

WP7 - Training

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**Third annual meeting: reporting second year
Online, 15 – 16 June 2020**



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WP7

TASK 7.1 Advanced **genotyping** training (months 7-48)
UNITUS

TASK 7.2 Advanced **phenotyping** training (months 7-48)
NPPV

TASK 7.3 Participatory **Plant Breeding** (PPB) training and the organization/management of Farmer Participatory Trials (FPT) (months 7-48)
NATURLAND



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Deliverables

No.	Title	Lead beneficiary	Dissemination level	time
D7.1	Production of materials for improved genotyping training	11 - UNITUS	Confidential, only for members of the consortium (including the Commission Services)	12
D7.2	Production of materials for improved phenotyping training	18 -NPPC	Confidential, only for members of the consortium (including the Commission Services)	12
D7.3	Production of materials for PPB and FPT training	12 - NATURLAND	Public	18

Still draft due to reviewers' approval.
 Already available to all partners.

Please download from web site !!



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WP7

TASK 7.1 Advanced **genotyping** training (months 7-48) UNITUS

4 workshops (5 days/ 12 participants) for which 6 bursaries (500€)

UNITUS – Italy: Summer school planned 21-25 September 2020
postponed to 14-18 June 2021.

- Main topics
- What is Genotyping
- Genotyping genome-wide based on SNP array, NGS, mapping-by-sequencing
- KASP, HRM to genotyping specific loci
- Practical use of HRM Corbett Rotor-Gene machine
- Practice: PCR on tissue and use of SCAR markers in tomato for mapping and marker assisted selection
- Practical approach to use of specific software for the design of essays
- Genetic-molecular detection of phytopathogenic microorganisms
- Diagnostics and advanced molecular characterization of plant pathogens
- Mass Spectrometry
- Bioinformatics
- Phylogenetic and NGS
- From isoenzyme to NGS, the development of molecular markers in tomato
- How to manage the somaclonal variation
- DNA bank use and advantages
- CrispCas9 - Tilling
- Designing resource-efficient durum wheat ideotypes for organic farming systems
- Biochemical and physiological mechanisms of resistance to stress and their identification
- Epi-breeding

WP7.1

BOKU – Austria : DIGITAL PLANT BREEDING, August 2-8, 2020, Tulln, Austria
Postponed to Summer 2022.

- 1) Selection with Markers (Digital Selection: Marker Assisted Breeding and Genomic Selection).
- 2) Modern Phenomics (Digital Phenotyping). **WP7.2**

24 applications already arrived

- Introduction, marker systems, approaches of marker use
- Basics and Principles of MAS using known QTL
- Introduction to GS, selection for unknown QTL, approaches, examples
- Simulation of breeding schemes
- Field trial design, measurement instruments for phenomics, spectral analysis, data analysis, tutorial
- Fundamental of imaging for phenotyping and precision agriculture
- Examples of linking genomics with phenotyping
- Practical considerations during thermal imaging or imaging in general
- simple example of disease quantification using imageJ



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WP7.1

IFVC – Serbia Seminar for Agronomists

1) Genomic selection

2) Cover crops in soybean production

500 agricultural producers

IHAR – Poland: Impossible organize meetings and/or conferences at the moment.

NPPC – Slovakia: to be fixed activities on selection wheat lines (autumn 2020)



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WP7.2 - phenotyping

6 workshops (2 days/ 20 participants):

NPPC – Slovakia: Contract for phenotyping with private company
Workshop during the experiment March-June 2021 (20 peoples)

UNEW – UK: End of June begin of July 2021 and 2022

KIS - Slovenia



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TASK 7.3 Participatory Plant Breeding (PPB)

Farmers where FPT are located will be used to host training activities

24 workshops (1 days/ local participants):

NATUR-Germany, training material wrote. Activities in Germany postponed to 2021 and 2022. Plus events in UK and CR cancelled

WSU-USA,

UNEW-UK, an event is planned for the 5th of July 2020

NPPC- Slovakia, workshop for farmers (phenotyping)

GEO- Greece, combine activities with WP6. Autumn an event with Farmers from Crete

KIS-Slovenia,

BOKU-Austria, field day in Bavaria with students (cancelled)

CRI- Czech Republic, Field day planned 2021 with farmers.

IFVC- Serbia, 11th June "*Field day of small grains*".

IHAR-Poland, planned in June on-line meeting with farmers organic plot

UP- Hungary: on potato meetings in 2021 and 2022.

Difficult to find farmers, just 2 found.



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