



SUMMER SCHOOLS

UNIVERSITY OF ANGERS - FRANCE

PROGRAM 2020

PLANT HEALTH AND QUALITY

28TH JUNE | 17TH JULY



www.summerschools.univ-angers.fr

Conception : Direction de la communication UAI | Crédit photo : Fotolia



université
angers

Welcome to Angers, FRANCE
for our
Plant Health and Quality Summer School
28th June to 17th July 2020

We are really delighted to welcome you to France for the 2020 Plant Health and Quality Summer School. Located in Angers, the Plant Health and Quality Summer School is organized by [one of the high Education Training Centres in France on plant science](#) with 3000 students/year and an excellent support for research and close links with major economic players. With 400 researchers, including 170 permanent scientists, 65 PhDs, Angers is among the most important research centres in France on horticulture and seed sciences.

We will be offering participants summer courses on plant research with the participation of international researchers from our partner universities and institutions.

The program will show the links between **Plant Health and Quality**. Topics to be covered include different research fields: plant protection against insect pests and diseases, plant and pathogen genomics, parasitic plants, quality of seeds, plant and seed phenotyping using image analyses, fruit quality...

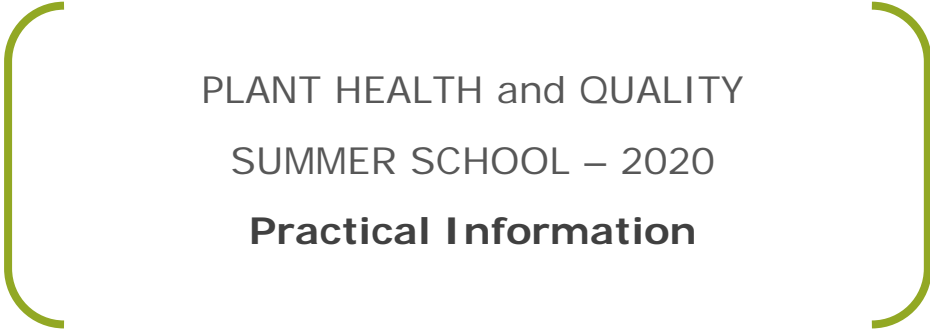
Visits included are to: different research labs and facilities, as well as a seed company and botanical gardens.

In addition to the scientific program, cultural and social activities will be organized so that all participants can get to know the country, the city and each other!

We all hope you enjoy this summer school. Welcome to the French research world of plants!

Marion Fischer-Le Saux & Pascal Poupard

Coordinators of the Plant Health and Quality Summer School



PLANT HEALTH and QUALITY
SUMMER SCHOOL – 2020
Practical Information

ARRIVAL IN FRANCE

Arrival in Angers : Saturday 27th June 2020.

City Tour : Sunday 28th 2020

Starting date of the summer school: Monday 29th June 2020.

Participants will arrive on Saturday 27th June 2020 at Paris-Charles de Gaulle airport. Transportation from Paris CDG airport-TGV station to Angers is included in the admission fees.

BUDDY STUDENTS

Throughout the Summer School, participants will be guided and assisted by two English-speaking buddy students. They will welcome the participants at Angers railway station and will install the students in their accommodation.

During the stay, the buddy students will help the participants to move around the city and on the Plant Science campus “Campus du Végétal”. They may also be helpful during social activities and during weekends if needed. Participants will be able to contact them almost 24 hours a day if there is a problem.

ACCOMODATION

Participants will be accommodated from June 27th to July 18th, 2020 at the [“cité Couffon-Pavot” student residence](#) in fully furnished single rooms with private shower. The accommodation is located 25 minutes by bus or 15 minutes by bike from the “Campus du Végétal”.

MEALS

All meals are included (with the exception of a few meals on the weekends). Breakfasts will be provided. Lunches will be taken at the nearest university restaurant. Dinners will be taken in a self-service restaurant. Four restaurant meals are also included. Depending on the activity, participants may also have a picnic or meal trays.

On Monday 13th July, visits are organized in Paris; so the students can decide to organize, at their own expenses for food and accommodation, a short stay in Paris from Saturday 11th July to Tuesday 14th July (holiday in France).

TRANSPORTATION

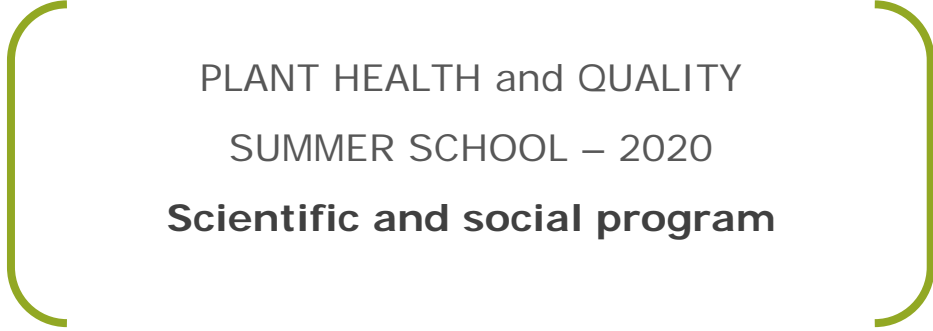
Bicycles from the city of Angers will be at the disposal of the participants for the duration of their stay (daily trips to “campus du Végétal”, excursions to the city centre, in the city parks, along the Loire river). They can also use the Irigo public transport network (Tram and buses) thanks to the transport pass provided.

HOME RETURN

End of the summer school courses: Friday 17th July 2020.

Transfer from Angers to Paris: Saturday 18th July 2020.

Participants will leave Angers on Saturday 18th July 2020: they will take a direct high speed train from Angers to Paris-Charles de Gaulle airport (train ticket included in the fees). They will be able to fly back to home the same day.



PLANT HEALTH and QUALITY
SUMMER SCHOOL – 2020
Scientific and social program

PROGRAM SUMMARY

- Welcome speeches and presentation of research structures: 3 h
- Conferences: 14 onehour conferences including international speakers
- Handson activities: 11 training sessions including biological experiments or bioinformatic sessions (27 h)
- Scientific visits: 8 visits of laboratories, companies, research institutes, botanical gardens.

FRENCH LANGUAGE AND CULTURE COURSES

The French language and culture class will be given in the form of a three-day intensive program (18 hours) at the beginning of the Summer School so that participants may be able to practice and improve their French during their 3 weeks in France.

The courses will be taught by the CeLFE teachers ([French Language Center for Foreigners of the University of Angers](#)) in their fully-equipped class room. The Label « French foreign Language quality », issued to the French as a foreign Language (FFL) centres, guarantees the quality of both the courses and services provided to the students.

PREPARING A PHD THESIS IN FRANCE

- Summer school participants will be asked to present their master's research project in a dedicated afternoon session. A two-hour preparation session (personal work) is scheduled in the program.
- An evening will be organized with local PhD students from different nationalities to inform the students of the summer school about preparing a PhD thesis in France.

	Monday 29 Jun 2020	Tuesday 30 Jun 2020	Wednesday 01 July 2020	Thursday 02 July 2020	Friday 03 July 2020	Saturday 04 July 2020	Sunday 05 July 2020
9:00 AM	coffee				Visit of the Plant Health Laboratory P. Gentit		
10:00 AM	Welcome by scientific coordinators	French language course	French language course	French language course	Group A : Droplet digital PCR applied to Plant Health and Quality M. Rolland, M. Le Gallo Group B: visit of a microbial resource center		
	Official welcome						
11:00 AM	Plenary conference						
12:00 PM	apero Lunch	Lunch	Lunch	Lunch	Lunch	Atlantic seacoast day	Visit of Terra Botanica
1:00 PM					Workshop : virus sequence detection, B. Remenant, M. Rolland, P. Gentit		a plant-themed amusement park
2:00 PM	welcome D. Vollet	French culture course	French culture course	French culture course			Angers
3:00 PM	Plant as a microbial construction M.A. Sélosse				Group B : Droplet digital PCR applied to Plant Health and Quality Group A: visit of a microbial resource center P. Portier		
4:00 PM	Local research structure MA Jacques, Vegepolys valley N. Fegeant						
5:00 PM							
6:00 PM	Wine and cheese tasting		Kayak session				
7:00 PM							
	Official ceremony		Social activities		French course		Visit
	Invited speaker		Conference		Workshop		Personal work

Slight amendments may occur until the opening of the summer school

	Monday 06 July 2020	Tuesday 07 July 2020	Wednesday 08 July 2020	Thursday 09 July 2020	Friday 10 July 2020	Saturday 11 July 2020	Sunday 12 July 2020
9:00 AM	Insect Chemical Ecology for pest control, Carme Cuero (Spain)	Genomic reconfigurations in parasitic plants Susann Wicke (Germany)	Personal work to prepare the presentation of Master's project	Workshop <i>Analytical and sensory methods to assess fruit quality</i> R. Symoneaux M. Dufrechou	Impact of abiotic stresses on seed quality Elise Bizouerne / Zhijuan Chen	Possibility to stay the week-end in Paris at your own expense	
10:00 AM	Integrated pest management of <i>Neoleucinodes elegantalis</i> Cesar Badji	Workshop parasitic plant seed preparation JB Pouvreau G. Montiel	"Strigolactones, new players in plant tolerance to stress" A. Schubert , Italy		Activities of the Variety and Seed Study and Control Group / visit the PHENOTIC facilities D. Demilly, T. Leveque, S. Perrot, I. Serandat		
11:00 AM	Lunch	Lunch	Lunch	Lunch	Lunch		
12:00 PM	Lunch	Lunch	Lunch	Lunch at ESA	Lunch		
1:00 PM	3 groups turning 3 workshops MCU Dunning C. Zhu floor , Aphid olfactory choice experiments, C. Badji	A/B Workshop : parasitic plant seed germination: a Strigolactone Bioassay	A/B Workshop Tools for characterization of abiotic stress effects on plant physiology L. Huché-Théliér M. Tisserand	Introduction to plant seed biology J. Verdier	Workshop Phenotyping-image analysis and study of germination D. Demilly		
2:00 PM	Electrophysiological recordings of parasitoid antennae, S. Anton	B/A Workshop : Parasitic Parasitic plant-host interaction minirhizotron experiment	B/A Workshop Architectural analysis of plant by 3D digitization T. Amoroso, C. Lebras	Visit of a seed company Technisem SeedLab Clémence Duval	Specialized metabolites and seed quality L. Lepiniec (JPB, France)		
3:00 PM	Nutritional choice in a parasitoid, L. Lerault	Plate reading and workshop conclusion			Processes involved in assembly of the seed microbiota M. Barret		
4:00 PM							
5:00 PM							
6:00 PM	Bowling		outdoor games <i>Parc Balzac</i>				
7:00 PM				Diner on the bank of the Loire			
	Official ceremony		Social activities		French course		Visit
	Invited speaker		Conference		Workshop		Personal work

Slight amendments may occur until the opening of the summer school

	Monday 13 July 2020	Tuesday 14 July 2020	Wednesday 15 July 2020	Thursday 16 July 2020	Friday 17 July 2020	Saturday 18 July 2020	Sunday 19 July 2020		
9:00 AM	Travel to Paris by train or by coach	Possibility to stay the public holiday in Paris at your own expense	Plant resistance inducers inducers (elicitors)	Low-cost imaging for Plant Health Monitoring D. Rousseau	Visit of ITEPMAI The French research institute for perfume, medicinal and aromatic plants L. Hibrand-Saint-Oyant T. Thouroude	Departure from Angers			
10:00 AM	Visit of greenhouses National Museum of Natural History (MNHN) Paris		Workshop a methodology to quantify defense gene expression in plants by qPCR MN Brisset M. Gaucher A. Degrave B. Marolleau	Phenotyping in Plant Pathology T. Boureau					
11:00 AM				group A: PHENOTIC facilities in greenhouse T. Boureau					
12:00 PM	Picnic in the Gardens of the MNHN		Lunch	Lunch	Picnic in an old rose garden L. Hibrand-Saint-Oyant T. Thouroude				
1:00 PM			INRAE presentation E. Chevassus-Lozza	group B: PHENOTIC facilities in greenhouse T. Boureau					
2:00 PM				A/B Imaging processing for plant health monitoring M Zine, H. Garbougé	Visit of an old rose garden L. Hibrand-Saint-Oyant T. Thouroude				
3:00 PM	Visit of Paris		Oral presentation of the student works and projects						
4:00 PM				B/A Quantification of disease severity using image analysis T. Boureau	Closing Ceremony P. Simoneau				
5:00 PM									
6:00 PM				General information about PhD fellowships J. Colou, D. Lopez, T. Barrit					
7:00 PM	Dinner in a restaurant in Paris (trip back to Angers by train or coach)			Friendly evening with local doctoral students					
	Official ceremony			Social activities			French course		Visit
	Invited speaker			Conference			Workshop		Personal work

Slight amendments may occur until the opening of the summer school

VISITS AND SOCIAL ACTIVITIES

Angers is a beautiful medieval city located in western France in the Loire Valley (<http://www.angersloiretourisme.com/en>), which is a UNESCO World Heritage Site, famous for its wines and castles. Angers has a unique 12th century fortress and the world's largest medieval tapestry.

Regularly acknowledged in the national press as one of the leading cities in France for its quality of life and respect for the environment, Angers has been awarded as the "greenest city in France" (<http://www.groupe-esa.com/en/vie-sur-le-campus/le-campus-angers/vivre-a-angers/>).

With 42,000 students every year, in an urban area of 250,000, Angers offers a very dynamic lifestyle with frequent cultural events and festivals.

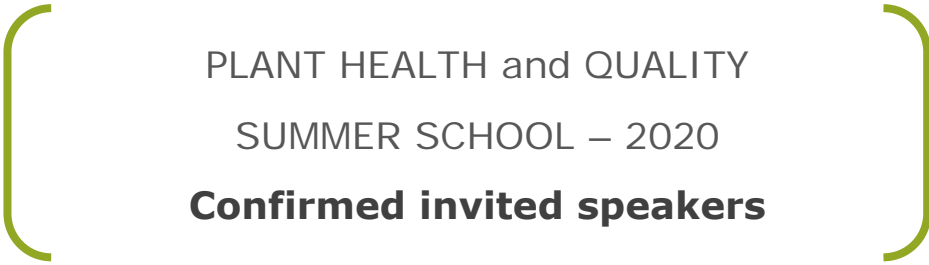
Your residence will be closed to the city centre, so you will be able to enjoy the summer evenings in the city and walks along the banks of the Maine river.

Many activities will be offered during the stay. Some of them will be common with the participants of the other Summer Schools: welcome lunch, guided visit of Angers city centre, wine and cheese tasting, day trip to the Atlantic coast. Leisure activities will also be organized: kayak session, bowling and outdoor games where participants of all the Summer Schools of the University of Angers will compete in a pleasant atmosphere.

Participants will also visit [Terra Botanica](#), the only theme park in France which is devoted to plant life. They will also spend an evening at a restaurant at the banks of the Loire river.

On Monday 13th July, after the tour in the tropical greenhouses (Grandes Serres) of the National Museum of Natural History in Paris, participants will spend a free afternoon/evening in Paris and will have dinner in a restaurant before coming back to Angers. If they wish, they will also have the opportunity to stay in Paris during a week-end and during Bastille Day (Tuesday 14th July) at their own expense. The organisation of this stay in Paris will be at their charge.

Costs of all activities are included in the admission fees (except the week-end in Paris).



PLANT HEALTH and QUALITY
SUMMER SCHOOL – 2020
Confirmed invited speakers

César BADJI, Universidade Federal Rural de Pernambuco (BRAZIL)

Loïc LEPINIEC, Institut Jean-Pierre Bourgin (INRAE, AgroParisTech, CNRS, Université Paris-Saclay) (FRANCE)

Carme QUERO, Institute of Advanced Chemistry of Catalonia (CSIC) (SPAIN)

Andrea SCHUBERT, Department of Agricultural, Forestry and Food Sciences, University of Turin (ITALY)

Marc-André SELOSSE, Institut de Systématique, Evolution, Biodiversité, Muséum National d'Histoire Naturelle, Paris (FRANCE)

Susann WICKE, Plant Evolutionary Genomics Institute for Evolution and Biodiversity, University of Münster (GERMANY)

PLANT HEALTH and QUALITY

SUMMER SCHOOL – 2020

List of local speakers

AMOROSO Thomas, PhD student, ASTREDHOR-IRHS - Angers (FR)
ANTON Sylvia, IGEPP-EGI-INRAE – Angers (FR)
BARRET Matthieu, IRHS-INRAE – Angers (FR)
BARRIT Thibault, PhD student, University of Angers (FR)
BIZOUERNE Elise, IRHS-INRAE – Angers (FR)
BOUREAU Tristan, IRHS-University of Angers (FR)
BRISSET Marie-Noëlle, IRHS-INRAE-Angers (FR)
CHEN Zhijuan, IRHS-INRAE-Angers (FR)
CHEVASSUS-LOZZA Emmanuelle, INRAE Angers-Nantes (FR)
COLOU Justine, PhD student, University of Angers (FR)
DEGRAVE Alexandre, IRHS-AgroCampus Ouest-Angers (FR)
DEMILLY Didier, GEVES – Angers (FR)
DUFRECHOU Marie, GRAPPE – ESA - Angers (FR)
DUVAL Clémence, Technisem-SeedLab (FR)
EL ZINE ABIDINE Mouad, IRHS-University of Angers (FR)
FEGEANT Nicolas, Végépolys Valley-Angers (FR)
FISCHER-LE SAUX Marion, IRHS-INRAE– Angers (FR)
GARBOUGE Hadhami, IRHS-University of Angers (FR)
GAUCHER Matthieu, IRHS-INRAE – Angers (FR)
GENTIT Pascal, ANSES – Angers (FR)
HIBRAND SAINT-OYANT Laurence, IRHS-INRAE – Angers (FR)
HUCHE-THELIER Lydie, IRHS-INRAE – Angers (FR)
JACQUES Marie-Agnès, IRHS-INRAE-Angers (FR)
LEBRAS Camille, IRHS-AgroCampus Ouest-Angers (FR)
LE GALLO Méryl, ANSES-Angers (FR)
LERAULT Louise, IGEPP-EGI-INRAE– Angers (FR)
LEVEQUE Thomas, SNES-GEVES-Angers (FR)
LOPEZ ARIAS Diana, PhD student, University of Angers (FR)
MAROLLEAU Brice, IRHS-INRAE – Angers (FR)
MONTIEL Grégory, LBPV - University of Nantes (FR)
PERROT Sophie, GEVES – Angers (FR)
PORTIER Perrine, IRHS-INRA – Angers (FR)
POUPARD Pascal, IRHS-University of Angers (FR)
POUVREAU Jean-Bernard, LBPV - University of Nantes (FR)
REMENANT Benoît, ANSES-Angers (FR)
ROLLAND Mathieu, ANSES-Angers (FR)
ROUSSEAU David, IRHS-University of Angers (FR)
SERANDAT Isabelle, GEVES – Angers (FR)
SIMONEAU Philippe, Vice-President (Research) University of Angers (FR)
SYMONEAUX Ronan, GRAPPE – ESA - Angers (FR)
THOMAS Caroline, CeLFE - Angers (FR)
THOUROUDE Tatiana, IRHS-INRAE – Angers (FR)
TISSERAND Myriam, IRHS-INRAE – Angers (FR)
VERDIER Jérôme, IRHS-INRAE – Angers (FR)
VOLLET Dominique, Director AgroCampus Ouest Angers (FR)

PLANT HEALTH and QUALITY
SUMMER SCHOOL – 2020
List of organizers and facilitators

Scientific Coordinators:

FISCHER-LE SAUX Marion, IRHS-INRAE – Angers (FR)

POUPARD Pascal, IRHS-University of Angers (FR)

Organisation :

ALIGON Sophie, Agrocampus Ouest (FR)

DUESO Nadine, Operational Director, RFI Objectif Végétal, Angers (FR)

GASNIER Mégane, Project Coordinator, University of Angers (FR)

GIACOMINI Aurélie, Project Coordinator, University of Angers (FR)

GROLLEAU Françoise, Vice-President (International Relations) University of Angers (FR)

HOCQUET Françoise, International Relations, University of Angers (FR)

HOUSSAY Clarisse, expenditure management, University of Angers (FR)

LECLERCQ Marine, Logistic Coordinator Plant Summer School, University of Angers (FR)

LE VIGUELOUX Guillaume, International Relations, University of Angers (FR)

ROBINET Nadine, Administrative Supervisor, University of Angers (FR)

ROUSSEAU Audrey, University of Angers (FR)

SOULIE Sébastien, Educational project developer, RFI Objectif Végétal, Angers (FR)

Other organisers and facilitators:

BOUESDRON Yasmine, CELFE, University of Angers (FR)


LEBASTARD Elodie, Faculty of Science, University of Angers (FR)

LERICHE Philippe, Faculty of Science, University of Angers (FR)


REMOND David, Agrocampus Ouest (FR)

PHILIPPE Diana, INRAE, Angers (FR)

POUTIER Nathalie, Agrocampus Ouest (FR)



PLANT HEALTH and QUALITY
SUMMER SCHOOL – 2020
Application



Admission fees: 2000 euros

Fees will include tuition, **Paris-Angers** return trip, accommodation, almost every meals, welcoming and teaching materials, bike rental and bus pass, all costs (transport, meals, entrance tickets) related to the scientific visits and the social program. The Summer Schools do not cover the costs of passports, visas, and health insurance, and the trip from home to Paris.

IMPORTANT: total or partial exemption of the admission fees may be offered by the Regional Objectif Vegetal program. Selection criteria will be: adequacy of the training with the scientific program, school results, English level and motivations.

The summer school will deliver 6 ECTS and a certificate of attendance.

To apply, please follow the application procedure described on the [admission page](#).



Partners



UNIVERSITÉ DE NANTES



CE PROJET EST CO-FINANÇÉ PAR LA RÉGION ET LE FONDS EUROPÉEN DE DÉVELOPPEMENT RÉGIONAL



angers Loire métropole communauté urbaine



objectif végétal Recherche, Formation & Innovation en PAYS de la LOIRE



université angers