

Programme

**Eucarpia Leafy Vegetables 2019,
9th International Conference on Genetics and Breeding
of Leafy Vegetables
(24-28 June 2019, Olomouc, Czech Republic)**

24 June, Monday

Hotel Flora

Accommodation

15.00-20.00 *Registration*

25 June, Tuesday

Palacký University, Konvikt

8.00-9.30 *Registration, setting up the posters*

Palacký University, Konvikt „Auditorium“

9.30-10.00 *Opening ceremony, Introduction to the programme*

10.00-11.15 *General aspects (history, cultivation geography and systems, economic importance, new crops etc.)*

Chairperson: J. Monaghan

10.00-10.45 **I. Simko, B. Mou, K.R. Richardson, J.D. McCreight (USA)
Trends in lettuce and spinach production in the United States**

10.45-11.15 **L. Halinski, A. Topolewska, P. Stepnowski (Poland)
Chemical aspects of plant selection mechanisms in domestication
of new indigenous African leafy vegetables (*Solanum* spp.)**

11.15-12.30 *Genetic resources (genebanking, taxonomy, botany, biogeography, crop wild relatives, biodiversity etc.)*

Chairpersons: Ch. Kik, J. Šuštar-Vozlič

11.15-11.30 **J. Šuštar-Vozlič (Slovenia), R. van Treuren (the Netherlands),
U. Lohwasser (Germany), P. Coquin (France)
ECPGR Working Group on Leafy Vegetables:
Prospects and Challenges for Phase X**

- 11.30-12.00 **Ch. Kik** (the Netherlands)
The first blow is half the battle: collecting and regenerating leafy vegetables
- 12.00-12.30 **L. Majeský, M. Kitner, E. Křístková, A. Lebeda** (Czech Republic)
Current view on phylogeny and taxonomy of the Lactucinae subtribe
- 12.30-14.00 **Lunch**
- 14.00-15.30 **Genetic resources** (*genebanking, taxonomy, botany, biogeography, crop wild relatives, biodiversity etc.*)
Chairpersons: J. Šuštar-Vozlič, Ch. Kik
- 14.00-14.30 **E. Křístková, A. Lebeda** (Czech Republic)
Ecogeography and field observations of wild *Lactuca* species
- 14.30-15.00 **A. Lebeda, E. Křístková, I. Doležalová, M. Kitner** (Czech Republic),
M.P. Widrlechner (USA)
Genetic resources of wild *Lactuca* spp. in North America, complex view on underestimated topic
- 15.00-15.15 **M. Kitner, L. Majeský, E. Křístková, A. Lebeda** (Czech Republic)
Genetic variability of wild *Lactuca* species germplasm
- 15.15-15.30 **J. Šuštar-Vozlič et al.** (Slovenia, Czech Republic)
Slovene autochthonous lettuce variety 'Ljubljanska ledenka': genetic diversity and reintroduction to the market
- 15.30-16.00 **Coffee break**
- 16.00-18.30 **Abiotic and biotic stress** (*diseases and pests*)
Chairpersons: B. Maisonneuve, J. Correll
- 16.00-16.30 **J. Correll et al.** (USA)
Economically important spinach diseases: an evolving problem
- 16.30-17.00 **G. Gilardi, M.L. Gullino, A. Garibaldi** (Italy)
Emergence of a new pathogens on leafy vegetables
- 17.00-17.30 **F. Lecompte, P.C. Nicot** (France)
Integrated disease and pest management in lettuce

- 17.30-17.50 **A. Lebeda**, B. Mieslerová, M. Kitner, E. Křístková (Czech Republic)
Lettuce powdery mildew – exciting but unknown disease of lettuce
- 17.50-18.10 **B. Maisonneuve**, C. Jouan, S. Gimenez (France)
Resistance to root-knot nematodes in the genus *Lactuca*: hope for breeding
- 18.10-18.30 **A. Lebeda**, I. Petrželová, E. Křístková, (Czech Republic), F. Runge (Germany)
Variation in wild plant pathosystem *Lactuca* spp. – *Bremia lactucae* and its importance for lettuce resistance breeding
- 19.00-21.00 *Welcome Party at Historical Rector Building of Palacký University*

26 June, Wednesday

Palacký University, Konvikt “Auditorium”

- 8.30-10.30 **Molecular genetics, genomics and genetic improvement**
(complex of omics activities and genetics in breeding)
Chairpersons: I. Simko, R.W. Michelmore
- 8.30-9.30 **R.W. Michelmore** (USA)
Next-generation genomics of lettuce
- 9.30-10.30 **H. Kuang** (China)
Genetic analysis of complex traits in lettuce
- 10.30-11.00 *Coffee break*
- 11.00-12.30 **Molecular genetics, genomics and genetic improvement**
(complex of omics activities and genetics in breeding)
Chairpersons: R.W. Michelmore, I. Simko
- 11.00-11.45 **I. Simko** (USA)
Marker-assisted selection in lettuce breeding
- 11.45-12.30 C. Meisrimler, A. Pelgrom, J. Klein, M. Neilen and **G. Van den Ackerveken** (the Netherlands)
Revealing functions of downy mildew effectors in spinach and lettuce

12.30-14.00 *Lunch*

14.00-15.30 *Molecular genetics, genomics and genetic improvement*
(complex of omics activities and genetics in breeding)
Chairpersons: G. Van den Ackerveken, M. Kitner

14.00-14.45 **M. El-Esawi** (Egypt)
Overexpression of *Arabidopsis thaliana* WRKY transcription factor improves salt and drought tolerance in lettuce (*Lactuca sativa* L.)

14.45-15.30 **A. Stojakowska** (Poland)
Wild *Lactuca* species and their specialized metabolites

15.30-16.00 *Coffee break*

16.00-17.30 *Postharvest quality (nutrition/flavour/appearance/safety)*
Chairpersons: C. Wagstaff

16.00-16.30 **R. van Treuren** (the Netherlands)
Metabolite variation in *Lactuca*

16.30-17.00 **M. Chadwick et al.** (UK)
Screening of metabolites linked to pink and brown discolouration in lettuce (*Lactuca sativa*) using the Sal × Ice mapping population

17.00-17.30 **B. Mou** (USA)
Genetic variation and improvement of nutritional traits in lettuce and spinach

17.30-18.30 *Poster Session*

27 June, Thursday

7.30-21.00 *South Moravia - Excursion*

7.30 *Departure from Hotel Flora*

9.00-12.00 *Johann G. Mendel Museum of Genetics and Augustinian Abbey in Old Brno*
Lecture of P. Smýkal: J. G. Mendel – from Moravian peasant's son to world genius
Guided tour in J. G. Mendel Museum

- 13.00-15.30 *The Castle of Austerlitz (Slavkov), Lunch*
- 16.30-19.30 *Visit of company Vinselekt Michlovsky (Rakvice, South Moravia), Moravian wine tasting*
- 19.30 *Departure from Rakvice to Olomouc*
- 21.00 *Arrival to Olomouc*

28 June, Friday

Palacký University, Konvikt "Auditorium"

- 9.00-12.00** *New trends and visions in leafy vegetables research, breeding, growing and marketing (general and specific aspects related to these topics)*
Chairperson: K. Reinink
- 9.00-9.45 **C. Wagstaff** et al. (UK)
 Rocket Science - a journey from field to genotype
- 9.45-10.30 **J. Monaghan** et al. (UK)
 Discovering traits of commercial interest in diversity collections
- 10.30-11.00** *Coffee break*
- 11.00-12.00** *Closing and Challenging lecture*
Chairperson: K. Reinink
- 11.00-12.00 **D.A. Jacobson** (USA)
 Integrative and computational systems biology and their exploitation in plant breeding
- 12.15-12.45** *Closing session and closing ceremony*
- 13.00-14.00** *Lunch*
- 14.00-16.00** **IBEB-G open meeting** (chaired by J. Schut)
- 16.00-18.00** **ILGC3 Meeting** (consortium participants only)

Posters

Eucarpia Leafy Vegetables 2019, Olomouc, Czech Republic (in alphabetical order of first authors)

1. **Acharya Ch.B., Najarro M., Fletcher K., Michelmore R.W. (USA)**
Development of molecular markers to explore population dynamics of *Bremia lactucae* (lettuce downy mildew)
2. **Balashova I.T., Beshpal'ko L.V., Molchanova A.V., Sirota S.M., Soldatenko A.V. (Russia)**
Cultivation of leafy plants *Lamiaceae* family at the multi circle hydroponic construction: study on the biochemical composition and some innovations
3. **Beacham A.M., Hand P., Barker G.C., Teakle G.R., Monaghan J.M. (UK)**
Using vegetable crop genetic resources to identify tolerance to abiotic stress and other key performance traits
4. **Beharav A. (Israel)**
New insights into the characterization and taxonomy of wild *Lactuca* relatives
5. **Bragalini C., Poluzzi G., Malatrasi M., Donati F. (Italy)**
Application of Marker Assisted Selection in lettuce (*Lactuca sativa* L.) breeding programs to rapidly assess selfing and crossing rates in experimental F1 progenies
6. **Contente A., Oruna-Concha M.J., Wagstaff C. (UK)**
Culinary Herbs: determining the basis of variation in flavour
7. **Drozdová N., Křístková E., Lebeda A. (Czech Republic)**
Biodiversity and ecogeography of wild *Lactuca* species in Hungary
8. **Ebrahimzadeh R., Ellialtıoğlu S.S., Sönmez K., Smilde D., Dolar F.S. (Turkey, the Netherlands)**
Evaluation of the existence of a new race of *Bremia lactucae* in Turkey

9. **Gerrano A.S., Jansen van Rensburg W.S., Bairu M., Amoo S., Venter S., Mavengahama S. (South Africa)**
Nutritional characterization of mineral elements and total protein content in the leaf tissues of *Amaranthus*
10. **Gerrano A.S., Jansen van Rensburg W.S., Bairu M., Venter S. (South Africa)**
Selection of cowpea genotypes [*Vigna unguiculata* (L.) Walp.] for nutritional composition in the fresh leaves for nutritional quality breeding
11. **Hubrová H., Křístková E., Lebeda A. (Czech Republic)**
Prickly lettuce in Czech herbals from the first half of 20th century
12. **Jasper J., Elmore S., Wagstaff C. (UK)**
Defining, predicting and delivering 'fresh' in the context of leafy salads
13. **Kovár M., Brestič M., Mlynáriková-Vysoká D., Živčák M., Botyanszá L., Chovanček E., Barboričová M., Lebeda A. (Slovak Republic, Czech Republic)**
High-throughput phenotyping of drought stress responses of lettuce genotypes using the optical imaging techniques
14. **Křístková E., Kitner M., Lebeda A., El-Esawi M.A. (Czech Republic, Egypt)**
Morphological and genetic variation of lettuce from Egypt
15. **Maisonneuve B., Bellec Y., Martin E., Lot H., Gognalons P., Moury B. (France)**
Lettuce lines with potyvirus resistance: differential set for study of strains and new genitors of resistance
16. **Perrot S. (France) et al.**
Validation of differentials for new *Fusarium oxysporum* f. sp. *lactucae* race 4 (Fol: 4) - Lettuce
17. **Puranik M., Bell L., Wagstaff C. (UK)**
Measuring sugars in a mapping population of salad rocket (*Eruca sativa*) at two different locations

18. **Razgallah N., Chikh-Rouhou H., Hassen A., M'hamdi M. (Tunisia)**
Effects of some nitrogen fertilizers on growth parameters and nitrate accumulatatio in lettuce (*Lactuca sativa* L.)
19. **Richardson K.L., Simko I., Wintermantel W. (USA)**
Breeding lettuce for resistance to impatiens necrotic spot virus, Verticillium wilt, and tipburn in California
20. **Sandoya-Miranda G., Kreutz G., Bhadha J. (USA)**
Identifying lettuce for phosphorus use efficiency
21. **Smilde D., Correll J.C. (the Netherlands, USA)**
A future-proof differential set for *Peronospora effusa* in spinach
22. **Thomas V., Himmel P., Brown P., Ruthner S., Grimault V. (France, USA, Switzerland)**
ISF guidelines on the nomination of novel plant pest races
23. **Turner L., Lignou S., Gawthrop F., Wagstaff C. (UK)**
Identifying changes in the flavour profile *Apium graveolens* harvested at different maturities
24. **Zorrig W., Cornu J.-Y., Maisonneuve B., Rouached A., Sarrobert C., Shahzad Z., Abdelly C., Davidian J.-C., Berthomieu P. (France, Tunisia)**
Genetic analysis of cadmium tolerance and accumulation in lettuce (*Lactuca sativa* L.)
25. **Živčák M., Brestič M., Kovár M., Mlynáriková-Vysoká D., Botyanszá L., Chovanček E., Barboričová M., Lebeda A. (Slovak Republic, Czech Republic)**
Chlorophyll fluorescence imaging in assessment of the drought stress tolerance in lettuce parental lines