

4th meeting on 598444-EPP-1-2018-1-HR-EPPKA2-CBHE-JP project " Harmonization and Innovation in PhD Study Programs for Plant Health in Sustainable Agriculture – HarISA "

Online meeting by Zoom.us, 27th - 29th April 2020

WP 3 – MEETING

WP3 Leaders:

1. Dr Eustachio Tarasco, Associate Professor,

University "Aldo Moro" Bari, Italy eustachio.tarasco@uniba.it

2. Dr Aleksandra Ignjatović- Ćupina, Associate Professor,

University of Novi Sad, Faculty of Agriculture, Serbia, cupinas@polj.uns.ac.rs



WP 3 – MEETING -INTRODUCTION-



WP (SG)	Date	Time
All participants	Monday	8:00-8:30
WP8	Monday	8:40-11:10
	Wednesday	11:40-14:10
WP2	Monday	11:30-13:55
WP3-all	Monday	14:10-15:45
	Wednesday	8:00-9:00 9:00-11:25
SG1	Tuesday	8:00-10:30
SG2	Tuesday	8:00-10:30
SG3	Tuesday	10:30-13:00
SG4	Tuesday	10:30-13:00
SG5	Tuesday	13:30-16:00
SG6	Tuesday	13:30-16:00
SG7	Tuesday	13:30-16:00
WP2 and WP3 leaders-only	Wednesday	11:40-14:10

decision of WP3 members to start at Wednesday 9:00

IMPORTANT NOTE:

Please, in each session you participate, write your full name in “Chat” and submit to “Evreyone”-this will serve as list of participants;

If you wish to participate on more paralell sessions (SGs) please inform the SG leader to invite you



Monday, April 27th 2020

8:00 - 8:30	Opening online meeting for all participants: Renata Bažok, project leader
Work Package 8: Management Board meeting	
8:40 – 9:20	
9:35 – 10:15	
10:30 – 11:10	
Work Package 2: Joint framework for harmonization of PhD SP and development of a curriculum draft	
11:30 - 12:10	Opening: Vili Harizanova, Jelena Latinović, WP2 leaders
12:25 – 13:05	Workshop WP 2
13:20 – 13:55	Closure: Vili Harizanova, Jelena Latinović, WP2 leaders
Work Package 3: Improving the scientific content – joint meeting (all WP 3 participants), Eustachio Tarasco, Aleksandra Ignjatinić – Čupina, WP3 leaders	
14:10 – 14:50	Opening and introduction
15:05 – 15:45	Discussion and distribution of the tasks

Tuesday, April 28th -2020

Parallel meeting Work Package 3:

	SG 2 - Sustainable use of pesticides	SG 1 - Diagnosis in plant health and IPM
8:00 – 8:40		
8:55 – 9:35		
9:50 – 10:30		

Parallel meeting Work Package 3:

	SG 3 - Plant feeders	SG 4 - Plant pathology
10:30 – 11:10		
11:25 – 12:05		
12:20 – 13:00		

Parallel meeting Work Package 3:

	SG 5 – Weed science	SG 6 - Mycotoxins and food safety	SG 7 - General contents of transversal interest
13:30 – 14:10			
14:25 – 15:05			
15:20 – 16:00			

Wednesday, April 29th 2020**Work Package 3: Improving the scientific content – joint meeting (all WP 3 participants), Eustachio Tarasco, Aleksandra Ignjatinić – Čupina, WP3 leaders****8:00-9:00– 8:40****8:55 – 9:35****9:50 – 10:30****10:45 – 11:25****Closure online meeting: Renata Bažok, project leader -> WP8, coordinators of WP2 and WP3****11:40 – 12:20****12:35 - 13:15****13:30 – 14:10**

IMPORTANT!!!

**AFTER JOINING EACH ZOOM MEETING, DO NOT FORGET TO
WRITE YOUR FULL NAME IN “CHAT” (SHARE TO EVERYONE).
THE LIST WILL SERVE AS THE LIST OF PARTICIPANTS.**



WP 3 – MEETING - MEMBER PARTICIPANTS-

	SG1	SG2	SG3	SG4	SG5	SG6	SG7	TOTAL
Members	9	14	14	15	14	10	15	91
Teachers	7	8	8	6	10	8	14	61
Students	2	6	6	9	4	2	1	30

79 WP3 members (among them 8 members are engaged in two SGs; 2 members in three SGs)

For more details, see file : Mailing list WP3_DEF_27.04.2020_AIC_FINAL

ACTIVITIES AND UPDATED RESULTS BETWEEN 3RD AND 4TH MEETING (BELGRADE - “MOSTAR ONLINE MEETING”):

SG1 – Zoom meeting, discussion on topics of interest;

SG2 – Zoom meeting, discussion on topics of interest;

SG3- e-mail communication, discussion on topics of interest;

SG4- e-mail communication, **provided missing data related to 3rd meeting** (similar courses, new courses, teachers involved, incharged leader, action plan);

SG6- improved outcomes, **provided missing data related to 3rd meeting** (similar courses, new course teachers involved, incharged leader, action plan) and prepared **syllabus** for new course;

All SGs: declared changes in SG members; Changes are introduced in the word file:
Mailing list WP3_DEF_27.04.2020_AIC_FINAL

AGENDA

1. **Acceptance of the Minutes** of the 3rd WP3 Meeting , Belgrade, October, 27-29,2019

Instruction: To accept the Meeting document, **only Members that participated the 3rd Meeting** should write in “Chat”:
“I accept Minutes of the 3rd Meeting - Name, Family name”

NOTE: The fulfilment of Task3 (3rd WP3 meeting) for SG 4 and SG6 will be notified in Minutes/Report document of the 4th Zoom WP3 meeting

2. **Improving the scientific contents**



Meeting task: Improving the scientific contents

Project Task 3.2. Improvement of the existing courses and development of new courses

Task 3. at last Belgrade meeting: Identification of similar and new courses, proposals regarding joint materials and action plan for developing joint learning material (see Minutes, pages 8-12)

“Based on the proposals, achieved results and agreements, the next workshop in Mostar will be mainly focused on the improvements of the teaching materials, teaching methods and tools, with special attention to the development of joint learning materials” (Minutes, 3rd WP3 meeting, Belgrade, 2019)

Discussion and distribution of the tasks

- 1. SIMILAR COURSES** – improvement of the existing/similar courses by providing teaching/learning materials (teaching methods and tools)
- 2. NEW COURSES** - development of new courses :
 - production of syllabus for new courses;
 - provide joint teaching/learning materials;
 - appoint teachers for each new course: more than 1 teacher, from different PI is suggested

Discussion and distribution of the tasks

3. **APPOINTMENT OF TASK LEADERS** - each SG one or more leaders; duty: to coordinate the activities
4. **MEMBERS INVOLVEMENT** - assignment of duties per each SG member
 - providing **teaching materials** in both existing and new courses,
 - participation in creation of **course syllabus** for new courses;
 - **appoint teachers** interested to take part in the development the course (for each new course) – international approach

Suggestions:

- if lacking sufficient number of SG members or experts to fulfill the activity, motivate other teaching staff from PI or external experts to contribute in providing teach.mat.
- One main expert teacher (proposed by a SG) + one teacher in each PI

Discussion and distribution of the tasks

- 5. ACTION PLAN** – plan the number and type of activities that could be fulfilled within deadlines
Discussion on ideas, commitments, duties

Deadline for improvement of similar courses: November 15th 2020
Deadline for improvement of new courses: October 15th 2021

Discussion and distribution of the tasks

Take attention while defining:

- course **titles** and course **contents** (avoid overlappings among SGs)
- in case of both similar and new courses , the **number of courses** to develop teaching materials should be in equilibrium among SGs!

Current situation

	SG1	SG2	SG3	SG4	SG5	SG6	SG7	TOT.
Similar courses	41 (6 groups)	9 (3 groups)	38 (4 groups)	6 (3 groups)	3 (1 gr.)	6 (2 groups)	3 (3 groups)	106 (22)
New courses	3	3	13 (or 11)**	1	2	1	4	25-27
TOTAL SC+NC/ SG+NC	44/9	12/6	49-51/15- 17	7/4	5/3	7/3	7/7	131- 133/ 47-49

*suggestion: prepare material for selected groups of similar courses

** suggestion: reduce the number of new courses (max. 3 or 4)

WP3-Results of the 3rd meeting in Belgade

SG	LIST OF NEW COURSES
1	<ul style="list-style-type: none"> 1. Advanced diagnostic methods and techniques for detection of prejudicial organisms 2. Integrated approach to surveillance of prejudicial organisms affecting plant health 3. Control of quarantine prejudicial organisms and evaluation of risk assessment based on EU protocols
2	<ul style="list-style-type: none"> 1. Plant protection products in sustainable agriculture 2. Environmental fate of pesticides 3. Toxicology and ecotoxicology of pesticides 4.? Molecular biology in phytopharmacy

1. Diagnosis in plant health and IPM 3. Plant feeders 5. Weed science 7. General contents of transversal interest
2. Sustainable use of pesticides 4. Plant Pathology 6. Mycotoxins and food safety



SG LIST OF NEW COURSES

- 3
1. Advanced morphology, physiology and biology of arthropod pest
 2. Advanced morphology and biology of nematodes and other zoological groups
 3. Advanced zoosystematic
 4. Postharvest Integrated Pest and Resistance Management
 5. Insect-nematode-plant interactions
 6. **Plant feeders phenology modelling in changing environment**
 7. Frontiers in pest and resistance management
 8. Biological Control Agents
 9. Nematology
 10. Acarology
 11. Alien and Quarantine pests
 12. Biosecurity surveillance and arthropod pest risk analysis
 13. Integrated Management of urban pests
 14. **Biosecurity surveillance and arthropod pest risk analysis**
 15. Integrated Management of urban pests

SG	LIST OF NEW COURSES
4	1. Plant Microbe Interactions
5	1. Precision weed management 2. Modelling in Weed Science (weed emergence model, seed bank model, invasive weed spreading model, model for weed resistance prediction)
6	Mycotoxins and food safety
7	1. Principles of Scientific Work in Bioscience (including ethics and laboratory hazards) 2. Biodiversity and bio-indicators in sustainable agriculture 3. Project proposal writing 4. GIS and Spatial Data Analysis

1. Diagnosis in plant health and IPM 3. Plant feeders 5. Weed science 7. General contents of transversal interest
2. Sustainable use of pesticides 4. Plant Pathology 6. Mycotoxins and food safety



TASKS FOR EACH SG

-TEMPLATES-

1. TEMPLATE FOR ACTIVITY- **Allocation of teachers in development of courses**

SG	Incharged task leader	Course title	Teachers involved /PI
1	Maja Čačija, FAZ		
2	Slavica Vuković UNS Matteo Spagnuolo UNIBA Magdalena Cara AUT	1 .Title.....NEW 2..... NEW 3..... NEW 4.....SIMILAR 5..... SIMILAR etc	1. List the names and PI 2. List the names and PI 3. List the names and PI 4. List the names and PI 5. List the names and PI
3	Ivana Majić FAZOS		
4	Sotiris Tjamos AUA		
5	not appointed yet		
6	Assoc. Prof. Dimitrios Tsitsigiannis, AUA		
7	Ana Mandić ,SVEMO		

YOU CAN USE THE SAME TEMPLATE FOR SIMILAR AND NEW COURSES, OR DEVIDE IN TWO TABLES

Curriculum in Plant Pathology

COURSE	Universities currently having a similar course	Teacher per University
Advanced Mycology	FAZ-FAZOS-AU-UNKO-UNSA-UB- UoM	APTF: AU: AUA: Paplomatas / Tsitsigiannis / Tjamos AUT: FAZ: FAZOS: SVEMO: UB: UNIBA: UNSA: Hamidović/ Mujezinović / Okić UNKO: UoM: Latinović J.
Advanced Bacteriology	FAZ-FAZOS-AU-UNKO-UNSA-UB- UoM	AUA: Paplomatas / Tsitsigiannis / Tjamos UNSA: Hamidović/ Mujezinović / Okić UoM: Latinović J.
Advanced Virology	FAZ-FAZOS-AU-UNKO-UNSA-UB	AUA: Paplomatas / Tsitsigiannis UNSA: Mujezinović / Okić
Molecular Detection of Plant Pathogens	UNIBA-AU-AUA-UB-UN	AUA: Paplomatas / Tsitsigiannis UNSA: Gaši/ Okić
Plant Microbe Interactions	NEW COURSE	AUA: Paplomatas / Tsitsigiannis / Tjamos UNSA: To be identified (Okić)
Integrated Disease Management	AUA-APTF-UoM	AUA: Paplomatas / Tsitsigiannis / Tjamos UNSA: To be identified UoM: Latinović N. / Latinović J.
Statistics in Plant Pathology	APTF	AUA: To be identified UNSA: Grahić/ Okić UoM: To be identified

2. TEMPLATE FOR ACTIVITY-

Production of teaching material

SG	Course title- status (new or similar course)	Teaching material ready	Material provided by (name of teacher, student-PI)	Teaching material to be prepared	Duty assigned to Name of student, teachers (PI)
3	1 .Title.....NEW	Research paper on <i>B. tabaci</i> ..	Atanaska Stoeva (AU)	Guidelines for monitoring of ...	Ivana Majić FAZOS, Helena Virić (FAZ), etc
				Protocol for molecular detection of...	
	2. Title... NEW etc				
The data given here is fictional and serve as an example					

YOU CAN USE THE SAME TEMPLATE FOR SIMILAR AND NEW COURSES, OR DEVIDE IN TWO TABLES

Discussion and distribution of the tasks

TEACHING MATERIALS: type of materials, collection and submission!

- Type: presentations, protocols, guidelines, scientific papers, useful links; **Specify the type of teaching material** (i.e. Guidelines -----for surveillance of invasive pests)
- **Repository on HARISA web page** (SG folders, subfolders)
- While preparing materials, take also in mind the needs **of PhD students and specific subjects** selected for Joint Scientific Research- Joint Mentorship/Membership in Committees for thesis defense
- **Students and teachers** involved in providing materials

NOTE: report if already existing material or other project results (thesis defended)

COURSE syllabus (FOR NEW COURSES) course title, teachers involved, outcomes, skills, course contents, teaching methods..): take in mind the overall outcomes defined in each SG, the course outcomes should be in accordance with SG outcomes; Focus: Sustainable Agriculture

TEACHERS:

Each course may have more than one teacher - actually it will be great if we develop a course taught by different teachers (in that case we can ensure that students will be able to get the same skills enrolling the same course at different partner).

The list of the courses for each focus area shall be accompanied with the list of the teachers interested to take part in the development the course.

SUGGESTION: ONE MAIN EXPERT TEACHER TO APPOINT + ONE IN EACH PI

3. TEMPLATE FOR ACTIVITY:

Course syllabus (example UNS)

Course Specification for master studies program				
Study program				
Course code				
Type and level of study				
Course name				
Professors for theoretical lectures				
Professors/collaborators for practical exercises				
Professors/collaborators for other type of activities				
Number of ECTS			Course status	compulsory or elective
Preconditions necessary previous exam to pass				
Education goals				
Acquirable skills				
Course content				
Theoretical classes				
Practical training (exercises, student's research work, other types of activities)				
References (up to 10)				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
Number of classes				
Lectures	Practical classes	Other	Student research work	Other classes
Teaching procedures				
Evaluation (max. 100 points)				
Pre-exam obligations		Points	Final exam	Points
Activity during lectures		Written		
Practical classes		Oral		
Colloquium				
Seminar papers				

FINAL IMPORTANT REQUEST BY WP3 LEADERS

After the end of paralell SG sessions, and after sorting the achieved results of the 4th meeting in one document (PPT or Word), all of the SG-leaders are strongly requested to provide the Report document by e-mail to Eustachio Tarasco and Aleksandra Ignjatović Čupina, on Tuesday evening (28/04/2020)

THANK YOU VERY MUCH!



THANKS FOR THE ATTENTION!
WISH YOU ALL A SUCCESSFUL WORK!



REPORT ON Missing results from BG meeting fulfilled by SG4, SG6 BEFORE the 4th meeting

Joint learning material production (similar courses ... and/or new contents)							
	SG1	SG2	SG3	SG4- Plant Pathology	SG5	SG6	SG7
Similar Courses title				1. PLANT PATHOGEN INTERACTIONS (AU) 2. MOLECULAR PLANT PATHOLOGY (AUA) 3. PLANT DISEASE RESISTANCE (UNS)			
New courses title				Plant Microbe Interactions			
Teachers involved /PI				The Academic staff of the SG4			
Incharged leader				Sotiris Tjamos			
Action plan				Developing teaching material			

Deadline for production of joint teaching material 15/10/2021
Deadline for improvement of the existing courses contents 15/11/2010

SG4

Curriculum in **Plant Pathology**

COURSE	Universities currently having a similar course	AUA teacher (dear partners please delete and fill up accordingly)
Advanced Mycology	FAZ-FAZOS-AU-UNKO-UNSA-UB- UoM	Paplomatas / Tsitsigiannis / Tjamos
Advanced Bacteriology	FAZ-FAZOS-AU-UNKO-UNSA-UB- UoM	Paplomatas / Tsitsigiannis / Tjamos
Advanced Virology	FAZ-FAZOS-AU-UNKO-UNSA-UB- UoM	Paplomatas / Tsitsigiannis
Molecular Detection of Plant Pathogens	UNIBA-AU-AUA-UB-UN	Paplomatas / Tsitsigiannis
Plant Microbe Interactions	NEW COURSE	Paplomatas / Tsitsigiannis / Tjamos
Integrated Disease Management	AUA-APTF	Paplomatas / Tsitsigiannis / Tjamos
Statistics in Plant Pathology	APTF	To be identified

SG4

Curriculum in Plant Pathology

COURSE	Universities currently having a similar course	Teacher per University
Advanced Mycology	FAZ-FAZOS-AU-UNKO-UNSA-UB- UoM	APTF: AU: AUA: Paplomatas / Tsitsigiannis / Tjamos AUT: FAZ: FAZOS: SVEMO: UB: UNIBA: UNSA: Hamidović/ Mujezinović / Okić UNKO: UoM: Latinović J.
Advanced Bacteriology	FAZ-FAZOS-AU-UNKO-UNSA-UB- UoM	AUA: Paplomatas / Tsitsigiannis / Tjamos UNSA: Hamidović/ Mujezinović / Okić UoM: Latinović J.
Advanced Virology	FAZ-FAZOS-AU-UNKO-UNSA-UB	AUA: Paplomatas / Tsitsigiannis UNSA: Mujezinović / Okić
Molecular Detection of Plant Pathogens	UNIBA-AU-AUA-UB-UN	AUA: Paplomatas / Tsitsigiannis UNSA: Gaši/ Okić
Plant Microbe Interactions	NEW COURSE	AUA: Paplomatas / Tsitsigiannis / Tjamos UNSA: To be identified (Okić)
Integrated Disease Management	AUA-APTF-UoM	AUA: Paplomatas / Tsitsigiannis / Tjamos UNSA: To be identified UoM: Latinović N. / Latinović J.
Statistics in Plant Pathology	APTF	AUA: To be identified UNSA: Grahić/ Okić UoM: To be identified



Subgroup 6-Mycotoxins and food safety - Learning outcomes

- **Define** the terms food safety, food poisoning, food hazard and mycotoxins
- **Identify** and **describe** the present worldwide status on mycotoxin contamination in food and feed
- **Identify** what might happen if mycotoxin hazards are not controlled
- **Recognise** the importance of reporting food safety hazards regarding mycotoxins and the importance of implementing procedures to control mycotoxins
- **Define and demonstrate** the methodology of classical, molecular and chemical identification of mycotoxigenic fungi
- **Define and describe** the mycotoxin risk assessment and the epidemiology of mycotoxigenic fungi at pre- and post-harvest level
- **Design** experiments based on the epidemiology of mycotoxigenic fungi
- **Describe** the classical and new methods on the identification of mycotoxins in food and feed
- **Describe and analyze** mycotoxin prediction modeling at pre- and post-harvest level of food production
- **Develop** an integrated pest management approach to prevent mycotoxins
- **Collect and analyze** data from the experimentation on mycotoxins management strategies
- **Identify** the costs of poor food safety practices to a business

SG6 Joint learning material production (similar courses ... and/or new contents)		
Similar Courses (titles)	<ul style="list-style-type: none"> • Mycotoxins • Mycotoxigenic fungi • Phytotoxins 	<ul style="list-style-type: none"> • Analytics of residues and contaminants in food and environment • Food Toxicology • Toxicogenic Fungi and Mycotoxins
New courses (titles)	Mycotoxins and food safety	<p style="color: red;">Courses that offer similar learning outcomes :</p> <ul style="list-style-type: none"> • Mycotoxigenic fungi and their associated mycotoxins • Epidemiology of mycotoxigenic fungi • Risk assessment of mycotoxins in field, storage, human and animal. • Prevention measures and post harvest strategies to manage mycotoxins • Rapid and analytical methods for mycotoxin assessment • Regulations and legislation about mycotoxins
Teachers involved /PI	Assoc. Prof. Dimitrios Tsitsigiannis (AUA), Prof. Magdalena Cara (AUT).....	
Incharged leader	Assoc. Prof. Dimitrios Tsitsigiannis, AUA	
Action plan	Production of course syllabus Production of joint teaching material	



Mycotoxins and food safety - Syllabus

Theory

- Introduction to mycotoxins: Risks in plant, animal and human systems
- Mycotoxigenic fungi and their associated mycotoxins
- Diseases of mycotoxigenic fungi in plants
- Epidemiology of mycotoxigenic fungi
- Risk assessment of mycotoxins in field, storage, human and animal
- Prevention and control measures and post harvest strategies to manage mycotoxins
- Sampling of mycotoxigenic fungi and mycotoxins
- Rapid and analytical methods for mycotoxin assessment in the Food Chain
- Regulations and legislation about mycotoxins
- Current trends in mycotoxin research

Laboratory exercises

- Diagnosis of diseases caused by mycotoxigenic fungi (symptoms, signs)
- Morphological, cultural and toxigenic characteristics of mycotoxigenic fungal species
- Molecular techniques of mycotoxigenic fungi identification
- Learning skills and techniques for detection of mycotoxins in food and feed