Česká zemědělská univerzita v Praze
Fakulta agrobiologie, potravinových a přírodních zdrojů

DOKTORSKÝ STUDIJNÍ PROGRAM

NÁVRH TÉMATU/PROPOSAL OF THEME

Studijní program/*Study Program*: **Crop Science**

Studijní obor/*Branch of Study*: **General Crop Science**

Katedra/*Department of*: **Agroecology and Crop Production**

Školitel (včetně titulů), email/*Supervisor*, email: prof. Ing. Josef Soukup, CSc., soukup@af.czu.cz

Konzultant (včetně titulů)/*Co-supervisor*: Ing. Kateřina Hamouzová, Ph.D.

Forma studia/*Form of Study*: **Full_time and Combined**

Typ tématu/*Type of Theme:* **Framework**

Téma/*Theme:*

Detection and mapping of herbicide resistance

Hypotéza/*Hypothesis*:

1) Density of risky weed species, use of farming practices and a selection of herbicides are the factors leading to emergence of new cases of resistance, especially in dicotyledonous weeds.
2) Mapping of herbicide resistance will increase the farmers awareness and their pro-active behaviour.

Anotace/Annotation:

A complex of negative factors such as simplified crop rotations, reduced soil tillage systems, use of a narrow spectrum of herbicides, together with bans of older products increase the risk of herbicide resistance. At the World, European, and national level, the importance of herbicide resistance is increasing from the point of view of unique cases, as well as the affected area. Besides the most frequent resistance in weedy grasses, first cases of herbicide resistance are emerging in Europe also in some dicotyledonous species such as *Papaver rhoeas*, *Tripleurospermum maritimum*, *Stellaria media* etc.

The aim of the study is an early monitoring and mapping of new resistance cases from the point of view of both weed species and region, discovery of physiologic and genetic base of the resistance, and in a coordination with national authorities, to map the resistance and disseminate the knowledge into agricultural practice.

The topic is intended also for an applicant from foreign countries with an interest in monitoring and mapping of herbicide resistance in their home country.

Zdroj financování/Source of: grant NAZV , contract research with an agri-science company

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Podpis/*Signature:*