**Sabin Khanal**

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Language: Nepali (MT), English, Hindi

**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.