	Implementation schedule	Physically/ Remotely	Workload (hours) On site or remotely	Autonomous work for students (max hours)	Learning outcomes
Activity 1: Scientific orientation and yield component phenotyping	Introduction to the RYSILIENCE project, drought treatments and comparison of dwarf and tall winter rye varieties; identification of plant samples; measurement of dry biomass and standardized scoring of spike and yield-component traits; documentation of raw data.	Physically/remote	12	2	Understand the experimental background and assess how drought adaptation may be reflected in biomass allocation and yield-related traits in dwarf and tall winter rye varieties.
Activity 2 : Roots sample cleaning and preparation	Cleaning, sorting and processing of root samples; preparation of roots for reproducible image-based measurements.	Physically	17		Learn the shovelomics protocol and apply a consistent workflow for preparing root samples.
Activity 3: Image-based root analysis	Image acquisition and quantitative root measurements using WinRHIZO; organisation and export of the resulting measurement data.	Physically	5		Use WinRHIZO for root trait analysis and generate traceable and comparable root measurement data.
Activity 4: Data evaluation and scientific reporting	Data cleaning, visualization and basic statistical interpretation; comparison of dwarf and tall varieties and drought stages; preparation of a short scientific report.	Physically/remote	10	6	Learn how to use statistical software and visualize results.

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or EACEA. Neither the European Union nor the granting authority can be held responsible for them.