for increased abiotic stress resilience. In " Designing sorghum genome for NextGen agriculture". Eds. D.K. Saini & S. V. K. Jagadish (1st ed.). CRC Press. https://doi.org/10.1201/9781003623717-11
- Bakshi A, Pramanik S, Wang C, Bari MAA, Aranjo J, Bangari MPS, Kumar R, **Impa SM**, Saini DK, Felderhoff T, Bean SR, Hayes C, Emendack Y, Jagadish SVK, Caragea D. 2025.

Leveraging high-throughput phenotyping and artificial intelligence for accelerating sorghum improvement. In " Designing sorghum genome for NextGen agriculture". Eds. D.K. Saini & S. V. K. Jagadish (1st ed.). CRC Press. https://doi.org/10.1201/9781003623717-14

- **Impa SM,** Nadaradjan S, Jagadish SVK. **2012**. Drought stress induced reactive oxygen species and antioxidants in plants. Abiotic stress adaptations in plants: Metabolism, production and sustained. Eds. P. Ahmad & M.N.V. Prasad.131-147.
- Serraj R, Dimayuga G, Gowda V, Guan Y, Hong H, **Impa SM**, Liu DC, Mabesa RC, Sellamuthu R, Torres R. **2009**. Drought-resistant rice: physiological framework for an integrated research strategy. In "Drought frontiers in rice – Crop improvement for increased rainfed production" (R. Serraj, J. Bennett, B. Hardy, Eds.), World Scientific Publishing Co., Singapore, pp 139–170. ISBN: 978-981-4280-00-6.
- Bindumadhava H, Sudakar M, Sheshayee MS, Ramesh R, **Impa SM**, Prasad TG, Udayakumar M. **2006**. Determination of transpiration rate and root biomass based on oxygen isotope enrichment. Plant Molecular Physiology: Current Scenario and Future predictions Festschrift in honour of Prof. C. Malik/edited by P. C. Trivedi, New Delhi. Pp 1-16. ISBN 81-7910-151-7.

Poster and Oral presentations

1. Oduniyi S, McCallister D, Impa SM, Jagadish SVK. 2025. Determine the effects of heat stress on cotton yield parameters : a meta-analysis approach. Poster presentation, Ogallala Aquifer Program, Feb 26-27, Lubbock, Texas, USA.
2. Cruz A, Aviles A, Norris A, **Impa SM**, Jagadish K. 2025. Forage allowance of prussic acid free sorghum and pearl millet in a continuous grazing system under irrigated and dryland conditions. Poster presentation, Ogallala Aquifer Program, Feb 26-27, Lubbock, Texas, USA
3. Oduniyi OS, McCallister D, Leonardo B, Jagadish SVK, **Impa SM**. **2025**. Heat stress impact on cotton yield across the United States. Oral presentation. Beltwide Cotton Conferences, Jan. 14-16, New Orleans, Louisiana, USA.
4. **Impa SM**, Lima JME, Jagadish SVK, Bolouri F, Sari-Sarraf H, Caragea D, Turner C, Patil G, Ritchie G. **2024**. Machine learning-based high throughput phenotyping for quantifying flower abortion in soybean. Oral presentation. National Conference of Plant Physiology, Dec. 17-19, Kerala, India.
5. Cruz A, Aviles DF, Taylor E, Perez S, Norris AB, Hayes C, **Impa SM**, Jagadish SVK. **2024.** A comparison of antinutritional factors in summer annual forages under differing irrigation and nitrogen treatments. Oral presentation. Proceedings of ASA-CSSA-SSSA International Annual Meeting, Nov. 10 -13, San Antonio, TX.
6. Cruz A, Aviles DF, Norris AB, **Impa SM**, Jagadish SVK. **2024.** Forage allowance of prussic acid free sorghum and pearl millet in a continuous grazing system under irrigated and dryland conditions. Poster presentation. Proceedings of ASA-CSSA-SSSA annual meeting, Nov. 10 - 13, San Antonio, TX.
7. Saini DK, Hein N, **Impa SM**, Bheemanahalli R, Ostmeyer T, Jagadish SVK. **2024.** Genetic regulation of tolerance to high night temperature in field-grown winter wheat and its implications for wheat breeding. Oral presentation. ASA-CSSA-SSSA International Annual Meeting, Nov. 10-13, San Antonio, TX.
8. Lima JME, Bolouri F, Ichinose Y, Mehla MK, Turner C, Patil G, **Impa SM**, Ritchie G, Jagadish SVK. **2024**. Soybean flowering dynamics under well-watered and drought conditions.

Poster presentation. ASA-CSSA-SSSA International Annual Meeting, Nov. 10-13, San Antonio, TX.

9. Lima JME, Bolouri F, Awan AS, Pramanik S, Sari-Sarraf H, Caragea D, Turner C, Dhandapani R, Schapaugh Jr. WT, Ahmad N, Ichinose Y, Saini DK, Bangari MPS, Bardhan K, Mehla MK, Ye H, Nguyen HT, Patil G, Shekoofa A, Fischel L, Cruz A, **Impa SM**, Jagadish SVK. **2024**. Soybean phenotyping under irrigated and drought conditions: a machine learning approach for flower and pod counting. Poster presentation. ASA-CSSA-SSSA International Annual Meeting, Nov. 10-13, San Antonio, TX.
10. Ichinose Y, Saini DK, Lima JE, Palanisamy S, Jagadish SVK, **Impa SM**. **2024**. Genomic regions controlling pre-harvest sprouting in grain sorghum backed by a novel protocol for evaluating pre-harvest sprouting tolerance. Oral presentation. Proceedings of ASA-CSSA-SSSA annual meeting, Nov. 10 -13, San Antonio, TX.
11. Ichinose Y, Mehla MK, Saini DK, Lima JE, Bangari MPS, Cruz A, Cope S, Bardhan K, Ritchie G, **Impa SM**, Jagadish SVK. **2024**. Assessing agronomic and environmental sustainability of sorghum-cotton rotation versus continuous cotton cropping. Poster presentation, Proceedings of ASA-CSSA-SSSA annual meeting, Nov. 10 -13, San Antonio, TX.
12. Ichinose Y, Espindola J, Saini D, Cruz A, Zelaya C, Mehla M, **Impa SM**, Jagadish SVK. **2023**. Addressing pre-harvest sprouting by integrating grain physiology and genetics. Poster presentation, ASA-CSSA-SSSA Annual meeting. Oct 29-Nov 1. St. Louis, MO, USA
13. Ichinose Y, Mehla M, Zelaya AC, Lima JE, Saini DK, Bangari M, **Impa SM**, Ritchie G, Jagdish SVK. **2023**. Assessing agronomic and environmental sustainability of sorghum-cotton rotation in West Texas High Plains. Poster presentation, ASA-CSSA-SSSA Annual meeting. Oct 29-Nov 1. St. Louis, MO, USA
14. Ostmeyer TJ, Cruz A, Ritchie G**, Impa SM**, Bean S, Jagadish SVK. **2022**. Intra-panicle grainfilling dynamics and sustainability of sorghum with in-season split nitrogen applications. Poster presentation, ASA-CSSA-SSSA Annual meeting. Nov 6-9. Baltimore, Maryland, USA.
15. Vennapusa AR, **Impa SM**, Sebela D, Bheemanahalli R, Jagadish SVK. **2019**. Source-sink mechanisms differentiating winter wheat exposed to a range of night-time temperatures during grain filling, Poster presentation, Plant & Animal Genome XXVII Conference, Jan 12-16, San Diego, CA, USA.
16. Bustamante C, **Impa SM**, Jagadish SVK. **2019**. Physiological Characterization of wild emmer wheat (*Triticum dicoccoides*) for heat stress resilience. Oral presentation, ASA-CSSA-SSSA Annual meeting. Nov 10-13. SanAntonio, TX, USA.
17. Bheemanahalli R, **Impa SM**, Hein N, Jagadish SVK. **2019**. Comparative assessment of chamber and field grown wheat to high night temperature. Poster presented at ASA-CSSASSSA Annual meeting. Nov 10-13. SanAntonio, TX, USA.
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