

## Yafei Li, Dr., Research associate

Agroscope, Research Division of Agroecology and Environment, Soil Quality and Soil Use group

Citizen of China; Married; a son born in 2024

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## Employment

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|-------------------------------------------------------------------|---------------------|
| Research Associate, Agroscope, Soil Quality and Soil Use group    | Nov 2025 – May 2027 |
| Postdoc, Agroscope, Soil Quality and Soil Use group               | Jun 2024 – Oct 2025 |
| Postdoc, Agroscope, Agricultural Landscape and Biodiversity Group | Aug 2022 – May 2024 |
| Scientific assistant, ETH Zurich. Grassland Sciences Group        | Mar 2018 – Apr 2022 |
| Research assistant, Chinese Academy of Sciences                   | Jul 2017 – Feb 2018 |
| Intern, Pearl River Water Resources Commission, China             | Aug 2013 – Sep 2013 |
| Intern, Chinese Academy of Sciences                               | Jul 2013 – Dec 2013 |

## Education

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|-----------------------------------------------------------------------|---------------------|
| PhD, ETH Zurich. Micrometeorology                                     | Mar 2018 – Dec 2021 |
| MSc, University of Copenhagen. Water & Environment                    | Aug 2014 – Dec 2016 |
| MSc, University of Chinese Academy of Sciences. Environmental Science | Aug 2014 – Jun 2017 |
| BSc, Sun Yat-sen University. Environmental Management                 | Sep 2010 – Jun 2014 |

**Reviewer of** Agricultural and Forest Meteorology; Journal of Hydrology; Agronomy for Sustainable Development; Soil & Tillage Research; European Journal of Soil Science; Agricultural Systems; Hydrological Processes; Scientific Reports

## Projects

2024-2027. Agroscope Reserve. Methodological development of humus balance calculator. Employee  
2022-2024. Swiss National Science Foundation. What is Sustainable Intensification? Operationalizing Sustainable Agricultural Intensification Pathways in Europe (SIPATH). Employee  
2018-2022. Swiss National Science Foundation. The Importance of Fog and Dew for Swiss Grasslands Today and in the Future (IFDewS). Employee  
2014-2017. National Natural Science Foundation of China. Water Sources and Hydrological Responses of Typical Plants in Ejina Delta, China. Master student

## Supervision & Teaching

Master student Rutger Jager (2023) "Agricultural technology and agroecological practice for sustainable intensification in Dutch arable farming", VU Amsterdam.

Tutor for Master and Doctoral Course "Stable Isotope Ecology" (2022) ETH Zurich.

Advisor of student helpers and apprentices, Grassland Sciences Group (2018-2021) ETH Zurich.

Advisor for water analysis (2017-2018) Chinese Academy of Sciences.

## Conference organization

Session convener: Soil carbon flux for climate and soil health. World Congress of Soil Science 2026

## Research Interests

**Land-atmosphere interactions:** dew and fog processes; atmospheric dynamics

**Climatic adaptation:** water and carbon cycling; stable isotopes; plant physiology

**Sustainable agriculture:** socioeconomic assessment; landscape ecology; agri-technology adoption; soil organic matter modeling

## Publications

### (Thesis)

**PhD thesis:** Effect of dew and fog on Swiss grasslands using stable isotopes of water. 2021. ETH Zurich. Supervisors: Prof. Dr. Werner Eugster (passed away), Prof. Dr. Nina Buchmann, Prof. Dr. Franziska Aemisegger.

**Master thesis:** The Responses of winter wheat to transgenerational exposure in elevated [CO<sub>2</sub>] environment combined with drought stress. 2016. University of Copenhagen. Supervisor: Prof. Dr. Fulai Liu

**Master thesis:** Water source dividing of *Populus euphratica* and *Tamarix ramosissima* in the riparian zones in Ejina Delta, the lower reaches of Heihe River Basin. 2017. University of Chinese Academy of Sciences. Supervisor: Prof. Dr. Jingjie Yu

### (Peer-reviewed journals)

- [1]. **Li Y#**, Riedl A#, Buchmann N, Eugster W (2026) Magnitude and impacts of non-rainfall water inputs and nocturnal evapotranspiration on temperate grassland ecosystems. Journal of Hydrology. 134632 (# equal contribution)
- [2]. **Li Y**, Ammann J, Helfenstein J, Williams TG, Levers C, Mohr F, Diogo V, Zafeiriou R, Rolo V, Beckmann M, Hernik J, Kizos T, Herzog F (2026) The potential of variable-rate technology for sustainable intensification of European arable farming. European Journal of Agronomy. 172, 127868.
- [3]. **Li Y**, Helfenstein J, Swart R, Levers C, Mohr F, Diogo V, Bürgi M, Williams TG, Zafeiriou R, Zarina A, Ammann J, Rolo V, Verburg PH, Beckmann M, Hernik J, Kizos T, Herzog F (2025) Agroecological and technological practices in European arable farming: Past uptake and expert visions for future development. Land Use Policy. 153, 107553.
- [4]. **Li Y**, Herzog F, Levers C, Mohr F, Verburg PH, Bürgi M, Dossche R, Williams TG (2024) Agricultural technology as a pathway of sustainable intensification: insights from the development, diffusion and impact of patents. Agronomy for Sustainable Development. 44, 14.

- [5]. **Li Y**, Eugster W, Riedl A, Westerhuis S, Buchmann N, Aemisegger F (2023) Identifying key stages of radiation fog evolution using water vapor isotopes. *Agricultural and Forest Meteorology*. 334, 109430.
- [6]. **Li Y**, Eugster W, Riedl A, Lehmann MM, Aemisegger F, Buchmann N (2023) Dew benefits on alpine grasslands are cancelled out by combined heatwave and drought stress. *Frontiers in Plant Science*. 14, 1136037.
- [7]. **Li Y**, Riedl A, Eugster W, Buchmann N, Cernusak LA, Lehmann MM, Werner RA, Aemisegger F (2023) The role of radiative cooling and leaf wetting in air–leaf water exchange during dew and radiation fog events in a temperate grassland. *Agricultural and Forest Meteorology*. 328, 109256.
- [8]. Riedl A, **Li Y**, Eugster J, Buchmann N, Eugster W (2022) Technical note: High accuracy weighing micro-lysimeter system for long-term measurements of non-rainfall water inputs to grasslands. *Hydrology and Earth System Sciences*. 26(1): 91-116.
- [9]. **Li Y**, Aemisegger F, Riedl A, Buchmann N, Eugster W (2021) The role of dew and radiation fog inputs in the local water cycling of a temperate grassland during dry spells in central Europe. *Hydrology and Earth System Sciences*. 25, 2617-2648.
- [10]. Li X., **Li Y**, Zhu X, Liu S, Liu F (2019) Modulation of photosynthate supply by CO<sub>2</sub> elevation affects the post-head-emergence frost-induced grain yield loss in wheat. *Journal of Agronomy and Crop Science*. 205, 54-64.
- [11]. Yu J., **Li Y**. (2018) Uncertainties in the usage of stable hydrogen and oxygen isotopes for the quantification of plant water sources (in Chinese with English abstract). *Acta Ecologica Sinica*. 38, 7942-7949.
- [12]. **Li Y**#, Li X#, Yu J, Liu F (2017) Effect of the transgenerational exposure to elevated CO<sub>2</sub> on the drought response of winter wheat: Stomatal control and water use efficiency. *Environmental and Experimental Botany*. 136, 78-84.
- [13]. **Li Y**, Yu J, Lu K, Wang P, Zhang Y, Du C (2017) Water sources of *Populus euphratica* and *Tamarix ramosissima* in Ejina Delta, the lower reaches of the Heihe River, China (in Chinese with English abstract). *Chinese Journal of Plant Ecology*. 41, 519-528.

## Conferences

- [1]. (2025) Developing a Soil Organic Matter Management Tool for Swiss Farmers. European Geosciences Union General Assembly, Vienna, Austria, 27 April–2 May 2025. (poster)
- [2]. (2025) How Can Agri-Tech Support Sustainable Agriculture? Insights from Patent Reviews and Farm Surveys. 35th Meeting of the FLAN, Paris, France, 12-13 June 2025. (invited speaker)
- [3]. (2023) Agricultural technology as the pathway towards sustainable intensification of European farming landscapes. 11<sup>th</sup> IALE World Congress. Nairobi, Kenya, 10–15 July 2023. (oral)
- [4]. (2022) The role of dew and radiation fog inputs in the local water cycling of a temperate grassland during dry spells in central Europe. European Geosciences Union General Assembly, Vienna, Austria, 23–27 May 2022. (oral)

- [5]. (2021) The role of dew and radiation fog inputs in the local water cycling of a temperate grassland during dry spells in central Europe. Workshop – «Water isotopes: From Weather to Climate », hybrid workshop, 15–17 November 2021. (poster)
- [6]. (2020) Tracing dew and fog water inputs into temperate grassland using stable water isotopes in the extreme summer 2018. European Geosciences Union General Assembly, Online, 4–8 May 2020. (poster)
- [7]. (2019) Effect of Dew and Fog Water on Swiss Grasslands Using Stable Water Isotopes. the 17<sup>th</sup> Swiss Geoscience Meeting, Fribourg, Switzerland, 22–23 Nov 2019. (oral)
- [8]. (2019) Effect of dew and fog water on Swiss grassland with stable water isotopes - a case study in 2018 extreme summer drought. The 8<sup>th</sup> International Fog and Dew Association Conference, Taipei, China, 14–19 July 2019. (oral)
- [9]. (2019) Quantifying the effect of dew and fog water on Swiss grasslands with stable water isotopes. European Geosciences Union General Assembly, Vienna, Austria, 7–12 April 2019. (poster)
- [10]. (2018) Quantifying the importance of dew on Swiss grasslands with stable water isotope. The 16<sup>th</sup> Swiss Geoscience Meeting, Bern, Switzerland, 30 Nov – 1 Dec 2018. (poster)

## Honors & Awards

PhD scholarship funded by Swiss National Science Foundation. 2018  
Exemption from doctoral qualifying exam at ETH Zurich. 2018  
Outstanding Student Leader, University of Chinese Academy of Sciences. 2015  
Outstanding Student, University of Chinese Academy of Sciences. 2015  
Outstanding Undergraduate Intern Scholarship, Chinese Academy of Sciences. 2014  
Exemption for Postgraduate Entrance Examination, Sun Yat-sen University. 2013  
Chinese National Encouragement Scholarship, Sun Yat-sen University. 2011/2013  
Outstanding Student Scholarship, Sun Yat-sen University. 2011/2012/2013  
China Southern Airlines Stipend, Sun Yat-sen University. 2012  
Outstanding Newspaper Editor, Sun Yat-sen University. 2011