



The role of the Royal Swedish Academy of Agriculture and Forestry is to promote agriculture and forestry and related activities for the benefit of society, with the support of science and practical experience. The Academy was founded in 1811 at the initiative of Karl XIV Johan and started its work on 28 January 1813.

The Bertebos Conference 2018

Global Food Security

– Ensuring sustainable food production at local to global scales

Time	Sunday 26 August 19.00 (7 pm) to Tuesday 28 August 15.00 (3 pm) 2018
Venue	Falkenberg Strandbaden Hotel, Falkenberg, Sweden.
Registration	Register via this link or link at www.ksla.se . Last day for registration is 15 August 2018
Fee	Standard registration SEK 4 200 SEK. Deadline 15 August 2018 (VAT/moms included) Young participants (30 years or younger) SEK 2 000 SEK. (VAT/moms included) The fee includes all meals during the conference.
Cancellation	Cancellation must be made in writing to gun.askero@ksla.se . If cancellation is made by 15 July 2018, the fee will be refunded in full. If later than 15 July no refund will be made.
Accommodation	The conference fee does not include the hotel room. Please see page 6 for details.
Questions	Content and posters: Eva Ronquist, eva.ronquist@ksla.se , tel. + 46 8 54 54 77 06 Registration: Gun Askerö, gun.askero@ksla.se , tel. + 46 8 54 54 77 12 This conference is financed by the Bertebos foundation.

Will there be food to feed us all? FAO predicts that the world population may reach 9.7 billion in 2050. The social and economic sustainability of this growth requires 50–100 % more food, fiber and fuel to be available for the global market, at affordable prices – and this food must be produced sustainably.

The brutal roller coaster of staple food commodity prices and food supplies in recent years is evidence of a poorly balanced system on a razor's edge. It has led to increased concerns about food self-sufficiency amongst policy makers at global, national and regional scales because of tight linkages among food availability, food security, social stability and political independence. Climate change and associated increased variability in yields and staple food stocks will add to this volatility – and to more concern.

Open markets and global trade generally contribute to efficient use of scarce resources and stabilization of prices. Their development in recent years, however, has led to questioning of this central experience and consensus. Some argue that there are situations and special conditions where increased national food self-sufficiency could be vital. Other scientists warn against the dangers of policies that restrict free trade in agricultural commodities under any conditions.

Both perspectives seem to agree that strategic investments in research, development and infrastructure to enhance food self-sufficiency would be justified for a country that is currently a net importer of food but which has the natural resources to give “comparative advantage” to produce more food domestically.

This conference will focus on economic, political and social justification for national food self-sufficiency, how to assess comparative advantage in food production, and sustainable/ecological intensification as a means to reach food self-sufficiency.

Welcome!

Eva Pettersson

General Secretary and Managing Director, KSLA



Global Food Security

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26 to 28 August, 2018

Sunday, 26 August

19.00 **Welcome drink and Bertebos Foundation Welcome Dinner**

Host: Per Stenström, Bertebos Foundation

Monday, 27 August

09.00 **Welcome address**

Professor Lisa Sennerby Forsse, president of the Academy

Session 1: Empower us – Can policies that promote food self-sufficiency be justified, and if so, what types of policies are appropriate?

Is there economic, political and social justification for national food self-sufficiency (or for reducing reliance on imports)? Improving food self-sufficiency may also be a means of building sustainable food production infrastructure and thereby enhancing comparative advantages, a theme to be covered in session 2.

Moderator: Pro Vice-Chancellor Erik Fahlbeck, Swedish University of Agricultural Sciences, Sweden

9.15 **Without Limits**

The importance of liberal trade to food and nutrition security, economic growth and poverty reduction

Professor Kym Anderson, University of Adelaide and Australian National University, Australia

9.45 **Flexible Limits**

A nuanced approach to food self-sufficiency: When does it make sense?

Professor Jennifer Clapp, University of Waterloo, Canada

10.15 **Reflections, discussion**

10.30 **Coffee/tea break**

11.00 **To Be or Not to Be – I**

Perspectives on food self-sufficiency in Sub-Saharan Africa

Research Director Antony Chapoto, PhD, Indaba Agricultural Policy Research Institute (IAPRI), Zambia

11.30 **The Missing Link**

Perspectives on the link between food self-sufficiency and sustainable diets.

Head of department Matthias Stolze, Dr. sc. agr., Department of Socio-Economic Sciences, Research Institute of Organic Agriculture (FiBL), Frick, Switzerland

12.00 **Reflections, discussion**

12.15 **Lunch**

13.30 **Excursions**

Visit to Berte Qvarn and farms with special interest regarding sustainable intensification.

17.30 **Return to Strandbaden hotel**

19.30 **Welcome drink and Reception Dinner hosted by KSLA**



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Tuesday, 28 August

Session 2: Metrics. How to Assess Comparative Advantage in Food Production

The comparative advantage in food production for a country – or a farm – depends on the competitiveness of production costs, human resources, and the infrastructure that facilitates transport and marketing in a sustainable manner. This session will focus on the biophysical dimensions of comparative advantages in terms of land, climate, and water resources to support a sustainable increase in domestic food production capacity, and the environmental metrics to assess its sustainability.

Moderator: Editor in Chief, Lennart Wikström, Lantbrukets affärer

08.00 **Tied to the ground**

Can sub-Saharan Africa be self-sufficient in food production?

Professor Martin van Ittersum, Wageningen University, The Netherlands

08.30 **To be or not to be - II**

How to assess progress in sustainable/ecological intensification of agricultural food production systems.
Senior Officer Nadia El-Hage Scialabba, Food and Agricultural Organization, FAO, Italy

09.00 **The tricky thing of measuring environmental sustainability in production and consumption of food – case Sweden**

Environmental sustainability of agricultural food production in Sweden – Challenges and opportunities.
Professor Christel Cederberg, Chalmers University of Technology, Sweden

09.30 **Coffee break**

Session 3: Perspectives on sustainable and ecological intensification

While there are a number of definitions of sustainable and ecological intensification, they all include the following characteristics: (1) maintains or increases yields on existing farm land, (2) improves soil quality, (3) efficient in use of water, energy, and nutrients, (4) enhances ecosystem services including biodiversity and landscape resilience (flood control, wildlife habitat, etc), and (5) contributes to social good and equitable economic development. This session provides a farmer's perspective about opportunities and challenges.

Moderator: Professor Erik Steen Jensen, Swedish University of Agricultural Sciences, Sweden

10.00 **Less is More**

An active farmer's experiences with conservation agriculture's contribution to ecological intensification and sustainability.

Farmer Josef Appell, Ängelholm, Sweden

10.30 **Poster session, short presentations and open dialogue with young scientists.**

12.00 **Lunch**



Session 4: More with less. Food self-sufficiency through ecological intensification

This session explores different perspectives of ecological intensification as determined by degree of emphasis on productivity, environmental, and social dimensions of the challenge to achieve a food secure world in a sustainable fashion.

Moderator: Professor Lisa Sennerby Forsse, president of the Academy

13.00 **Thin Green Line**

Planetary boundaries and food self-sufficiency

Deputy director Line Gordon, PhD, Stockholm Resilience Centre at Stockholm University, Sweden

13.30 **Ways and Means**

Ecological intensification for production *and* saving the environment

Professor Riccardo Bommarco, Swedish University of Agricultural Sciences, Sweden

14.00 **Beauty and the Beast**

Modern Agriculture's Achilles' Heels. Are "big data" the Holy Grail to transform conventional to sustainable? Summing up and conclusions

Professor Ken Cassman, University of Nebraska, USA

14.30 **Discussion**

14.55 **Closing remarks**

Professor Lisa Sennerby Forsse, president of the academy

15.15 **Buses leave for the railway station**



A background to the Bertebos prize conference

The Bertebos Prize was instituted in 1996 by Brita and Olof Stenström as a means of promoting education and research in the food chain. The prize consists of two parts, a diploma and 300,000 Swedish kronor, which are awarded in January every second year, followed by a two-day conference in Falkenberg in the following year. The award-winners plan the conference in collaboration with the Academy and each present a plenary lecture at the conference.

The **2017** Bertebos Prize was awarded to **Professor Kenneth Cassman**, for his fundamental importance in the development of the concept ecological intensification of agricultural production, which leads to minimizing the gap between potential and actual return. His extensive scientific production has great importance for applications in agriculture.

Professor Kenneth G. Cassman is Robert B. Daugherty Professor of Agronomy at the University of Nebraska, USA. He has been one of the leading scientists in developing the concept of ecological intensification of agricultural production. The concept relates to how we can minimize gap between the current yield at the farm level to the potential yield achievable by the use of best available technologies and knowledge, while minimizing negative environmental impacts. Professor Cassman has played a major role in developing a global yield map for important crops. He has also addressed how global food prices interact with the need for increased agricultural production to meet the demands of a food secure global population. Kenneth Cassman has a very distinguished career and is an internationally highly cited scientist. But he has also engaged in efforts to ensure that scientific findings are translated into action at the farm level.

Previous Laurates of the Bertebos Prize

2015, Professor Jan Delcour, Katholieke Universiteit Leuven in Belgium, for his unique research on food additives *and* **Professor Youling Xiong**, University of Kentucky, USA, mainly for his research on the mechanisms regulating proteins and peptides in processed food.

2013, Professor Philip Lowe, the Duke of Northumberland Chair of Rural Economy, UK, for his highly reputed work in rural studies with significant contributions in sustainable rural development and land use management.

2011, Professor Karen Beauchemin, Alberta, Canada, for her pioneering research into reducing the environmental impact of ruminant animals without having a negative impact on productivity and animal husbandry

2009, Dr. Joachim von Braun, Washington DC, USA, for his outstanding work in development economics and as effective head of several development research institutions focusing on food, agriculture and rural poverty.

2007, Professor Ingo Potrykus, Magden, Switzerland, who has been a leading scientist in the development of methods for DNA transformation in plants.

2005, Professor Piotr Kowalik, Gdansk, Poland, for outstanding multidisciplinary research in water dynamics in agriculture and forestry.

2003, Professor Erik Steen Jensen, The Royal Veterinary and Agricultural University (KVL) Denmark, for his research on plant production, soil biology and environment, especially in organic farming systems *and* **Professor John R. Porter**, The Royal Veterinary and Agricultural University (KVL), Denmark, for his research for better understanding of the relationship between crops and their environment.

2001, Professor Donald Grierson, University of Nottingham, England, for his groundbreaking research to better understand the plants' maturity course.

1999, Professor Wolfgang Witte, Robert Koch Institut, Wernigerode, Germany, for pioneering, scientific tracing of risks for animal and human health as well as for the environment associated with the use of antibiotic feed additives.

1997, Professor Christopher Polge, Cambridge, England, for his exceptional scientific contribution to the methods within animal reproduction.



Venue, Accommodation & Communication

Conference Venue

The conference takes place in Falkenberg on the Swedish west coast. Our conference venue is the comfortable hotel Strandbaden, which is located at the beach with a beautiful ocean view.

Frequent trains between Copenhagen airport and the city of Gothenburg stop at the Falkenberg railway station, from where you reach the Strandbaden Hotel after a short trip by taxi or regular bus service. After the conference, chartered buses will take you straight to the railway station, for your convenience.

Communication

From Stockholm by train (change in Gothenburg), approx. 4 hours.
From Gothenburg by train, approx. 1 hour.
From Copenhagen/Kastrup Airport, by train, approx. 3 hours.
From Malmö, by train, approx. 2 hours.
For time tables and train tickets, please see www.sj.se (English version available)

From Landvetter Airport (Gothenburg), approx. 2 hours and 20 minutes. The [airport coaches](#) take you to the Nils Ericson Terminal by the Gothenburg Central Station, from where you may catch the train to Falkenberg.

From Landvetter Airport, taxi, approx. 1.5 h.
From Halmstad City Airport, taxi or bus, approx. 30 minutes.
From Falkenberg Central Railway Station, approx 10 minutes,
Taxi Falkenberg +46 346-14400

Accommodation

Room reservation at the Hotel Strandbaden will be made by the participant to konferensservice@strandbaden.se or +46 346-71 49 00.

Accommodation cost is paid to the hotel by the participant. Cancellation is charged according to hotel regulations.

For hotel information and map, see the hotel's website www.strandbaden.se.
For English version of their website, please go to the end of the page.

NOTE: Neither the Academy nor the Bertebos Foundation is responsible for hotel bookings, cancellations or payments.

Other accommodation, as hostels, is also available.