

Curriculum vitae

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Curriculum vitae :

3 April 1962 born in Ostrava (CZ)
since 1970 living in Switzerland
1982-87 studies on agricultural science at the Swiss Federal Institute of Technology in Zurich, Switzerland (ETH)
1987 diploma as agricultural engineer, specialisation in plant production, ETH Zurich
1987-1992 PhD student at ETH Zurich in systems analysis of agricultural systems
1993 PhD degree in technical sciences
1992-1994 Swiss Federal Agricultural Research Station in Changins
Development of a simulation system for forecasting of virus diseases and yield of seed potatoes
since 1994 working at Agroscope, Zurich
since 2000 Deputy leader of the Life Cycle Assessment group at Agroscope

Current functions:

- Deputy leader of the Life Cycle Assessment group at Agroscope
- Responsible for methodological development of SALCA (Swiss Agricultural Life Cycle Assessment)
- Project manager of the Agroscope project "Environmental impacts of nutrition"
- Leader of 3 tasks in the EU project [WASTEWISE](#) (Waste Avoidance Strategies for Environmental Sustainability)
- Task leader in the EU project [LegumES](#) (Valorizing and balancing the ecosystem service benefits offered by legumes, and legume-based cropped systems)
- Subject Editor for Agriculture in the [International Journal of Life Cycle Assessment](#)
- Editor for Journal [animal](#)
- Member of the scientific committee of Donau-Soja
- Member of the advisory board of the EU project [PATHWAYS](#)
- Member of the technical advisory board of the EU project [EcoFoodChoice](#)

Former functions:

- Coordinator of the EU project [OptiSignFood](#) (2021-2024)
- Research peer for the strategic research field protein supply at Agroscope
- Member of the expert group of the Swiss Centre of Life Cycle Inventories ecoinvent (2000-2012)
- Member of the scientific committee of the European Association of Grain Legumes (2007-2012)
- Editor for agriculture and food of the Swiss Centre of Life Cycle Inventories ecoinvent

- Editor for the journal *Agronomy*
- Associate Editor for the *Food Research International Journal* (2013-2015)
- WP leader in the OLCA-Pest project ("Operationalising Life Cycle Assessment of Pesticides")

Fields of experience:

- LCA of cropping and farming systems, with particular reference to organic and low-input farming systems, and cropping systems including legumes
- LCA of farms
- LCA of animal production systems
- Life cycle inventory modelling and database building
- LCA in the food sector

Finished international projects:

- Concerted action "European extension network for the development of grain legume production in the EU" (GL-Pro, EC Contract: QLK5-CT-2002-02418), leader of WP 4 "Environmental analysis"
- Integrated project "New strategies to improve grain legumes for food and feed" (Grain Legumes, EC Contract: FP6-506223), leader of WP 2.2 "Economic and Environmental analysis"
- Concerted action "Agricultural Research for Improving Arable Crop Competitiveness" (EUROCROP, EC Contract: SSPE-CT-2006-022757), leader of working group 3.5 (Environmental Impacts).
- Task leader in the French CASDAR pea-rape seed-wheat project
- Task leader in the FP7 project Strategies for Organic and Low-input Integrated Breeding and Management (SOLIBAM)

Relevant publications:

- CORDIS, 2024. Data Science and AI assisted holistic software to digitally design optimised high quality and safe food products with minor environmental impact. Results of the EU Horizon 2020 project OptiSignFood. <https://doi.org/10.3030/971242>
- Zingale S., Ingraio C., Reguant-Closa A., Guarnaccia P. & Nemecek T., 2024. A multifunctional life cycle assessment of durum wheat cropping systems. *Agronomy for Sustainable Development*, 44(5), 45. <https://doi.org/10.1007/s13593-024-00982-4>
- Mehner E., Ehlers M.-H., Herrmann M., Höchli B., Holenweger G., Mann S., Messner C., Nemecek T., Reguant Closa A., Schäfer O., Stämpfli A., Walther B., Douziech M., 2024. Fleisch- und Milchersatzprodukte - besser für Gesundheit und Umwelt? Auswirkungen auf Ernährung und Nachhaltigkeit, die Sicht der Konsumentinnen und Konsumenten sowie ethische und rechtliche Überlegungen. Ed. TA-SWISS, vdf Hochschulverlag AG. 300 p. <https://doi.org/10.3218/4194-1>
- Keel S., Ammann C., Bretscher D., Gross T., Guillaume T., Huguenin-Elie O., Moll J., Nemecek T., Roesch A., Volk M., Wüst C., Leifeld J., 2024. Dauergrünlandböden der Schweiz: Quelle oder Senke von Kohlendioxid? *Agroscope Science*, 189, 21p. <https://doi.org/10.34776/as189g>
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- Furrer C., Sieh D., Jank A. M., le Bras G., Herrmann M., Reguant-Closa A., & Nemecek T., 2024. Interlinking environmental and food composition databases: an approach, potential and limitations. *Journal of Cleaner Production*, 143198. <https://doi.org/10.1016/j.jclepro.2024.143198>
- Herrmann M., Mehner E., Egger L., Portmann R., Hammer L., Nemecek T., 2024. A Comparative Nutritional Life Cycle Assessment of Processed and Unprocessed Soy-Based Meat and Milk Alternatives Including Protein Quality Adjustment. *Frontiers in Sustainable Food Systems*, 8, 1413802. <https://doi.org/10.3389/fsufs.2024.1413802>
- Goglio P., Moakes S., Knudsen M.T., Van Mierlo K., Adams N., Maxime F., Maresca A., Romero-Huelva M., Waqas M.A., Smith L.G., Grossi G., Smith W., De Camillis C., Nemecek T., Tei F. & Oudshoorn F.W.,

2024. Harmonizing methods to account for soil nitrous oxide emissions in Life Cycle Assessment of agricultural systems. *Agricultural Systems*, 219: 104015. <https://doi.org/10.1016/j.agsy.2024.104015>
- Douziech M., Bystricky M., Furrer C., Gaillard G., Lansche J., Roesch A., **Nemecek T.** (2024). Recommended impact assessment method within Swiss Agricultural Life Cycle Assessment (SALCA): v2.01. *Agroscope Science*, 183. <https://doi.org/10.34776/as183e>
- Roesch A., Lansche J., **Nemecek T.**, 2024. Regionalisation of environmental impacts and emissions models in agricultural LCA. *Agroscope Science*, 184, 79p. <https://doi.org/10.34776/as184e>
- Reguant-Closa, A., Pedolin, D., Herrmann, M. & **Nemecek, T.** 2024. Review of Diet Quality Indices that can be Applied to the Environmental Assessment of Foods and Diets. *Current Nutrition Reports*, 1-12. <https://doi.org/10.1007/s13668-024-00540-0>
- Ran Y., Cederberg C., Jonell M., Bergman K., De Boer I.J.M., Einarsson R., Karlsson J., Potter H.K., Martin M., Metson G.S., **Nemecek T.**, Nicholas K.A., Strand Å., Tidåker P., Van der Werf H., Vanham D., Van Zanten H.H.E., Verones F. & Rööös E., 2024. Environmental assessment of diets: overview and guidance on indicator choice. *The Lancet Planetary Health*, 8: e172-e187. [https://doi.org/10.1016/S2542-5196\(24\)00006-8](https://doi.org/10.1016/S2542-5196(24)00006-8)
- Nemecek T.**, Roesch A., Bystricky M., Jeanneret P., Lansche L., Stüssi M., Gaillard G., 2024. Swiss Agricultural Life Cycle Assessment: A method to assess the emissions and environmental impacts of agricultural systems and products. *Int. J LCA* 29, 433–455. <https://doi.org/10.1007/s11367-023-02255-w>
- Ineichen S.M., Zumwald J., Reidy B., **Nemecek T.**, 2023. Feed-food and land use competition of lowland and mountain dairy cow farms, *Animal* 17 (12), 101028. doi: <https://doi.org/10.1016/j.animal.2023.101028>
- Green, A., **Nemecek, T.** & Mathys, A., 2023. A proposed framework to develop nutrient profiling algorithms for assessments of sustainable food: the metrics and their assumptions matter. *The International Journal of Life Cycle Assessment*, 2210. <https://doi.org/10.1007/s11367-023-02210-9>.
- Roesch A., Flury C., **Nemecek T.**, Mann S., Ritzel C., Gilgen A., 2023. Indicator-based agri-environmental direct payments: Assessment of three systems of different complexity levels. *Ecological Indicators*, 147, 109886, <https://doi.org/10.1016/j.ecolind.2023.109886>.
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- Pedolin D., Jan P., Roesch A., Six J. & **Nemecek, T.**, 2023. Farm diversity impacts on food production, income generation and environmental preservation: The Swiss case. *Journal of Cleaner Production*, 135851. <https://doi.org/10.1016/j.jclepro.2023.135851>
- Muñoz-Liesa J., Cuerva E., Parada F., Gasso S., Gabarrell X., **Nemecek T.**, Josa A. 2022. Guidelines to optimize covering and structural materials in a rooftop-integrated greenhouses: an environmental assessment. *Acta Horticulturae* 1356, 285-294. <https://doi.org/10.17660/ActaHortic.2022.1356.34>
- Pedolin D., Six J., **Nemecek T.**, 2022. Assessment of environmental and economic performance on Swiss farms. In: Proc. 13th Int. Conf. LCA Food, 12-14 October 2022, Lima, Peru. PELCAN-PUCP, 57-60.
- Reguant-Closa A., Roesch A., Lansche J., **Nemecek T.**, Lohman T. & Meyer N., 2022. Are athletes environmental champions? LCA case study in sports nutrition. In: Proc. 13th Int. Conf. LCA Food, 12-14 October 2022, Lima, Peru. PELCAN-PUCP, 299-302.
- Green A., **Nemecek T.**, Mathys A., 2022. Using nutrient profiling algorithms to compare nutritionally-invested environmental impacts of cow's milk and plant-based beverages. In: Proc. 13th Int. Conf. LCA Food, 12-14 October 2022, Lima, Peru. PELCAN-PUCP, 407-408.
- Reguant-Closa A., Furrer C., Pedolin D., **Nemecek T.**, 2022. Assessing the nutritional health and environmental dimensions of foods and diets: comparison of nutritional metrics. In: Proc. 13th Int. Conf. LCA Food, 12-14 October 2022, Lima, Peru. PELCAN-PUCP, 469-472.
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- Nemecek T.**, Zumwald J., Ineichen S., Reidy R., 2020. Reconsidering the land resource for food production: quantifying feed-food competition in dairy systems. *Proc. 12th Int. Conf. Life Cycle Assessment of Food 2020 (LCA Food 2020)*, 13-16 October 2020, 559-563.
- Nemecek T.**, Thoma G., 2020. Allocation between milk and meat in dairy LCA: critical discussion of the International Dairy Federation's standard methodology. *Proc. 12th Int. Conf. Life Cycle Assessment of Food 2020 (LCA Food 2020)*, 13-16 October 2020, 86-89.
- Green A., **Nemecek T.**, Chaudhary A., Mathys A., 2020. Assessing nutritional, health, and environmental sustainability dimensions of agri-food production. *Global Food Security* 26, 100406. <https://doi.org/10.1016/j.gfs.2020.100406>
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- Bystricky M., Jeanneret P., **Nemecek T.**, 2020. Biodiversity impact assessment of low-pesticide scenarios for the Swiss food sector: How can we broaden our vision to include impacts abroad when addressing domestic food consumption? Proceedings of the SETAC Europe 2020 conference, 3-7 May 2020.
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