



**IOBC**  
**WPRS**

*International Organisation for Biological and Integrated Control (IOBC)  
West Palaearctic Regional Section (WPRS)*

*Organisation Internationale de Lutte Biologique et Intégrée (OILB)  
Section Régionale Ouest Paléarctique (SROP)*

XV Meeting of the Working Group  
'Biological and integrated control of plant pathogens'

## Biocontrol products: from lab testing to product development



**23-26**  
April 2018  
Lleida

Second circular  
[www.iobc-wprslleida2018.cat](http://www.iobc-wprslleida2018.cat)

**IRTA**



Universitat de Lleida

# Welcome Note

Lleida, August 2017

Dear Colleagues,

Following the last **IOBC-WPRS meeting of the Working Group “Biological and integrated control of plant pathogens”** in Berlin in September 2016, we will organize a meeting in **Lleida (Catalonia)**. The Institute of Agriculture and Food Research and Technology (IRTA), a research institute from Catalan government, will be the local organizer together with the University of Lleida. The workshop will be held at the “Centre de Cultures i Cooperació transfronterera” Auditorium of the University of Lleida that is equipped with all necessary facilities. The meeting venue is located in the new campus of the University of Lleida near the river and at walking distance to the city centre and to most hotels.

Lleida is a middle size city, very well connected to Barcelona airport and located in a privileged setting, at an hour distance to the Pyrenees and Mediterranean coast. Is the centre of a fertile agricultural area and it is considered the most important fruit producer area of Catalonia.

**The theme of the workshop will be: “Biocontrol products: From lab testing to product development”.** All contributions relating to biocontrol of plant diseases are welcome, but priority to oral presentations will be given to research on the main necessary aspects to bring biological products from the lab to the field. This meeting will provide an important opportunity to present your last works on this theme, to share ideas and to discuss common issues.

We wish to bring together students, experts, researchers and implementers of biological control and IPM to discuss potential improvements of biocontrol and integrated control. We expect approximately 150-200 participants from many countries to participate in this meeting.

There will be oral and poster presentations in English with ample time devoted to discussions. Preceedings with full papers or abstracts of contributions will be published in the IOBC/wprs Bulletin just before the workshop. This **second circular** informs you about time, costs, publication, deadlines etc. **You will find these details also on [www.iobc-wprslleida2018.cat](http://www.iobc-wprslleida2018.cat). Moreover, in September, you will find more information about the program and keynote speakers.**

The meeting will be accompanied by a specialized industrial exhibition. Interested companies are invited to request information on the exhibition modalities from the conference Organization ‘Fundació Universitat de Lleida’ (<http://www.fundacio.udl.cat/>).

Please post this circular and pass it to colleagues that may be interested in attending the workshop.

We look forward to seeing you in Lleida.

**Neus Teixidó**

**Charo Torres**

**Josep Usall**

Conference chairs,  
Postharvest Pathology,  
IRTA, Lleida

**Jürgen Köhl**

Convenor, Wageningen  
University & Research,  
Wageningen,  
The Netherlands

**Marc Bardin**

Liaison Officer, Plant  
Pathology, INRA,  
Montfavet, France

# Venue

Lleida is the capital city of 'Segrià' region and the province that takes its name. It is the most important population and economic inland centre in Catalonia. Its economy is based on the agri-food sector, as well as on all kinds of services. Lleida is located in one of the most fertile and productive areas in Europe. On the River Segre, halfway between the sea and the mountains and perfectly linked, it is on the route that connects Spain with the rest of Europe and the Mediterranean.

It boasts modern networks, headed by the high-speed railway line (AVE) and the road network: the AP-2 motorway, which runs as a dual carriageway from the city of Barcelona to Lleida and then on to Zaragoza; the Eix Occidental, which leads to the Ebro, and the Eix Transversal bound for the Girona region. This position as a cross-roads has been enhanced by the construction of an airport in the neighbouring town of Alguaire and the Lleida-Huesca dual carriageway.

Shopping, with a strong, deeply rooted tradition in the city, spreads its influence over Segrià and neighbouring regions. The newly opened, high-quality cultural facilities, like the new University Campus, have given the city's cultural life an extraordinary boost. Lleida is a modern city which is culturally active, well communicated and situated in a unique natural environment.

Lleida has the privilege of being provided with natural areas as important as La Mitjana nature park -an ecosystem of great natural and ecological value- the River Segre park and Camps Elisis, apart from the so-called Horta (irrigated area), the green belt that surrounds the city. This natural legacy has made Lleida grow, following environmental and quality values within the framework of a sustainable city. The national currency of Spain is the Euro. Most major credit cards are accepted at restaurants and shops.

The Auditorium 'Centre de Cultures' is located in the Campus of Cap-Pont of the University of Lleida, at walking distance of the main hotels.



# Preliminary program

|  |             |   |
|--|-------------|---|
| <b>Monday 23<sup>th</sup> April</b>    | 16:00-18:00 | Registration  |
|  | 18:00-20:00 | Exploring the festival of Sant Jordi (Saint George) |
|  | 20:00-22:00 | Welcome reception                                   |
| <b>Tuesday 24<sup>th</sup> April</b>   | 08:00-18:30 | Oral and poster sessions                            |
| <b>Wednesday 25<sup>th</sup> April</b> | 09:00-18:30 | Oral and poster sessions                            |
| <b>Thursday 26<sup>th</sup> April</b>  | 09:00-14:30 | Oral and poster sessions                            |
|  | From 14:30  | Technical tour and Gala Dinner                      |
| <b>Friday 27<sup>th</sup> April</b>    |             | Departure   |

## We will address the following main topics:

- I.** New sources and methodologies to isolate and evaluate potential biocontrol agents
- II.** Mass production and formulation methods
- III.** Effects of microbial factors on biocontrol product efficacy at field scale
- IV.** Evaluation of risk assessment and impact on microbial community in the rhizosphere and on the plant
- V.** Biocontrol and integrated disease management in different environments: successes and problems encountered. Combination with other strategies
- VI.** Elucidate the mode of action of biocontrol agents
- VII.** Interaction host-pathogen-biocontrol products
- VIII.** Commercial use of microbial for management of diseases. Industry and government perspective and needs
- IX.** Molecular tools to study microbial populations in different environments, crops and climate
- X.** Microbial ecology
- XI.** Application of natural substances/microbial against diseases in different environments

# Important dates

Deadline for submission of manuscripts and registration form: **23<sup>th</sup> November 2017**  
Deadline of payment of registration fee at 'early rate': **16<sup>th</sup> February 2018**

## Registration

Registration via the conference website (available in September) is required to attend all the scientific sessions and social events. Please note that only fully registered participants will be admitted to the scientific sessions. A personalized confirmation e-mail will be sent to each participant once the payment of the registration fee has been received either through the online system or in the Conference's bank account.

|   | <b>Early registration<br/>(until 16<sup>th</sup> February 2018)</b> | <b>Late registration<br/>(after 16<sup>th</sup> February 2018)</b> |
|---|---|--|
| IOBC Member   | 420,00 €  | 470,00 €   |
| IOBC Non-member*  | 540,00 €  | 590,00 €   |
| PhD student, Young Post-Doc#<br>(IOBC Member or Non-member) | 285,00 €  | 345,00 €   |

\* The fee includes IOBC-WPRS membership for one year

# A certificate confirming student status is required to be submitted as a scanned copy to the Secretariat office of the conference

### Full registration fee includes:

- Welcome reception event
- Official conference program, book of abstracts and participant's package
- All lunches (3) and mid-session coffee/refreshments breaks
- Congress Tour
- Gala dinner

### Accompanying person:

- Gala dinner 50 €
- Excursion 30 €
- Welcome reception 20 €

# How to submit a manuscript

Your scientific contributions will be published as conference proceedings in the IOBC-WPRS Bulletin. The Bulletin will be published on the meeting website just prior to the event. In order to allow good and uniform reproduction, all manuscripts must be submitted in MSWord. To avoid unnecessary delays in the production of the Bulletin, authors are kindly requested to respect strictly the IOBC manuscript format.

Language: The papers should be written in English. The content should be clear, concise, and have been revised by an experienced speaker of one of this language.

## Instructions: full paper

### **Type of Manuscript**

The following scientific contributions are accepted:

- Full Paper (maximum 4 pages) (preferred)
- Extended Abstract (maximum 2 pages)
- Abstract

### **The papers should consist of:**

- Abstract
- Key words
- Introduction
- Material and methods
- Results and discussion (separated or combined)
- Acknowledgements (if necessary)
- References

The bulletins will be published on the website and in the webshop of IOBC-WPRS. Therefore, compile your manuscripts in the final form as described below. In order to allow good and uniform reproduction, all manuscripts must be submitted in an electronic version in MSWord.

## Instructions for the papers:

1. Paper-format: A4
2. Left and right margins of the text: 2.5 cm  
Upper margin: 3.0 cm  
Lower margin: 2.5 cm  
This results in a printing area of 16 cm x 23.7 cm
3. Line spacing: 1
4. Font: "Times New Roman" or "Times"
5. All titles and subtitles should be flush left. Fonts as printed in the example
6. Font of the abstract: 12 pt
7. Font of the running text: 12 pt (except titles)
8. Font of the title: 16 pt, bold
9. Font of subtitles: 14 pt, bold
10. No hyphenation in the text
11. Justification of the text
12. Make sure that the first lines of all paragraphs (except for the paragraph that follows a title) are indented with a [Tab] command (0.8 cm). Do not use spaces instead of tabs and indents. Do not repeatedly use Standard-Tabstops
13. Scientific names of plants and animals in Italics
14. The authors' names should be typed in the normal font (not in capitals or any other face, not bold) in the text as well as in the "References"
15. Layout as shown in the example
16. Do not number the pages; the page numbering is done when the bulletins are being compiled

## Tables & figures

1. Incorporate tables and figures into the manuscript. Make sure that they are not linked to a file on your own computer, which makes them disappear in the manuscript when it is sent away
  2. Two free lines have to precede and follow each figure or table
  3. Make your tables with the [Table]-function. Do not use repeated [Standard]-Tab's or spaces  
Legends should be mentioned above the tables and under the figures.  
In the figures and tables the smallest font should be 10 pt. Smaller fonts may become unreadable  
Tables and figures should be centred
  4. To differentiate between parts of a diagram or between curves in a figure, use clearly different colours or shading in different patterns. Make sure that the patterns as well can be clearly discerned from each other. Please avoid in the figures large uniform black or grey areas, fill out the columns in a figure with a pattern or a colour
  5. Coloured photographs are welcome, but they shouldn't require too much memory capacity (not more than 1 MB each)
  6. The figures, too, should not require too much memory capacity.  
If they need more than 1 MB, they will often have to be downsized which may be followed by a lack of quality
- 

## Instructions for abstracts and extended abstracts

*Please note: Abstracts of less than one page should be an exception in a bulletin.*

For abstracts and extended abstracts (max 2 pages), follow the instructions for manuscripts:

1. Paper-format: A4
2. Left and right margins of the text: 2.5 cm  
Upper margin: 3.0 cm  
Lower margin: 2.5 cm  
This results in a printing area of 16 cm x 23.7 cm
3. Line spacing: 1
4. Font: "Times New Roman" or "Times"
5. Font of the abstract/extended abstract, key words etc.: 12 pt
6. Font of the title: 16 pt, bold
7. Font of subtitles (References, key words, acknowledgements...): 14 pt, bold
8. No hyphenation in the text
9. Justification of the text
10. Make sure that the first lines of all paragraphs (except for the paragraph that follows a title) are indented with a [Tab] command (0.8 cm). Do not use spaces instead of tabs and indents. Do not repeatedly use Standard-Tabstops
11. Scientific names of plants and animals in Italics
12. The authors' names should be typed in the normal font (not in capitals or any other face, not bold) in the text as well as in the "References" (if appearing in the abstract)
13. If references are mentioned in the abstract/extended abstract, they must be listed under "References"
14. Key words should be mentioned, in a distance of 2 lines to the text

### References

For journal abbreviations use the Web of Science list:

[http://images.webofknowledge.com/WOK46/help/WOS/A\\_abrvjt.html](http://images.webofknowledge.com/WOK46/help/WOS/A_abrvjt.html)

If you cite authors in the text, please order them according to the date of publication, first dates first, e.g. (Erwin & Ribeiro, 1996; Kuldau & Yates, 2000; McCracken et al., 2003), or "... Erwin & Ribeiro (1996) and McCracken et al. (2003) have shown..."

The references are written in Times Roman 12 pt with hanging indents by 0.8 cm in the first line. References are listed alphabetically. In the case of several references by the same author, give single-author references first, e.g. Smith (1996) before Smith et al. (1994), but Smith (1993) before Smith (1994). Please follow the examples given below for journal articles, book chapters and entire books and the examples in the bulletin manuscript.

### **Journal**

McCracken, A. R., Berrie, A., Barbara, D. J., Locke, T., Cooke, L. R., Phelps, K., Swinburne, T. R., Brown, A. E., Ellerker, B. & Langrell, S. R. H. 2003: Relative significance of nursery infections and orchard inoculum in the development and spread of apple canker (*Nectria galligena*) in young orchards. *Plant Pathol.* 52: 553-566.

### **Book chapter**

Kuldau, G. A. & Yates, I. E. 2000: Evidence for *Fusarium* endophytes in cultivated and wild plants. In: *Microbial Endophytes* (eds. Bacon, C. W. & White, J. F.): 85-117. Marcel Dekker, New York.

### **Book**

Erwin, D. C. & Ribeiro, O. K. 1996: *Phytophthora Diseases Worldwide*. APS Press, St. Paul, USA.

### **URL**

Beckleheimer, J. 1994: How do you cite URLs in a bibliography? [WWW document] URL <http://www.nrlssc.navy.mil/meta/bibliography.html>. Cited 20 Apr. 2012. [font: 12 pt, indent second and following lines: 0.8 cm]

### **Online Journal**

Pérez, J., Rojas, J. C., Montoya, P., Liedo, P., González, F. J. & Castillo, A. 2012: Size, shape and hue modulate attraction and landing responses of the braconid parasitoid *Fopius arisanus* to fruit odour-baited visual targets. *BioControl* doi:10.1007/s10526-011-9416-0

Note: The doi is reserved for journals that appear only online.

### **IOBC-WPRS Bulletin**

Sigsgaard, L., Vogt, H. & Weintraub, P. G. 2011: Voices from vice-presidents of the IOBC-WPRS. *IOBC-WPRS Bull.* 57: 123-456. [note: before Volume 30, 2007, the issue number must be included, e.g. 30(1): 12-15.]

### **Acceptation of manuscript**

The organizing committee will review the abstracts and notify the authors once the presentation form (oral/poster) has been determined.

### **Registration**

The presenting author must be a registered participant. Please note that the presenting author is not automatically registered by submitting an abstract. Regular registration is obligatory and binding and implies payment of the registration fee.



# How to arrive

## By plane

The airports with international connections are Barcelona-El Prat and Madrid-Barajas.

### Barcelona-El Prat Airport

Barcelona is about 160 km from Lleida but both cities are well connected by a High Speed Train (AVE) and other fast trains (AVANT) with the journey taking a little more than one hour (from Barcelona-Sants Station to Lleida-Pirineus Station). The airport is situated 12 km southwest from the centre of Barcelona. Once at the Barcelona-El Prat Airport you have to go to the airport train station and take the train shuttle to Barcelona, getting off at the railway station named Barcelona-Sants Station.

There is a train station at the airport to get to the Barcelona-Sants Station. It is situated opposite the T2 and it is connected to this terminal via an air bridge. Once at the airport station, you should take the suburban train (R2 North Airport line- Sant Celoni / Maçanet Massanes) and stop at Barcelona-Sants Station. The R2 line, which connects Terminal T2 with Sant Celoni / Maçanet Massanes, stops at: Airport - El Prat de Llobregat - Bellvitge – Barcelona-Sants Station. The trip takes 22 minutes. The train runs from 05:42 to 23:38 every 30 minutes. Once at Barcelona-Sants Estation, take an AVE or an AVANT train to Lleida-Pirineus Station (see the 'By train' section below for details).

To connect the airport and Barcelona city, passengers could take the Metro. The line L9 (orange) connects the airport with Barcelona city. This line is divided between North and South, being the L9 South line the one that links between Barcelona's airport and the various metro stations in the city. The L9 South line stops at both terminals 1 and 2 of Barcelona airport. The route is the following one: Barcelona Airport Terminal 1; Barcelona Airport Terminal 2 (connection with RENFE Rodalies (train)); Mas Blau; Parc Nou; Cèntric; El Prat Estació (connection with RENFE Rodalies (train)); Les Moreres; Mercabarna; Parc Logístic; Fira; Europa / Fira (connection with FGC (train)); Can Tries / Gornal; Torrasa (connection with L1 Metro (red line)); Collblanc (connection with L5 Metro (blue line)); Zona Universitària (connection with L3 (green line)). In order to reach Barcelona city center or the Barcelona Sants train station, the passenger must make a change of line and take the line L1, L5 or L3.

### Madrid-Barajas Airport

Accessible by car, bus and train (from Madrid-Atocha Station) Madrid is about 460 km from Lleida, but both cities are well connected by a High Speed Train (AVE) and other fast trains (Altaría) and the journey takes a little more than 2 hours. The airport is situated 12 km northeast from the centre of Madrid. Once at the airport (Madrid Barajas), you have to go to the Madrid railway station named Atocha Station.

Barajas Airport is connected to Madrid by metro (line 8) with 2 subway stations: Metro Aeropuerto T1-T2-T3 found at Terminal 2, and Metro Aeropuerto T4 found at Terminal 4. To go to Atocha Renfe, you need to make some transfers as shown below:

1. Pink Line (Number 8) from Barajas to Nuevos Ministerios.
2. Grey Line (Number 6) from Nuevos Ministerios to Pacífico.
3. Light Blue Line (Number 1) from Pacífico to Atocha RENFE station.

The trip takes 45-60 minutes. The price is 1 € approx. The cost of a single use metro ticket is 1€ and 7€ for a pack of 10 trips. Remember that it is necessary to pay extra to enter and exit the airport stations (T1,T2, T3 and T4). The amount is 1€ extra. The metro runs from 6 am to 2 am.

To get from Barajas airport to Atocha Station by train, take the new line C-1, which connects Terminal T4 with Príncipe Pío and several railway stations, and stops at: Fuente de la Mora, Chamartín, Nuevos Ministerios, Recoletos and Atocha. This time to Atocha is 25 minutes. Trains will run every 30 minutes, from 5.15 until 23.32 towards the airport and from 5.59 am until 0.15 towards Príncipe Pío. A single ticket costs €2.15, and it is free of charge for those who have an AVE ticket and have to catch a connecting flight. For more information, consult the Renfe Cercanías website or call +34 902 320 320.

## **By train**

### **Lleida Pirineus Railway Station**

Pl. Ramon Berenguer IV, s/n - 25006 Lleida

<http://www.renfe.com/EN/viajeros/index.html>

The journey in AVE or AVANT trains takes about 1 h from Barcelona-Sants Station and 2h and 18 min from Madrid-Atocha Station. There may be other train types. Check the travel time before buying the tickets. Schedules and availability can be consulted at <http://www.renfe.com/EN/viajeros/index.html>. If buying the tickets through internet you may only find the stations Barcelona (\*) and Lleida without their complete names (there is only 1 train station in Lleida). Check the type of train and the travel time to make sure you are taking the right option.

## **By bus**

### **Lleida Bus Station**

c/ Saracibar, 2. 25002 Lleida.

[http://www.alsa.es/portal/site/Alsa?portal.alsa.request.locale=en\\_GB](http://www.alsa.es/portal/site/Alsa?portal.alsa.request.locale=en_GB)

There is a direct bus connection from Barcelona-El Prat airport to Lleida (visit the website of the bus company for schedule). Although this is the easiest connection, the bus first drives into Barcelona and stops in every important village along the way so the trip takes about 3 hours to arrive to Lleida!

# **Accommodation**

You can now arrange your accommodation! Note that the conference organization will not make hotel reservations for you. You can find the list of hotels with information and rates in the following web page:

<http://www.turismedelleida.cat/on-dormir-en/h>

# **Climate**

The climate is continental, with Mediterranean influences. The weather expected during April is warm and sunny.

# General Information

## Venue

University of Lleida  
'Centre de Cultures i Cooperació  
transfronterera' Auditorium.  
Campus de Cappont  
C. de Jaume II, 67  
Lleida. Catalonia. Spain

## Organizing Committee

Dr. Neus Teixidó, Dr. Charo  
Torres, Dr. Josep Usall,  
Dr. Maribel Abadías, Dr. Carla  
Casals, Dr. Rosa Altisent. IRTA  
Prof. Dr. Inmaculada Viñas.  
Universitat de Lleida.

## Date

23-26 April 2018

## Hosting Societies

International Organisation for  
Biological and Integrated Control  
West Palaearctic Regional  
Section (IOBC-WPRS).

## Convenor

Dr. Jürgen Köhl  
Wageningen University &  
Research centre.  
Biointeractions & Plant Health,  
Droevendaalsesteeg 1,  
6708PB Wageningen, The  
Netherlands.

## Conference Chairs

Dr. Neus Teixidó, Dr. Charo  
Torres, Dr. Josep Usall  
IRTA - Parc Científic i Tecnològic  
Agroalimentari de Lleida.  
Parc de Gardeny, Edifici Fruitcentre  
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## Technical Secretary

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IOBC-WPRS

**IRTA**



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[www.iobc-wprsllleida2018.cat](http://www.iobc-wprsllleida2018.cat)

