

Conference Fees

Regular participants:

payment before 01 March 2013: 40 Euro
payment after 01 March 2013: 80 Euro

The fee includes free entrance to the reception and complementary coffee or tea during the symposium.

Students:

payment before 01 March 2013: 25 Euro
payment after 01 March 2013: 50 Euro

DPG junior members: free

Social Gathering Proceedings 50 Euro
65 Euro

Payments:

All payments should be addressed to

Bank name: Deutsche Bank
Account holder: DPG
Account number: 3518487
BLZ: 500 700 10
BIC: DEUTDEFF
IBAN: DE79500700100351848700

Further payment details are given on the symposium website.

Please notice that payments less a processing fee of EUR 30 will be refunded provided a written cancellation is received by DPG until 30 March 2013. Please note that there will be no refund for cancellation after 30 March 2013.

The conference language will be English.

Programme information:

Further details will be given on the symposium website or by email:

carstensen@phytomedizin.org

Registration is open from 01 August 2012 on

The conference bureau will be open throughout the symposium. Registration is possible on 27 May, from 8:00 to 12:00 am.

The Venue

The symposium »Plant Protection and Plant Health in Europe« is organised jointly every two years by the *German Phytomedical Society* (DPG, www.phytomedizin.org), the *Julius Kühn-Institut* (JKI, www.jki.bund.de) and the Division Phytomedicine of the Faculty of Agriculture and Horticulture of the Humboldt University of Berlin (www.hu-berlin.de).

This three-day symposium will be held at the traditional building of the Faculty of Agriculture and Horticulture, *Lentzeallee 55, 14195 Berlin (Dahlem), Germany*.

Accommodation: Berlin offers a large number of hotels. For special offers please see the Symposium website.

Discovering Berlin: A number of opportunities will be available for you to explore the German capital on your own (see symposium website).

Symposium Committee

Klaus Stenzel & Falko Feldmann
German Phytomedical Society (DPG), Germany

Georg F. Backhaus
Julius Kühn-Institut (JKI), Quedlinburg, Germany

Carmen Büttner & Christian Ulrichs
Humboldt University (HU), Berlin, Germany

Carolin Schneider & Carlo Leifert
COST Action FA1103, Germany & UK

Gábor M. Kovács
Eötvös Loránd University (ELTE), Budapest, Hungary



Plant Protection and Plant Health in Europe



Endophytes for plant protection: the state of the art

5th International Symposium
jointly organised by DPG, JKI and HU-Berlin

27 – 29 May 2013 Berlin, Germany

Division Phytomedicine
of the Faculty of Agriculture and Horticulture
Humboldt University of Berlin

First Circular
www.ppphe.phytomedizin.org



The Symposium Topic

World wide there is a general need for new antibiotics, chemotherapeutic agents and agrochemicals which are highly effective and have low toxicity for man and environment.

The discovery of endophytes living inside of plants and the research on their biology opened the door to work on their usefulness for plant production.

Endophytes on one hand induce secondary metabolites in plants which can be extracted for several purposes.

On the other hand these substances may interfere with potentially pathogenic organisms of the produced plant and may, therefore, cause enhanced tolerance of plant, increased resistance or higher quality of products.

Following a common definition, endophytes are „Microbes that colonize living, internal tissues of plants without causing any immediate, apparent negative effects”.

Growing without symptoms here means „growing without visible damages“. While such a symptomless nature of endophyte occupation in plant tissue has prompted focus on symbiotic or mutualistic relationships between endophytes and their hosts, the observed biodiversity of endophytes suggests they can also be aggressive saprophytes or opportunistic pathogens.

Fungi and bacteria are the most common microbes existing as endophytes. Can virus be endophytes, too? Mycoplasmas, archebacteria? Do we have to recognize mycorrhizas - growing inside the roots - as endophytes in spite of having external organs? Should we define more precisely what we mean speaking about endophytes?

Since years a huge amount of plant species are collected in order to isolate new useful endophytes from their tissue. What are the selection strategies for plants to be investigated afterwards? How is specificity of host/endophyte interrelationships managed, if the organisms are intended to be used as agent? Which new methods of screening for their metabolites, or the metabolites the host plants express in response to them?

Agricultural use of endophytes is intended especially on the field of plant protection. The control of plant-pathogenic bacteria and fungi is receiving increasing attention as alternative to synthetic pesticides and antibiotics. Furthermore, these endophytic microorganisms are likely to be adapted to the presence and metabolism of complex organic molecules and therefore show biodegradation activities.

How successful are research groups recently to develop active substances from endophytes which can be used in

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plant protection? How is the registration procedure regulated for biological pesticides?

Which importance does it have to develop inocula of biofertilizer, stress protection and biocontrol agents?

Which bottlenecks are limiting the use of endophytes in agriculture and to provide solutions for the economically and ecologically compatible exploitation of endophytes .

This symposium wants to highlight the state of the art of endophyte research for use in agriculture in Europe in oral contributions and poster presentations.

Discussion about the questions rising from the presentations is very important. Therefore we will offer workshops and meetings throughout the symposium to meet each other for an intensive discuss.

The symposium is designed as a meeting of all relevant stakeholders (research, industry, consultation, regulation).

Key note speakers from different EU member states will introduce the workshops.

Please offer your oral statements and poster contributions through the symposium website until

15 October 2012

The organisers wish to favour intensive discussions on the subject. Therefore the number of participants will be restricted.

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Preliminary Programme

Monday
2013-05-27

Plenary session 1:

Endophytism: a widespread and ancient feature of co-operation

Plenary session 2:

The plant as ecological niche for endophytic organisms

Workshop 1:

Is the endophyte lifecycle entirely symptomless?

Workshop 2:

Secondary substances due to endophyte colonization of plants

Tuesday
2013-05-28

Plenary session 3:

Host-endophyte interactions

Plenary session 4:

Diagnosis of endophytes

Plenary session 5:

Endophytes in plant production

Plenary session 6:

Endophytes for the plant protection market

Wednesday
2013-05-29

Workshop 3:

The dark septate endophyte complex

Workshop 4:

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