

**Agro7038 SPECIAL TOPICS - Integrated management for disease control, microbial resistance and propection of disease management alternatives
- PROGRAM FIRST WEEK -**

Monday – 11/07/2022		Speakers
09:00-09:30	Presentation of the Campus, Post Graduate Program and Lemid	Prof. Dra. Louise Larissa May De Mio
09:30-10:15	Minibiography (details below)	Students
10:15-10:45	Coffee Break	
10:45-11:15	The microbiome and the occurrence of pathogens and antagonists in soybean in Brazil, season 2021/22	PhD student Camilla Castellar
11:15-11:45	<i>Trichoderma</i> as a powerful fungal disease control agent for a more sustainable and healthy agriculture: recent studies and molecular insights	PhD student Amanda Oliveira
12:00-14:00	Lunch Time	
14:00-14:30	Challenges for plum leaf scald management: approaches on fruit quality, vector interactions, volatile compounds and transmission	Postdoctoral researcher Heloisa Thomazi Kleina
14:30-15:30	Case Studies* (diseases on stone fruit, apple, grapevine and strawberry)	Dra. Heloisa Thomazi Kleina
15:30-17:00	Tour in the UFPR Campi	Prof. Dra. Louise Larissa May De Mio
Tuesday – 11/08/2022		
09:00-10:00	Clemson University and MyIPM	Dr. Guido Schnabel
10:00-10:30	Armilaria root rot, bacterial spot	
10:30-11:00	Coffee break	
11:00-12:00	Bronzing, abiotic diseases, other interesting diseases of temperate fruit crops and small fruit	Dr. Guido Schnabel
12:00-14:00	Lunch Time	
14:00-15:30	Efficacy trials of conventional and organic products against Brown rot of peaches	Dr. Guido Schnabel
14:30-15:00		Dra. Jhulia Gelain
15:00-15:30		
	Free time for students to prepare for field trips	
15:30-17:30	Discussion on research collaboration – UFPR x Clemson University	Prof. Dra. Louise Larissa May De Mio and Dr. Guido Schnabel

*The topics to be covered in the case studies are in Table 1. Work in pairs.

Wednesday – 11/09/2022		
	Locations	Growers
07:30-12:00	Visit to Clone Nurseries & Fruit Crops – Lapa (PR)	Roberto Hauage
13:00-14:00	Lunch Time – Apetito Restaurant	
14:00-16:00	Visit to apple orchard – Porto Amazonas (PR)	Gilberto Boutin
16:00-17:00	Return to Curitiba	
Thursday – 11/10/2022		
09:00-11:00	Free time	
11:00-12:00	Lunch Time – UFPR	
12:00-16:30	Visit to the plum orchards – Araucária (PR)	Waldomiro Gayer Neto
16:30	Return to Curitiba	
Friday – 11/11/2022		
08:00-12:00	Visit to strawberry cultivation – São José dos Pinhais (PR)	Giovana Beger
12:00-13:00	Lunch Time – Visit and lunch in wine route	
13:00:16:30	Visit to Legado Winery – Campo Largo (PR)	José Luiz Marcon Filho
16:30	Return to Curitiba	

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- PROGRAM SECOND WEEK -**

Monday – 11/14/2022 and Tuesday – 11/15/2022	
09:00-17:00	Material preparation for presentations. Online meeting* Dr. Jhulia Gelain
Wednesday – 11/16/2022	
09:00-10:00	Fungicide resistance/other topics Dr. Guido Schnabel
10:00-10:30	Coffee Break
10:30-11:00	Extension activities with examples Dr. Guido Schnabel
12:00-14:00	Lunch Time
14:00-15:00	Natural polymers nanocapsules containing eugenol applied for nectarine coating aiming to control brown rot caused by <i>Monilinia fructicola</i> Prof. Dr. Rilton Alves de Freitas
15:00-17:00	Case Studies preparation Students
Thursday – 11/17/2022	
09:30-10:00	Presentation of Case Studies Students
10:00-10:30	Coffee Break
10:30-11:00	Presentation of Case Studies Students
12:00-14:00	Lunch Time
14:00-14:30	Presentation of Case Studies
Friday – 11/18/2022	
09:30-10:00	Presentation of Case Studies Students
10:00-10:30	Coffee Break
10:30-11:00	Presentation of Case Studies Students
12:00-14:00	Lunch Time
14:00-17:00	Free Time

*The online meeting will be held according to the times available in Table 2.

HOW TO MAKE A MINIBIOGRAPHY? The Minibiography must be presented in 3 slides, not exceeding 5 minutes for each student. This presentation should contain a bit of the student's history, where he/she attended the graduation, master's and doctorate degree, the hypotheses and objectives of the project he/she is developing and some preliminary results (if any). The students can contact Jhulia Gelain (jgelain@clermson.edu) if they want to schedule to practice the presentation during previous week of the beginning of course.

Table 1 – Topics of Case Studies on Fruit Trees.

Case Studies
1) Diseases and postharvest losses in stone fruit
2) Diseases in temperate fruit tree nurseries
3) Grapevine root and wood diseases
4) Diseases of the aerial part and berries in grapevine
5) Integrated management of strawberry diseases: seedling production, fungi resistance to fungicides and alternative control
6) Leaf spots on apple tree