Curriculum vitae

Christian Stamm, Dr. sc. nat. ETHZ

Swiss Federal Institute of Aquatic Science and Technology (Eawag)
Dep. Environmental Chemistry
Ueberlandstr. 133
8600 Dübendorf, Switzerland

Education:

1984 - 1990	Studies in biology, University of Zurich, Diploma in Zoology
1994 - 1997	PhD in soil physics (Prof. Dr. H. Flühler), ETH Zurich

Professional experience:

Jan/Feb 2017	Visiting professor at the Water Institute, University of Waterloo (Canada)
since 2007	Deputy head of the department of Environmental Chemistry at Eawag
2004 / 2005	Head a.i. of the Department „Water & Agriculture“
since 2002	Senior scientist at Eawag
2000	Short-term leave for experimental collaboration at Lincoln University, Christchurch (NZ), (L. Condron, Agriculture and Life Sciences Division)
1999 – 2002	Oberassistent, Soil physics, ETH Zürich (50%)
1998 – 2001	Manager of the conference organization „Centro Stefano Franscini“ of ETH Zurich on the Monte Verità (Ascona, Ticino, Switzerland; 1998: 100%, 1999 – 2001: 50%)
1993 – 1997	PhD in soil physics (ETH Zurich). („Rapid transport of phosphorus in drained grassland soils”)
1992 / 1993	Freelance scientist, project on eutrophication of Lake Sempach (Lucerne, Switzerland)
1990 – 1992	Collaborator at the private ecocenter „Schattweid“ (Wolhusen, Lucerne, Switzerland). Project on buffer strips against nutrient input into vulnerable ecosystems

Major Research Areas:

- Transport of agrochemicals (herbicides, veterinary antibiotics, nutrients) from soils to (surface) water bodies
- Interdisciplinary approaches for developing scientific bases of sustainable agriculture and assessment of water quality
- Interdisciplinary research on ecological effects of micropollutants in aquatic ecosystems

Major projects (on-going):

- EcoImpact: Influence of micropollutants on stream ecosystems (PI, interdisciplinary Eawag-project, 2012 – 2016; 2nd phase: 2019 –2021)
- PESTROP: Environmental exposures, health effects and institutional determinants of pesticide use in two tropical settings (Co-PI, SNIS/Eawag, 2015 – 2018)
- Hypothesis testing using controlled experiments to characterize diffuse pollution in small agricultural catchments (Co-PI, SNF, 2016 – 2018)
- Shortcut: Relevance of pesticide transport through hydraulic shortcuts in rural landscapes (PI, FOEN, 2016 – 2020)
- MS^2Field: High-frequency in-situ measurements of organic contaminants in the aquatic environment with a transportable high resolution mass spectrometer (Co-PI, Eawag, 2018 – 2019
- MachTrend: Feasibility study for Evaluating the National Pesticide Action Plan (PI, FOEN, 2019 – 2021)

Major projects in the past:

- Remediation of overfertilized grassland soils (1999 – 2002; partners: Soil Physics and Plant Nutrition groups, ETHZ)
- Microwave radiometry for soil moisture estimation (2000 – 2003; partners: Soil Physics ETHZ, Applied Physics, University of Bern)
- Modelling P transport at the catchment scale (2000 – 2003; partners: Soil Physics ETHZ, Swiss Federal Research Station for Agroecology and Agriculture Agroscope Reckenholz)
- Mobilization of P from grassland soils (2002 – 2003; partners: Soil Physics and Plant Nutrition groups at ETHZ)
- Fate and transport of veterinary sulfonamide antibiotics. Project within the National Research Programme 49 “Antibiotic Resistance”. (2003 – 2006).
- Predicting contributing areas for herbicide losses to surface waters (2004 – 2008).
- Realistic exposure scenarios for biocidal compounds in surface waters (Rexpo) (2006 – 2010).
- Site-adapted agriculture to minimize losses of herbicides to surface waters (2006 – 2011).
- Prediction of contributing areas for P-losses from agricultural land (2007 – 2009; co-investigator with V. Prasuhn, Agroscope Reckenholz-Tänikon) within COST Action 869.
- Pilot study on organic pollutants within the national long-term monitoring of Swiss rivers (NADUF) (2009 – 2010).
- Feasibility study for the prediction of contributing areas for diffuse pollution from agricultural land” (2009 – 2010; co-investigator with V. Prasuhn, Agroscope Reckenholz-Tänikon)
- Integrated River Water Quality Management” (iWaQa) within the National Research Programme 61 on Sustainable Water Management (2010 – 2013).
- Thematic synthesis on water conflicts in the Swiss Water Sector within the National Research Programme 61 on Sustainable Water Management (2013 – 2014).
- Zukunftsfähige, gewässerschonende Landwirtschaft (AProWa) (Water-friendly agriculture for the future) for the Federal Office for Agriculture (FOAG) (PI, 2012 – 2015)
- CrossWater: Transboundary micropollution regulation in Europe (Co-PI, SNF, 2013 – 2017)
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Major teaching activities:

- ETHZ: Master course on “Agriculture and Water Quality” (since 2007)
- University Tübingen, Geographical Institute: Master course “Bodenhydrologische Modellierung“ (2007, 2008)

Other Professional Activities

- International Phosphorus Workshop IPW9, ETH Zürich, 2019, Scientific & organizing committee (member).
- Topical editor of Hydrology and Earth System Sciences (HESS, since 2014)
- Associate editor of the Journal Environmental Quality (2009 – 2014, 2014 Citation of Excellence for Associate Editor)
- Member of the World Food System Center (WFSC) at ETH Zürich.
- Reviewer of different scientific journals (Agronomy, ES&T, Journal of Hydrology, Science, WRR etc.)
- President of the foundation “Praktischer Umweltschutz Schweiz (Pusch)” (since 2005)
- Professional Associations: American Geophysical Union (AGU), Bodenkundliche Gesellschaft der Schweiz (BGS), Deutsche Bodenkundliche Gesellschaft (DBG), European Geophysical Union (EGU), Schweizerische Gesellschaft für Hydrologie und Limnologie (SGHL)
- Member of the several national expert groups and panels (e.g., Swiss strategic planning group for monitoring surface waters, National Pesticide Action Plan etc.)

PhD students:

- Doppler, T., 2007 - 2013, with P. Burlando (ETHZ)
- Frey, M., 2004 - 2009, with P. Reichert (Eawag/ETHZ)
- Gomides Freitas, L., 2000 - 2005, with S. Müller (formerly Eawag, now SAEFL) & R. Schwarzenbach (Eawag / ETHZ)
- Hahn, C., 2007 – 2011, with R. Schulin (ETHZ) & V. Prasuhn (Agroscope Reckenholz)
- Lazzarotto, P., 2000 – 2004, with H. Flühler (ETHZ) & V. Prasuhn (Agroscope Reckenholz)
- Leu, C., 1999 – 2003, with S. Müller (formerly Eawag, SAEFL) & R. Schwarzenbach (Eawag / ETHZ)
- Munz, N., 2014 – 2018, with J. Hollender (Eawag/ETHZ)
- Schneeberger, K. 2000 – 2003, with H. Flühler (ETHZ) & C. Mätzler (University of Bern)
- Schönenberger, U., 2016 – 2020, with M. Maurer (Eawag/ETHZ)
- Staudacher, P., 2016 – 2020, with R. Eggen (Eawag/ETHZ)
- Stoob, K., 2001 – 2005, with S. Müller (formerly Eawag, SAEFL) & R. Schwarzenbach (Eawag / ETHZ)
- Weiss, F., 2014 – 2018, with R. Eggen (Eawag/ETHZ)
- Wittmer, I., 2006 - 2010, with H.-P. Bader and P. Reichert (Eawag / ETHZ)

Publication list Christian Stamm (last update: 16 February 2019)

In reviewed journals:

Fuhrimann, S., M. S. Winkler, P. Staudacher, F. T. Weiss, C. Stamm, R. I. L. Eggen, C. H. Lindh, J. A. Menezes-Filho, J. M. Baker, F. Ramírez, R. Gutiérrez and A. M. Mora (2019). "Exposure to pesticides and health effects in farm owners and workers from conventional and organic agricultural farms in Costa Rica: a study protocol." JMIR Research Protocols, doi: 10.2196/10914.

Burdon, F. J., N. A. Munz, M. Reyes, A. Focks, A. Joss, K. Räsänen, F. Altermatt, R. I. L. Eggen and C. Stamm (2019). "Agriculture versus wastewater pollution as drivers of macroinvertebrate community structure in streams." Science of The Total Ennvironment, **659**: 1256–1265.

Schuwirth, N., M. Honti, I. Logar and C. Stamm (2018). "Multi-criteria decision analysis for integrated water quality assessment and management support." Water Research (X) **1**.

Munz, N. A., Q. Fu, C. Stamm, and J. Hollender. 2018. Internal concentrations uncover bioaccumulation of polar organic micropollutants in gammarids caught in wastewater-impacted streams and neonicotinoids as primary drivers of toxic pressure Environmental Science & Technology, doi: 10.1021/acs.est.8b03632.

Honti, M., F. Bischoff, A. Moser, C. Stamm, S. Baranya and K. Fenner (2018). "Relating degradation of pharmaceutical active ingredients in a stream network to degradation in water-sediment simulation tests." Water Resources Research: doi.org/10.1029/2018WR023592.

Moser, A., D. Wemyss, R. Scheidegger, F. Fenicia, M. Honti, and C. Stamm. Modelling biocide and herbicide concentrations in catchments of the Rhine basin. Hydrology and Earth System Sciences **22**:4229–4249, doi.org/10.5194/hess-22-4229-2018, 2018.

Liu, W., Yang, H., Ciais, P., Stamm, C., Zhao, X., Williams, J. R., Abbaspour, K. C., and Schulin, R.: Integrative crop-soil-management modelling to assess global phosphorus losses from major crop cultivations, Global Biogeochemical Cycles, **52**, 1074–1086, doi.org/10.1029/2017GB005849, 2018.

Gramlich, A., Stoll, S., Stamm, C., Walter, T., Prasuhn, V., Effects of artificial land drainage on hydrology, nutrient and pesticide fluxes from agricultural fields - A review. Agric. Ecosyst. Environ, **266**, 84 – 99, 2018.

Salo, T., Räsänen, K., Stamm, C., Burdon, F. J., and Seppälä, O.: Simultaneous exposure to a pulsed and a prolonged anthropogenic stressor can alter consumer multifunctionality, Oikos, DOI: 10.1111/oik.05310, 2018.

Spycher, S., Mangold, S., Doppler, T., Junghans, M., Wittmer, I., Stamm, C. & Singer, H. Pesticide risks in small streams – How to get as close as possible to the stress imposed on aquatic organisms. Environmental Science & Technology, **52**, 4526-4535, 2018.

Ingold, K., Bader, H.-P., Herzog, L., Metz, F., Moser, A., Scheidegger, R. & Stamm, C. Misfit between physical affectedness and regulatory embeddedness of drinking water suppliers along the Rhine River. Global Environmental Change, **48**, 136 – 150, 2018.

Salo, T., Stamm, C., Burdon, F. J., Räsänen, K., and Seppälä, O.: Resilience to heat waves in the aquatic snail *Lymnea stagnalis*: Additive and interactive effects with micropollutants, Freshwater Biology, 1 - 16, 10.1111/fwb.12999, 2017.

Tang, T., Stamm, C., van Griensven, A., Seuntjens, P., and Bronders, J.: Hysteresis and parent-metabolite analyses unravel characteristic pesticide transport mechanisms in a mixed land use catchment, Wat. Res., **124**, 663-672, 2017.

Honti, M., Rieckermann, J., Schuwirth, N., & Stamm, C. (2017). Can integrative catchment management mitigate future water quality issues caused by climate change and socio-economic development? *Hydrological and Earth System Sciences, **21**,* 1593–1609. doi:doi:10.5194/hess-21-1593-2017

Munz, N., L. Melo, M. Reyes, U. Schönenberger, H. Singer, B. Spycher, D. de Zwart, M. Junghans, J. Hollender and C. Stamm. Pesticides drive risk of micropollutants in wastewater-impacted streams during low flow conditions. *Water Research, **110***, 366–377, 2017.

Neale, P. A., N. A. Munz, S. Aït-Aïssa, R. Altenburger, F. Brion, W. Busch, B. I. Escher, K. Hilscherová, C. Kienle, J. Novák, T.-B. Seiler, Y. Shao, C. Stamm and J. Hollender. Integrating chemical analysis and bioanalysis to evaluate the contribution of wastewater effluent on the micropollutant burden in small streams. *The Science of the Total Environment* **576, 2017,** 785–795.

Stamm, C., Räsänen, K., Burdon, F.J., Altermatt, F., Jokela, J., Joss, A., Ackermann, M. & Eggen, R.I.L., Unraveling the impacts of micropollutants in aquatic ecosystems: cross-disciplinary studies at the interface of large-scale ecology. *Advances in Ecological Research,* **24, 2016,** 183 - 223.

Burdon, F.J., Reyes, M., Alder, A.C., Joss, A., Ort, C., Räsänen, K., Jokela, J., Eggen, R.I.L. & Stamm, C. Environmental context and disturbance influence differing trait-mediated community responses to wastewater pollution in streams. *Ecology and Evolution*, **2016**, 6, 17 p.; doi: 10.1002/ece3.2165.

Wittmer, I.K., Bader, H.-P., Scheidegger, R. & Stamm, C..REXPO: a catchment model designed to understand and simulate the loss dynamics of plant protection products and biocides from agricultural and urban areas. *J. Hydrol.* **2016***, 533,* 486 – 514.

Yapo, R.I., Mambo, V., Alder, A.C., Ohou, M.J., Ligban, R., Dao, D., Stamm, C., Bonfoh, B., Caractérisation saisonnière des eaux de puits à usage maraîchère et domestique de Korhogo (Côte d'Ivoire). International Journal of Biological and Chemical Sciences 10, 1433-1449, 2016.

Gassmann, M.; Olsson, O.; Stamm, C.; Weiler, M.; Kümmerer, K. Physico-chemical characteristics affect the spatial distribution of pesticide and transformation product loss to an agricultural brook. *Sci. Total Environ.* **2015,** *532*, 733-743.

Moschet, C.; Vermeirssen, E.L.M.; Singer, H.; Stamm, C.; Hollender, J. Evaluation of in-situ calibration of Chemcatcher passive samplers for 322 micropollutants in agricultural and urban affected rivers. *Water Res.* **2015,** *71*, 306-317.

Schuwirth, N.; Kattwinkel, M.; Stamm, C. How stressor specific are trait-based ecological indices for ecosystem management? *Sci. Total Environ.* **2015,** *505*, 565-572.

Sharpley, A.N.; Bergström, L.; Aronsson, H.; Bechmann, M.; Bolster, C.H.; Börling, K.; Djodjic, F.; Jarvie, H.P.; Schoumans, O.F.; Stamm, C.; Tonderski, K.S.; Ulén, B.; Uusitalo, R.; Withers, P.J.A. Future agriculture with minimized phosphorus losses to waters: Research needs and direction. *Ambio* **2015,** *44* (2 (Suppl.)), 163-179.

Stamm, C.; Eggen, R.I.L.; Hering, J.G.; Hollender, J.; Joss, A.; Schärer, M. Micropollutant removal from wastewater: Facts and decision-making despite uncertainty. *Environ. Sci. Technol.* **2015,** *49* (11), 6374-6375.

Doppler, T.; Honti, M.; Zihlmann, U.; Weisskopf, P.; Stamm, C. Validating a spatially distributed hydrological model with soil morphology data. *Hydrol. Earth Syst. Sci.* **2014,** *18* (9), 3481-3498.

Doppler, T.; Lück, A.; Camenzuli, L.; Krauss, M.; Stamm, C. Critical source areas for herbicides can change location depending on rain events. *Agric. Ecosyst. Environ.* **2014,** *192*, 85-94.

Eggen, R.I.L.; Hollender, J.; Joss, A.; Schärer, M.; Stamm, C. Reducing the discharge of micropollutants in the aquatic environment: The benefits of upgrading wastewater treatment plants. *Environ. Sci. Technol.* **2014,** *48* (14), 7683-7689.

Hahn, C.; Prasuhn, V.; Stamm, C.; Milledge, D.G.; Schulin, R. A comparison of three simple approaches to identify critical areas for runoff and dissolved reactive phosphorus losses. *Hydrol. Earth Syst. Sci.* **2014,** *18* (8), 2975-2991.

Honti, M.; Scheidegger, A.; Stamm, C. The importance of hydrological uncertainty assessment methods in climate change impact studies. *Hydrol. Earth Syst. Sci.* **2014,** *18* (8), 3301-3317.

Moschet, C.; Wittmer, I.; Simovic, J.; Junghans, M.; Piazzoli, A.; Singer, H.; Stamm, C.; Leu, C.; Hollender, J. How a complete pesticide screening changes the assessment of surface water quality. *Environ. Sci. Technol.* **2014,** *48* (10), 5423-5432.

Robinson, C.T.; Schuwirth, N.; Baumgartner, S.; Stamm, C. Spatial relationships between land-use, habitat, water quality and lotic macroinvertebrates in two Swiss catchments. *Aquat. Sci.* **2014,** *76* (3), 375-392.

Stamm, C.; Jarvie, H.P.; Scott, T. What's more important for managing phosphorus: Loads, concentrations or both? *Environ. Sci. Technol.* **2014,** *48* (1), 23-24.

Gassmann, M.; Stamm, C.; Olsson, O.; Lange, J.; Kümmerer, K.; Weiler, M. Model-based estimation of pesticides and transformation products and their export pathways in a headwater catchment. *Hydrol. Earth Syst. Sci.* **2013,** *17*, 5213-5228.

Hahn, C.; Prasuhn, V.; Stamm, C.; Lazzarotto, P.; Evangelou, M.W.H.; Schulin, R. Prediction of dissolved reactive phosphorus losses from small agricultural catchments: Calibration and validation of a parsimonious model. *Hydrol. Earth Syst. Sci.* **2013,** *17* (10), 3679-3693.

Honti, M.; Stamm, C.; Reichert, P. Integrated uncertainty assessment of discharge predictions with a statistical error model. *Water Resour. Res.* **2013,** *49* (8), 4866-4884.

Speiser, B.; Stolze, M.; Oehen, B.; Gessler, C.; Weibel, F.P.; Bravin, E.; Kilchenmann, A.; Widmer, A.; Charles, R.; Lang, A.; Stamm, C.; Triloff, P.; Tamm, L. Sustainability assessment of GM crops in a Swiss agricultural context. *Agron. Sustain. Dev.* **2013,** *33* (1), 21-61.

Doppler, T.; Camenzuli, L.; Hirzel, G.; Krauss, M.; Lück, A.; Stamm, C. Spatial variability of herbicide mobilisation and transport at catchment scale: Insights from a field experiment. *Hydrol. Earth Syst. Sci.* **2012,** *16* (7), 1947-1967.

Hahn, C.; Prasuhn, V.; Stamm, C.; Schulin, R. Phosphorus losses in runoff from manured grassland of different soil P status at two rainfall intensities. *Agric. Ecosyst. Environ.* **2012,** *153* (15 June 2012), 65-74.

Hering, J.G.; Hoehn, E.; Klinke, A.; Maurer, M.; Peter, A.; Reichert, P.; Robinson, C.T.; Schirmer, K.; Schirmer, M.; Stamm, C.; Wehrli, B. Moving targets, long-lived infrastructure, and increasing needs for integration and adaptation in water management: An illustration from Switzerland. *Environ. Sci. Technol.* **2012,** *46* (1), 112-118.

Ashauer, R.; Wittmer, I.; Stamm, C.; Escher, B.I. Environmental risk assessment of fluctuating diazinon concentrations in an urban and agricultural catchment using toxicokinetic-toxicodynamic modeling. *Environ. Sci. Technol.* **2011,** *45* (22), 9783-9792.

Frey, M.P.; Stamm, C.; Schneider, M.K.; Reichert, P. Using discharge data to reduce structural deficits in a hydrological model with a Bayesian inference approach and the implications for the prediction of critical source areas. *Water Resour. Res.* **2011,** *47* (12), W12529 (18 pp).

Wittmer, I.K.; Scheidegger, R.; Bader, H.P.; Singer, H.; Stamm, C. Loss rates of urban biocides can exceed those of agricultural pesticides. *Sci. Total Environ.* **2011,** *409* (5), 920-932.

Wittmer, I.K.; Scheidegger, R.; Stamm, C.; Gujer, W.; Bader, H.P. Modelling biocide leaching from facades. *Water Res.* **2011,** *45* (11), 3453-3460.

Götz, C.W.; Stamm, C.; Fenner, K.; Singer, H.; Schärer, M.; Hollender, J. Targeting aquatic microcontaminants for monitoring: Exposure categorization and application to the Swiss situation. *Environ. Sci. Pollut. R.* **2010,** *17* (2), 341-354.

Hanke, I.; Wittmer, I.; Bischofberger, S.; Stamm, C.; Singer, H. Relevance of urban glyphosate use for surface water quality. *Chemosphere* **2010,** *81* (3), 422-429.

Leu, C.; Schneider, M.K.; Stamm, C. Estimating catchment vulnerability to diffuse herbicide losses from hydrograph statistics. *J. Environ. Qual.* **2010,** *39* (4), 1441-1450.

Wittmer, I.K.; Bader, H.P.; Scheidegger, R.; Singer, H.; Lück, A.; Hanke, I.; Carlsson, C.; Stamm, C. Significance of urban and agricultural land use for biocide and pesticide dynamics in surface waters. *Water Res.* **2010,** *44* (9), 2850-2862.

Frey, M.; Schneider, M.K.; Dietzel, A.; Reichert, P.; Stamm, C. Predicting critical source areas for diffuse herbicide losses to surface waters: Role of connectivity and boundary conditions. *J. Hydrol.* **2009,** *365* (1-2), 23-36.

Holländer, H.M.; Blume, T.; Bormann, H.; Buytaert, W.; Chirico, G.B.; Exbrayat, J.F.; Gustafsson, D.; Hölzel, ; Kraft, P.; Stamm, C.; Stoll, S.; Blöschl, G.; Flühler, H. Comparative predictions of discharge from an artificial catchment (Chicken Creek) using sparse data. *Hydrol. Earth Syst. Sci.* **2009,** *13* (11), 2069-2094.

Siber, R.; Stamm, C.; Reichert, P. Modeling potential herbicide loss to surface waters on the Swiss plateau. *J. Environ. Manage.* **2009,** *91* (1), 290-302.

Freitas, L.G.; Singer, H.P.; Müller, S.R.; Schwarzenbach, R.P.; Stamm, C. Source area effects on herbicide losses to surface waters-A case study in the Swiss Plateau. *Agric. Ecosyst. Environ.* **2008,** *128* (3), 177-184.

Larsbo, M.; Fenner, K.; Stoob, K.; Burkhardt, M.; Abbaspour, K.C.; Stamm, C. Simulating sulfadimidine transport in surface runoff and soil at the microplot and field scale. *J. Environ. Qual.* **2008,** *37* (3), 788-797.

Stamm, C.; Alder, A.C.; Fenner, K.; Hollender, J.; Krauss, M.; McArdell, C.S.; Ort, C.; Schneider, M.K. Spatial and temporal patterns of pharmaceuticals in the aquatic environment: A review. *Geography Compass* **2008,** *2* (3), 920-955.

Burkhardt, M. and Stamm, C. Depth distribution of sulfonamide antibiotics in pore water of an undisturbed loamy grassland soil. *J. Environ. Qual.* **2007,** *36* (2), 588-596.

Kahle, M. and Stamm, C. Sorption of the veterinary antimicrobial sulfathiazole to organic materials of different origin. *Environ. Sci. Technol.* **2007,** *41* (1), 132-138.

Kahle, M., and Stamm, C. Time and pH-dependent sorption of the veterinary antibiotic sulfathiazole to clay minerals and ferrihydrite. *Chemosphere*, **2007,** 68, 1224 - 1231.

Stoob, K., Singer, H. P., Mueller, S. R., Schwarzenbach, R., and Stamm, C. Dissipation and transport of veterinary sulfonamides after manure application to grassland in a small catchment. *Environmental Science and Technology* **2007**, 41, 7349-7355.

Schärer, M.; Stamm, C.; Vollmer, T.; Frossard, E.; Oberson, A.; Flühler, H.; Sinaj, S. Reducing phosphorus losses from over-fertilized grassland soils proves difficult in the short term. *Soil Use Manage.* **2007,** *23* (SUPPL. 1), 154-164.

Schneider, M.K.; Brunner, F.; Hollis, J.M.; Stamm, C. Towards a hydrological classification of European soils: Preliminary test of its predictive power for the base flow index using river discharge data. *Hydrol. Earth Syst. Sci.* **2007,** *11* (4), 1501-1513.

Schneider, M.K.; Stamm, C.; Fenner, K. Selecting scenarios to assess exposure of surface waters to veterinary medicines in Europe. *Environ. Sci. Technol.* **2007,** *41* (13), 4669-4676.

Chèvre, N.; Loepfe, C.; Singer, H.P.; Stamm, C.; Fenner, K.; Escher, B.I. Including mixtures in the determination of water quality criteria for herbicides in surface water. *Environ. Sci. Technol.* **2006,** *40* (2), 426-435.

Lazzarotto, P.; Stamm, C.; Prasuhn, V.; Flühler, H. A parsimonious soil-type based rainfall-runoff model simultaneously tested in four small agricultural catchments. *J. Hydrol.* **2006,** *321* (1-4), 21-38.

Schärer, M.; Vollmer, T.; Frossard, E.; Stamm, C.; Flühler, H.; Sinaj, S. Effect of water composition on phosphorus concentration in runoff and water-soluble phosphate in two grassland soils. *Eur. J. Soil Sci.* **2006,** *57* (2), 228-234.

Stoob, K.; Singer, H.P.; Stettler, S.; Hartmann, N.; Müller, S.R.; Stamm, C. Exhaustive extraction of sulfonamide antibiotics from aged agricultural soils using pressurized liquid extraction. *J. Chromatogr. A* **2006,** *1128* (1-2), 1-9.

Burkhardt, M.; Stamm, C.; Waul, C.; Singer, H.P.; Müller, S.R. Surface runoff and transport of sulfonamide antibiotics and tracers on manured grassland. *Journal of Environmental Quality* **2005,** *34*, 1363-1371.

Lazzarotto, P.; Prasuhn, V.; Butscher, E.; Crespi, C.; Flühler, H.; Stamm, C. Phosphorus export dynamics from two Swiss grassland catchments. *J. Hydrol.* **2005,** *304* (1-4), 139-150.

Leu, C.; Singer, H.P.; Müller, S.R.; Schwarzenbach, R.P.; Stamm, C. Comparison of atrazine losses in three small headwater catchments. *J. Environ. Qual.* **2005,** *34* (5), 1873-1882.

Leu, C.; Singer, H.P.; Stamm, C.; Müller, S.R.; Schwarzenbach, R.P. Simultaneous assessment of sources, processes, and factors influencing herbicide losses to surface waters in a small agricultural catchment. *Environ. Sci. Technol.* **2004,** *38* (14), 3827-3834.

Leu, C.; Singer, H.P.; Stamm, C.; Müller, S.R.; Schwarzenbach, R.P. Variability of herbicide losses from 13 fields to surface water within a small catchment after a controlled herbicide application. *Environ. Sci. Technol.* **2004,** *38* (14), 3835-3841.

Schneeberger, K.; Schwank, M.; Stamm, C.; de Rosnay, P.; Mätzler, C.; Flühler, H. Topsoil structure influencing soil water retrieval by microwave radiometry. *Soil Sci. Soc. Am. J.* **2004,** *3*, 1169-1179.

Schneeberger, K.; Stamm, C.; Mätzler, C.; Flühler, H. Ground-based dual-frequency radiometry of bare soil at high temporal resolution. *IEEE Trans. Geosci. Remote Sensing* **2004,** *42* (3), 588-595.

Stamm, C.; Waul, C.; Leu, C.; Gomides Freitas, L.; Popow, G.; Singer, H.P.; Müller, S.R. Sorption effects on herbicide losses to surface waters in a small catchment of the Swiss Plateau. *Journal of Plant Diseases and Protection* **2004,** *19*, 951-958.

Kulli, B.; Stamm, C.; Papritz, A.; Flühler, H. Discrimination of flow regions on the basis of stained infiltration patterns in soil profiles. *Vadose Zone Journal* **2003,** *2*, 338-348.

Withers, P.J.A.; Ulén, B.; Stamm, C.; Bechmann, M. Incidental phosphorus losses - are they significant and can they be predicted? *Journal of Plant Nutrition and Soil Science* **2003,** *166*, 459-468.

Sinaj, S., Stamm, C., Toor, G. S., Condron, L. M., Hendry, T., Di, H. J., Cameron, K. C., and Frossard, E. Phosphorus exchangeability and leaching losses from two grassland soils. *Journal of Environmental Quality* **2002**, 31, 319 - 330.

Stamm, C., Sermet, R., Leuenberger, J., Wunderli, H., Wydler, H., Flühler, H., and Gehre, M. Multiple tracing of fast transport in a drained grassland soil. *Geoderma* **2002***,* 109, 245-268.

Stamm, C. Comment on "Kinetics and Modeling of Dissolved Phosphorus Export from a Tile-Drained Agricultural Watershed" by Y. Xue, M.B. David, L.E. Gentry, and D.A. Kovacic. *Journal of Environmental Quality* **1999**, 28, 1046 - 1047.

Gächter, R.; Ngatiah, J.M.; Stamm, C. Transport of phosphate from soil to surface waters by preferential flow. *Environ. Sci. Technol.* **1998,** *32* (13), 1865-1869.

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