Sabin Khanal

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ACADEMIC QUALIFICATION

Doctor of Philosophy (Plant Pathology and Microbiology): 2020-Present (GPA 4.0)
Texas A&M University, College Station, TX, USA

Master of Science (Crop Science): May 2020 (GPA 3.95) University of Illinois at Urbana-Champaign, Illinois, USA

Bachelor of Science (Agriculture): 2016. (Rank: Distinction) Institute of Agriculture and Animal Sciences, Tribhuvan University, Nepal

WORK EXPERIENCE

Texas A&M University, College Station, TX (present)
Graduate Research Assistant

- Multi-locus sequence analysis reveals genetic diversity of rice kernel smut in United States.
- Currently working on for identification of fungicide resistance isolates of rice kernel smut fungus in United States and its molecular mechanisms
- Identification of rice seeds microbiomes and their potential use for controlling rice diseases.
- Helped establish molecular facilities at rice pathology lab at Texas A&M research center, Beaumont,

University of Illinois, Urbana, Illinois: May 2017- May 2020
Graduate Research Assistant

- Conducted survey the occurrence of Bacterial spot of tomato in Illinois and characterization isolates.

- Identification of the copper resistant isolates in the Illinois tomato fields; first study from the state
- Participated in various vegetable disease management research
- Worked as teaching assistant for two different courses: Applied Entomology and Introductory plant pathology

Nepal Agricultural Research Council
National Potato Research program, Lalitpur, Nepal
Research intern (Daily wage)

- Participated in various ongoing research on the program related to potato on field and greenhouse conditions.

Tribhuvan University and Agriculture and Forestry University, Nepal
Undergraduate Practicum assessment researcher

- Screening of different rice genotypes against blast pathogen at natural epidemic condition and controlled condition at Chitwan, Nepal.

Student Research assistant

- Post-harvest evaluation through modified atmospheric packaging trails on cauliflower under Chitwan condition and market survey on packaging.
- Post-harvest evaluation through modified atmospheric packaging trails on tomato under Chitwan condition and market survey on packaging.
- Survey of the vulnerability of livestock farming system to impact of climate change in Terai of Western Nepal.
- Impact of Biochar application on soil properties, yield and yield attributing characteristics of *Raphanus sativus* L.

PUBLICATIONS

Peer-review publications

1. **Khanal, S**, Antony-Babu, S., and Zhou, X. G. 2023. Draft Genome Resources of Seven Strains of *Tilletia horrida*, Causal Agent of Kernel Smut of Rice. *Phytofrontiers (In-Press).*
2. **Khanal, S**. Zhou, X. G., and Gaire, S. P. 2023. Kernel Smut and False Smut: The Old-Emerging Diseases of Rice- A Review. *Phytopathology (In-Press).*

3. **Khanal, S.,** Antony-Babu, S., Gaire, S., P., and Zhou, X., G.2022. Multi-locus Sequence Analysis Reveals Genetic Diversity of Rice Kernel Smut Fungus Population in United States. *Front. Microbial*. 4:874120
4. Imran, M.*, **Khanal, S.***, Zhou, X. G., Antony-Babu, S., and Atiq, M. 2022. First Report of Sheath Rot of Rice Caused by *Fusarium incarnatum-equiseti* Species Complex in the United States. *Plant Dis. 106(12): 3206*
5. Imran, M.*, **Khanal, S.***, Zhou, X. G., Antony-Babu, S., and Atiq, M. 2021. First Report of Leaf Spot of Rice Caused by *Epicoccum sorghinum* in the United States. *Plant Dis. 106(10): 2758*
6. Imran, M.*, **Khanal, S.***, Zhou, X. G., Antony-Babu, S., and Atiq, M. 2021. First Report of Brown Leaf Spot of Rice Caused by *Curvularia hawaiiensis* in the United States. *Plant Dis. 106(9): 2527*
7. **Khanal, S.,** Hind, S. R., and Babadoost, M. 2021. Occurrence of Bacterial Spot in Illinois Tomato Fields and Characteristics of the Causal Agents. *Hortscience 56(1): 8-12*
8. **Khanal., S.,** Hind, S. R., and Babadoost, M. 2020. Occurrence of Copper Resistant *Xanthomonas perforans* and *X. gardneri* in Illinois Tomato fields. *Plant Health progress 21(4):338-344*
9. **Khanal., S.,** Subedi, B., Bhandari, A., Giri, D., R., Shrestha, B., Neupane, P., Shrestha, S. M., and Gaire, S., P. 2016 Screening of Different Rice Genotypes against (Pyricularia grisea) Sacc. in Natural Epidemic Condition at Seedling Stage in Chitwan, Nepal. *Adv. Crop Sci. Tech. 4: 4*

Scientific Oral presentation

1. **Khanal, S.** 2019. Occurrence of Bacterial Spot Disease in Illinois Tomato Fields, Characterization of the Casual Agents, and Management of the Disease. Seminar speaker. Department of Crop Sciences, University of Illinois, Urbana, Illinois.

Poster Presentations

1. **Khanal, S.,** Imran, M, Zhou, X. G., and Antony-Babu, S. 2022. Seed endophytic microbial populations between organically and conventionally grown rice are taxonomically and functionally distinct. Plant Health 2022, American Phytopathological society annual meeting, Pittsburg.
2. **Khanal, S.**, Antony-Babu, S., Gaire, S. P., and Zhou, X., G. 2021. Genetic diversity of rice kernel smut population in the United States. TAMU genome editing Symposium 2021(online).

3. **Khanal, S.**, Antony-Babu, S., Gaire, S. P., and Zhou, X., G. 2021. Genetic diversity of rice kernel smut population in the United States. Plant Health online 2021(online).
4. **Khanal, S.**, Antony-Babu, S., Gaire, S. P., and Zhou, X., G. 2021. Genetic diversity of rice kernel smut population in the United States. WSU Plant Science Symposium 2021.
5. **Khanal, S.**, Hind, S. R., and Babadoost, M. 2019. Assessing the occurrence of bacterial spot of tomatoes in Illinois and identifying species causing the disease. Plant health 2019.
6. **Khanal, S.,** Hind, S. R., and Babadoost, M. 2019. Copper-resistant strains of *Xanthomonas gardneri* and *X. perforans* from Illinois tomato fields. Plant health 2019.

Extension Publication

1. Zhou, X.G**., Khanal, S**., and Imran, M. (2021a). Texas rice: Severe outbreaks of kernel smut in 2021. Agfax.com-Online Ag News Source. September 10, 2021. https://agfax.com/2021/09/10/texas-rice-severe-outbreaks-of-kernel-smut-in-2021/
2. **Khanal, S**., X. G. Zhou, S. Antony-Babu, and S. Gaire. 2021**.** Genetic diversity of the rice kernel smut populations in the United States. Texas Rice Special Section 2021:28-29
3. Zhou, X., G. Liu, L. Wang, and **S. Khanal.** 2021. Timing of fungicide application for rice kernel smut and narrow brown leaf spot control in main and ratoon crops. Texas Rice Special Section 2021:26-27

Conference proceedings

1. Babadoost, M., **Khanal, S**. and Hind, S.R. (2021). Bacterial spot of tomato incited by *Xanthomonas* spp. in Illinois: occurrence and management. Acta Hortic. 1316, 81-88
   DOI: 10.17660/ActaHortic.2021.1316.12

Abstract Publication

1. **Khanal, S.**, Antony-Babu, S., Gaire, S. P., and Zhou, X., G. 2021. Genetic diversity of rice kernel smut population in the United States. *Plant Health online 2021.*
2. **Khanal, S.**, Hind, S. R., and Babadoost, M. 2019. Assessing the occurrence of bacterial spot of tomatoes in Illinois and identifying species causing the disease. *Plant health 2019.*

3. **Khanal, S.,** Hind, S. R., and Babadoost, M. 2019. Copper-resistant strains of *Xanthomonas gardneri* and *X. perforans* from Illinois tomato fields. *Plant health 2019.*
4. Babadoost, M., **Khanal, S.,** and Hind, S. R. 2019. Bacterial Spot (*Xanthomonas* spp) of tomatoes in Illinois: Occurrence and Management. Acta horticulture, VI Internal Symposium on Tomato Diseases, Taiwan.

Plant disease management reports

1. Babadoost, M., **Khanal, S.,** and Acheampong, F. 2020. Efficacy of selected chemical compounds and biocontrol agents for control of bacterial spot of tomato, Illinois, 2019. https://doi.org/10.1094/PDMR14
2. Babadoost, M., Sulley, S., and **Khanal, S.** 2020. Efficacy of selected fungicides for control of Phytophthora blight in summer squash in Illinois, 2019. https://doi.org/10.1094/PDMR14
3. Babadoost, M., Sulley, S., and **Khanal, S.** 2020. Efficacy of selected fungicides for control of Phytophthora blight in processing pumpkin, 2019. https://doi.org/10.1094/PDMR14
4. Babadoost, M. and **Khanal, S.** 2019. Effectiveness of selected fungicides for control of powdery mildew of pumpkin, 2018. https://doi.org/10.1094/PDMR13
5. Babadoost, M., Sulley, S., and **Khanal, S.** 2019. Efficacy of selected fungicides for control of Phytophthora blight in summer squash in Illinois, 2018. https://doi.org/10.1094/PDMR13
6. Babadoost, M., **Khanal, S.,** and Gulyiev, S. 2018. Effectiveness of selected fungicides for control of bacterial spot of pumpkin, 2017. https://doi.org/10.1094/PDMR12

GRANTS

1. Xin-Gen Zhou and **Sabin Khanal.** 2021. Enhancing Texas Rice Plant Pathology Research through Equipping with PCR System and Plant Growth Chamber. Funded: $47, 915
2. Xin-Gen Zhou and **Sabin Khanal.** 2022. Rice Kernel Smut and Cercospora Management Research. Submitted: Texas Rice Research Foundation, Funding request: $79, 994.

AWARDS/SCHOLARSHIPS

- Travel awards for registration in Plant Health 2021 (online), American Phytopathological Society.
- 3rd place position on graduate student poster competition, 2021, Department of Plant Pathology and Microbiology, Texas A&M University
- Merit stipend for six semesters for outstanding students of Bachelor degree, granted by Institute of Agriculture and Animal Sciences.

LEADERSHIPS ACTIVITIES

- Officer 2020-21: International Student Association, Texas A&M University, College Station, USA
- Excellent group leadership (2018, 2018-19): Global Leaders Orange Blue and Engagement, Office of international and intercultural relations, University of Illinois, Urbana.
- Group leader: Undergraduate Practicum Assessment Group 2016. Developed research proposal, conducted trails, prepared report, and publication.
- Student body president 2015-16: Mechi-Koshi Vidyarthi Sangam, Rampur Campus, Chitwan, Nepal
- Region Ambassador to Nepal, 2014: Tunza Eco-generation Environment Networking Platform for Children and youth by Samsung Engineering and UNEP, Korea.