

Curriculum Vitae



Personal details

Last name: GRENZ
First name: Jan Hendrik
Date of birth: January 13th, 1975
Nationality: German
Marital status: married, 3 children

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Languages: German: native speaker
English: fluent, spoken & written
Turkish: fluent, spoken & written
French: good, spoken & written
Italian: basic, spoken & written

Main competences

Personal profile:

Agriculturist specialised in crop production and agro-ecology (climate/soil-crop-weed interactions).
Doctor of agricultural sciences, lecturer in sustainability research.

Experience in:

- development and application of the holistic farm evaluation tool, RISE (Response-Inducing Sustainability Evaluation, <http://rise.hafl.bfh.ch>)
- experimental research in the field (on- and off-station), greenhouse and laboratory
- teaching and course development at the BSc and MSc levels, tutoring of BSc, MSc and PhD students
- development and implementation of agricultural research projects in temperate, tropical and sub-tropical settings
- development and application of simulation models of crop growth, crop-weed interactions and seedbank dynamics (APSIM, Stella) and of potential weed distribution (CLIMEX).

Academic education and further education

Education

2000 - 2004 PhD, University of Hohenheim, Stuttgart, Germany. "Using a simulation model to evaluate parasitic weed management strategies: case study of the association *Vicia faba* L.-*Orobanche crenata* Forsk." (Magna cum laude, 1.0)

1996 - 2000 Dipl.-Ing.agr. (Natural resource management and rural development), Justus Liebig University, Giessen, Germany. "Soil formation on sand dunes in the semi-arid Negev"

1985 - 1994 „Abitur“, Altkönigschule, Kronberg, Germany

Stipends

2006	Research grant, Centre for Tropical Agriculture, University of Hohenheim
2004	Travel stipend, European Weed Research Society
2003, 2004	Travel stipends, Universitätsbund Hohenheim e.V.
2001-2004	PhD stipend, German Merit Foundation

Professional experience

Employment

since 2008	Lecturer in Sustainability Research, Bern University of Applied Sciences, School of Agricultural, Forest and Food Sciences, Zollikofen, Switzerland; Team leader RISE (Response-Inducing Sustainability Evaluation)
2003 – 2008	Research Assistant, Plant Production and Agroecology in the Tropics and Subtropics, University of Hohenheim, Stuttgart, Germany

Projects and fundraising

since 2007	<p>Research grants received from: German Research Foundation (DFG), Swiss National Science Foundation (SNF), Rectors' Conference of the Swiss Universities of Applied Sciences (KFH), Gebert Rűf Foundation, Bern University of Applied Sciences (BFH), Swiss Federal Office of Agriculture (BLW), German Federal Office for Agriculture and Food (BLE).</p> <p>Projects completed for and with: Nestlé (various countries), DPA (various countries), Danone (various countries), Fonterra, Ariza BV, Alcosuisse, Migros; Bioland Association, Bio-Suisse Association, LOBAG; Research Institute for Organic Agriculture (FiBL), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), UN Food and Agriculture Organization (FAO).</p>
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International work

since 2003	Project work with and in Ghana, Sudan, Ethiopia, Mexico, Chile, Brazil, China (Yunnan, Inner Mongolia), Switzerland, Germany, Denmark, Poland, Turkey, the U.S. (Kansas), Tunisia, Cambodia and the Philippines
2003	Scientific visit to Toowoomba, Australia (6 weeks)
2000 - 2002	Field work for PhD research in Adana, Turkey (2 years)
1999 - 2000	Internship in tropical agriculture in Leyte, Philippines (3 months)
1998 - 1999	Soil science field work in the Negev desert (3 months)
1998	Study trips to Romania and Poland

Zollikofen, March 2015

Publications

In peer-reviewed journals

Schader C, Grenz J, Meier M, Stolze M (2014): Scope and precision of sustainability assessment approaches of food systems. *Ecology and Society* no. article 2014-6866 (accepted for print)

Bande M, Grenz J, Asio V, Sauerborn J. (2013): Morphological and physiological response of Abaca (*Musa textilis* var. Laylay) to shade, irrigation and fertilizer application at different stages of plant growth. *International Journal of AgriScience* 3: 157-175.

Bande M, Grenz J, Asio V, Sauerborn J. (2012): Nutrient Uptake and Fiber Yield of Abaca (*Musa textilis* var. Laylay) as Affected by Shade, Irrigation and Fertilizer Application. *Annals of Tropical Research* 34 (1), 1–28.

Bande, M., J. Grenz, V. Asio, J. Sauerborn. (2012): Biomass and Nutrient Partitioning of Abaca under Different Lighting Conditions, Water and Nutrient Management. Submitted to *Journal of Plant Nutrition and Soil Science*.

Bande, M., J. Grenz, V. Asio, J. Sauerborn. (2012): Fiber yield and quality of abaca (*Musa textilis* var. Laylay) grown under different shade conditions, water and nutrient management. *Journal of Industrial Crops and Products* 42: 70-77.

Cotter, M., Grenz, J., Jingxin, L., Langenberger, G., Sauerborn, J. (2011): A biodiversity evaluation tool for the tropics - modeling concept for planning and conservation. Submitted to *PLoS ONE*.

Pérez-de-Luque, A., Eizenberg, H., Grenz, J.H., Sillero, J.C., Ávila, C., Sauerborn, J., Rubiales, D. (2009): Broomrape management in faba bean. *Field Crops Research* 115: 319-328.

Grenz, J., V.A. Iştoç, A.M. Manschadi, J. Sauerborn (2008): Interactions of sunflower (*Helianthus annuus*) and sunflower broomrape (*Orobanche cumana*) as affected by sowing date, resource supply and infestation level. *Field Crops Research* 107: 170-179.

Grenz, J., T. Vetouli, E. Tzitzikli, J. Sauerborn (2007): Umweltwirkungen der Sojawirtschaft: Ressourcen- und Wertströme in Argentinien, Brasilien und Deutschland. *GAIA* 16(3): 208-214.

Grenz, J., J. Sauerborn (2007): Mapping the potential geographical range of the parasitic weed *Orobanche crenata*. *Agriculture, Ecosystems and Environment* 122: 275-281.

Grenz, J., J. Sauerborn (2007): The potential of organic agriculture to contribute to sustainable crop production and food security in Sub-Saharan Africa. *Journal of Agriculture and Rural Development in the Tropics and Subtropics, Supplement* 89: 50-84.

Grenz, J., J. Sauerborn (2006): Abschätzung der potentiellen geografischen Verbreitung parasitischer Unkräuter als Beitrag zum Risikomanagement. *Zeitschrift für Pflanzenkrankheiten und Pflanzenschutz, Sonderheft XX*: 281-288.

Grenz, J., A.M. Manschadi, J. Hargreaves, P. deVoil, J. Sauerborn (2006): Simulating crop-parasitic weed interactions using APSIM: model evaluation and application. *European Journal of Agronomy* 24: 257-267.

Grenz, J., A.M. Manschadi, F.N. Uygur, J. Sauerborn (2005): Effects of environment and sowing date on assimilate competition between faba bean (*Vicia faba*) and the parasitic weed *Orobanche crenata*. *Field Crops Research* 93: 300-313.

Grenz, J., A.M. Manschadi, P. deVoil, J. Sauerborn (2005): Assessing strategies for *Orobanche* control using a combined seedbank and competition model. *Agronomy Journal* 97:1551-1559.

Conference contributions

Thalmann C, Stalder-Bolliger S, Schoch M, Grenz J, 2013. Experiences from development and application of the social dimension in RISE. ESRS Congress, Florence.

Eggenschwiler S, Grenz J, 2012. Analyse der Nachhaltigkeit der Landwirtschaft auf Schweizer Pferdebetrieben. 7. Jahrestagung Netzwerk Pferdeforschung Schweiz, Avenches, 19.4.2012. (Poster).

Grenz J, Schoch M, Thalmann C. Analyse der Energiesituation im Kontext der gesamtbetrieblichen Nachhaltigkeitsanalyse mit dem Instrument RISE. Jahrestagung der Schweizerischen Gesellschaft für Pflanzenbauwissenschaften, Agroscope-Reckenholz, 23.3.2012.

Schader C, Meier MS, Grenz J, Stolze M, 2012. The trade-off between scope and precision in sustainability assessments of food systems: IFSA 2012, Norwegen.

Cotter, M., Grenz J., Sauerborn J. (2012): Entwicklung eines Modells zur Beurteilung der Auswirkungen von großflächigem Plantagenanbau auf die Artenvielfalt. Interdisziplinäre Expertentagung im Rahmen des Übereinkommens über die biologische Vielfalt. August-24, Insel Vilms (D).

Kitis, Y.E., Grenz, J., Sauerborn, J. (2011): Investigation of Stimulation Effects of Root Exudates of Some Cereals on the Germination of Broomrape (*Orobanche* spp.) Seeds. Türkiye IV. Bitki Koruma Kongresi, June 28-30, Kahramanmaras.

Grenz, J., Thalmann C. (2010): On the road to sustainability? Economic, environmental and social performance of Kenyan smallholdings from 2006 to 2009. Poster at Tropentag, 14-16 September 2010, Zürich, Switzerland.

Cotter, M., Grenz J., Sauerborn J. (2010): A biodiversity evaluation tool for the GSM – modelling concept for conservation and planning. Presentation at Tropentag, 14-16 September 2010, Zürich, Switzerland.

Cotter M., Grenz J., Liu J., Langenberger G., Sauerborn J. (2010): A biodiversity evaluation tool for the tropics – modelling concept for planning and conservation. In: Langenberger G. (Ed.), *Land use in the Greater Mekong Subregion – A challenge for Society, Economy and Biodiversity*, LILAC Symposium, October 11 - 14, Xishuangbanna Tropical Botanical Garden, P.R. China, p. 57.

Thalmann, C., Grenz, J. (2010): Factors affecting the implementation of measures for improving sustainability on farm following the RISE sustainability evaluation. Vortrag 9th European IFSA (International Farming Systems Association) Symposium, 4.-7.7.2010, Wien.

Grenz J., Bamert, M., Santschi, M., Thalmann, C., Häni, F. (2009): Assessing the sustainability of dairy farms in China and Mexico. World Dairy Summit 2009, 21-25 September 2009, Berlin.

Cotter M., Grenz J. (2009): Introducing a biodiversity evaluation tool for the Greater Mekong Subregion (GMS). Joint Meeting of the Association for Tropical Biology and Conservation (ATBC) & Society for Tropical Ecology (GTÖ), Impacts of Global Change on Tropical Ecosystems - cross-cutting the Abiotic, Biotic and Human Spheres. 27-30 July 2009, Marburg, Germany.

Grenz, J. (2008): Vorstellung von RISE anlässlich der Entgegennahme des SFIAR Award 2008. Food Security Conference, North-South Centre ETH, Zürich, 12 December, 2008.

Grenz, J., C. Thalmann, A. Stämpfli, H. Porsche, F. Häni, C. Studer (2008): Enhancing the scope of LCA in the agricultural sector – RISE as a complement of the LCA approach. 6th International Con-

- ference on Life Cycle Assessment in the Agri-Food Sector, Zürich, Switzerland, 12-14 November, 2008.
- Langenberger, G., A. Ghorbani, J. Grenz (2008): Rubber boom in Xishuangbanna – where will it end? In: The Uplands Program. International Symposium. Interdependencies between upland and low-land agriculture and resource management. 1-4 April 2008, Stuttgart, Germany. Pp. 185-186.
- Ullrich, B., Högy, P., Grenz, J., Franzaring, J., Sauerborn, J., Fangmeier, J. (2008): Effects of CO₂ enrichment and increased temperature on tomato and faba bean and their interactions with broomrape. Jahrestagung der Gesellschaft für Ökologie, Leipzig, 20-22 May, 2008.
- Grenz J., Aenis T., Ahlheim M., Frör O., Hensel O., Herrmann S., Hoffmann V., Hülsebusch C., Korff R., Langenberger G., Martin K., Nuppenau E.-A., Sauerborn S., Schlecht E. (2008) The Sino-German project Living Landscapes China "LILAC" p. 52-54. In: Weiss M. M., Dalitz H., Küppers M., Pfiz M., Zimmermann R. (Eds.). Consequences of Climate Change on Tropical Ecosystems. Verlag Eugen Ulmer, Stuttgart, Germany.
- Grenz, J., A. Uludag, J. Sauerborn (2007): How will global change affect weeds of cotton in western Turkey? EWRS 14th International Symposium. 18.-21.6.2007, Hamar, Norway.
- Germer, J., J. Grenz, J. Sauerborn (2007): Ökologische Sanitärlösungen in Afrika: Beitrag zu nachhaltiger Abfallentsorgung und erhöhter Bodenfruchtbarkeit. 9th German Scientific Conference on Organic Agriculture, University of Hohenheim, March 20-23, 2007.
- Aksoy, E., N. Temel, A. Uludağ, S. İnan, Ö. Tetik, J. Grenz (2007): Kırmızı Mercimekte Sorun Olan Canavarotu Türlerinin En Uygun Kimyasal mücadele Zamanının Saptanması. Türkiye II. Bitki Koruma Kongresi, Isparta, Turkey, 27-29 August, 2007.
- Grenz, J., A. Uludag (2006): Potential impacts of global change on weed problems in cotton crops in the Aegean region of Turkey. International Workshop on the Impact of Climate Change and Variability on Agricultural Production. 8.-12.5.2006, Menemen (Izmir), Turkey.
- Grenz, J., J. Germer (2006): Herausforderungen und Möglichkeiten innovativer Bewässerung in der internationalen Agrarforschung. Campus Landschaft Geisenheim: Sonderforum Bewässerung im Garten-, Landschafts- und Sportplatzbau. 23.6.2006, Forschungsanstalt Geisenheim.
- Möller, C., J. Grenz, J. Sauerborn, A.M. Manschadi, M. Pala, H. Meinke (2005): Assessing the sustainability of a wheat-based cropping system under Mediterranean conditions. Tagungsband Deutscher Tropentag 2005, Stuttgart-Hohenheim, 11-13 October, 2005.
- Grenz, J., A.M. Manschadi, J. Sauerborn (2004): Evaluating strategies to control the parasitic weed *Orobanche crenata* in faba bean – a simulation study using APSIM. Proceedings of the 4th International Weed Science Congress, 20.-24.6.2004, Durban/South Africa.
- Grenz, J., A.M. Manschadi, P. deVoil, H. Meinke, J. Sauerborn (2004): Assessing the short and long term effects of parasitic weed infestation on the productivity of faba bean in the Mediterranean region: Simulation studies using APSIM. Proceedings of the 4th International Crop Science Congress, 26.9.-1.10.2004, Brisbane/Australia.
- Grenz, J., A.M. Manschadi, F.N. Uygur, J. Sauerborn (2004): APSIM Simülasyon Modeli Kullanarak, Parazit Yabancı Ot *Orobanche crenata* Forsk. 'ya Karşı Entegre Mücadele Yöntemlerinin Değerlendirilmesi (Evaluation of integrated control strategies against the parasitic weed *Orobanche crenata* Forsk.: simulation study using APSIM). Proceedings of the 1st Turkish Plant Protection Congress, 8.-11.9.2004, Samsun/Turkey.

Grenz, J., A.M. Manschadi, J. Sauerborn (2004): Einsatz des Simulationsmodells APSIM zur Evaluierung von Strategien zur Kontrolle des parasitischen Unkrauts *Orobanche crenata* in Ackerbohne. Tagungsband, 54. Deutsche Pflanzenschutztagung, 20.-23.9.2004, Hamburg.

Grenz, J., A.M. Manschadi, J. Sauerborn (2004): Evaluierung der Effektivität von Strategien zur Kontrolle des parasitischen Unkrauts *Orobanche crenata* mithilfe eines Simulationsmodells. Tagungsband Deutscher Tropentag 2004, 5.-7.10.2004, Berlin.

Grenz, J., A.M. Manschadi, F.N. Uygur, J. Sauerborn (2003): Identification of optimum sowing strategies for faba bean infested with the parasitic weed *Orobanche crenata* in the Cukurova region, Turkey. Predictions from simulation studies. Proceedings of the 7th EWRS Mediterranean Symposium, 6.-9.5.2003, Adana/Turkey. pp. 9-10.

Grenz, J., A.M. Manschadi, J. Sauerborn (2003): Optimierung der Anbauplanung für Ackerbohne im mediterranen Raum mittels eines Simulationsmodelles. Mitteilungen der Gesellschaft für Pflanzenbauwissenschaften, Band 15: 342-343. 1. Preis in der Posterprämierung.

Grenz, J., A.M. Manschadi, J. Sauerborn, H. Meinke (2003): Using the Cropping Systems Model APSIM to Assess Sowing Strategies for Faba Bean Infested with the Parasitic Weed *Orobanche crenata* - A Simulation Study. Tagungsband Deutscher Tropentag 2003, 8.-10.10.2003, Göttingen.

Aksoy, E. O., J. Grenz, S. Uygur, F. N. Uygur (2001): Canavar otlarının (*Orobanche* spp.) Çukurova Bölgesi'ndeki dağılımı ve önemi .Türkiye III. Herboloji Kongresi, Ankara, Turkey, 9-12 October, 2001.

Monographies and book chapters

Grenz, J., Thalmann, C. (2013): Internationale Ansätze zur Nachhaltigkeitsbeurteilung in Landwirtschaft und Wertschöpfungsketten. In KTBL-Schrift 500: Steuerungsinstrumente für eine nachhaltige Land- und Ernährungswirtschaft – Stand und Perspektiven. pp. 23-33.

Thalmann, C., Grenz, J. (2012): Factors affecting the implementation of measures for improving sustainability on farm following the RISE sustainability evaluation. In A. Marta-Costa, E. Silva (eds.): Methods and Procedures for building sustainable farming systems. Springer Science + Business Media, Dordrecht (NL). pp. 107-122.

Grenz J, Chavez M, Thalmann C, Häni F, Jöhr H, Diaz E (2013). Response-Inducing Sustainability Evaluation: 12 years of field experience. Bern University of Applied Sciences & Nestlé Corporate Agriculture.

FAO (2012): SAFA – Sustainability Assessment of Food and Agriculture Systems. Natural Resources Management and Environment Department, Food and Agriculture Organization of the United Nations, Rom.

Grenz, J., Schoch, M., Stämpfli, A., Thalmann, C. (2011): RISE-Handbuch. Version 2.0. Hochschule für Agrar-, Forst- und Lebensmittelwissenschaften, Zollikofen.

Grenz, J. (2005): Developing a tool for evaluating management strategies against parasitic weeds. In V. Feldmann, K. Mühlfeld (eds.): Virtual Worlds of Precision, Proceedings of a Research Colloquium of the German Merit Foundation. Trinity College, Oxford, 2003. LIT-Verlag, Münster.

Grenz, J. (2004): Using a simulation model to evaluate parasitic weed management strategies: case study of the association *Vicia faba* – *Orobanche crenata*. Dissertationsschrift. Agroecology 7, APIA-Verlag, Laubach.