

凌宁 博士、副教授、硕士生导师

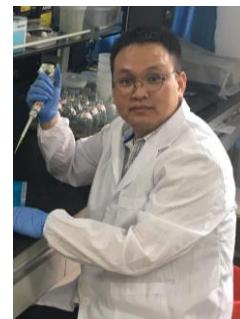
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从事专业：土壤微生物与生物肥料

研究方向：根际微生物与作物健康、有机养分生物转化与促效机制



教育经历：

- ◆ 2007. 9–2012. 6: 南京农业大学资环学院植物营养学系硕博连读，获农学博士学位
- ◆ 2003. 9–2007. 6: 南京农业大学资环学院农业资源与环境专业，获农学学士学位

工作经历：

- ◆ 2015.1- : 南京农业大学 资源与环境科学学院 副教授
- ◆ 2012.6-2014.12 南京农业大学 资源与环境科学学院 讲师

主持科研项目：

- ◆ 砧穗互作下西瓜根际化学多样性与生物多样性的偶联关系研究，国家自然科学基金面上项目（31772398），2018.1-2021.12，60 万元，项目主持人；
- ◆ 连作土壤上嫁接西瓜的根际微生物区系特征及其形成机理，国家自然科学青年基金（31301853），2014.1-2016.12，23 万元，项目主持人；
- ◆ 稻麦肥药减量与周年高产高效集成技术方案—稻麦畜禽有机肥培肥利用及增效技术，江苏省农业科技自主创新资金项目子任务（CX(16)1001），2016-2019, 140 万，子任务负责人；
- ◆ 嫁接西瓜根际化学环境与微生物群落关系研究，国家博士后基金特别资助（2016T90473），2016-2017，15 万元，项目主持人；
- ◆ 经济作物抑病型土壤微生物区系形成机制研究，“973”计划项目“作物高产高效的土壤微生物区系特征及其调控”子课题（2015CB150503）,2015.1-2019.12，80 万元，研究骨干；

主要论文：

◆ 第一作者（或通讯作者）

Luo G, Rensing C, Chen H, Liu M, Wang M, Guo S, Ling N*, Shen QR (2018) Deciphering the associations between soil microbial diversity and ecosystem multifunctionality driven by long-term fertilization management. *Functional Ecology* DOI:10.1111/1365-2435.13039 (通讯作者)

- Luo G, Friman V-P, Chen H, Liu M, Wang M, Guo S, **Ling N***, Shen QR (2018) Long-term fertilization regimes drive the abundance and composition of N-cycling-related prokaryotic groups via soil particle-size differentiation. **Soil Biology and Biochemistry** 116: 213-223 (通讯作者)
- Zhu C, Tian GL, Luo GW, Kong YL, Wang M, Guo SW, Guo S, **Ling N***, Shen QR (2018) N-fertilizer-driven association between the arbuscular mycorrhizal fungal community and diazotrophic community impacts wheat yield **Agriculture, Ecosystems and Environment** 254: 191-201 (通讯作者)
- Xue C, Penton CR, Zhu C, Chen H, Duan YH, Peng C, Guo SW, **Ling N***, Shen QR (2018) Alterations in soil fungal community composition and network assemblage structure by different long-term fertilization regimes are correlated to the soil ionome **Biology and Fertility of Soils** 54: 95–106. (通讯作者)
- Song Y, Kong YL, Wang JC, Ruan Y, Huang QW, **Ling N***, Shen QR (2018) Identification of the produced volatile organic compounds and the involved soil bacteria during decomposition of watermelon plant residues in a Fusarium-infested soil. **Geoderma** 315: 178-1871 (通讯作者)
- Guo JJ¹, **Ling N¹ (equal contributor)**, Chen H, Zhu C, Kong YL, Wang M, Shen QR, Guo SW (2017) Distinct drivers of activity, abundance, diversity and composition of ammonia-oxidizers: evidence from a long-term field experiment. **Soil Biology and Biochemistry** 115: 403-414
- Ling, N.**, Chen, D., Guo, H., Wei, J., Bai, Y., Shen, QR., Hu, S.J, 2017. Differential responses of soil bacterial communities to long-term N and P inputs in a semi-arid steppe. **Geoderma** 292, 25-33.
- Luo, GW., **Ling N***, Nannipieri, P., Chen, H., Raza, W., Wang, M., Guo, SW., Shen, QR., 2017. Long-term fertilisation regimes affect the composition of the alkaline phosphomonoesterase encoding microbial community of a vertisol and its derivative soil fractions. **Biology and Fertility of Soils**, 53: 375–388 (通讯作者)
- Zhu C, **Ling N***, Guo JJ, Wang M, Guo SW and Shen QR (2016) Impacts of Fertilization Regimes on Arbuscular Mycorrhizal Fungal (AMF) Community Composition Were Correlated with Organic Matter Composition in Maize Rhizosphere Soil. **Frontiers in Microbiology** 7:1840. doi: 10.3389/fmicb.2016.01840 (通讯作者)
- Song Y, Zhu C, Raza W, Wang DS, Huang QW, Guo SW, **Ling N***, Shen QR, 2016. Coupling of the chemical niche and microbiome in the rhizosphere: implications from watermelon grafting. **Frontiers of Agricultural Science and Engineering** DOI: 10.15302/J-FASE-2016105 (通讯作者)
- Xue C, Zhang X, Zhu C, Zhao J, Zhu P, Peng C, **Ling N***, Shen QR, 2016. Quantitative and compositional responses of ammonia-oxidizing archaea and bacteria to long-term field fertilization. **Scientific Reports** 6, 2 8981. (通讯作者)
- Ling N**, Zhu C, Xue C, Chen H, Duan YH, Peng C, Guo SW, Shen QR. 2016, Insight into how organic amendments can shape the soil microbiome in long-term field experiments as revealed by network analysis. **Soil Biology & Biochemistry**. 99: 137-149.
- Ling N**, Song Y, Raza W, Huang QW, Guo SW, Shen QR. 2015, The response of root-associated bacterial community to the grafting of watermelon. **Plant and Soil**. 391: 253-246
- Ling N**, Wang DS, Zhu C, Song Y, Yu GH, Ran W, Huang QW, Guo SW, Shen QR. 2014, Response of the population size and community structure of *paenibacillus* spp. to different fertilization regimes in a long-term experiment of red soil. **Plant and Soil**. 383: 87-98
- Ling N**, Sun YM, Guo JJ, Zhu P, Peng C, Yu GH, Ran W, Guo SW, Shen QR. 2014, Response of the bacterial diversity and soil enzyme activity in particle-size fractions of Mollisol after different fertilization in a long-term experiment. **Biology and Fertility of Soils**. 50: 901-911

- Ling, N., Deng KY., Song, Y., Wu, YC., Zhao, J., Raza, W., Huang, QW., Shen, QR. 2014. Variation of rhizosphere bacterial community in watermelon continuous mono-cropping soil by long-term application of a novel bioorganic fertilizer. **Microbiological Research.** 169: 570-578
- Ling, N., Zhang, W., Wang, D., Mao, J., Huang, Q., Guo, S., Shen, Q., 2013. Root Exudates from Grafted-Rot Watermelon Showed a Certain Contribution in Inhibiting *Fusarium oxysporum* f. sp. *niveum*. **PLoS ONE** 8(5): e63383.
- Ling, N., Zhang, W.W., Tan, S.Y., Huang, Q.W., Shen, Q.R., 2012. Effect of the nursery application of bioorganic fertilizer on spatial distribution of *Fusarium oxysporum* f. sp. *niveum* and its antagonistic bacterium in the rhizosphere of watermelon. **Applied Soil Ecology.** 59: 13-19
- Wang M¹, Ling N¹ (equal contributor), Dong X, Zhu Y, Shen Q and Guo S., 2012 Thermographic visualization of leaf response in cucumber plants infected with the soil-borne pathogen *Fusarium oxysporum* f. sp. *Cucumerinum*. **Plant Physiology and Biochemistry** 61: 153-61
- Ling N, Huang QW, Guo SW, Shen QW, 2011. Paenibacillus polymyxa SQR21 systemically affects root exudates of watermelon to decrease the conidial germination of *Fusarium oxysporum* f.sp. *niveum*. **Plant and Soil** 341: 485-493
- Ling N, Raza W, Ma JH, Huang, QW, Shen QR, 2011. Identification and role of organic acids in watermelon root exudates for recruiting *Paenibacillus polymyxa* SQR21 in the rhizosphere. **European Journal of Soil Biology** 47: 374-379
- Ling N, Xue C, Huang QW, Yang XM, Xu YC, Shen QR, 2010. Development of a mode of application of bioorganic fertilizer for improving the biocontrol efficacy to Fusarium wilt. **BioControl** 55: 673-683.

◆ 主要合作作者文章

- Raza W, Ling N, Liu DY, Huang QW, Shen QR, 2016. Response of tomato wilt pathogen *Ralstonia solanacearum* to the volatile organic compounds produced by a biocontrol strain *Bacillus amyloliquefaciens* SQR-9. **Scientific Reports.** DOI: 10.1038/srep24856
- Song Y, Ling N, Ma JH, Wang JC, Zhu C, Raza W, Shen YF, Huang QW, Shen QR, 2016. Grafting Resulted in a Distinct Proteomic Profile of Watermelon Root Exudates Relative to the Un-Grafted Watermelon and the Rootstock Plant. **Journal of Plant Growth Regulation.** DOI: 10.1007/s00344-016-9582-5
- Raza W, Ling N, Zhang RF, Huang QW, Shen QR, 2016. Success evaluation of the biological control of Fusarium wilts of cucumber, banana, and tomato since 2000 and future research strategies. **Critical Reviews in Biotechnology.** DOI: 10.3109/07388551.2015.1130683
- Shang QY, Ling N, Feng XM, Yang XX, Wu PP, Zou JW, Shen QR, Guo SW, 2014. Soil fertility and its significance to crop productivity and sustainability in typical agroecosystem: A summary of long-term fertilizer experiments in China. **Plant and Soil.** 381(1-2):13-23
- Wang M, Ling N, Dong X, Liu XK, Shen QR, Guo SW, 2014. Effect of fusaric acid on the leaf physiology of cucumber seedlings. **European Journal of Plant Pathology.** DOI: 10.1007/s10658-013-0306-4
- Dong X, Ling N, Wang M, Shen QR, Guo SW, 2012. Fusaric acid is a crucial factor in the disturbance of leaf water imbalance in Fusarium-infected banana plants. **Plant Physiology and Biochemistry.** 60:171-9

For more details can be found in ResearchGate:

https://www.researchgate.net/profile/Ning_Ling?ev=hdr_xprf