Congress Guide

15th International Rapeseed Congress

16.–19.06.2019 in Berlin
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WELCOME
TO THE
15TH INTERNATIONAL RAPESEED CONGRESS
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Message from the Federal Minister of Food and Agriculture

Dear Readers,

Every spring, bright-yellow flowering rape fields create impressive landscapes everywhere from the North Sea to the Alps. This is one of the many different facets of the impressive, multi-talented rapeseed plant. Rapeseed found its way to us towards the end of the Middle Ages, although at first, the oil gained from it could only be used in lamps or as technical oil. But thanks to successful research, the undesired bitter and accompanying substances were able to be eliminated through conventional breeding from the mid-1970s. This paved the way for the wide range of uses to which it is put today.

The great success is demonstrated by the fact that rapeseed oil has become the most popular cooking oil in Germany. The “olive oil of the North” now fascinates people because of its valuable substances it contains. Rapeseed oil has thus become an important component for healthy eating.

In Germany, rapeseed is now the most important oil plant with a wide variety of uses and has thus become firmly established among our arable crops.

Moreover, rapeseed is also of benefit to the environment, especially with regard to humus formation, as the cultivation of rapeseed contributes to broader crop rotation, protects the soil from erosion when used as a cover crop in winter, and provides considerable benefits as preceding crop to the following cereal crops. In addition to that, rapeseed is an important source of nectar for bees in spring. Over the past 20 years, rapeseed has also become the basis for one of the most important sources of bioenergy.

The history of rapeseed cultivation in Germany is therefore a real success story. It is a concrete example of how agricultural innovations can increase people’s quality of life – by introducing new products on the one hand and by continuously improving and optimising these products on the other. This would not have been possible without the many decades of successful research.

Last year’s drought in Germany has clearly shown that we will continue to need advanced and modern breeding research focusing on our crop species, including rapeseed, as the climatic changes taking place everywhere also pose new challenges for rapeseed crops, in particular with respect to climate tolerance and resistance.

I therefore wish you a successful conference in Berlin, productive talks and every success for your future research projects.

Yours,

Julia Klöckner
Federal Minister of Food and Agriculture
Message from the Governing Mayor of Berlin

The 15th International Rapeseed Congress is one of the highlights on Berlin’s conference calendar this year. We are delighted that more than 800 experts from all over the world are meeting in Germany’s capital city to discuss the latest findings, developments, and prospects in the field of rapeseed research.

In this spirit, I would like to welcome all of the participants in the IRC 2019 to Berlin.

As one of the world’s leading congress venues, Berlin offers ideal conditions for a successful gathering. In addition, our advantages as a conference location include the city’s scientific landscape, since the German capital region is one of the largest, most diverse, and most innovative centers of science and research in Europe. Our excellent colleges and universities work closely with the many non-university research institutes, while specialized networks expedite cooperation between science and industry. A number of renowned institutes here are also engaged in rapeseed research.

The city itself – with its unique atmosphere and countless attractions – also helps to make every stay here an event. As a result, anyone attending a congress in Berlin should take advantage of the opportunity to visit one of our many museums, theaters, or concert halls. Another good idea would be to take a stroll through one of our trendy neighborhoods and enjoy the relaxed attitude towards life of our vibrant and diverse metropolis.

And with that I would like to welcome you to Berlin once again. I wish you a productive 15th International Rapeseed Congress – IRC 2019 and a very pleasant stay that you will long remember.

Michael Müller
Governing Mayor of Berlin
Welcome from GCIRC
Wolfgang Friedt – GCIRC President

Dear Friends, Respected Colleagues, Ladies and Gentlemen!

Today, oilseed rape/canola is one of the major sources of edible oil in the world. It is actually no. 2 of global oilseed crops. The total acreage amounts to nearly 34 million hectares where almost 70 million tons are produced every year. Half a century ago, rapeseed was a minor crop for feeding and industrial uses only.

There is no doubt that the enormous extension of rapeseed cultivation would not have come true without the intense research on rapeseed quality leading to canola (00 type) cultivars. This was supported by the foundation of the Groupe Consultatif International de Recherche sur le Colza (GCIRC). This international group, an association supported by institutions interested in technical advance for the production and processing of oilseed rape (OSR), was initially founded by a small group of experts aiming for the promotion of OSR/canola. In order to achieve this goal, major improvements of seed quality were needed: i) the reduction of unhealthy erucic acid in the seed oil and ii) the reduction of glucosinolates in the rapeseed meal and cake. These two quality steps were initiated in the 1970s, first achieved by scientists in Canada and rapidly adopted in Europe and elsewhere. Today, there is a continuing interest in additional oil types like HOLL (high oleic, low-saturates). Since the 1990s genetic research led to the development of OSR hybrids. Nowadays, a large part of the production is based on hybrid cultivars. In addition, GM traits, e.g., new hybrid system and HR resistance, have been introduced in many parts of the world, except Europe. Last but not least, the use of “biodiesel” as fuel has meanwhile gained importance.

The significant extension of OSR/canola cultivation has been accompanied by the appearance of harmful pathogens and pests endangering rapeseed cultivation in all major growing areas. While diseases like cylindrosporium in the 1980s and phoma in the 1990s have been overcome through genetics, other diseases and insect pests have gained importance, e.g., “clubroot,” since the 2000s. At the same time, environmental stresses progressively compromise rapeseed production. Consequently, the improvement of resistance against biotic and abiotic stresses remains one of the major challenges for OSR breeding and cultivation, as well as the need for further enhancement of oil quality as a health-promoting edible oil and the amendment of protein content and composition for better feed and food.

The 15th IRC 2019 in Berlin will provide a platform to discuss recent achievements and to identify suitable future directions and improvements of OSR/canola as a whole. GCIRC is directing and coordinating rapeseed congresses every four years as well as interim technical meetings. In order to further promote OSR/canola for future demands in agriculture and industry, GCIRC will take necessary steps to extend and intensify research on the sustainable and economic cultivation and use of OSR/canola. For this purpose, the presence of GCIRC in the scientific as well as commercial community needs to be fortified. Rapeseed congresses have always been major forums for promoting and strengthening international exchange and cooperation. With this in mind, we are looking forward to a successful IRC 2019 in Berlin.
Welcome from UFOP

Wolfgang Vogel – Chairman UFOP, Vice President German Farmers’ Association

Dear participants of the 15th International Rapeseed Congress,

on behalf of the UFOP Board and as Vice President of the German Farmers’ Association (DBV), I would like to welcome you warmly. I emphasize this dual function because it underlines the successful development of oilseed rape cultivation in Germany. UFOP was founded on initiative of DBV and the Federal Association of German Plant Breeders (BDP) with the aim of developing oilseed rape cultivation as the most important leaf crop. The driving force in the 1990s was the obligation to set aside arable land in the EU, in combination with initial considerations for a European protein strategy. From the very beginning, consumers were taught the excellent nutritional properties of rapeseed oil. Today rapeseed is the leading oil and protein crop: as rapeseed oil, for biodiesel and as meal for animal nutrition. Through breeding progress, the product quality was further developed, and the economic attractiveness of rapeseed cultivation increased with positive effects on the income of producers.

UFOP wants to continue this development, even though the challenges in breeding, cultivation and marketing have increased considerably. In my position as “highest representative” of arable farmers in Germany, I am very pleased that over 800 international experts meet at this congress to exchange and discuss the latest research results. These days, the challenges are even increasing in view of climate changes. The drought year 2018 was a serious warning for Europeans. Research must keep pace with this development by applying the most advanced breeding methods and developing innovative measures in crop protection and production technology. At the same time, the knowledge gained must be implemented in cultivation practice as fast as possible.

Digitization in agriculture will facilitate and accelerate implementation. This will require political support. In research, financial support is known to be a “rare commodity” worldwide. The demand is consistent, because even politics and society are demanding higher standards for sustainability of rapeseed cultivation and arable farming. I therefore expect that the need for research will tend to increase. This is also confirmed by the critical discussion on the use of chemicals for plant protection or the approval of new active substances. Solutions must be found to ensure that rapeseed cultivation retains its economic perspective and that, depending on the season and region, the landscape with its bright yellow spots of color continues to enrich the landscape in the future.

This congress is an outstanding international platform for presenting and discussing interesting lectures on all these issues. It also offers the opportunity to establish valuable contacts and networks. With this in mind, I call on you to make intensive use of these congress days.
General information

Registration
bcc Berlin Congress Center GmbH
Alexanderstrasse 11 | 10178 Berlin

Sunday, June 16th, 2019
10:00 – 21:00 hrs
Monday, June 17th, 2019
07:00 – 20:00 hrs
Tuesday, June 18th, 2019
07:30 – 17:45 hrs
Wednesday, June 19th, 2019
08:00 – 16:30 hrs

The registration desk is located on Level A. The registration staff would be happy to assist you with any concerns or questions that may arise during the congress.

Full congress registration includes
Admission to scientific sessions, workshops, exhibition, poster area, congress bag, final program, abstracts (usb), coffee breaks, lunches and Congress Dinner.

Safety & Luggage
Your luggage will be checked for safety reasons. Luggage larger than 10 liters of volume has to be stored in the luggage tent right in front of the bcc building. Storage is free of charge. Smaller pieces of luggage (apart from technical devices or articles of value) can be handed in at the cloakroom.

Congress Name Badge
An official IRC 2019 name badge is required and must be worn at all times for entry into sessions, the poster and exhibitor hall, the Congress Dinner and social activities. Lost badges: A fee will be charged for reprinting lost badges as noted below:
100,00€ Full Delegate – 50,00€ Student

Language
The congress language is English. No interpretation is provided during speaker presentations.

Internet IRC2019
Free Wi-Fi is available throughout the venue.
Name of the network: IRC2019
Wi-Fi password: IRCBerlin

Twitter
Twitter hashtag is #IRCBerlin

Speakers
Please be in your session room 15 minutes prior to the session start. Seats in the front row of the respective session room are reserved for you. In the session rooms, a member of the IRC organization team will assist you in all technical matters.

Poster Exhibition
The Poster Exhibition will run concurrently with the Congress sessions.

Poster Hanging and Exhibit Booth set up/take down
Posters and booths can be set up on Sunday, June 16th after 10:00 hrs. They should remain up until 12:00 hrs, Wednesday, June 19th (must be removed by 17:00 hrs).

Congress Meals
Breakfast will not be served. The first refreshment break on Monday is at 10:00 – 10:30 hrs, Tuesday at 10:10 – 10:40 hrs, Wednesday at 10:00 – 10:30 hrs on the ground floor.

Official Congress Dinner
The Congress Dinner located in the former departure hall of Tempelhof Airport will start on Tuesday, June 18th, at 19:00 hrs. Free shuttles to the Dinner location will run between 17:30 and 18:30 hrs in front of the bcc/Alexanderstrasse. Shuttles back to the bcc will run between 22:30 – 24:00 hrs. Important: Please take your Congress Badge with you. Your Congress Badge is your admission ticket.

City Bus Tour & Free City Walks
On Sunday, June 16th, a guided city tour will start at 12:00 hrs in front of the bcc/Alexanderstrasse (if booked). At 12:00, 14:00 and 16:00 hrs, three free guided city walks for all participants of the IRC will be offered. Meeting point is in front of the bcc entrance.

Bus Stops
for Excursion/Field Trip departure times, in front of the bcc/Alexanderstrasse:

Excursion Nauen
Sunday, June 16th, departure: 11:30 hrs

Field Trip West
Wednesday, June 19th to the 21st, departure: 17:00 hrs

Field Trip North
Thursday, June 20th to the 21st, departure: 7:30 hrs

Field Trip South
Thursday, June 20th to the 21st, departure: 7:00 hrs

Important: Your Congress Badge is your Field Trip ticket. Please take it with you.
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Groupe Consultatif International de Recherche sur le Colza – International Consultative Group of Research on Rapeseed

GCIRC is an international association of people interested in technical advances in rapeseed production and processing.

Its Constitution defines its aims as follows:

- to develop scientific and technical research as well as studies and experiments concerning improvement of rapeseed and its processed products from agronomic, technological and food-related perspectives
- and to ensure close links between researchers.

To fulfill its aims, GCIRC

- contributes to coordination of technical studies carried out in various countries
- assumes responsibility for establishing the dates and locations of International Rapeseed Congresses dealing with rapeseed research every four years
- and convenes scientists from various fields and countries in a plenary session or specialized study committees held periodically between two congresses.

How is GCIRC organized?

The Association is made up of active and honorary members working on rapeseed.

Candidates may apply personally or be presented by an organization. In the latter case, membership fees of successful candidates shall be paid by the organization in question.

The annual membership fee is determined by the Board.

New rules for membership will be examined by the GCIRC General Assembly, on June 17th, 2019.

Further information ...

If you would like to find out more about GCIRC’s activities or if you wish to apply, please consult GCIRC’s website: www.gcirc.org or contact Etienne Pilorgé (GCIRC Secretary-Treasurer): epilorge@terresinovia.fr or Laetitia Devedeux: l.devedeux@terresinovia.fr

You may also visit the GCIRC information desk during the Congress.
Union for the Promotion of Oil and Protein Plants

Sow ideas ...
The Union for the Promotion of Oil and Protein Plants (UFOP) was founded in 1990 by the German Farmers’ Association (Deutscher Bauernverband e. V.) and the German Plant Breeders’ Association (Bundesverband Deutscher Pflanzenzüchter e. V.). With its unique association structure, UFOP works in national and international committees to represent the political interests of companies, associations and institutions involved in production, processing and marketing of domestic oil and protein plants.

Harvest success!
In contrast to almost all other agricultural organizations, UFOP has succeeded in combining cultivation, growing as well as market and agrarian politics into a single concept backed up by the entire agrarian economy.

UFOP’s activities have produced considerable results. Biodiesel from renewable feedstocks has for example been developed successfully as a flagship product. Comprehensive knowledge about rapeseed oil’s nutritional qualities has been compiled. Foodstuffs based on domestic oil and protein plants make an important contribution to domestic protein supply and are defended by a respected representative body: UFOP. Agricultural practice benefits from extensive practical information and variety test results.

Tasks
UFOP’s work is divided into four important areas of responsibility:

- Representing political interests in national and international committees
- Optimizing agricultural production by promoting research and support for variety testing
- Promoting projects to develop recycling options in the animal and human nutrition sectors and in the field of material and energy use
- Public relations work to promote sales of all end-products of domestic oil and protein plants.

Further information ...
If you would like to find out more about UFOP’s activities or if you have questions about domestic oil and protein plants, please consult UFOP’s website: https://www.ufop.de/english/news
Steering Committee

Johannes Peter Angenendt
Deutsche Saatveredelung AG, Germany

Stephan Arens
UFOP e. V., Germany

Michael Hess
BASF SE, Germany

Dietmar Brauer
NPZ / Norddeutsche Pflanzenzucht, Germany

Norbert Breuer
WPR COMMUNICATION GmbH & Co. KG, Germany

Olaf Christen
Martin-Luther-University Halle-Wittenberg, Germany

Martin Frauen
NPZ / Norddeutsche Pflanzenzucht, Germany

Wolfgang Friedt
Justus-Liebig-University Giessen, Germany

Reinhard Hemker
Groupe Limagrain, Germany

Folkhard Isemeyer
Thünen Institut, Germany

Wilf Keller
Ag-West Bio, Saskatoon, Canada

Harald Kube
Pioneer Hi-Bred International, Inc., Germany

Frank Ordon
Julius-Kühn-Institut, Germany

Etienne Pilorgé
Terres Inova, France

Thomas Räder
Syngenta AG, Germany

Curtis Rempel
Canola Council of Canada

Arnaud Rousseau
Groupe Avril, France

Andreas Schütte
Fachagentur Nachwachsende Rohstoffe e. V. (FNR), Germany

Helmut Schramm
Bayer AG, Germany

Tobias Hermann Spiller
CARGILL Global Edible Oil Solutions, USA

Wilhelm Thywissen
C. Thywissen GmbH, Germany

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Commission canadienne des grains, Canada

Iwona Bartkowiak-Brada
The Plant Breeding and Acclimatization Institute, Poland

Heiko Becker
Georg-August-University Göttingen, Germany

Hugh Beckie
AAFC, Saskatoon, Canada

Gerhard Bellof
University of Applied Sciences Weihenstephan-Triesdorf, Germany

Johannes Bessai
BASF, Germany

Dieter Bockey
UFOP e. V., Germany

Lone Buchwaldt
Agriculture and Agri-Food Canada

Boulos Chalhoub
Distinguished Professor, Zhejiang University (ZJU), Hangzhou, China

Wallace Cowling
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University of Hertfordshire, Great Britain

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Bernd Hofmann
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Welcome Notes

Wolfgang Friedt
GCIRC President

The main research interests of Wolfgang Friedt are genetic diversity, breeding science and plant breeding, including biotechnology, genetics and genomics, focusing on major crop plants such as barley (Hordeum vulgare), bread wheat (Triticum aestivum), sorghum (S. bicolor) and oilseed rape (Brassica napus).

Major research topics include i) the genetic basis of biomass and grain yield and future yield trends in crops (e.g. wheat), ii) the genetic basis of heterosis, MS systems and hybrid breeding in winter barley, oilseed rape and sorghum, iii) the relevance and importance of the structure and function of root systems for resource efficiency and agronomic performance of crop plants; iv) disease resistance and tolerance against environmental (abiotic) stresses such as drought and cold; v) seed development and major seed compounds (starch, lipids, protein, fibre) in oil- and protein crops.

Michael Stübgen
Parliamentary State Secretary at the Federal Ministry of Food and Agriculture (BMEL)

Michael Stübgen has been Member of the German Bundestag since 1990. He has been Chairman of the Brandenburg State Group of the CDU / CSU Group since 1998 and was European Policy Spokesman and Chairman of the Europe Working Group of the CDU / CSU parliamentary group in the German Bundestag (2005 – 2018). Mr. Stübgen has been Parliamentary State Secretary to the Federal Minister of Food and Agriculture since March 2018.

Wolfgang Vogel
Chairman UFOP, Vice President German Farmers’ Association

Wolfgang Vogel has been President of the Saxon State Farmers’ Association since 2007 and Chairman of the Union for the Promotion of Oil and Protein Plants since 2012. Mr. Vogel is Vice President of the German Farmers’ Association (DBV) and Chairman of the DBV Grain Committee of Experts. The graduate agricultural engineer is managing director of Bauernland GmbH in Beiersdorf (Saxony) as his main profession.
Opening Speeches I

Helmut Schramm

President of Agricultural Affairs for Germany

Helmut Schramm has been President of Agricultural Affairs for Germany since January 2019. After studying agricultural sciences at the Technical University of Munich-Weihenstephan and obtaining his PhD in the field of phytopathology, Helmut Schramm began his professional career in 1988 as a management trainee in the Crop Protection Business Group of Bayer AG. A few months later, he took over the worldwide function of product manager for fungicides. In 1990, Helmut Schramm became Technical Director in Turkey and moved to UK/Ireland in the same function in 1993. From 1997 to 2001, he headed the Garden/Professional Care business unit at Bayer Pflanzenschutz in Monheim, which bundled the non-agricultural activities. In 2001, he moved to the United States in the same function, where he headed the global consumer business following Bayer’s acquisition of the crop protection activities of Aventis. After returning from the United States in 2007, he was responsible for the global fungicides business at Bayer CropScience AG, Monheim. In 2009, he also assumed responsibility for the Seed Treatment Products business unit. From July 2011 to December 2018, Helmut Schramm was Chief Executive Officer of Bayer CropScience GmbH.

Michael Hess

Business Management Crop Protection for Germany, Austria, Switzerland and Benelux at BASF SE

Michael Hess has been in agricultural business for over 20 years. He worked in various marketing and sales functions for many years until he took over as Sales Manager of Crop Protection for Germany and Austria at BASF in 2000. From 2007 Michael Hess worked in European marketing until he moved to Prague in June 2009 as Head of Central Europe, where he was responsible for BASF’s crop protection business in 14 countries.
Opening Speeches II

Dietmar Brauer
CEO Rapool-Ring GmbH, Germany

Dietmar Brauer is Managing Director of the sales organization Rapool-Ring GmbH and vice-Chairman of the sales organization Saaten-Union GmbH. He is also Vice-chairman of the Union for the Promotion of Oil and Protein Plants (UFOP) and member of the Board in several organizations like European Seed Association (ESA), Bundesverband Deutscher Pflanzenzüchter e.V. (BDP) and Vice-President of the European Oilseed Association (EOA) in Brussels and Paris.

After a business apprenticeship and a study of business administration, he joined the company of his family, Norddeutsche Pflanzenzucht Hans-Georg Lembke KG (NPZ) in Hohenlieth in 1987. In 1991/92, NPZ repurchased the breeding station in Malchow/Island of Poel (after expropriation in 1945) and Dietmar Brauer became Managing Director of this branch in Malchow. In 1997 he became General Managing Partner of the NPZ-group including the following companies: NPZ Semences SARL Paris (France), NPZ Ukraina, Kiev (Ukraine), LS Plant Breeding (UK), LS Production (France), DL Seeds Morden/MA (Canada). The NPZ group employs more than 250 staff members at three locations. He is also Partner of the breeding company W. v. Borries-Eckendorf GmbH & Co. KG, Eckendorf (Germany) and Director of the Board of NPZ Australia.

Congress Dinner Speech

Michiel de Jongh
Head of Syngenta Seedcare | Based in Basel, Switzerland

Michiel de Jongh holds an M.Sc. degree in Industrial Engineering & Management Science from Eindhoven University of Technology in the Netherlands. While he grew up in the Netherlands, Michiel de Jongh spent the last 15 years living abroad in Spain, the US, Argentina, Korea, Ukraine and Canada, working for a leading Fortune-500 agriculture company. During that time, he held a variety of roles, from Human Resources to Sales and Operations, and for the last eight years has been heading businesses in a general management capacity. Earlier in his career, Michiel de Jongh worked in business, consulting and in an entrepreneurial role as co-founder of a business incubator.

He is passionate about modern agriculture and the role Syngenta play as an industry in feeding a growing population in a sustainable and cost-effective manner, with innovative products, applications and services.
Plenary Session Speakers I

Hubertus Paetow

→ Challenges and prospects of oilseed rape production

President of DLG, Germany

Hubertus Paetow has been President of DLG since 2018. Born in Schleswig-Holstein, Germany, in 1967, he completed his apprenticeship as a farmer there. After studying Agricultural Sciences in Göttingen and Kiel, he worked as managing director of an arable farm near Kiel until 2005. Since then he has been managing his own farm with a focus on arable farming and seed production in Finkenthal-Schlutow (Mecklenburg-Western Pomerania). He is a member of various boards in associations and local politics and in 2015 became Vice President of DLG and Chairman of the DLG Test Center.

Luc Ozanne

→ Future markets of oilseeds, vegetable oils and proteins

Managing Director Sofiprotéol, France

Luc Ozanne joined Sofiprotéol, a finance and development company subsidiary of the Avril Group, as Managing Director in 2011. He has extensive investment and market analysis experience in the agroindustry and food sectors. He graduated as an agronomy engineer from ENSAIA (National School for Agronomy and Food Science) and holds a management diploma from Ecole Polytechnique.

John Kirkegaard

→ Agronomic challenges to adapting canola into cropping systems of the world

CSIRO, Australia

John Kirkegaard is a farming systems agronomist who applies his expertise in agricultural research to develop practical solutions to Australia’s farming challenge – to produce more crop with less input while protecting the environment. For example, John Kirkegaard is currently investigating ways to improve the productivity of no-till farming systems, increase the profitability of rotation crops such as canola, develop dual-purpose crops that can be used for grazing and grain production, and improve the use of deep-stored water by crops. He joined CSIRO as an agronomist in 1990 to improve the productivity and sustainability of dry-land mixed farming systems in southeast Australia. During his career, he and his research teams have combined detailed studies of soil-plant interactions with broader considerations at the farming system level to develop innovative new approaches to improve farm productivity.

Rod Snowdon

→ Understanding and exploiting the dynamic Brassica napus genome

Justus Liebig University Giessen, Germany

Rod Snowdon is Professor of Plant Breeding at Justus Liebig University in Giessen, Germany, where he moved in 1993 after studying plant biology and genetics in New Zealand. Rod Snowdon leads a large research program working on genome analysis, quantitative trait dissection and breeding of major crops with a major focus on winter rapeseed. He has close collaborations with international research partners and with the breeding industry. In addition to classical quantitative genetics and molecular breeding, his group implements high-throughput genomics and innovative phenotyping solutions for analysis and dissection of genome structural diversity, investigation of complex trait regulation and prediction of trait performance. A major feature in many studies is the role of dynamic genome restructuring as a driver of genetic diversity for quantitative traits.
Plenary Session Speakers II

Andreas von Tiedemann

→ *Biotic constraints in rapeseed production – a global survey on pests and diseases and the options of control*

**University of Goettingen, Germany**

Andreas von Tiedemann has been head of the Division of Plant Pathology and Crop Protection at the University of Goettingen since 2002. He is an agricultural plant pathologist by training with a focus in fungal diseases of arable crops. In 2010, he implemented an international master program on Crop Protection in Goettingen which has so far attracted students from more than 30 countries. The main focus in research is on enhancing knowledge about the occurrence, epidemic development and damage potential of plant diseases and the interaction with crop production systems. During the last two decades, a chief interest in his research has been on fungal diseases in oilseed rape including *Phoma* blackleg, *Sclerotinia* stem rot, *Verticillium* stem striping and club root. Andreas closely collaborates with breeders in order to identify sources of resistance in the wider brassica gene pool and to unravel mechanisms of cultivar-derived resistance through in-depth plant-fungus interaction studies. Further research goals address the development of IPM tools such as forecasting systems or biological approaches in crop protection.

Samantha Cook

→ *Ecologically-based integrated pest management in rapeseed: a need not an option*

**Biointeractions and Crop Protection, Rothamsted Research, United Kingdom**

Samantha Cook is a Senior Research Scientist working in the Department of Biointeractions & Crop Protection at Rothamsted Research UK. She leads a group working on ‘Eco-IPM’ developing ecologically-based approaches for integrated pest management strategies. Her work is focused on oilseed rape cropping systems. She has particular interests in the pollen beetle (*Brassicogethes/Meligethes aeneus*), cabbage stem flea beetle (*Psylliodes chrysocephala*), and the use of trap cropping and push-pull strategies to reduce the need for insecticides. Her team are also involved in researching improved monitoring and decision support systems in oilseed rape crop management as well as methods to improve conservation biocontrol potential in the crop. She is the convenor of the entomology subsection of the IOBC/WPRS Working Group ‘Integrated Control in Oilseed Crops’.

Henning Kage

→ *Optimizing resource use efficiency and carbon footprint in oilseed production systems*

**Professor for Agronomy and Crop Science, Germany**

Since 2003, Henning Kage is professor for Agronomy and Crop Science at Christian-Albrechts-University in Kiel, Germany. He works on different aspects of sustainable cropping systems from crop to cropping system level. In particular he is/was involved in projects for phenotyping cereal crops and oilseed rape, measurement and modelling of GHG emissions in bioenergy crops (*maize/oilseed rape*), heat and drought stress on cereal crops, model-based nitrogen fertilization advisory systems and crop rotation effects on resource use efficiency of cropping systems. Experimental field work combined with problem-specific tailored dynamic system models play a key role in the work of his group.

Henning Kage earned his PhD from Goettingen University, Germany in 1992 on a topic about simulation modelling of nitrogen uptake efficiency of faba beans. He further worked as a post-doc at the Potsdam-Institute of Climate Impact Research and as an assistant professor at Hannover University, Germany, in the area of vegetable cropping systems.
Ingeborg Brouwer

→ Dietary fats and cardiovascular health

Professor of Nutrition for Healthy Living, The Netherlands

Ingeborg A. Brouwer, MSc, PhD, FAHA is professor of Nutrition for Healthy Living at the Department of Health Sciences of the VU University Amsterdam, the Netherlands. Her work focuses on nutrition and health. Ingeborg Brouwer is trained as a nutrition scientist at Wageningen University (MSc), The Netherlands. She completed her PhD in Medical Sciences in 1999 at the Catholic University in Nijmegen, the Netherlands. As post-doc at the Wageningen Centre for Food Sciences she organized and coordinated a multi-centre clinical trial on effects of fish oil on cardiac arrhythmia endpoints. Between 2003 and 2006 she was project leader at the Wageningen Centre for Food Sciences where she led a project on ‘N-3 fatty acids and cardiac arrhythmia’. In 2006 she was chosen to become assistant professor in the program of Academy professor Martijn B. Katan (Royal Netherlands Academy of Sciences) and therefore moved to the Department of Health Sciences VU University, Amsterdam, the Netherlands. She became associate professor at the VU University in January 2010 and full professor in 2014. She is co-coordinator and project manager of two large EU consortia (MooDFOOD and PROMISS) and supervises several PhD students. Her current work focuses on the role of nutrition in health and sustainability.

Curtis Rempel

→ Increasing the usage value of canola meal

Vice President of Canola Council of Canada

Curtis Rempel is the vice president of Crop Production and Innovation at Canola Council of Canada, and joined the Council in July 2012. He is responsible for directing the Crop Production team agronomists and staff with a mandate to optimize profitability for producers and the supply chains they serve while minimizing production risk. Curtis Rempel develops research priorities for canola production, oil and meal utilization and also guidelines for sustainability and production stewardship. In his function, he is liaising between producers, industry and academia in order to optimize extension activity. He is managing the coordination of the trials and budget for the Western Canada Canola/Rapeseed Recommending Committee and the Canola Performance Trials. Further, he is monitoring and managing issues related to domestic and global biotechnology acceptance and regulation. Mr. Rempel is representing Canadian canola’s interests with industry and professional groups.

Caixia Gao

→ Genome editing with programmable nucleases in crop plants

Chinese Academy of Sciences, Beijing

Caixia Gao is Principal Investigator of the Institute of Genetics and Developmental Biology (IGDB), Chinese Academy of Sciences. Prior to joining IGDB in 2009, she served as Research Scientist of DLF’s biotechnology group in Denmark, where she worked in plant genetic transformation and molecular biology. Professor Gao completed her Ph. D. in Plant Genetics at China Agricultural University, Beijing, and her M. Sc. and B. S. degrees in Agronomy at Gansu Agricultural University, Lanzhou. Her current research area mainly deals with developing a highly efficient and robust CRISPR platform in plant cells to enable targeted genome editing as well as employing the developed platform for targeted gene mutagenesis, addition, editing and transcriptional modulation to identify and modify plants traits for high quality, disease resistance and stress tolerance in crop species.
Program Overview and Schedule
Detailed Information About All Topics

The IRC 2019 especially springs to life with the contributions and insights given by its participants. We are looking forward to fascinating speeches, lively discussions, and valuable poster contributions. Following, you will find eight different topics in which contributions will be presented.

1. GENETICS, GENOMICS AND BREEDING
   - Pan-genomic revolution in crucifer genetics and breeding (genome organisation, structural variation, plasticity)
   - New diversity, interspecific hybridization, wide crosses
   - Improving plant development: plant architecture, phenology
   - Genetics, physiological basis and improvement of resource use efficiency
   - Genetics and breeding for improved seed composition for human and animal nutrition (oil, protein, minor components)
   - Breeding for higher heterosis and hybrid yield in OSR/canola
   - Transgenics and New Breeding Techniques (NBT) – applications in OSR/canola research and breeding
   - Genomic selection in OSR/canola
   - Breeding for abiotic stress tolerance in OSR/canola (cold, heat, drought, etc.)

2. DISEASES AND PESTS, PLANT PROTECTION AND WEEDS
   - Major fungal and viral diseases, regional impact and measures of control (e.g. Blackleg, Clubroot, Sclerotinia, Verticillium, Alternaria, TuYV)
   - Breeding for disease resistance
   - Chemical protection against insect pests, safeguarding beneficials and non-target organisms (e.g. bees)
   - Breeding for insect resistance or tolerance in OSR/canola
   - Weed control in OSR/canola incl. herbicide resistance

3. AGRONOMY AND CROP SCIENCE
   - International comparison of OSR/canola cultivation
   - Optimizing crop rotations far/with OSR/canola
   - NUE – Nutrient use efficiency (N, P, other)
   - Requirements of OSR/canola cultivation in temperate regions
   - Identifying suitable variety types adapted to adverse conditions

4. ANALYSIS, USE OF PRODUCTS
   - Economy in gross quality of OSR/canola commodities (long-time trend)
   - Seed chemistry and seed composition
   - Oil quality (low sats, omega-3, HOLL, HEAR)
   - Meal quality – protein and antinutritives (fibre, glucosinolates, phytate, sinapin): Genetic vs technological approach
   - OSR/canola oil as biofuel

5. RAPESEED/CANOLA FOR HUMAN NUTRITION
   - OSR/canola oil for human nutrition
   - Oil composition vs. stability and functionality – Quality requirements for oil from OSR/canola (minor components, sensoric aspects)
   - “Fish oil” (EPA, DHA) from crucifers (OSR/canola)
   - Protein for human nutrition
   - Politics, markets, consumer affairs (e.g. GMO)

6. RAPESEED/CANOLA FOR ANIMAL NUTRITION
   - Requirements for the use of OSR/canola cake and extraction meal: breeders’ and nutritionists’ view
   - Improvement of meal/protein quality for ruminants, pigs, poultry, and aquaculture
   - Politics, markets, environment, acceptance (e.g. GMO)

7. ECONOMY AND MARKET
   - Global comparison of OSR/canola farm economy
   - Optimizing farm economy with OSR/canola: Australia, Canada, China and Europe
   - Global status of genetically modified or genome edited OSR/canola
   - Global markets of OSR/canola oil (incl. biodiesel), meal and protein
   - Sustainability of OSR/canola production

8. MUSTARD AND OTHER CRUCIFEROUS OILSEED CROPS
Did you know that BASF is now a seed company?

BASF has a new brand for oilseed rape winter and spring hybrids – InVigor®. N°1 globally, InVigor® is recognised by European growers for winter hardiness, standing power and an attractive disease resistance package. In addition, InVigor® Clearfield® hybrids offer a powerful, broad-spectrum weed control in the most flexible way, including brassica weeds and volunteer oilseed rape.

You’ll be glad you planted it.

Clearfield®
Production System for Oilseed Rape

We create chemistry
MONDAY
17|06|19
presented by Bayer CropScience Deutschland GmbH
08:35 Opening Ceremony
Welcome note by Wolfgang Friedt, President of GCIRC
09:00 Greetings
  • Wolfgang Vogel, Chairman of UFOP
  • Michael Stübgen, Parliamentary State Secretary, Federal Ministry of Food and Agriculture (BMEL)
09:40 Mark of Honor/
Bestowal of E.Sc. Award
COFFEE BREAK
10:30 ADDRESS: Challenges and prospects of oilseed rape production
11:00 TALK 1: Future markets of oilseeds, vegetable oils and proteins
11:40 TALK 2: Agronomical challenges to adapting canola into cropping systems of the world
12:20 NOTE Sponsor of the Day:
Bayer CropScience Deutschland GmbH
LUNCH
13:30 Parallel Thematic Sessions
  New crop diversity
  Animal diversity
  Crop management strategies
  Insect Pests
15:00 Genomics of yield-related traits
COFFEE BREAK
15:30 Parallel Thematic Sessions
  Genomics Diversity
  Processing and new products
  Plant nutrition and abiotic stress
  Insect Pests (continued) + Pest Control
17:30 17:30 – 20:00
Poster Reception
Get-Together at bcc

TUESDAY
18|06|19
presented by BASF SE
08:00 TALK 3: Understanding and exploiting the dynamic Brassica napus genome
08:40 TALK 4: Devastating diseases and their control in oilseed rape
09:20 TALK 5: Ecologically-based Integrated Pest Management in rapeseed: a need not an option
10:00 NOTE Sponsor of the Day: BASF SE
COFFEE BREAK
10:40 TALK 6: Optimizing resource use efficiency and carbon footprint in oilseed rape production systems
11:20 TALK 7: Dietary fats and cardiovascular health
12:00 TALK 8: Increasing the usage value of canola meal
LUNCH
13:30 Parallel Thematic Sessions
  Variety Breeding
  Protein for Human Nutrition
  Genomic Diversity (continued)
  Sclerotinia
  Economy & Market
15:15 Workshop: Agronomy – Managing Environment Stress
COFFEE BREAK / POSTER SESSION
15:45 Parallel Thematic Sessions
  Workshop: Rapeseed/Canola Protein for Human Nutrition
  Workshop: Future-proofing insect pest control in a world with declining insecticidal options
16:15 Mustard
17:45 Sclerotinia (continued)
19:00 Congress Dinner, Tempelhof
supported by Syngenta Agro GmbH

WEDNESDAY
19|06|19
presented by RAPOOL-RING GmbH
08:30 Parallel Thematic Sessions
  Heterotic Pools
  Genetic of Root Traits + Breeding Methodology
  Integrated pest and crop management
  Blackleg
10:00 Workshop: Sclerotinia – Current and future breeding methods
End 10:45
COFFEE BREAK
10:30 Parallel Thematic Sessions
  Mutagenesis and Gene editing
  Blackleg (cont.) + Plant Protection
  Yield physiology and phenotyping
  Mustard (continued)
12:15 Other topics
LUNCH
13:15 NOTE Sponsor of the Day: RAPOOL-RING GmbH
13:25 Other Thematic Sessions
  New crop diversity
  Variety Breeding
  Protein for Human Nutrition
  Genomic Diversity (continued)
  Insect Pests
  Sclerotinia
14:05 Podium Discussion:
  Global Future of Oilseed Rape/Canola followed by Poster Awards
COFFEE BREAK
15:45 Concluding Remarks
16:00 Invitation to IRC 2023 in Sydney
16:15 Farewell
16:30 End of Congress
17:00 Start Field Trip West (at the bcc)
17|06|2019 – MONDAY

08:00 Arrival of Congress Delegates

08:35 C01 Welcome Note | Wolfgang Fried, International Consultative Group of Research on Rapeseed (GCIRC)

Greetings | Wolfgang Vogel, UFOP, German Farmers’ Association (Germany)

Michael Stubgen, Parliamentary State Secretary, Federal Ministry of Food and Agriculture (BMEL) (Germany)

09:40 C01 Mark of Honor – Bestowal of the Eminent Scientist Award: Wilf Keller – Laudation by Rod Mailer (GCIRC Board Member)

10:00 COFFEE BREAK, PRESENTED BY LIMAGRAIN GMBH

10:30 C01 Address – Challenges and prospects of oilseed rape production | Hubertus Poetow, German Agricultural Society (Germany)

11:00 C01 Plenary Talk 1 – Future markets of oilseeds, vegetable oils and proteins | Luc Ozanne, Safiprotéol (France)

11:40 C01 Plenary Talk 2 – Agronomic challenges to adapting canola into cropping systems of the world | John Kirkegaard, CSIRO (Australia)

12:20 C01 Note Sponsorship of the Day: Bayer CropScience Deutschland GmbH | Helmut Schramm, Bayer AG (Germany)

12:30 LUNCH, PRESENTED BY KWS SAAT SE

13:30 C01 NEW CROP DIVERSITY

- Natural and induced genome structural variation in oilseed rape
  [Z. Li, H. Brabyn, L. Havlíková]

- Specific chromosome rearrangements and allelic variants influence fertility and genome stability in novel Brassica oleracea
  [A. S. Flores, M. G. Egea-Benedicto, S. J. Schless, B. Samans, J. Batley]

- Expanding a novel gene pool of Brassica napus with massive introgression of related oilseed species and exploring its intersubgeneric heterosis

- Genome reshuffling revealed by mapping and genome sequencing of progenies from interspecific crosses involving B. carinata, B. rapa and B. napus

- Breeding Brassica napus canola by use of B. avenacea Mapping flowering time and biomass traits in the C genome of B. napus using a population carrying genome content introgressed from B. avenacea
  [H. Rahman, G. A. Bennett, B. Kebede]

14:30 A08 ANIMAL NUTRITION

- Canola meal for poultry – Recent studies and perspectives
  [B. Slominski, A. Rogowska]

- Rapsz, feeds for swine – Recent studies and perspectives

- Increase of the protein content of rapeseed meal by sift technology
  [A. Quirin, S. Darguet, C. Peyerlot, M. Knott, A. Gendron, P. Cariot, F. Brionnet]

- Chemical composition and nutritional characteristics of rapeseed meal produced in France
  [S. Darguet, L. Torno, A. Sicaire, M. Knott, J. Joustan, A. Quirinac]

- Peas and rapeseed meal in protein reduced diets for broilers
  [P. J. Wendl, P. A. Wendl, G. Bellof]

15:00 C01 GENOME DIVERSITY

- Uncovering the scope of fixed homoeologous recombination events in Brassica napus using long read sequence data
  [S. Park, K. Koh, E. Higgins, A. Sharpe]

- Exploiting Long Read Sequence Technology to Resolve the Hidden Genomic Landscape of Brassica Species
  [A. Shaghi, H. Parkin, S. Perumal, E. Higgins, L. Jin, M. Buchwald, T. Bender, S. Robison]

- Long reads reveal small scale genome structural variations in Brassica napus

- Cytoplasmic evolution of Brassica genus and its significance for developing novel brassica crops
  [J. Zhao, X. Zhang, B. Chen, Q. Hu and X. Wu]

- Methods to determine copy number variation in Brassica species
  [S. Schreiber-Weidenweber, R. Snowdon, A. Mason]

- Gene expression patterns and RdDM-mediated epigenetic regulations of duplicated genes in Brassica napus subgenomes A and C
  [C. Tong, Y. Ge, Z. Li, S. Liu]

16:00 C01 PROCESSING AND NEW PRODUCTS

- Pilot Plant Concept “Ethanol” for Ethanol Extraction of Dehulled Rape Seeds

- New Processing Technology of High Quality and Fragrant Rapeseed Oil
  [J. Wen, H. Feng-hang, L. Chan-sheng, W. Chu-yan]

- Is profiling of volatile compounds from virgin rapeseed oil a promising tool for the assessment of the sensory quality?
  [B. Matthie, L. Brün, A. Bonte]

- Metabolite profiling analysis and quantification of phenolic compounds between the yellow- and black-seeded rapeseed by HPLC-MS

- Study on the biological activity of canola in rapeseed oil
  [M. Zheng, X. Yang, X. Xia, Z. Zhang, L. Han, F. Huang]

- Requirements for Canola / Rapsz Proteins for Use in Food and Feed
  [P. Tressel, J. Palominos, C. Dowd]

- Taurine Production in Brassica: a New Marketable Trait
  [F. Turano, M. Price, J. Thogruz, S. Chepinelli, J. Shipp, K. Turano]
**A03 | A04**  CROP MANAGEMENT STRATEGIES

- Improving canola agronomy with third-party and farmer-run research
  - C. Jurke, C. Rempel, M. Hartman, N. Philip

- Tillage strategies to optimize rapeseed establishment: a method to support decision making
  - S. Cadoux, A. Perrin, G. Souzet, T. Inoue

- Sowing companion plants with winter oilseseed rape to reduce herbicide use.
  - A. Baux, X. Brosselin, P. Schumacher

**B05 | B06**  INSECT PESTS

- Breeding perspectives for pest control in canolnse

- Effect of hoarseness in Brassica lines on flea beetle feeding behavior
  - C. Olivier, T. Wist, D. Hegedus, Z. Heydarian, A. Jones

- Development of molecular tools for identification and monitoring of weed pests and natural enemies in OSR

- Identification of plant traits related to the tolerance of WOSR to pollen beetle
  - A. Julien, A. Pinet, A. Mathieu, C. Richard-Molard, A. Fortinave

- Strategies to optimize N fertilization of winter oilseseed rape
  - N. Aucat, B. Böttcher, T. Meiners

**A05 | A06**  GENETICS OF YIELD-RELATED TRAITS

- Early Assessments on the Feasibility of Selection for Reduced Secondary Dormancy Potential in Annual Brassica napus
  - E. Uni, C. Brown, R. H. Gaulin, J. Parkin, S. Robinson, Steve Shortt

- Characterization and fine mapping for multiple main inflorescence in Brassica napus.
  - X. Qian, P. Liu, Y. Zhang, Q. Li, X. Wang, Y. Cui

- Reproductive control in annual Brassica napus
  - M. Zham, Y. Zhang, G. Liu, H. Wang

**B05 | B06**  INSECT PESTS (CONTINUED) + PEST CONTROL

-不要太勿海枯石烂也 TOKING 人家的口味
-不要太勿海枯石烂也

- Effect of migration time on population dynamics and damage potential of cabbage stem flea beetle (Phyllophaga chrysophaela L.)
  - N. Conrad, M. Brandes, B. Ulber, U. Heimbach

- Pyrethroid resistance of insect pests of oilseseed rape in Germany
  - M. Brandes, U. Heimbach

- Use of agronomical techniques to manage rape winter stem weevil (Curculio maxillosus) and cabbage stem flea beetle (Phyllophaga chrysophaela) populations in winter oilseseed rape.

- Herbicide resistance in canola varieties from an Australian perspective
  - M. A. Nash

- Integrated control of establishment pests in canola: an Australian perspective
  - M. C. Miller, C. Harrington, D. Dyer

**A05 | A06**  CLORUB

- International initiative on the nomenclature and curation of clubroot resistance loci

- Genomic tools for the management of clubroot of canola (Brassica napus)
  - M. Galindo-Gonzalez, H. Askarian, H. Tao, M. Holtz, S. F. Haqen, S. E. Shkel

- QTL analysis identifies genomic regions associated with clubroot disease in Brassica napus.
  - Y. P. Lim, S. R. Choi, H. Shih O. S. Hong, J. Keivan Rameneni

- Genome-wide association mapping of resistance to clubroot in Brassica napus

- The mechanism and durability of intermediate resistance to Plasmaphorahombrassicae pathotype X conferred by two resistance genes

- Influence of inoculum density, virulence of P.braunii isolates and cultivar resistance on clubroot development and build-up of resting spores in oilseseed rape cultivars
  - P. Zamani, A. Kranth, J. Kranth, N. Karri, M. Li

- Multilocal analysis of the clubroot disease and its biological control by an endophytic fungus
  - L. Luchi, P. Milit, H. Auer, M. Cerm, B. Brzobohaty

**A03 | A04**  PLANT NUTRITION AND ABiotic STRESS

- Genotypic Diversity and Plasticity of Root System Architecture in response to Nitrogen Availability in Winter Oilseseed Rape (Brassica napus L.)
  - C. Leopoldsen, L. Pagels, C. Richard-Molard

- Deciphering the response of winter oilseseed rape to nitrogen inputs: fine roots de matter in Nitrogen Use Efficiency!
  - J. Vaquere-Corquis, C. Bressyl-Buayque, A. Lapenche, M. Chelle, C. Richard-Molard

- Deciphering the genetic diversity of WOSR seed yield elaboration and NUE in the field: what is the relative contribution of plant growth, leaf area dynamics, N uptake and N use efficiencies during the crop cycle?
  - C. Bressyl-Buayque, M. Kulturen, C. Richard-Molard, A. Tolera, M. A. Alenard, A. Lapenche

- A Review of Heat Stress in Spring and Winter Canola (Brassica napus L.)
  - J. T. Fahl, D. Saboura, E. F. El Habbasha, T. Kautz

- Effect of heat stress on canola yield and quality
  - P. K. Uppal, R. Biel, J. Bromfield

- Water shortages during flowering impact seed qualities in oilseseed rape
  - G. Blanchet, F. L. Cahelin, A. Bouchet, A. Carrillo, E. Baron, B. Ly
  - J. Toupin, T. Broux, N. Nasri

- Temperature and radiation stresses explain most of the environmental variation of seed yield across a French network, and allow to tackle GaeX interaction in winter oilseseed rape cultivars
  - E. Carapeza, A. Bouchet, A. Gaudreaut, C. Bressyl-Buayque, N. Nasri, A. Lapenche
18|06|2019 – TUESDAY

08:00 CO01 Plenary Talk 3 – Understanding and exploiting the dynamic Brassica napus genome
Rod Snowdon, University of Giessen (Germany)

08:40 CO01 Plenary Talk 4 – Biotic constraints in rapeseed production – a global survey on pests and diseases and the options of control
Andreas von Tiedemann, University of Gottingen (Germany)

09:20 CO01 Plenary Talk 5 – Ecologically-based Integrated Pest Management in rapeseed: a need not an option
Samantha Cook, Biointeractions and Crop Protection, Rothamsted Research, Harpenden (United Kingdom)

10:00 CO01 Note Sponsor of the Day: BASF SE (Jorn-Fried Johannsen), BASF SE (Germany)

10:40 CO01 Plenary Talk 6 – Optimizing resource use efficiency and carbon footprint in oilseed rape production systems
Henning Kage, University of Kiel (Germany)

11:20 CO01 Plenary Talk 7 – Dietary fats and cardiovascular health
Ingeborg Brouwer, Department of Health Sciences of the UU University Amsterdam (The Netherlands)

12:00 CO01 Plenary Talk 8 – Increasing the usage value of canola meal
Curtis Rempel, Canola Council of Canada (Canada)

12:40 LUNCH, PRESENTED BY R.A.G.T. SAATEN DEUTSCHLAND GMBH

13:45 B05|B06 VARIETY BREEDING
An International breeding program in spring canola
• W. A. Cowling, J. Vaksic, R. Ezzy, J. Duguid, E. Gils, O. Sasso

A05 PROTEIN FOR HUMAN NUTRITION
Opportunities and challenges for the production of canola / rapeseed protein for human nutrition
• S. Garnereit, M. Ross

C01 GENOMIC DIVERSITY (CONTINUED)
Quantitative disease resistance and structural genome variation
• C. Obermeier, J. Gabur, H. S. Chawla, P. Vollrath, R. Snowdon

14:35 Parallel Sessions

Official DUS Test and Plant Breeders Rights Protection of Winter Oilseed Rape in Germany
• F. Hirschberg

Official VCU Test of Winter Oilseed Rape in Germany
• R. Manthey

Are bzh semi-dwarf hybrids deprived with regard to plot front-border effects in yield trials?
• K. Holtermann, A. Gartz, G. P. Bierent, H. C. Becker, A. Scharnholt

Aminio Acid Content and Genetic Control in Brassica napus L.
• D. L. W. Swanepoel, C. McCartney, J. D. House, R. W. Duncan

15:15 COFFEE BREAK & POSTER SESSION (60 MIN)

16:15 A03|A04 SCLEROTINIA (CONTINUED)
Receptor-like kinases BAK1 and SOR1 are required for necrotizing activity of Sclerotinia sclerotiorum necrosis-inducing effectors
• B. Hagenah, J. Seferberghi, M. H. Bharan, Y. Wei, L. Ma, C. Couda, J. Biekoskal

Detection of ascospore release of Sclerotinia sclerotiorum with real time PCR on important tool in understanding disease development in winter OSR
• A. C. Wielandhammer, M. Alger

Fungicide sensitivity of Sclerotinia sclerotiorum and consequences for stem rot control in oilseed rape
• J. Dejmek, A. Mehl

Next generation molecular fungicides: control of Sclerotinia sclerotiorum using RNA interference technologies
• M. F. Belamonte, S. Snytko, P. Wolk, N. Wytseki

Reconsideration of disease cycle of Rapeseed stem rot caused by Sclerotinia sclerotiorum and management with biological agents
• D. Tang, X. Xue

17:45 End of Parallel Sessions

Followed by Official Congress Dinner (supported by Syngenta) – Location: Tempelhof Airport (main hall)
Bus shuttle service (17:30–18:30 from bcc to Tempelhof / 22:30–24:00 from Tempelhof to bcc)
Lectin genes, cancanavanin, curcumin and hevein, enhance resistance to the fungal pathogen Sclerotinia sclerotiorum in Brassica napus

Synchronous improvement of subgenomes in rapeseed for Sclerotinia resistance

Identification of Brassica juncea germplasm resistant to Sclerotinia sclerotiorum and study of inheritance in early generations

Genome-wide association study to dissect the genetic regulation of malformation and resistance to Sclerotinia sclerotiorum in Brassica napus

**General Discussion**

Economics of open pollinating vs. hybrid rapeseed varieties

Russian rapeseed – evolution and economic perspective

Western Australian seed options in rapeseed: prerequisites and economic implications

Positioning Oilseed Rape in the High Oleic Oils Market

**WORKSHOP**

AGRONOMY – MANAGING ENVIRONMENT STRESS

**WORKSHOP**

RAPESEED/CANOLA PROTEIN FOR HUMAN NUTRITION

**WORKSHOP**

FUTURE-PROOFING INSECT PEST CONTROL IN A WORLD WITH DECLINING INSECTICIDAL OPTIONS

Turnip yellows virus-resistant rapeseed varieties as a possible solution against aphid-borne virus disease

Turnip Yellows Virus (TuYV): Incidence and impact on yield in European winter oilseed rape

The influence of different isolates of Turnip yellows virus (TuYV) and biotypes of Myzus persicae on rapeseed infection

Effectors-triggered defence of brassicas against extracellular fungal pathogens

Course of colonization and potential for seed transmission of Verticillium longisporum in winter and spring type oilseed rape (Brassica napus L.) under field conditions and the role of soil temperature

Integrating Control strategies Against soil-borne Rhizoctonia solani in OilSeed rape (CARIOS)

More detailed information can be found online at www.ei2019-berlin.com
Progress in Predictive Breeding in Oilseed Rape: A Path to Heterotic Pools and Beyond
- A. Abbadi, E. Flachenecker, J. Ahlemeyer, S. Möller, G. Leckband

Whole genome predictions provide flexibility in the utilization of costly phenotypic data across environments with varying temperatures
- F. Marschall, Stuart W. Sandler, Frank Technow, Robert W. Duncan

Genomic and epigenetic patterns in novel heterotic pools of winter rapeseed (Brassica napus)
- N. Lee, A. Abbadi, R. Snowdon

Evaluation of transcriptome and DNA methylation data for the prediction of hybrid performance in oilseed rape
- S. Schiefel, S. Selig, S. Edelmann, C. Werner, C. Rockmann, H. Paapisel, R. Snowdon, B. Uziel, A. Abbadi, G. Leckband

Potential of rutabaga (Brassica napus var. napobrassica) gene pool for use in the breeding of B. napus canola
- M. Rahman, U. Shiranifar, N. Hatab, K. Kebede, R. Yang

Early establishment of photosynthesis plays a key role in early biomass heterosis in Brassica napus (canola) hybrids
- A. Zhu, Y. Yang, Z. Deng, J. Peacock, J. Gorn

Discovery novel phytic acid mutants in oilseed rape for future breeding
- N. Eshof, H. Haladj, C. Jung

Development and validation of an effective CRISPR/Cas9 vector for efficiently creates specific mutations at multiple loci using one sgRNA and transgene-free mutants in a wide range of plant species
- Z. Dai, H. Yang, T. Li, J. Wu, C. Ma

Gene knock-out by CRISPR-Cas9 and EMS-induced point mutations on seed fatty acid reducers increase the seed oil content in rapeseed (Brassica napus)
- N. I. Karunarathna, H. Haladj, C. Jung

Knockout of two BnaSM1s generated by CRISPR/Cas9-targeted mutagenesis improves plant architecture and increases yield in rapeseed (Brassica napus)

Transgene-free targeted mutation in rapeseed (Brassica napus L.) via transient CRISPR/Cas9 expression in protoplasts
- B. Lohrer, J. Scholmataßer, D. Becker, J. Park

Genomics-fed radiation mutagenesis in rapeseed
- Z. Xu, L. Haukkausk, I. Bancroft

Adaptive dynamics of populations of Lepptaphora maculans under resistance selection pressure: insights from two decades of surveys in France
- M. Balesdent, F. Carpentier, L. Coudard, S. Touzeau, T. Rouxel

The amount of Lepptaphora maculans-contaminated dockage in canola seed shipments is not related to blocked disease transmission in seed spillage piles

Complexity of Lepptaphora-Brassica interaction revealed by a novel class of disease resistance genes against blocking disease
- N. Larkan, L. Ma, P. Haddad, I. Parkin, H. Borthan

Seed Applied Technology to help Canadian Producers Manage Blackleg in Canola
- G. Fernando, T. Labun, F. Brandl

Integration® Pro – A New Generation of Seed Treatment in Oil Seed Rape
- F. Norari, P. Cavell, M. Benninger

PhenoFlex an experimental platform in Burgundy for WOSR pheno modeling under low chemical inputs.

Note Sponsor of the Day: RAPOOL-RING GmbH
- Dietmar Brauer, RAPOOL-RING GmbH (Germany)

Plenary Talk 9 – Genome editing with programmable nucleases in crop plants
- Caixia Gao, Chinese Academy of Science (China)

Podium Discussion: Global Future of Oilseed Rape/Canola – followed by Poster Awards
- Moderation: Rod Snowden – Participants: Andreas von Tiedemann, Philippe Dusser, Curtis Rempel, John Kirkegaard, Samantha Cook

Concluding Remarks
- Wolfgang Friedt, International Consultative Group of Research on Rapeseed (GCIIR)

Invitation to IRC 2023 in Sydney

Farewell: Dietmar Brauer, Vice-Chairman UFOP

Last congress day: End of Congress

Followed by Field Trip West (if booked, additional costs)
### Integrate Pest and Crop Management

**Integrated pest and disease management to optimise yield in winter oilseed rape**
- J. Smith, C. Tucker, P. Berry

**VIBRANCE ORS: a Novel Seed Treatment Solution for Control of Soilborne Diseases in Oilseed Rape**
- R. Flaut, M. Joo, F. Brandl, L. Gobert

**Technologies for pesticide applications in ORS/Canola**
- W. Mayer, D. Heinkal

**Oilseed rape production and the use of neonicotinoids in Poland**
- K. Giwercz

**Promoting Biodiversity in Canola Cropping Systems: Ecosystem Services on the Canadian Prairies**
- G. Zedlich

**Winter Canola Requires Unique Adaptation to the U. S. Southern Great Plains**
- M. Stamm, S. Deoley

### Blackleg

**Integrative genomics and metabolomics approaches to decipher mechanisms underlying quantitative resistance to blackleg in oilseed rape**

**Blackleg control in climate-adaptive Australian farming systems**
- S. J. Sprague, R. Bril, J. A. Kirkgaard

**Host resistance effects on coexistence of two related fungal pathogens Leptosphaeria maculans and L. maculinea**
- P. Huang, A. Joural, L. H. Gajula, C. S. Karandeni-Daule, G. K. Minnissou, B. G. L. Pitt

**Effects of model parameter uncertainty in predicting severity of phoma stem canker epidemics in UK winter oilseed rape crops**
- A. Fitz, F. Newbury, M. W. Shaw, A. Qi

**Genetic Mapping and Characterisation of the Novel Blackleg Resistance Genes LepRPS and LepRPL**
- A. Larkam, J. A. P. Parkin, M. H. Bohnan

**Genome-wide histone map of the blackleg fungus Leptosphaeria maculans**

### Mustard (Continued)

**Genome-wide association study for all content under terminal heat stress in Indian mustard (Brassica juncea)**
- V. K. Soni, A. Latt, J. Kaur, D. Bharti, S. S. Bongo

**Physiological and Biochemical Basis of Salinity Tolerance in Indian mustard (B. juncea)**
- P. Sharma, K. Priya, V. Sardana, P. Choudhary, S. S. Bongo

**Genetics of flowering and maturity in Brassica juncea (L.)**
- J. Akhtar, A. Goyal, S. N. Kaur, M. Meulakshi Mittal, Chhaya Atin, M. Prabha Singh, R. Kumar, V. K. Sardana, B. Bhan, S. S. Bongo

**Enhancing parental lines for oil and meal quality to develop CMS based canola hybrids in Indian mustard (Brassica juncea L.)**
- G. Bisau, S. S. Bongo

**Oilseed rape and pre-cropping effects from grain legumes – nitrogen fluxes and productivity**
- P. Gougois, A. Schinder, F. Fillot

**GIS and Remote sensing approaches toward sustainable management and production of rapeseed (Brassica napus L.) in Tunisia**
- M. Dollani, D. Mourad, M. Belhaj, M. S. Jatouli, W. Feryen, S. H. Makar, M. C. Hamouzou, A. Safi

**Discovery and applications of double haploid inducing lines in rapeseed**

**Novel industrial rapeseed oils as bio-base stocks for lubricant production**
- R. Stienkhek, R. Sloan, H. Kaur, J. Bianco

### Other Topics

**Utilization of Chinese wood to develop the antiviral rapeseed**
- L. Kang, A. Wang, P. Li, X. Ge, Z. Li

**Establishment and application of biotechnologies in Camelina sativa**
- N. Rego, J. Otto, J. Kamleh

**Identification of genetic factors related to human health promoting functional compounds in Chinese Cabbage**
- L. P. Lim, S. R. Choi, J. J. Rameneni, S. S. Chinpokar, S. H. Oh

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*More detailed information can be found online at www.mc2019-berlin.com*
Plenary Talks

Future markets of oilseeds, vegetable oils and proteins
- Luc Oranne

Agronomic challenges to adopting canola into cropping systems of the world
- John Kirkpatrick, Julienne Liley, Rhon Brill, Andrew Ware, Theresia McBeath, Jeremy Which

Understanding and exploiting the dynamic Brassica napus genome
- Rod Snowdon

Biotic constraints in rapeseed production – a global survey on pests and diseases and the options of control
- Andreas van Tonderman

Ecologically-based Integrated Pest Management in rapeseed: a need or an option
- Samantha Cook

Optimizing resource use efficiency and carbon footprint in oilseed rape production systems
- Hanneke Kope, Thomas Robiger, Josephine Bukowiecki, Klaus Seeling, Ingo Pohlmann

Dietary fats and cardiovascular health
- Ingeborg Brougher

Increasing the usage value of canola meal
- Curtis Rempel

Genome editing with programmable nucleases in crop plants
- Caixia Gao

Orals

Progress in Predictive Breeding in Oilseed Rape: A Path to Heterotic Pools and Beyond
- Amine Abbadi, Christian Flaschecker, Jutta Ahlemeyer, Anna Müller, Gerhard Leckeband

The International Life Sciences Institute Crop Composition Database: An Open Resource for High Quality Compositional Data
- Wietse J. Barret, Akson Edwards, Andrew F. Roberts, Bhuvanesh Biplav, Brandon Fast, David W. Roberts, Jannonn R. Sirivivatavan, Jennifer Helm, Justin McDonald, Mohamed Bedar, Nancy Gillkin, Theresia Sult

Investigation into the emerging problem of elevated erucic acid content in double-low oilseed rape crops in the UK
- Simon Eighting, Helen Appleyard, Linda Male, Thomas Wood

Long reads reveal small scale genome structural variations in Brassica napus
- Harneet Singh Chawla, Subhada Chokhambey, Andreas Walke, Surjeet Tomaliseanon-Nattar-Amutha, Christian Obermeier, Rod Snowdon

Two decades of rapeseed and mustard cyto-genetic and breeding research at ARS, Mandar, Jodhpur
- R.R. Choudhary, B. R. Choudhary, S. R. Kumhar, H. Cheng

An international breeding program in spring canola
- Wiliouc Croujolle, J. Vuksic, R. Ezzy, J. Duguid, E. Gilis, S. Sos

Rapid delineation of the potential candidate genes underlying fatty acid-associated loci via combining gene co-expression network analysis and QTLM and QTLGAS in Brassica napus L.
- Fei Yu, Keio Zeng, Mingli Ding, Jinguang Lian, Sudiang Gongdu, Huajing Wang, Dayong Wei, Qing Xiong, Wei Oian

Development and In-Field Validation of Genomic and Optimal Haploid Value Selection for Disease Resistance, Agronomic, and Seed Quality Traits in Canola

Development and validation of an effective CRISPR/Cas9 vector for efficiently creates specific mutations at multiple loci using one sgRNA and transgene-free mutants in a wide range of plant species
- Cheng Shi, Hong Yang, Ting Tang, Jia-Jing Wu, Chao-Zhi Liao, Qian Gongbu, Huafang Wang, Dayong Wei, Qing Xiong, Wei Oian

Exploiting Natural Variation in Pod Shatter Resistance Genes for Rapeseed (Brassica napus) Improvement

Breeding for Long Chain Omega-3 Oil Canola
- Xinmin Deng, Jaker Hasan, Kristin Gray

Temporal genetic patterns of root growth in Brassica napus L.
- Xiaoping Dun, Jie Wang, Linqiong Xuan, Xinfia Wang, Guifan Liu, Hanzhong Wang

EMS- and CRISPR-Cas9 mediated mutagenesis in oilseed rape (Brassica napus)
- Hanjoachim Harloff, Ionastra Bratz, Nikhila Sashidhar, Nikhila Monikatharam, Sinjan Jinghan, Christian Jung

Genomics-led radiation mutagenesis in rapeseed
- Zhou Ma, Lenka Hawlickova, Ian Bancroft

Gene knock-out by CRISPR-Cas9 and EMS-induced point mutations on seed FATTY ACID REDUCERS increase the seed oil content in rapeseed (Brassica napus)

Resequencing 991 rapeseed genomes from a world-wide collection reveals genetic basis of ecotype divergence. A powerful platform for GWAS in agronomic and quality traits

Whole genome predictions provide flexibility in the utilization of costly phenotypic data across environments with varying temperatures.
- Chad Kucalw, Stuart W. Gardner, Frank Technow, Robert W. Dunstan

Genomic and epigenomic patterns in novel heterotic pools of winter rapeseed (Brassica napus)

Maintaining Blackleg Resistance in a Commercial Breeding Program
- Ird Christianson, Yuehau Zhong, Diane Leforestier, Romain Fouquet

Whole-genome resequencing reveals Brassica napus origin and genetic loci involved in its domestication and improvement
- Kun Li, L. Qian Wei, Xiaolong Li, Xiaowu Wang, Andrew H. Patterson, Jie Jie

Transgene-free targeted mutation in rapeseed (Brassica napus L.) via transient CRISPR-Cas9 expression in protoplasts
- Renate Lubahn, Bernd Schindelmayer, Dirk Becker, Jan Falk

Computational Prediction and Characterization of 3D Genome Organization in Brassica napus
- Kimberly MacKay, Tricia Bender, Isabell Parkin, Anthony Ruszcz, Stephen Robinson
SIMPLIFYING DISEASE MANAGEMENT IN CANOLA AND OILSEED RAPE

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DISEASES AND PESTS, PLANT PROTECTION

Non-targeted metabolome profiling of green flower buds in oilseed rape: Screening for resistance against the pollen beetle  
Haike Austen, Christoph Blättler, Tarsten Meiners

Next generation molecular fungicides: control of Sclerotinia sclerotiorum using RNA interference technologies  
Mark Belmans, Noëla Shyvor, Philip Walker, Nick Wythek

Pyrethroid resistance of insect pests of oilseed rape in Germany  
Meike Brandle, Udo Helmbach

Lectin genes, concanavalin, curcin and hevans, enhances resistance to the fungal pathogen Sclerotinia sclerotiorum in rapeseed  
Lone Buchwald, Dwayne Hegedus, Diana Bekkaoui, Jonathan Durham, Järke Netterlein, Eds ozonevice

Integrating Control strategies Against soil-borne Rhizoctonia solani in Oilseed rape (CARIOS)  
Rumiana Ray, Daisuke Inoue, Baekky Ajigboye, Michael Tait

Effect of migration time on population dynamics and damage potential of cabbage stem flea beetle (Psylliodes chrysocephala L.)  
Niels Conrad, Meike Brandle, Bernd Ulber, Udo Helmbach

Improving blocking resistance durability through rotation of major-gene resistance groups in commercial canola fields on the Canadian prairies.  
Justine Cornelissen, Zhongwei Zou, Dikathana Ferdinand
International initiative on the nomenclature and curation of clubroot resistance loci
- Elke Diederichsen, R. Fredua-Agyeman, K. Hatakeyama, N. Hayashida, Y. Piao, F. Yu, G. Peng

Synchronous improvement of subgenomes in rapeseed for sclerotinia resistance
- Xianqun Ding, Jiaqin Mei, Wenjing Yang, Baqin Pan, Hua-Hong Ren, Wei Qian

Effects of model parameter uncertainty in predicting severity of phoma stem canker epidemics in UK winter oilseed rape crops
- B. Fitt, F. Newbery, W. M. Shitou, A. Qi

Genomic tools for the management of clubroot of canola (Brassica napus)
- L. Galindo-Gonzalez, H. Askarian, H. Tao, M. Holtz, S.-F. Huang, S.E. Strelkov

Dropleg-technique against insect pests in flowering oilseed rape
- Johannes Hausmann, Brandes, Meike

Receptor-like kinases BAK1 and SOBIR1 are required for necrotizing activity of Sclerotinia sclerotiorum necrosis-inducing effectors
- Dwayne Hegedus, Shirin Seifbarghi, Mohammed Hossein Borhan, Yangtai Wei, Lisheng Ma, Cathy Coutu, Diana Bakkouzi

Host resistance affects coexistence of two related fungal pathogens Leptosphaeria maculans and L. biglobosa
- Yongju Huang, Faina Javadi, Lakhani H. Gajula, Chinthani S. Karandeni-Dewage, Georgia K. Mitsou, Bruce D.L. Fitt

Reconsideration of disease cycle of rapeseed stem rot caused by Sclerotinia sclerotiorum and management with biological agents
- Dophahang Long, Tao Xie

Identification of plant traits related to the tolerance of WOSR to pollen beetle
- Alexandra JULLIEN, A. Pinet, A. Mathieu, C. Richard-Moillard, A. Fortineau

Hormonal responses to Plasmodiophora brassicae infection in Brassica napus cultivars differing in their pathogen resistance
- Veronika Konradyova, Sylva Prerostova, Petr I. Dobrev, Vojtech Krasni, Alena Gaudinova, Barbara Kramna, Jan Kazda, Jutta Ludwig-Müller, Radomira Vankova

Innovations in fungicide and insecticide seed treatments in Europe: SCENICgold and BUTEOstart
- Susanne Kretschmann

Seed Applied Technology to help Canadian Producers Manage Blackleg in Canola
- D. Fernando, T. Labun, F. Brandl

The amount of Leptosphaeria maculans-contaminated dockage in canola seed shipments is not related to blackleg disease transmission in seed spillage piles
- Ralph Lomax, W. D. Dmytriw, A. El-Mezawy, R. Werezuk, R. Razaiz, C. Rempel
Genetic Mapping and Characterization of the Novel Blackleg Resistance Genes LepR5 and LepR6

- Nicholas Lanke, Isabell A. P. Parkin, M. Hossein Borhan

Complexity of Leptosphaeria-Brassica interaction revealed by a novel class of disease resistance genes against blackleg disease

- Nicholas Lanke, Hossein Borhan, Lisong Mo, Parham Haddad, Isabell Parkin,

Damage from the brassica pod midge Dasyneura brassicae in relation to landscape factors and abundance of the midge and the seed 3D workflow Ceutorhynchus obsoletus

- Matrosa Larsen, Axel Risvik, Emno Johansson, Kari Renkkens, Peter Andersen

A Biosensor for Sclerotinia Stem Rot Forecasting

- Khile Kiplagat, Jian Yang, Jie Chen, Lian Shoute, Scott Mackey

QTL analysis identifies genomic regions associated with clubroot disease in Brassica rape seed

- Jiahe Lin, Li Yuan, Choi, Song Hoon Oh, Sungmin Hong, Jane Jovanni Romani

Multilevel analysis of the clubroot disease and its biological control by an endophytic fungus

- Glatz Ludwig-Müller, Susann Auer, Martin Cerny, Bretislav Braboshová

Integrated control of establishment pests in canola: an Australian perspective

- Michael Booth

Integrated Pro – A new Generation of Seed Treatment in Oil Seed Rape

- Emmanuelle Noirtin, Paul Cavell, Martin Benninger

Effect of hairiness in Brassica lines on flea beetle feeding behavior

- Chrystel Olivier, Tyler West, Dwayne Hedges, Zohreh Heydarian, Adam Jones

The mechanism and durability of intermediate resistance to Plasmaphilum brassicae pathotype X conferred by two resistance genes

- Gary Peng, R. Wen, T. Song, N. Tong, Y. LEE, K. HORN-AGAY, J. BUSH, F. Yu

Neonematodistinctus insidiosus presence in flowing water and wetlands across Canada, impact on pollinators and aquatic invertebrates and risk mitigation with emphasis on canola production


Breeding perspectives for pest control in rapeseed

- Steffen Rietz, Simon Geirr, Katarina Lohaus, Ines Zienkiewicz, Til Feike, Benoit Ly Vu, Christophe Eseola, Annette Pfordt, Alice Baux, Sophie Brunel-Muguet, Sophie Blaise, J. Trouvetre, J. C. Aviez, A. Moeller

Development of molecular tools for identification and monitoring of main weevil pests and natural enemies in OSR


Course of colonization and potential for seed transmission of Verticillium longisporum in winter and spring type oilseed rape (Brassica napus L.) under field conditions and the role of soil temperature

- Xiaorong Zheng, Alice Biscoisse Esteve, Annette Pfordt, Daniel Thimme Loppis, Birger Kospmann, Andrea van Tiedemann

Turnip Yellows Virus (TuYV) incidence and impact on yield in European oilseed rape

- Stefan Ahoi, Laurent Hannemann, Vasuki Gogas

Integrative genomics and metabolomics approaches to decipher mechanisms underlying quantitative resistance to blocking in oilseeds


A Review of Heat Stress in Spring and Winter Canola (Brassica napus L.)

- Filippo D. Sobotta, S. F. El-Habbash, T. Kautz
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| #142 | Is profiling of volatile compounds from virgin rapeseed oil a promising tool for the assessment of the sensory quality? | Robert Duncan, Ludger Brühl, Anja Brante |
| #143 | Metabolite profiling analysis and quantification of phenolic compounds between the yellow- and black-seeded rapeseed by HPLC-MS | Cumin Qin, Mengwen Yin, Shuxin Wang, Shulin Shen, Xingu Chen, Kun Liu, Zhanglin Tang, Xifu Xu, Ying Liang, Jian Li |
| #144 | Requirements for Canola / Rapeseed Proteins for Use in Food and Feed | Ralph-Peter Tressel, Jesus Palamine, Corrina Dowid |
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| #157 | Canola meal for poultry - Recent studies and perspectives | Bogdan Stominski, Anna Radiwicz |
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| #159 | Chemical composition and nutritional characteristics of rapeseed meal produced in France | Sylvia Douaguy, Claude Tommo, Anne-Saïlle Sicaire, Mohammed Oukaj, Vincent Jauvon, Alain Qunsac |
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**Posters**

**#200**
Study on stability of Iranian mutant adapted rape genotypes by using GGE Biplot
- Morteza Rahimi, Hamzeh Omid, Bahram Alizadeh, Ali Askar Shah Najaf Bushehri

**#201**
Effect of genotype and location on yield, oil, protein, Glucosinolates and Saturates of Canola across Western Canada over three years
- Robyn Anderson, Jessica Moore, Katy Navabi, Wade Stock, Tobias-Hermann Möllers, Chon-Kit K. Chan, Philipp E. Bayer, Jacqueline Batley

**#202**
Adaptation Study of European Oilseed rape Cultivars in Iran
- Bahram Alizadeh, A. Rezaizadeh, M. Yazdansoort, H. R. Miresmail Homaee

**#203**
Magnitude of heterosis and combining ability in oilseed rape (Brassica napus L.) across environments
- Hassan Amari Oghaneh, Amir Hosseni Shvani Rad, Farnaz Shariari, Mohammad Bagher Valipour

**#204**
CropSNP: a database of SNP array data for Brassica crops and hexaploid bread wheat
- Robyn Anderson, Philip E. Bayer, David Edwards, Jacqueline Batley

**#205**
Bliss in resistance gene prediction due to repeat masking
- Robyn Anderson, Philip E. Bayer, David Edwards, Jacqueline Batley

**#206**
Test of the potential use of SNP markers on oilseed rape varieties
- Anne Bernade, Murali Thomsosset, Margaret Wallace, Helen Appleby, Cheryl Turnbull, Elizabeth Scott, Amaud Hesray, Anne-Lise Cotrel

**#207**
A practical application of SNP marker assisted selection in canola (Brassica napus L) cultivar development programs
- Jack Brown, Z. Zhang, H. Dong, J. B. Douc, A. Jib

**#208**
Genome-Wide Differences in DNA Methylation Changes in Two Contrasting rapeseed Genotypes in Response to Drought Conditions
- Dongping Cai, Shuwen Zhao, Jingping Wang, Junping He, Jinhuo Cao, Yancheng Wen, Lei Zhao, Dongguo Wang, Jiacheng Zhu

**#209**
Selection for double low quality semi-resynthesized DH lines in Brassica napus L.
- Wun Chao, Puying Zheng, Mukhlesur Rahman, James V. Spiller, Feng Gao, Davoud Kolbehdari, Pauline Barneet Basler, Eric Kreger

**#210**
A Review Of The Development of Ogura Winter Oilseed Rape Hybrids And Derived Benefits
- Matthew Clarke, Kelly Gugian, Laurent Verdier

**#211**
Genome-wide association mapping of freezing tolerance in canola (Brassica napus L.)
- Han Chao, James V. Anderson, David P. Hervath, Michael J Stamm

**#212**
The R2R3-MYB transcription factor BnaPAP4.R regulates anthocyanin accumulation in rapeseed (Brassica napus L.)
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**Terres Univia**

Terres Univia was founded in 2015 through Onidol (created in 1976) and Unip (created in 1978) merging. It is an interbranch organisation which represents French oilseed and oil fruit sector (oil seed rape, sunflower, soya, linseed, olive) and French legume seed sector (field pea, faba bean, lupin, lentil, chickpea, alfalfa) interests.

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Official Congress Dinner at Tempelhof Airport

(included in conference fee)

The congress will be rounded off with an official Congress Dinner on June 18th, from 19:00 to 24:00 hrs, in what used to be the departure hall at Tempelhof Airport. “We are delighted to have an opportunity to offer all congress participants, who will be coming to Berlin from all over the world, this special historical venue for the dinner, in a location that is so extremely important for Berlin,” says Wolfgang Vogel, Chairman of the Union for the Promotion of Oil and Protein Plants (UFOP). The Official Congress Dinner will be a unique opportunity for all participants of the IRC 2019 to come together, indulge in an exclusive dinner, and enjoy the special evening program. Let yourself be surprised! Please note: Your Congress Badge is your admission ticket! Shuttle busses will be available from and back to the bcc building.
TUESDAY

Shuttle to Tempelhof, starting at 17:30

Shuttle back to bcc, starting at 22:30
On-the-spot Rapeseed Visits Across Germany

The field trips organized after the congress give participants a chance to get to know the practical side of German rapeseed breeding, too. They provide a glimpse behind the scenes of modern rapeseed cultivation, as well as offering participants an opportunity to build their professional networks. There will be visits to institutes, enterprises and rapeseed cultivation areas in Brandenburg, Saxony-Anhalt, Saxony, Hesse and Mecklenburg-Western Pomerania.

EXCURSION NAUEN (16th June)
An excursion to Bayer CropScience AGRO-FARM GmbH in Nauen, just outside Berlin, is offered the day before the congress begins. In addition to the trip to the farm, a visit to Schloss Ribbeck (Ribbeck Castle) is also planned.
→ Bayer ForwardFarm in Nauen

FIELD TRIP WEST (19th to 21st June)
On this first field trip, participants will head westward. During the trip, the participants will visit research facilities in Quedlinburg (Saxony-Anhalt) and Giessen (Hesse).
→ JKI Quedlinburg, Experimental Farm University of Giessen
FIELD TRIP NORTH (20th to 21st June)
The field trip north takes the participants to the Baltic Sea. In addition to a field visit to Wariner Pflanzenbau e.G. in Trams and the two NPZ facilities in Malchow/Poel and Groß-Luesewitz, a visit to the Julius Kühn Institute for Breeding Research on Agricultural Crops is scheduled.

→ Wariner Pflanzenbau e.G. in Trams, NPZ Breeding Station in Malchow/Poel, NPZ Innovation GmbH in Groß-Luesewitz, JKI Institute in Groß-Luesewitz

FIELD TRIP SOUTH (20th to 21st June)
This tour starts on 20th June 2019 and will head south, with stops in DSV-Breeding Station Leutewitz in Käbschütztal and Nossen. Participants will have a chance to visit BASF experimental fields Groitzsch and the Federal Plant Variety Office (Bundessortenamt) in Nassen (Saxony).

→ DSV breedingstation in Leutewitz in Käbschütztal, BASF experimental fields Groitzsch, Federal Plant Variety Office in Nossen
DLG – German Agricultural Society

The open network and professional voice of agriculture, agribusiness and the food sector

Founded by engineer Max Eyth in 1885 and with over 30,000 members, DLG is today one of the leading organizations in agriculture, agribusiness and the food sector. DLG is a politically independent body with an extensive international network. It is open to anyone with an interest in the fields of agriculture and food production.

What we do

Knowledge and expertise: DLG’s networks of experts develop solutions for the challenges facing agriculture, agribusiness and the food sector.

Tests and certificates: DLG develops test methods and sets quality standards. It tests products, promotes and communicates quality and quality standards to create market transparency.

Trade fairs and exhibitions: DLG’s shows and events provide a platform for innovation and industry dialogue.

Trade fairs and exhibitions – Platforms for progress

Trade fairs and shows ‘made by DLG’ serve as forums for ideas, innovation and networking and are held in great esteem by international, national and regional exhibitors and visitors. Leading fairs of international repute such as AGRITECHNICA and EuroTier and more than 30 shows in many countries provide campuses where information is shared on current trends and issues in the agricultural and food industries.

10 – 16 November 2019
Hannover, Germany
Preview days 10/11 November

16 – 18 June 2020
Gut Brockhof, Erwitte/Lippstadt
Germany

Perfect organization, innovative services and relevant topics are the hallmarks of our events. Our international network of experts as well as our agricultural and food test centers make us a competent partner for all key issues in the various sectors of agriculture and food production. DLG is known for its internationally experienced team, highest quality standards and understanding of relevant issues and regional differences. Our operating subsidiaries in many different countries develop new markets and provide tailor-made business platforms.
Co-located exhibition supported by DLG-Feldtage

DLG-Feldtage – meet the crop professionals. Three days where the whole range of modern crop production will be exhibited under practice-orientated, hands-on conditions. A large area of the DLG-Feldtage are the trial fields where new varieties, farm inputs and services are demonstrated. This outdoor-exhibition brings together technology, research, industry and practical farming in one place. The guiding theme of DLG-Feldtage 2020 – *Your Location. Your Crop Production* – aims to offer possible solutions for individual cultivation conditions while taking the soil, climate and structure into account.

DLG – exclusive partner

For the first time, the International Rapeseed Congress will include an extended co-located exhibition, organized by DLG. Exhibitors will present innovative technology and solutions of the rapeseed sector that is coming together in Berlin.

Participants of the co-located exhibition:

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<td>Wels, AUSTRIA</td>
<td>Rapeseed Cultivation and Harvest, Field Trial Equipment</td>
</tr>
<tr>
<td>Syngenta Crop Protection AG</td>
<td>Basel, SWITZERLAND</td>
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<tr>
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<tr>
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If you are interested in an exhibitor or its products and services, you can find more information as well as your contact person in the enclosed brochure.

For any information and questions about DLG or an exhibition, please feel free to contact us.

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Imprint

Please excuse any misspelling or grammatical errors that may occur in the congress book. The congress book contains data from diverse sources. The IRC-Team has requested clearance for all presentations.

The program within the conference book reproduces the status of the date of print. For any changes that may occur we recommend checking the program online:

www irc2019-berlin.com/program

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