Curriculum vitae and track record for Research Professor, PhD

Ingeborg Klingen, NIBIO

PERSONAL INFORMATION

Family name, First name: Klingen, Ingeborg
Date of birth: 14.10.1964
Sex: Female
Nationality: Norwegian
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EDUCATION

2001	PhD: **Disputation date:** *21.02.2001.* Department of Plant and Soil Sciences, Agricultural University of Norway (NLH) (Now Norwegian University of Life Sciences (NMBU))
1992	MSc: Department of Plant and Soil Sciences, NLH.

CURRENT AND PREVIOUS POSITIONS

2015-Present	Head of Department of Invertebrate Pests and Weeds in Forest, Agriculture and Horticulture at Norwegian Institute of Bioeconomy Research (NIBIO), Biotechnology and Plant Health Division
2014-Present	Deputy Head of Plant Health and Biotechnology Division at NIBIO
2001-Present	Researcher at Department of Invertebrate Pests and Weeds in Forest, Agriculture and Horticulture at NIBIO
2012-2014	Head of Department of Invertebrate Pests at Bioforsk, Norwegian Institute for Agricultural and Environmental Research, Plant Health and Plant Protection Division
2010-2012	Head of Section Pests in field crops and vegetables at Bioforsk, Plant Health and Plant Protection Division
2008-2010	Head of Section Entomology at Bioforsk, Plant Health and Plant Protection Division
1993-1996	Senior executive officer at The Norwegian Agricultural Inspection Service (Landbrukstilsynet, later Norwegian Food Safety Authority (Mattilsynet), Section of Pesticides.
1992-1993	Executive officer at The Norwegian Society for Conservation of Nature (Naturvernforbundet)

MOBILITY

1998 (7 months) PhD student mobility grant to Cornell University, USA. Grant received from The Research Council of Norway
2017 (2 months) Researcher mobility in connection with the SMARTCROP project to Luiz de Queiroz College of Agriculture, São Paulo University, Brazil.

SUPERVISION OF GRADUATE STUDENTS AND RESEARCH FELLOWS

2000-Present I have been the supervisor/ co-supervisor of **2 Post Docs**, **8 PhD students, 14 MSc students, and several BSc and exchange students**. Students have mainly been connected to NMBU (Norway) and São Paulo University (Brazil), but also to University of Copenhagen (Denmark), La Universidad Central "Marta Abreu" de Las Villas (Cuba) and National Superior School of Agronomy and Food Industries (France). See my CV at NIBIO for more details

TEACHING ACTIVITIES

NIBIO, where I have been employed during my research career, is subject to the Ministry of Agriculture and Food as an administrative agency with special authorization and its own supervisory board. NIBIO has no teaching obligations but agreements with several universities and students connected to our projects.

1998 (6 month) Teaching Assistance in Invertebrate pathology at Cornell University, USA

1999-2008 Giving Laboratory lessons in Invertebrate pathology at NMBU, Norway

ORGANISATION OF SCIENTIFIC MEETINGS AND WORKSHOPS

2007 Organizing and teaching at the Workshop "Collection, handling and identification of insect and mite pathogenic fungi in annual and perennial crops" at The National Agricultural University in Managua (Nicaragua)

2007 Organizing the Workshop Agriculture, forestry aquaculture and environmental collaboration between Norwegian R&D institutions at Campus Ås and Latin American R&D institutions -Experiences and possibilities

2005 Organizing the Workshop "Agro-environmental cooperation between European organizations, CATIE and other institutions in tropical Latin America: Experiences and opportunities" at The Norwegian Institute for Agricultural and Environmental Research, Plant Health and Protection Division.

2004 Co-organizer of The 37th Annual Meeting of the Society of Invertebrate Pathology in Helsinki, Finland.

INSTITUTIONAL RESPONSIBILITIES

2017-Present Deputy board member Faculty of Biosciences at NMBU

2014-2016 Board member Institute of Plant Sciences at NMBU

2014-2016 Board member Vitenparken Campus Ås ("The Science Park Campus Ås")

2007-2014 Member of the Norwegian Scientific Committee for Food Safety (VKM) doing risk assessment connected to approval of pesticides in Norway

2010-2012 Board member Bioforsk, Norwegian Institute for Agricultural and Environmental Research

COMMISSIONS OF TRUST

2010-2012 Secretary/ Treasurer for the Fungi Division in The Society of Invertebrate Pathology

2012-2014 Chair Elect for the Fungi Division in The Society of Invertebrate Pathology

2014-2016 Chair for the Fungi Division in The Society of Invertebrate Pathology

2015-Present Censor Det Jordbrugsvidenskabelige Censorkorps, University of Copenhagen, Denmark

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

1999-Present Member of The Society of Invertebrate Pathology

MAJOR COLLABORATIONS

International: Agricultural Faculty (ESALQ) of University of São Paulo University (USP) in Brazil (Prof Italo Delalibera Jr and his group, Prof Gilberto De Moraes and his group and lately Prof José Mauricio Simões Bento and his group). University of Copenhagen (Prof Jørgen Eilenberg and Dr Nicolai Vitt Meyling et al), Cornell University (Prof Ann Hajek and her group). La Universidad Central "Marta Abreu" de Las Villas (Cuba, Dr Yordanys Ramos Gonzales et al), Biorationale (UK, Dr Roma Gwynn), Research Institute for Sustainable Humanosphere (RISH), Kyoto University (Japan, Dr Aya Yanagawa,), Maynooth University (Ireland, Dr Rafael De Andrade Moral). Most of the projects I have been leading has involved an extensive group of international collaborators. SMARTCROP, with 11 international partners, is one example. National collaboration: NMBU (e.g. Dr Richard Meadow, Prof Arne Stensvand), Institute of Marin Research (Dr Eric Jan Lock et al), University of Oslo (Prof Atle Mysterud et al), NTNU (Prof Atle Bones et al).

Track record
43 per-reviewed international journal papers
5 book chapters (3 international (per-reviewed) and 2 national)
Ca 70+ publications at various international scientific meetings
Ca 20+ publications at various national meetings
Ca 25+ publications in grower´s journals, the web etc.
Ca 25+ national technical reports

H-Index: 16. Stations: 1223

Selected publications from the last 10 years

2. Asalf, B., Trandem, N., Stensvand, A., Wekesa, V.W., de Moraes, G.J., **Klingen, I.,** 2012. Influence of sulfur, powdery mildew, and the predatory mite *Phytoseiulus persimilis* on twospotted spider mite in strawberry. Biological Control 61: 121–127.

3. de Castro, T.R., Wekesa, V.W., Moral, R. De A., Borges Demétrio, C.G.B., Delalibera Jr., I., **Klingen, I**., 2013. The effects of photoperiod and light intensity on the sporulation of Brazilian and Norwegian isolates of *Neozygites floridana*. Journal of Invertebrate Pathology 114: 230–233.

4. **Klingen, I.**, Westrum, K., Meyling, N.V., 2014. Effect of Norwegian entomopathogenic fungal isolates against Otiorhynchus sulcatus larvae at low temperatures and persistence in strawberry rhizospheres. Biological Control 81: 1-7.

5. Trandem, N., Bhattarai, U.R., Westrum, K., Knudsen, G.K., **Klingen, I.,** 2015. Fatal attraction: Male spider mites prefer females killed by the mite-pathogenic fungus *Neozygites floridana*. Journal of Invertebrate Pathology 128: 6-13.

6. de Castro, T.R., Roggia, S., Wekesa, V.W., de Andrade Moral, R., Demétrio, C.G.B., Delalibera Jr., **I., Klingen**, I., 2016. The effect of synthetic pesticides and sulfur used in conventional and organically grown strawberry and soybean on *Neozygites floridana*, a natural enemy of spider mites. Pest Management Science 72: 1752-1757.

7. Ramos, Y.G., Gómez, J.R., **Klingen, I**., 2017. Seeding dates and cultivars effects on stink bugs population and damage on common bean *Phaseolus vulgaris* L. Neotropical Entomology 46: 701-710.

8. **Klingen, I**., van Duijvendijk, G., 2016. Biological control of the tick *Ixodes ricinus* by pathogens and invertebrates. In: Ecology and prevention of *Lyme borreliosis* Ecology and Control of Vector-borne diseases, Volume 4. Wageningen Academic Publishers Braks, M.A.H., van Wieren, S.E., Takken, W., Sprong, H. (Eds.). Pp 279 – 293. DOI: http://dx.doi.org/10.3920/978-90-8686-838-4_20.

9. Esteca, F.C.N., Rodrigues, L.R., de Moraes, G.J., Delalibera Jr., I., **Klingen, I.**, 2018. Mulching with coffee husk and pulp in strawberry affects edaphic predatory mite and spider mite densities. Experimental and Applied Acarology 76: 161-183.

10. Donga, T.K., Vega, F.E., **Klingen, I.**, 2018. Establishment of the fungal entomopathogen *Beauveria bassiana* as an endophyte in sugarcane, *Saccharum officinarum*. Fungal Ecology 35: 70-77.

11. Saussure, S., Westrum, K., Anne-Grete Roer Hjelkrem, A.-G-R., **Klingen, I.**, 2019. Temperature effects on the virulence of three isolates of *Pandora neoaphidis* (Entomophthorales) towards two aphids species (*Sitobion avenae*, *Rhopalosiphum padi*). Fungal Ecology 41: 1-12.

12. Kvakkestad, V., Gwynn, R., Sundbye, A., **Klingen, I.** 2020. Authorization of microbial plant protection products in the Scandinavian countries: a comparative analysis. Environmental Science and Policy, 106: 115–124. https://doi.org/10.1016/j.envsci.2020.01.017

Referee for several international journals such as: Acta Agriculturae Scandinavica Section B - Plant Soil Science, Applied Soil Ecology, BioControl, Biocontrol Science & Technology, Biological Control, Bulletin of Entomological Research, Crop Protection, Experimental and Applied Acarology, Journal of Applied Entomology, Journal of Insects as Food and Feed, Journal of Invertebrate Pathology, Journal of Pest Science, Latvijas Entomologs, MDPI Insects, Mycological Research, Neotropical Entomology, Pest Management Science, Polar Biology, Sydowia

Research leadership experience:
I have 20 years' experience as a project leader and 13 years as leader of Sections and Departments in Bioforsk/NIBIO this demonstrates my ability and willingness to initiate and lead research. I am leading a Department consisting of 22 permanent staff and 13 out of these have a PhD. In addition, 1-2 Post Docs, 3-5 PhD students, 3-5 MSc, 2-4 exchange students and 2-4 season workers are connected to my department throughout a year. I have the responsibility of personnel and economy at the department and a budget of about 27 mill NOK/ year depending on our project portfolio and PhD students/ Post Docs in the portfolio. I have been project leader or work package leader of a number of projects. I would specifically like to highlight one of my latest projects, SMARTCROP, the largest integrated pest management (IPM) project in Norway.

List of selected projects:

2018-2022	BIOIMMIGRANTS -Innovative approaches and technologies to manage emerging plant pests and invasive alien species threatening biobased production (Project leader). Funding: Strategic Institute Programs (SIS) through Norwegian Research Council (NFR)
2015-2019	SMARTCROP - Innovative approaches and technologies for Integrated Pest Management (IPM) to increase sustainable food production (Project leader). Funding: NFR
2017-2020	Forming scientists for the next generation of pest management (Fase 1 and 2). Connected to SMARTCROP (Leading NIBIOS contribution). Scientist and student exchange program between the agricultural faculty (ESALQ) at University of São Paulo (USP), NMBU and NIBIO. Funding: The Norwegian Agency for International Cooperation and Quality Enhancement in Higher Education (Diku (earlier SIU)) and CAPES Brazil
2017-2019	ENTOFÔR -From waste to resource (Leader of NIBIOS contributions: WP1 and WP 2). Funding: NFR
2012-2016	PLANTSTRENGTH -Strengthening the basis of sound plant protection by understanding the ecology and interactions of different pest groups and beneficials in Norwegian cereals (Leader of WP 2: Winter wheat pest syndrome). Funding: SIS through NFR
2011-2014	TICKLESS -Reduced ticks and tick-borne diseases in sheep by integrated management (Leader of WP 2: Biological control of ticks). Funding: NFR
2011-2014	BERRYSYS A system approach to biocontrol in organic and integrated strawberry production (Project leader). Funding: Forskningsmidlene for jordbruk og matindustri