

## *Curriculum Vitae*

### **Xin-Gen “Shane” Zhou**

Professor of Plant Pathology, PhD  
 Texas A&M AgriLife Research & Extension Center  
 1509 Aggie Drive, Beaumont, TX 77713  
 Phone: (409) 245 8627,  
 Email: [xzhou@aesrg.tamu.edu](mailto:xzhou@aesrg.tamu.edu)  
 Webpage: [Dep. of Plant Pathology & Microbiology](#)  
 Google Scholar Citations: [X. G. Zhou - Google Scholar](#)



### **1. Education**

Ph.D., Plant Pathology, Oklahoma State University  
 M.S., Plant Pathology, Zhejiang University (previously Zhejiang Agricultural University), China  
 B.S. Plant Protection, Zhejiang University, China

### **2. Experience**

2022-Present **Professor** of Plant Pathology, Texas A&M AgriLife Research and Extension Center at Beaumont, Texas A&M University System. Rice plant pathology.

2015-2022 **Associate Professor** of Plant Pathology, Texas A&M AgriLife Research and Extension Center at Beaumont, Texas A&M University System. Rice plant pathology.

2009-2015 **Assistant Professor** of Plant Pathology, Texas A&M AgriLife Research and Extension Center at Beaumont, Texas A&M University System. Rice plant pathology.

2000-2009 **Postdoctoral Research Associate**, University of Maryland College Park, Lower Eastern Shore Research and Education Center, Salisbury, MD. Vegetable plant pathology.

1996-2000 **Graduate Research Assistant**, Oklahoma State University, Wes Watkins Agriculture Research and Extension Center, Lane, OK. Vegetable plant pathology.

1995-1996 **Associate Professor** and **Deputy Institute Director**, Shanghai Academy of Agriculture Sciences, Plant Protection Research Institute, Shanghai, China. Vegetable plant pathology.

1990-1995 **Assistant Professor**, Shanghai Academy of Agriculture Sciences, Plant Protection Research Institute, Shanghai, China. Vegetable plant pathology.

### **3. Professional Affiliation**

American Phytopathological Society (APS)  
 APS Southern Division  
 International Association for Protection Science  
 Rice Technical Working Group (RTWG)  
 Asian Plant Growth-Promoting Rhizobacteria (PGPR) Society (Honorary Life Membership)

### **4. Awards and Honors**

2025 U.S. Rice Technical Working Group’s Distinguished Organic Rice Research and Extension Team Award  
 2024 Steering Committee for the International False Smut Consortium

2023- Present Texas A&M AgriLife Research Faculty Promotion Peer Review Committee  
 2022 American Phytopathological Society Outstanding Services  
 2018 Grant Review Panelist for the USDA NIFA Agriculture and Food Research Initiative (AFRI)  
 2016 Grant Review Panelist, USDA AFRI Exploratory Research Program, Washington DC  
 2016 Grant Review Panelist, International Foundation for Science, Sweden  
 2016 Grant Review Panelist for the Louisiana State Res. & Dev. Competitive Program  
 2015-2018 Director, USDA NIFA Center of Excellence, Organic Rice Research Project  
 2010 Grant Review Panelist for USAID Middle East Regional Cooperation (MERC) Program

## 5. Professional Services

2020 - Present Senior Editor, *PhytoFrontiers*  
 2020 - Present Review Editor, *Frontiers in Microbiology*  
 2019 - 2022 Senior Editor, *Plant Disease*  
 2012 - Present Section Editor, *Plant Disease Management Reports*  
 2015 - 2019 Senior Editor, *Plant Health Progress*  
 2019 - Present USDA ARS National Rice Plant Germplasm Committee  
 2019 - Present Scientific Counselor, The Organic Center, Washington, DC  
 2021 - 2022 Chair of Integrated Plant Disease Management Committee of the APS  
 2019 Proposer, Organizer and moderator of Idea Café on Using Unmanned Aerial Systems for Plant Disease Detection and Management for 2019 APS meeting.  
 2017 Proposer, Organizer, and moderator of Idea Café on How to Combat Diseases in Organic Agriculture for 2017 APS meeting.  
 2014 - 2016 Panel Chair of Plant Protection Committee for the 2016 Rice Technical Working Group (RTWG) Meeting  
 2014 - 2016 Panel Chair of Rice and Wheat Blast Symposium for the 2016 RTWG Meeting  
 2005 - 2006 Local Arrangement Committee, 2006 Annual Meeting of APS Potomac Division, Rehoboth Beach, Delaware.

## 6. Selected Grants and Contracts (total >200, approximately \$19 million)

2023 - 2027 USDA/NIFA AFFRI SAS (Co-PI). Climate Resilient Innovations for Sustainable Production of Rice (CRISP-RICE). \$10 million  
 2022 - 2025 USDA SARE (Co-PI). Development of Sustainable Organic Rice Ratoon Production Systems in the Southern US. \$340,000  
 2020 - 2021 USDA/NIFA OREI (Co-PI). Assessment of Inadvertent Contamination of Organic Crops. \$50,000  
 2015 - 2018 USDA/NIFA OREI (PI). Sustainable and Profitable Strategies for Integrated Pest Management in Southern Organic Rice. \$1 million  
 2013 - 2015 USDA/NIFA SARE (Co-PI). Improving Soil Quality to Increase Yield and Reduce Diseases in Organic Rice Production. \$225,000  
 2010 - 2025 TRRF (PI). Rice Disease and Weed Research and Management. \$2 million  
 2021 - 2025 Agriculture and Chemical Companies (PI). Field evaluations of fungicides, herbicides, biocontrol agents, and plant variety resistance. \$ 900,000

## 7. Plant Varietal Releases and Patents

2025 S. O. Samonte, L. T. Wilson, R. E. Tabien, C. L. Harper, and **X. G. Zhou**, 2021. A release of Trinity, a new long-grain rice variety with high yielding and improved disease resistance.

2020 Hua, Y., Z. Bai, Y. Fa, X. Yuan, L. Quan, Y. Qiao, H. Zhao, Y. Qu, L. Li, **X. G. Zhou**, K., N. Nagasaka, B. Yang, J. Zhang, R. Qi, N. Zhang, J. Yang, L. Zhao, Y. Qin, C. Gu, Y. Wang, and H. Zhou. 2020.

Efficient fruit bagging device convenient to operate. Issuing Organization: IP Australia. Assignee: Shanxi Agricultural University. Patent Number: 2020103602.

2017 Hua, Y., B. Yang, L. Li, **X. G. Zhou**, R. Yang, G. Hua, and R. Guo. 2017. A Novel Portable Progressively Delivered Fruit Bagging Device. Issuing Organization: National Intellectual Property Office of China. Assignee: Shanxi Agricultural University. Patent Number: AL201510663576.0. Application Number: 201510663576.0.

## 8. Teaching and Academic Training

Dr. Zhou does not have formal teaching appointment but spends ca. 5% of his time conducting teaching by educating students and others. He has supervised 26 graduate students (11 MS, 15 PhD), four postdocs, 19 visiting students and scholars from China, India, Pakistan, and Turkey, and 12 undergraduate students. In addition, he has provided 31 invited seminars and guest lectures nationally and internationally, and seven invited guest lectures for local 4-H underrepresented students.

## 9. Presentations (total 530)

Contributed Papers/Posters: 229

Invited Seminars: 154

Professional and Public Presentations: 147

## 10. Publications (total 718)

Refereed journal articles, books, and book chapters: 109

Conference proceedings articles: 218

Non-referred, peer-reviewed technical articles: 260

Outreach publications and services: 54

### 10.1 Refereed Journal Papers (99 total)

Authorship: Authors are arranged in order of their contributions to the work, from greatest to least.

\* Undergraduate/graduate student/postdoc/personnel supervised.

† Corresponding/co-corresponding author.

99. **Li, S., Y. Yang, J. Zhang, L. T. Wilson, S. O. P. B. Samonte, F. Dou, T. Bera, X. G. Zhou, D. Sanchez, and J. Wang.** 2025. UAV image analysis for detecting rice seedling gaps and gap effect on grain yield. *Smart Agricultural Technology*, 10, 109544. Doi: <https://doi.org/10.1016/j.atech.2024.100753>

98. **Aslam, H. M. U., M. Chikh-Ali, X. G. Zhou, S. Zhang, S. Harris, A. K. Chanda, H. Riaz, A. Hameed, S. Aslam, and N. Killiny.** 2024. Epigenetic modulation of fungal pathogens: a focus on *Magnaporthe oryzae*. *Frontiers in Microbiology* 15:1-14. Doi:<https://doi.org/10.3389/fmicb.2024.1463987>.

96. **Cheng, T., D. Zhang, C. Gu, X. G. Zhou, H. Qiao, W. Guo, Z. Niu, J. Xie, and X. Yang.** 2024. YOLO-CG-HS: A lightweight spore detection method for wheat airborne fungal pathogens. *Computers and Electronics in Agriculture* 227 (2024) 109544. Doi: <https://doi.org/10.1016/j.compag.2024.109544>

95. **Khanal, S\*, M. Imran, X. G. Zhou†, and S. Antony-Babu.** 2024. Characterization of differences in seed endophytic microbiome in conventional and organic rice by amplicon-based sequencing and culturing methods. *Microbiology Spectrum* 12:1-17. Doi: [10.1128/spectrum.03662-23](https://doi.org/10.1128/spectrum.03662-23).

94. **Shrestha, B. K., B. M. Ward, T. W. Allen, E. T. da Silva, H. Zulli, W. Dunford, V. Doyle, C. A. Bradley, B. Buckley, P. Chen, M. Clubb, H. Kelly, J. Koebernick, B. Padgett, J. C. Rupe, E. J. Sikora, T. N. Spurlock, S. Thomas-Sharma, A. Tolbert, X. G. Zhou, and P. P. Price.** 2024. Characterization of QoI-

- fungicide resistance in *Cercospora* isolates associated with *Cercospora* leaf blight of soybean from the southern United States. *Plant Disease* 108:149-161. <https://doi.org/10.1094/PDIS-03-23-0588-RE>
93. **Zhang, D., W. Tao, T. Cheng, X. G. Zhou, G. Hu, H. Qiao, W. Guo, Z. Wang, and C. Gu.** 2024. GSD-YOLO: A lightweight decoupled wheat scab spore detection network based on Yolov7-Tiny. *Agriculture* 2024, 14, 2278. <https://doi.org/10.3390/agriculture14122278>
92. **Zhang, D., Z. Chen, H. Luo, G. Hu, X. G. Zhou, C. Gu, L. Li, and W. Guo.** 2024. Predicting wheat scab levels based on rotation detector and Swin classifier. *Biosystems Engineering* 248:15-31. Doi:<https://doi.org/10.1016/j.biosystemseng.2024.09.016> 10.1128/spectrum.03662-23.
91. **Bao, W., W. Liu, X. Yang, G., H. Hu, D. Zhang, and X. G. Zhou.** 2023. Adaptively spatial feature fusion network: an improved UAV detection method for wheat scab. *Precision Agric.* 24:1154-1180.
90. **Bao, W., Z. Zhu, G. Hu, X. G. Zhou, D. Zhang, and X. Yang.** 2023. UAV remote sensing detection of tea leaf blight based on DDMA-YOLO. *Computers and Electronics in Agriculture.* 205:107637. <https://doi.org/10.1016/j.compag.2023.107637>.
89. **Cheng, T.\* , G. Chen, Z. Wang, R. Hu, B. She, Z. Pan, X. G. Zhou, G. Zhang, and D. Zhang.** 2023. Hyperspectral and imagery integrated analysis for vegetable seed viability detection. *Infrared Physics and Technology.* 131:104605. <https://doi.org/10.1016/j.infrared.2023.104605>.
88. **Gu, C.\* , T. Cheng\* , N. Cai, W. Li, G. Zhang, X. G. Zhou†, and D. Zhang.** 2023. Assessing narrow brown leaf spot severity and fungicide efficacy in rice using low altitude UAV imaging. *Ecological Informatics* 77:102208. <https://doi.org/10.1016/j.ecoinf.2023.102208>.
87. **Khanal, S.\* , S. Antony-Babu, and X. G. Zhou†.** 2023. Draft genome resources of seven strains of *Tilletia horrida*, causal agent of kernel smut of rice. *PhytoFrontiers.* 3: 2-4. <https://doi.org/10.1094/PHYTOFR-11-22-0139-A>.
86. **Khanal, S.\* , S. Antony-Babu, and X. G. Zhou†.** 2023. De novo genome sequence of endophytic biocontrol strain *Bacillus* sp. ST24 isolated from rice seed. *Microbiology Resource Announcements* :2023. <https://doi.org/10.1128/MRA.00352-23>.
85. **Khanal, S.\* , X. G. Zhou†, and S. Antony-Babu.** 2023. Multiple biosynthetic gene pathways are revealed in whole-genome sequence of endophytic biocontrol strain *Pantoea stewartii* subsp. *Indologenes* ST25. *Microbiology Resource Announcements*: 2023. <https://journals.asm.org/doi/epub/10.1128/mra.00425-23>.
84. **Khanal, S.\* , X. G. Zhou†, and S. P. Gaire.** 2023. Kernel smut and false smut: the old-emerging diseases of rice - a review. *Phytopathology.* 113:931-944. Doi: 10. 1094/PHYTO-06-22-0226-RVW.
83. **Searight, J., A. N. Famoso, X. G. Zhou, V. P. Doyle, and J. K. Richard.** 2023. A high-quality genome assembly for *Cercospora janseana*, causal agent of narrow brown leaf spot of rice. *Molecular Plant-Microbe Interactions*, 2023. <https://doi.org/10.1094/MPMI-10-22-0222-A>.
82. **Shrestha, S., B. Ward, T. Allen, C. Bradley, B. Buckley, P. Chen, M. Clubb, V. Doyle, H. Kelly, J. Koebernick, B. Padgett, J. Rupe, E. Sikora, T. Spurlock, S., T. Thomas-Sharma, A. Tolbert, X. Zhou, and T. Price.** 2023. Characterization of QoI-fungicide resistance in *Cercospora* isolates associated with *Cercospora* leaf blight of soybean from the southern United States. *Plant Disease* 107: 12-18. <https://doi.org/10.1094/PDIS-03-23-0588-RE>.
81. **Xin, Z., S. Ju, D. Zhang, X. G. Zhou, S. Guo, Z. Pan, L. Wang, and T. Cheng.** 2023. Construction of spectral detection models to evaluate soluble solids content and acidity in Dangshan pear using two different sensors. *Infrared Physics & Technology* 131:104632. 104632.
80. **Yu, J., T. Cheng, N. Cai, X. G. Zhou, A. Diao, T. Wang, S. Du, D. Liang, and D. Zhang.** 2023. Wheat lodging segmentation based on Lstm\_PSPNet Deep Learning Network. *Drones* 7:143. <https://doi.org/10.3390/drones702143>.
79. **Zhang, D. Y., H. S. Luo, T. Cheng, W. F. Li, X. G. Zhou†, W. Guo, C. Y. Gu, and Z. Diao.** 2023. Enhancing wheat *Fusarium* head blight detection using rotation Yolo wheat detection network and simple

spatial attention network. *Computers and Electronics in Agriculture* 211:107968.  
<https://doi.org/10.1016/j.compag.2023.107968>.

78. **Zhang, D. Y., W. Zhang, T. Cheng, X. G. Zhou, A. Yan, Y. Wu, G. Zhang, and X. Yang. 2023.** Detection of wheat scab fungus spores utilizing the Yolov5-ECA-ASFF network structure. *Computers and Electronics in Agriculture* 210:107953. <https://doi.org/10.1016/j.compag.2023.107953>.
77. **Bao, W., T. Cheng, X. G. Zhou, W. Guo, Y. Wang, X. Zhang, H. Qiao, and D. Zhang. 2022.** An improved DenseNet model to classify the damage caused by cotton aphid. *Computers and Electronics in Agriculture*. 203:107485. <https://doi.org/10.1016/j.compag.2022.107485>.
76. **Cheng, T., S. Guo, Z. Pan, S. Fan, S. Ju, Z. Xin, X. G. Zhou, F. Jiang, and D. Zhang. 2022.** Near-infrared model and its robustness as affected by fruit origin for ‘Dangshan’ pear soluble solids content and pH measurement. *Agriculture*. 2022, 12, 1618. <https://doi.org/10.3390/agriculture12101618>.
75. **Gaire, S. P.\* , X. G. Zhou<sup>†</sup>, Y. Zhou, J. Shi\*, and Y. K. Jo. 2022.** Identification and distribution of fungal pathogens associated with seedling blight of rice in the southern United States. *Plant Pathology*. 72:76-88. <https://doi.org/10.1111/ppa.13645>.
74. **Imran, M.\* , S. Khanal\*, X. G. Zhou<sup>†</sup>, S. Antony-Babu, and M. Atiq. 2022.** First report of leaf spot of rice caused by *Epicoccum sorghinum* in the United States. *Plant Disease*. 106 doi: 10. 1094/PDIS-10-21-2177-PDN.
73. **Imran, M.\* , S. Khanal\*, X. G. Zhou<sup>†</sup>, S. Antony-Babu, and M. Atiq. 2022.** First report of brown leaf spot of rice caused by *Curvularia hawaiiensis* in the United States. *Plant Disease*. 106 doi: 10. 1094/PDIS-10-21-2253-PDN.
72. **Imran, M.\* , S. Khanal\*, X. G. Zhou<sup>†</sup>, S. Antony-Babu, and M. Atiq. 2022.** First report of Fusarium sheath rot of rice caused by *Fusarium incarnatum-equiseti* species complex in the United States. *Plant Disease*. 106 DOI: 10. 1094/PDIS-12-21-2693-PDN.
71. **Khanal, S.\* , S. Antony-Babu, S. P. Gaire\*, and X. G. Zhou<sup>†</sup>. 2022.** Multi-locus sequence analysis reveals diversity of the rice kernel smut population in the United States. *Frontiers in Microbiology*. 13:874120. DOI: 10. 3389/fmicb. 2022. 874120.
70. **Liu, R.\* , V. Singh, S. Abugho, H. Lin, X. G. Zhou, and M. Bagavathiannan. 2022.** Morphophysiological diversity and its association with herbicide resistance in *Echinochloa ecotypes*. *Weed Science*. 70:26-35.
69. **Samonte, S. O. P., L. T. Wilson, R. E. Tabien, C. L. Harper, and X. G. Zhou. 2022.** Registration of Trinity long-grain rice cultivar. *J. Plant Regist.* 2022:1-10. DOI: 10. 1002/plr2. 20238.
68. **Yu, J., T. Cheng, N. Cai, F. Lin, X. G. Zhou, S. Du, D. Zhang, G. Zhang, and D. Liang. 2022.** Wheat lodging extraction using Improved\_Unet network. *Front. Plant Sci.* 13:1009835. Doi: 10. 3389/fpls. 2022. 1009835.
67. **Zhang, D. Y., H. S. Luo, D. Y. Wang, X. G. Zhou, W. F. Li, C. Y. Gu, G. Zhang, and F. M. He. 2022.** Assessment of the levels of damage caused by Fusarium head blight in wheat using an improved YoloV5 method. *Computers and Electronics in Agriculture*. 198: 107086.  
<https://doi.org/10.1016/j.compag.2022.107086>.
66. **Gaire, S. P.\* , X. G. Zhou<sup>†</sup>, and Y. K. Jo. 2021.** Sterile white basidiomycete fungus *Marasmius graminum*: a new pathogen causing seedling blight in rice. *Plant Disease* 105: <https://doi.org/10.1094/PDIS-05-20-1136-PDN>.
65. **Liu, R.\* , V. Singh, X. G. Zhou, and M. Bagavathiannan. 2021.** Stakeholder and field surveys on weed issues and research needs in rice production in Texas. *Weed Technology* 35:242-250.
64. **Redman, R. S., Y. O. Kim, S. Cho, M. Mercer, M. Rienstra, R. Manglona, X. G. Zhou, M. Chilvers, Z. Gray, and R. J. Rodriguez. 2021.** A symbiotic approach to generating stress tolerant crops. *Microorganisms* 8:920-947.

63. **Shi, J.\* , X. G. Zhou<sup>†</sup>, Z. Yan, R. E. Tabien, L. T. Wilson, and L. Wang\* . 2021.** Hybrid rice outperforms inbred rice in resistance to sheath blight and narrow brown leaf spot. *Plant Disease* 105:2981-2984. <https://doi.org/10.1094/PDIS-11-20-2391-RE>.
62. **Wang, L.\* , E. Nysetvold\* , and X. G. Zhou<sup>†</sup>. 2021.** Cultural media promoting sporulation of rice kernel smut fungus *Tilletia barclayana*. *Eur. J. Plant Pathol.* 161:629-635. <https://doi.org/10.1007/s10658-021-02348-y>.
61. **Zhang, D., C. Gu, Z. Wang, X. G. Zhou<sup>†</sup>, and W. Li. 2021.** Evaluating the efficacy of fungicides for wheat scab control by combined image processing technologies. *Biosystems Engineering* 211:230-246. <https://doi.org/10.1016/j.biosystemseng.2021.09.008>.
60. **Zhou, X. G.<sup>†</sup>, K. V. K. Kuma, L. W. Zhou\* , M. S. Reddy, and J. W. Kloepper. 2021.** Combined use of PGPR and reduced rates of azoxystrobin to improve management of sheath blight of rice. *Plant Disease* 105: 1034-1041.
59. **Gaire, S.\* , X. G. Zhou<sup>†</sup>, Y. K. Jo, and J. Shi\* . 2020.** First report of *Rhizoctonia solani* AG-4 causing seedling disease in rice. *Plant Disease* 104. DOI:10. 1094/PDIS-07-19-1570-PDN.
58. **Li, X., F. Dou, K. B. Watkins, S. Wang, K. Chen, X. G. Zhou, A. McClung, J. O. Storlien, and F. M. Hons. 2020.** Seeding rate effects on organic rice growth, yield, and economic returns. *Agronomy Journal* 2020:1-16. DOI:10. 1002/agj2. 20304.
57. **Lin, F., S. Gao, C. Tan, X. G. Zhou, and D. Zhang. 2020.** Identification of rice sheath blight through spectral responses using hyperspectral images. *Sensors* 20:6243. DOI:10. 3390/s20216243.
56. **Zhang, D., G. Chen, X. Yin, R. Hu, C. Gu, Z. Pan, X. G. Zhou, and Y. Chen. 2020.** Integrating spectral and image data to detect Fusarium head blight of wheat. *Computers and Electronics in Agriculture* 175:105588 DOI:10. 1016/j. compag. 2020. 105588.
55. **Cai, N., X. G. Zhou<sup>†</sup>, Y. B. Yang, J. Wang, D. Y. Zhang, and R. J. Hu. 2019.** Use of UAV images to assess narrow brown leaf spot severity in rice. *Int J. Precis. Agric. Aviat.* 2 (2):38-42.
54. **Hua, Y., N. Zhang, X. Yuan, L. Quan, J. Yang, K. Nagasaka, and X. G. Zhou. 2019.** Recent advances in intelligent automated fruit harvesting robots. *The Open Agriculture Journal* 13: 101-106.
53. **Shew, A. M., A. Durand-Morat, L. L. Nalley, X. G. Zhou, C. Rojas, and G. Thoma. 2019.** Warming increases bacterial panicle blight (*Burkholderia glumae*) occurrences and impacts on USA rice production. *PLoS ONE* 14(7): e0219199. <https://doi.org/10.1371/journal.pone.0219199>.
52. **Uppala, S.\* , and X. G. Zhou<sup>†</sup>. 2019.** Optimum timing of propiconazole to manage narrow brown leaf spot in the main and ratoon crops in Texas. *Crop Protection* 124: 1-6.
51. **Uppala, S.\* , X. G. Zhou<sup>†</sup>, B. Liu, and M. Wu. 2019.** Plant-based culture media for improved growth and sporulation of *Cercospora janseana*. *Plant Dis.* 103:504-508.
50. **Zhao, X., J. Zhang, D. Zhang, X. G. Zhou, X. Liu, and J. Xiu. 2019.** Comparison between the effects of visible light and multispectral sensor based on low-altitude remote sensing platform in the evaluation of rice sheath blight. *Spectroscopy and Spectral Analysis* 39(4): 1191-1198.
49. **Hua, Y., J. Yang, X. G. Zhou, C. T. Lee, N. Zhang, Z. Bai, X. Yuan, H. Zhao, and L. Quan. 2018.** A novel portable scissors-type fruit picking device. *Int. J. Hortic. Sci. Technol.* 5 (2): 159-163.
48. **Hua, Y., L. Quan, X. G. Zhou, Z. Bai, J. Yang, N. Zhang, X. Yuan, L. Zhao, Y. Qiao, H. Zhao, Y. Qu, R. Qi, and Y. Wang. 2018.** A multi-purpose air levitating vehicle applicable to pesticide spray and crop irrigation. *Agricultural Engineering Information* 38(9): 102-106.
47. **Uppala, S.\* , and X. G. Zhou<sup>†</sup>. 2018.** Field efficacy of fungicides for management of sheath blight and narrow brown leaf spot of rice. *Crop Protection* 104: 72-77.
46. **Uppala, S.\* , and X. G. Zhou<sup>†</sup>. 2018.** Rice Sheath Blight. *The Plant Health Instructor*. DOI: 10. 1094/PHI-I-2018-0403-01.

45. **Zhang, D., X. G. Zhou, J. Zhang, Y. Lan, C. Xu, and D. Liang. 2018.** Detection of rice sheath blight using an unmanned aerial system with high-resolution color and multispectral imaging. *PLoS ONE* 13(5):e0187470.
44. **Zhao, X., J. Zhang, C. Yang, H. Song, Y. Shi, X. G. Zhou, D. Zhang, and G. Zhang. 2018.** Registration for optical multimodal remote sensing images based on FAST detection, window selection, and histogram specification. *Remote Sensing* 10(663): 1-21; doi: 10.3390/rs10050663.
43. **Handiseni, M.\*, W. Cromwell, M. Zidek, X. G. Zhou<sup>†</sup>, and Y. K. Jo. 2017.** Use of brassicaceous seed meal extracts for managing root-knot nematode in bermudagrass. *Nematropica* 47: 55-62.
42. **Handiseni, M.\*, X. G. Zhou<sup>†</sup>, and Y. K. Jo. 2017.** Soil amendment with Brassica juncea plant tissue reduces sclerotia formation, viability and aggressiveness of *Rhizoctonia solani* AG1-IA toward rice. *Crop Protection* 100:77-80.
41. **Handiseni, M.\*, Y. K. Jo, K. M. Lee, and X. G. Zhou<sup>†</sup>. 2016.** Screening brassicaceous plants as biofumigants for management of *Rhizoctonia solani* AG1-IA. *Plant Disease* 100:758-763.
40. **Hua, Y., B. Yang, X. G. Zhou, J. Zhao, and L. Li. 2016.** A proposed systemic modeling software for jujube fruit cracking. *J. Appl. Hort.* 18 (2):123-127.
39. **Zhang, D. Y., Y. B. Lan, X. Wang, X. G. Zhou, L. P. Chen, B. Li, and W. Ma. 2016.** Assessment of aerial agrichemical spraying effect using moderate-resolution satellite imagery. *Spectroscopy & Spectral Analysis*. 36(6): 1971-1977.
38. **Dong, H.\*, X. G. Zhou, J. Wang, Y. Xu, and P. Lu. 2015.** *Myrothecium verrucaria* strain X-16, a novel parasitic fungus to *Meloidogyne hapla*. *Biological Control* 83:7-12.
37. **Handiseni, M.\*, Y. Jo, and X. G. Zhou<sup>†</sup>. 2015.** Integration of brassica cover crop with host resistance and azoxystrobin for management of rice sheath blight. *Plant Disease* 99: 883-885.
36. **Hua, Y. B., Y. Q. Song, J. Li, C. F. Tian, X. G. Zhou, and L. L. Li. 2015.** A proposed systemic modeling software for jujube fruit cracking. *American Journal of Plant Sciences* 6: 565-573.
35. **Zhang, D., Y. Lan, X. G. Zhou, L. Chen, S. C. Murray, and G. Zhang. 2015.** Research imagery and spectral characteristics of rice sheath blight using three portable sensors. 2015 ASABE Annual International Meeting, Paper No. 152190801, 10 pages. Doi: 10.13031/aim.20152190801.
34. **Everts, K. L., D. S. Egel, D. Langston, and X. G. Zhou. 2014.** Chemical management of Fusarium wilt of watermelon. *Crop Protection* 66: 114-119.
33. **Hua, Y., H. Guo, X. G. Zhou, X. Li, S. Yang, Y. Song, N. Ma, C. Chai, X. Qiao, and L. Li. 2014.** Correlations between Soluble Sugar and Phenol Contents in Leaves and Pear Scab Resistance. *J. Plant Pathol. Microbiol* 5:213-516.
32. **Zhou, X. G.<sup>†</sup> 2014.** First report of bacterial panicle blight of rice caused by *Burkholderia glumae* in South Africa. *Plant Disease* 98: 566.
31. **Hua, Y., H. Guo, X. G. Zhou, X. Li, N. Ma, C. Chai, X. Qiao, and L. Li. 2013.** Correlations between soluble sugar and phenol contents in leaves and pear scab resistance. *J. Plant Path. Microb.* 5: 213-216.
30. **Kumar, K. V. K., S. K. R. Yellareddygari, M. S. Reddy, J. W. Kloepper, K. S. Lawrence, M. E. Miller, H. Sudini, E. C. S. Reddy, X. G. Zhou, and D. E. Groth. 2013.** Ultrastructural studies on the interaction between *Bacillus subtilis* MBI 600 (Integral®) and the rice sheath blight pathogen, *Rhizoctonia solani*. *Afr. J. Microbiol. Res.* 7 (19): 2078-2086.
29. **Kumar, K. V. K., S. K. R. Yellareddygari, M. S. Reddy, J. W. Kloepper, K. S. Lawrence, X. G. Zhou, H. Suddin, and M. E. Miller. 2012.** Efficacy of *Bacillus subtilis* MBI 600 against sheath blight caused by *Rhizoctonia solani* and on growth and yield of rice. *Rice Science* 19 (1): 55-63.
28. **Zhou, X. G., and K. L. Everts. 2012.** Anthracnose and gummy stem blight are reduced on watermelons grown on a no-till hairy vetch cover crop. *Plant Disease* 96:431-436.

27. **Kumar, K. V. K., M. S. Reddy, J. W. Kloepper, K. S. Lawrence, S. K. R. Yellareddygari, X. G. Zhou, H. Sudini, E. C. Surendranatha Reddy, D. E. Groth, and M. E. Miller. 2011.** Screening and Selection of Elite Plant Growth Promoting Rhizobacteria (PGPR) For Suppression of *Rhizoctonia solani* and Enhancement of Rice Seedling Vigor. *J. Of Pure and Applied Microbiology* 5 (2):641-651.
26. **Kumar, K., M. S. Reddy, S. K. R. Yellareddygari, J. W. Kloepper, K. S. Lawrence, X. G. Zhou, H. Suddin, and M. E. Miller. 2011.** Evaluation and selection of elite plant growth-promoting rhizobacteria for suppression of sheath blight of rice caused by *Rhizoctonia solani* in a detached leaf bio-assay. *International J. Of Applied Biology and Pharmaceutical Technology* 2 (1):488-495.
25. **Kumar, V. K. K., M. S. Reddy, J. W. Kloepper, S. K. R. Yellareddygari, K. S. Lawrence, X. G. Zhou, H. Suddin, M. E. Miller, A. Rao Podile, S. E. C. Reddy, S. R. Niranjana, and C. S. Nayaka. 2011.** Plant growth-promoting activities of *Bacillus subtilis* MBI 600 (Integral®) and its compatibility with commonly used fungicides in rice sheath blight management. *International Journal of Microbiology Research* 3 (2): 120-130.
24. **Keinath, A. P., R. L. Hassell, K. L. Everts, and X. G. Zhou. 2010.** Cover crops of hybrid common vetch reduce Fusarium wilt of seedless watermelon in the eastern United States. Online. *Plant Health Progress* doi: 10. 1094/PHP-2010-0914-01-RS.
23. **Zhou, X. G., K. L. Everts, and B. D. Bruton. 2010.** Race 3, a new and highly virulent race of *Fusarium oxysporum* f. sp. *niveum* causing Fusarium wilt in watermelon. *Plant Disease* 94:92-98.
22. **Zhou, X. G., K. L. Everts, and B. D. Bruton. 2010.** Potential impact of a new highly virulent race of *Fusarium oxysporum* f. sp. *niveum* in watermelon in the USA. *Acta Hort. (ISHS)* 871: 535-542.
21. **Zhou, X. G.<sup>†</sup>, R. E. Tabien, and M. O. Way. 2010.** First report of white leaf streak of rice caused by *Mycovellosiella oryzae* in Texas. *Plant Disease* 94 (5): 639.
20. **Zhou, X. G., and K. L. Everts. 2008.** Integrated management of gummy stem blight of watermelon by green manure and Melcast-scheduled fungicides. *Plant Health Progress* doi: 10. 1094/PHP-2008-1120-01-RS.
19. **Zhou, X. G., and K. L. Everts. 2008.** First report of *Alternaria alternata* f. sp. *cucurbitae* causing Alternaria leaf spot of melon in the Mid-Atlantic region of the United States. *Plant Disease* 92:652.
18. **Zhou, X. G., and K. L. Everts. 2007.** Characterization of a regional population of *Fusarium oxysporum* f. sp. *niveum* by race, cross pathogenicity, and vegetative compatibility. *Phytopathology* 97: 461-469.
17. **Zhou, X. G., and K. L. Everts. 2007.** Effects of host resistance and inoculum density on the suppression of Fusarium wilt of watermelon induced by hairy vetch. *Plant Disease* 91: 92-96.
16. **Zhou, X. G., and K. L. Everts. 2006.** Suppression of Fusarium wilt of watermelon enhanced by hairy vetch green manure and partial cultivar resistance. *Plant Health Progress* doi: 10. 1094/PHP-2006-0405-01-RS.
15. **Zhou, X. G., and K. L. Everts. 2004.** Suppression of Fusarium wilt of watermelon by soil amendment with hairy vetch. *Plant Disease* 88: 1357-1365.
14. **Zhou, X. G., and K. L. Everts. 2004.** Quantification of root and stem colonization of watermelon by *Fusarium oxysporum* f. sp. *niveum* and its use in evaluating resistance. *Phytopathology* 94: 832-841.
13. **Zhou, X. G., and K. L. Everts. 2003.** Races and inoculum density of *Fusarium oxysporum* f. sp. *niveum* in commercial watermelon fields in Maryland and Delaware. *Plant Disease* 87: 692-698.
12. **Zhou, X. G., and K. L. Everts. 2001.** First report of the occurrence of *Fusarium oxysporum* f. sp. *niveum* race 2 in commercial watermelon-growing areas of Maryland and Delaware. *Plant Disease* 85: 1291.
11. **Zhou, X. G.<sup>†</sup>, M. L. Yu, Z. Y. Zhu, and S. J. Wang. 1996.** Seasonal population fluctuation of *Phytophthora cinnamomi* in naturally infected soils. *Acta Agriculturae Shanghai* 12 (3): 78-84.
10. **Zhu, X. Y., X. G. Zhou<sup>†</sup>, R. H. Song, J. P. Lu, and S. J. Wang. 1995.** Controlling capsicum Phytophthora blight with a biocontrol agent – Fangyi No. 1. *Acta Agriculturae Shanghai* 11 (1): 64-68.

9. **Zhou, X. G.<sup>†</sup>, Z. Y. Zhu, and S. J. Wang. 1994.** Effects of organic amendments coated with antagonistic microorganisms on biological control of soilborne fungal pathogens in vegetables. *Acta Agriculturae Shanghai* 10 (3): 53-58.
8. **Zhou, X. G.<sup>†</sup>, Z. Y. Zhu, and S. J. Wang. 1994.** An improved method to stimulate sporangium production of *Phytophthora cinnamomi* in pure culture. *Acta Agriculturae Shanghai* 10 (1): 9-15.
7. **Zhou, X. G.<sup>†</sup>, Z. Y. Zhu, S. J. Wang, M. Chen, and Z. Y. Li. 1994.** Biocontrol effects of rhizosphere microorganisms on *Rhizoctonia solani* in vegetable seedlings. *Acta Phytopylacica Sinica* 21 (3): 200-204.
6. **Zhou, X. G.<sup>†</sup>, Z. Y. Zhu, L. Z. Wu, J. P. Lu, and S. J. Wang. 1993.** Camellia root rot caused by *Phytophthora cinnamomi*. *Acta Agriculturae Shanghai* 9 (3): 71-75.
5. **Zhou, X. G.<sup>†</sup>, Z. Y. Zhu, J. P. Lu, and S. J. Wang. 1992.** A simple baiting method of isolating *Phytophthora cinnamomi* from soils. *Acta Agriculturae Shanghai* 8 (3): 46-50.
4. **Zhou, X. G., Z. Y. Zhu, J. P. Lu, S. J. Wang, and W. H. Ko. 1992.** *Phytophthora cinnamomi* in Shanghai and its possible origin. *Mycopathology* 120: 29-32.
3. **Zhu, Z. Y., J. P. Lu, X. G. Zhou, L. Z. Wu, and S. J. Wang. 1992.** Identification and biological studies of *Phytophthora capsici* in shanghai areas. *Acta Agriculturae Shanghai* 8 (3): 36-41.
2. **Zhu, Z. Y., X. G. Zhou, and J. P. Lu. 1991.** Techniques of spraying pesticides at reduced doses for lowering pesticide residues in fruits of cucumber and tomato. *Acta Agriculturae Shanghai* 7 (2): 93-96.
1. **Zhou, X. G., X. R. Yuan, and S. J. Wang. 1990.** Two new virus diseases found on spearmint. *Acta Agriculturae Shanghai* 6 (4): 45-52.

## 10.2 Book Chapters (8 total)

8. **Aslam, H. M. U., H. Tiaz, N. Killiny, X. G. Zhou, L. S. Thomashow, N. T. Peters, and A. K. Chanda. 2022.** Microarray technology for detection of plant diseases. Pp 203-223 In: *Trends in Plant Disease Assessment*, eds. I. U. I. Haq, and S. Ijaz. Springer, Singapore. DOI: 10. 1007/978-981-19-5896-0\_11.
7. **Redman, R. S., Y. O. Kim, S. Cho, M. Mercer, M. Rienstra, R. Manglona, T. Biaggi, X. G. Zhou, M. Chilvers, Z. Gray, and R. J. Rodriguez. 2022.** A symbiotic approach to generating stress tolerant crops. In Aalaa Mahgoub Albasha, Editor. *Prime Archives in Microbiology: 3rd Edition*. Hyderabad, India. Vide Leaf.
6. **Lin, F., D. Zhang, X. G. Zhou<sup>†</sup>, and Y. Lei. 2021.** Spectroscopy technology: an innovative tool for diagnosis and monitoring of wheat diseases. In: *Diagnostics of Plant Diseases*, ed. Dmitry Kurouski, IntechOpen. DOI: 10. 5772/intechopen. 96369.
5. **Zhou, X. G.<sup>†</sup>, D. Zhang, and E. Lin. 2021.** UAV remote sensing: an innovative tool for detection and management of rice diseases. Page 43-67 In: *Diagnostics of Plant Diseases*, ed. Dmitry Kurouski, IntechOpen. DOI: <http://dx.doi.org/10.5772/intechopen.95535>.
4. **Zhou, X. G.<sup>†</sup> 2019.** Sustainable strategies for managing bacterial panicle blight in rice. In: *Protecting Rice Grains in the Post-Genomic Era*, ed. Yulin Jia, IntechOpen, DOI: 10. 5772/intechopen. 84882.
3. **Singh, V., X. G. Zhou, Z. Ganie, B. Valverde, L. Avila, E. Marchesan, A. Merotto, G. Zorrilla, N. Burgos, J. Norsworthy, and M. Bagavathiannan. 2017.** Rice Production in the Americas. Chapter 6 In: *Rice Production Worldwide*, Chauhan, B. S., Jabran, K. And Mahajan, G. Ed. Springer International Publishing. P. 137-168.
2. **Kumar, K. V. K., M. S. Reddy, J. W. Kloepper, K. S. Lawrence, X. G. Zhou, D. E. Groth, S. Zhang, M. R. B. Raju, S. Krishnam Raju, D. Fernando, H. Sudini, B. Du, and M. E. Miller. 2011.** Commercial potential of microbial inoculants (PGPR) for sheath blight management and yield enhancement of rice. Pages 237-264 in: *Bacteria in Agrobiolgy: Crop Ecosystems*. D. K. Maheshwari, ed. Springer-Verlag Berlin Heidelberg Dordrecht London New York.

1. **Zhu, Z. Y., J. P. Lu, X. G. Zhou<sup>†</sup>, and X. M. Huang. 1992.** Integrated management of downy mildew on cucumber in Shanghai areas. Zhu, G. R. The Advances of Research and Technology for Management of Major Diseases and Insects on Vegetables. China Sci-Tech. Press, Beijing, China. Pages 33-37.

### **10.3 Books (2 total)**

2. **Wilson, L. T., X. G. Zhou, S. O. P. B. Samonte, B. Morace, and M. O. Way (eds.). 2023.** Texas Rice Production Guidelines 2023. B-6131 1/2023. Texas A&M AgriLife Research Center at Beaumont and Eagle Lake. Beaumont, Texas, USA. P. 145. .
1. **Way, M. O., G. M. McCauley, X. G. Zhou, L. T. Wilson, and B. Morace (eds.). 2014.** Texas Rice Production Guidelines 2014. B-6131 1/2014. Texas A&M AgriLife Research and Texas A&M AgriLife Extension, Beaumont, Texas, USA. P. 110.

### **10.4 Abstracts (134 total)**

### **10.5 Conference Proceedings (72 total)**

### **10.6 Technical Reports (30 total)**

### **10.7 Grant or Contract Reports (168 total)**

### **10.8 Non-Refereed Technical Publications (260 total)**

### **10.9 Extension Popular Press Articles (38 total)**

### **10.10 Extension Bulletins (16 total)**

## **11. International Collaboration**

Dr. Zhou's international collaboration efforts have extended to various countries, including South Africa, China, Philippines, Pakistan, Turkey, India, and Honduras.