AREA

ADVANCING RESEARCH IN AGRICULTURAL AND FOOD SCIENCES AT FACULTY OF AGRICULTURE, UNIVERSITY OF BELGRADE

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AREA group ***WEEDSCI***

Field: ***WEED SCIENCE***

WEED RESISTANCE AND CROP TOLERANCE TO HERBICIDES, INVASIVE WEEDS, POPULATION VARIABILITY, PARASITIC WEEDS, WEED-CROP COMPETITION, INTEGRATED WEED MANAGEMENT

Research and commercial expertise

- Human impact on weed vegetation biodiversity, especially on occurrence and spread invasive alien species
- Sunflower tolerance to ALS inhibiting herbicides (imazamox, tribenuron-methyl)
- Weed resistance to herbicides (ALS inhibiting herbicides, PSII inhibitors and EPSP synthase inhibitors)
- Survey of genes (responsible for tolerance to herbicides) flow from tolerant sunflower hybrids to conventional hybrids and weedy/wild relatives
- Competitive interactions between crop and weeds with aim to rationalize herbicide application (time and rate of application)
- Weed population variability on morphological and genetic level

Equipment, techniques, methods and analyses

- MagCore Nucleic Acid Extractor - DNA extraction
- TissueLyser - DNA extraction, ALS enzyme extraction, plant pigments extraction
- UVC/T-AR, DNA/RNA UV-cleaner box – manipulation with DNA samples in sterile environment
- Mastercyclers- DNA amplification
- Centrifuges, Termomixer C, Vortex, automatic pipette- DNA analysis
- Spectrophotometer- enzyme activity analysis, quantification DNA and plant pigments
- Fluorometer and chlorophyll meter – estimation of plant response to herbicides
- SunScan Canopy Analysis System - crop-weed competition
- Magnifier Circus and Stereo microscop – seed morphology analysis

Contact - Team leader

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