

## SECTION: PLANT PRODUCTION

*Lecture room: A12*

*Start from: 9:45*

**Chairman: Prof. Ing. Radovan Pokorný, Ph.D.**

---

### **9:45–11:00**

1. Šimečková Jana, Ing. – Detection of carbon content changes after biochar application on agricultural field experiment using both method walkley-black and thermogravimetry
2. Raco Milica, Bc. – Reaction of *Zymoseptoria tritici* isolates collected in the Czech Republic during the year 2017 to azoxystrobin
3. Antošovský Jiří, Ing. – The yield of potatoes and spelt in terms of organic farming
4. Horáková Eva, Ing. – Selected soil properties under different types of management
5. Procházková Petra – Relationship between barley yield and annual precipitation conditions

### **11:00–12:30**

6. Jurecka Frantisek, Ing. – Comparison of actual evapotranspiration from ALEXI and SoilClim models
7. Hanusová Helena, Ing. – Species spectrum of weeds in biobelts founded in the cadastral territory Sobůlky
8. Červenková Jana, Ing. – Species composition of vegetation in the active part of the municipal waste landfill in Nětčice
9. Uldrijan Dan, Ing. – The species composition of vegetation growing on the recultivated parts of municipal waste landfills in Nětčice
10. Petrovic Bojana, MSc. – Influence on onion (*Allium cepa*) yield and internal quality of bioadditive treatment
11. Slabá Veronika, Ing. – Evaluation of roots system size in selected *Trifolium vesiculosum* genotypes

### **13:30–15:00**

12. Bartíková Marie, Ing. – Is Boxwood in chateau gardens endangered?
13. Bartošková Vlasta, Bc. – Specific composition of vegetation in winery village Žabčice and Unkovice
14. Jagoš Pavel, Ing. – Changes of land use in the historical period 1845–2000 in the cadastral territory of Věteřov
15. Šťastný Jiří, Bc. – Specific composition of vegetation in winery village Bratčice and Syrovice
16. Vrtílek Petr, Ing. – The influence of agronomic factors on the grain yield of winter wheat
17. Školníková Marie – The effect of interaction between deficient nutrition and *Pseudomonas syringae* pv. tomato infection on development of tomato root system

### **15:00–16:00**

18. Wimmerová Markéta, Ing. – Effect of artificially induced drought on growth and productivity of selected crops within field experiment in Bohemian-Moravian highlands

19. Klimešová Jana, Ing. – Does the root system size and seed vigour affect the drought tolerance of wheat?
20. Mezera Jiří – Evaluation of crop yield spatial variability in relation to variable rate application of fertilizers
21. Vágnerová Lucie, Ing. – The elimination of milk thistle (*Silybum marianum* L. Gaernt.) in a subsequent crop

## SECTION: ANIMAL PRODUCTION

*Lecture room: M2.11*

*Start from: 9:45*

**Chairman: Prof. Ing. Gustav Chládek, CSc.**

---

### **9:45–11:00**

1. Šťastník Ondřej, Bc., Ing. – Phosphorus retention from barley-type diets with different levels of endo-phytase
2. Navrátil Stanislav, Ing. – Sum of effective temperatures and its effect on yield of Czech Fleckvieh Simmental
3. Kubíková Zuzana, Ing. – Evaluating the importance of the stallion Scyris in the breeding of the Czech warmblood
4. Roztočilová Andrea, Ing. – The influence of feeding wheat with blue aleurone on biochemical parameters antioxidant activity and performance of broiler chickens
5. Janoš Tomáš, Ing. – The influence of breed sex and litter size on the growth intensity of lambs

### **11:00–12:30**

6. Dočkalová Hana, Ing. – Growth performance in laboratory rats in relation to addition of milk thistle pressing parts or mycotoxin contaminated feed ration
7. Klementová Kristýna, Ing. – Influence of the stabling environment temperature on the reproduction of the high-producing dairy cows
8. Jaroš Jaromír, Bc. – The effect of genotype and pasture on chickens performance and digestive tract development
9. Přibilová Magdalena, Ing. – The effect of L-carnitine daily supplementation on quality of ejaculate of duroc boars
10. Zmrhal Vladimír, Bc. – Use of herbal additive to eliminate the negative effects of heat stress on broilers
11. Rádsetoulalová Iva, Ing. – Acaricidal activity of plant essential oils against poultry red mite (*Dermanyssus Gallinae*)

### **13:30–15:00**

12. Hueberová Svatava, Ing. – Serum glucose and alt concentrations during different levels of training in horses
13. Anderle Vojtěch, Ing. et Ing. – Comparison of laying intensity and egg quality the effect of Japanese quail (*Coturnix japonica*) with different feather color
14. Dosedlová Jitka, Ing. – Influence of milking period on the intensity of lying behaviour of dairy cows kept in boxes
15. Urbánková Lenka, Ing., Dis. – The effect of selenium nanoparticles on the antioxidant potential of laboratory rats
16. Kubištová Barbora, Ing. – The influence of environmental conditions and the month of birth on the prosperity of foals of the Czech warmblood breed on the stud farm ŠCHK-KUBIŠTA

17. Vaculíková Martina, Ing. – The effect of high barn temperature on the behaviour in Holstein dairy cows

**15:00–16:00**

18. Fikesová Veronika, Ing. – Analysis of breeding and performance of horses in the Czech Republic based on eventing competitions
19. Umlášková Barbora, MVDr. – Variation of biochemical parameters of energy and liver metabolism in periparturient goats
20. Kopečná Eva, Ing. – Factors influencing the performance of the English thoroughbred horses
21. Němcová Zuzana – Ruminant degradability of dry matter and crude protein in untreated and solvent-extracted soybean meal

**16:00–16:45**

22. Kautská Jitka, Ing. – Effects of monensin on the copper, zinc and iodine contents in milk of dairy cows
23. Pecová Lenka, Ing. et Ing. – Evaluation of the result reliability of basic milk composition in an automated milking system through indirect real-time analysis
24. Špitalniak Kinga, Mgr., Ing. – Effects of protein supplement on growth performance and blood parameters of Holstein-Friesian calves

**SECTION: FISHERIES AND HYDROBIOLOGY***Lecture room: A25**Start from: 9:45***Chairman: Assoc. Prof. Ing. Radovan Kopp, Ph.D.****9:45–11:00**

1. Mareš Lukáš, Ing. – Second year of monitoring of aquatic invertebrates in an intensive fish farming system
2. Brumovská Veronika, Ing. – The methodology of bryozoa cultivation in the laboratory conditions
3. Musilová Barbora, Ing. – Use of bio-enzymatic products for the reduction and modification of fishpond sediments
4. Balázs Attila, Mgr. – Dragonfly (Insecta: Odonata) assemblage of three types of habitats in the south of Central Slovakia
5. Radojičić Marija, MSc. – Phytoplankton dynamic of small fishponds during the application of bacterial product

**11:00–12:00**

6. Malý Ondřej, Ing. – Influencing the phosphorus digestibility from feed mixtures in carp breeding by using phytase enzymes and citric acid
7. Jurek Lukáš, Ing. – Intraspecies variability of the chub (*Squalius cephalus* L.) in the Czech Republic and possibilities of its morphological determination
8. Minářová Hana, MVDr. – Optimization of the lymphocyte transformation test in salmonid fish
9. Vávra Michal, RNDr. – Ecological quality of pools, river branches and oxbow lakes of the Middle Elbe region

## SECTION: AGROECOLOGY AND RURAL DEVELOPMENT

*Lecture room: C01*

*Start from: 9:45*

**Chairman: Assoc. Prof. Dr. Ing. Milada Šťastná**

---

### **9:45–11:00**

1. Szturc Jan, Ing. – The soil sealing of agricultural land by the development of intravilan in the cadastral area of Modřice
2. Zloch Jan, Ing. – Use of hemp (*Cannabis sativa* L.) in management of landfill leachate: preliminary analysis and reaction on leachate irrigations
3. Chekuimo Georges Herbert, Ing. – Urban and peri-urban forestry in the face of climate change in Cameroon: challenges and new perspectives for sustainability
4. Jirout Milan – Sampling and analysis of sediments from Smolenská water reservoir basin
5. Ragasova Lucia, Ing. – Effect of irrigation on plant development and flowering period of chosen plant mixture

### **11:00–12:30**

6. Kučera Josef, Ing. – The effect of a windbreak on the degradation of soil aggregates during the winter season
7. Lešková Andrea, Ing. – Climate change and adaptation strategies in Bangladesh
8. Procházková Pavlína, Ing. – An accessibility study of selected forested area regarding persons with reduced mobility
9. Peřínková Veronika – The phenomenon of suburbanization and satisfaction of the population in selected villages
10. Dokulilová Martina – Importance of isolated forest complexes for stable populations of small terrestrial mammals in lowlands of South Moravia (the Czech Republic)
11. Stehnová Eva, Ing., Bc. – Phenological phases and their possible influence on soil erosion at maize

### **13:30–15:00**

12. Svejková Adéla, Ing. – Different impacts of drought in protected areas of the Mohelno Serpentine Steppe and the Moravian Karst
13. Novotný Břetislav, Ing. – Google street view as a tool for faunistic research: case of *Brigittea civica* and its occurrence in Moravia and Silesia (Czech Republic)
14. Ripelová Renáta, Ing. – Water quality analysis in the upper part of Litava river basin focused on nitrogen compounds contamination
15. Hromadová Marcela, Ing. – Perception social farming in Czech Republic and Great Britain
16. Schrimpelová Kateřina, Ing. – Suitability of denitrifying woodchip bioreactor outflows for use in irrigation
17. Izsóff Martin, Mgr. – Evaluation of development trends in the vineyard village of Čajkov (Slovakia)

**15:00–16:00**

18. Midler Milan, Mgr. – Commercial Suburbanization of Nitra city (case study Čermán district)
19. Vaculová Veronika, Ing. – GIS analysis of potential locations for rain gardens in village Alekšince
20. Religa Arkadiusz, BSc, MSc – The impact of leachate recirculation during aerobic biostabilisation of undersize fraction on the properties of stabilisate produced
21. Łukasiewicz Maria, Eng., MSc. – A comparative analysis of the dynamics of changes in waste accumulation indicators in selected suburban communes - case study

## SECTION: FOOD TECHNOLOGY

*Lecture room: X01*

*Start from: 9:45*

**Chairman: Assoc. Prof. Ing. Jan Pospíchal, CSc.**

---

### **9:45–11:00**

1. Zigmundová Veronika, Ing. – Dynamics of changes in the content of selected anthocyanins during the processing of grain of the Scorpion wheat variety
2. Gočíková Magdaléna, Ing. – The use of saturated middle-chain fatty acids in the technology of wine production
3. Ondrušíková Sylvie, Ing. – Effect of additives on colour stability of yogurt
4. Ruban Artsiom, Ing. – Influence of recipes of quality chocolate products during their storage
5. Stejskal Ondřej, Ing. – The influence of cryomaceration on the content of antioxidants and basic analytical parameters in white wines

### **11:00–12:30**

6. Müllerová Martina, Ing. – The sensory quality changes in beef Longissimus thoracis et lumborum and semimembranosus muscles during aging
7. Kouřil Petr, Ing. – Influence of pre-culinary treatment on microbiome of edible insect tenebrio molitor
8. Jandlová Marcela, Ing. – Phthalate esters in sousages packaged individually
9. Boško Rastislav, Ing. – The optimization of methods for phenolic compounds determination in elderberry (*Sambucus nigra* L.)
10. Fojtíková Lucie, Bc. – Variability of the content and composition of lavender medical (*Lavandula angustifolia* P. MILL.) essential oils of different origin
11. Burdějová Lenka – Effect of extraction solvents on phenolic compounds concentration, antioxidant activity and colour parameters of selected medical plants

### **13:30–14:15**

12. Šťávoňová Elena, Ing. – Extraction of ferulic acid from wheat bran by alkaline hydrolysis
13. Tran Dang Khoa – The quality of hulled wheat species in organic farming



**SECTION: PLANT BIOLOGY***Lecture room: A27**Start from: 9:45***Chairman: Mgr. Vilém Reinöhl, CSc.****9:45–11:00**

1. Cerný Josef, Ing. – In vitro induced tetraploid *Petunia hybrida* of a red color
2. Habánová Hana, Ing. – Objective evaluation of seed germination by proteomics and principal component analysis
3. Cerna Marketa – Usage of UV irradiation for nucleus destruction of *Petunia hybrida*
4. Mendel Peter, Ing. – Study of industrial hemp phytotoxicity in an experimental hydroponic culture
5. Grulichová Marie, Ing. – Effect of different phytohormones on growth and development of micropropagated *Cannabis sativa* L.

**11:00–12:30**

6. Lalge Ajinkya, Ing. – The effects of red, blue and white light on the growth and development of *Cannabis sativa* L.
7. Kolackova Martina, Ing. – Antioxidant response of *Arabidopsis thaliana* to Zn–Se nanoparticles, selenium and zinc ions
8. Bačová Romana, Ing. – Optimization of DNA isolation process in freshwater microalgae using homogenizer
9. Strejčková Aneta, Ing. – Effect of zinc-selenium nanoparticles on microalgae *Scenedesmus quadricauda*
10. Vetter Martin, Ing. – Cytokinins in regulation of cotyledonary bud outgrowth in pea (*Pisum sativum* L.)
11. Skaláková Patricie, Mgr. – Physiological and molecular changes in *Arabidopsis thaliana* during the process of cold acclimation and the role of light intensity

**13:30–14:15**

12. Pavlů Jaroslav, Mgr. – Use of RT-qPCR method for analysis of cytokinin-activated reporter gene *lacZ* in *E. coli*
13. Černá Zlatica, Bc. – Complex genome rearrangements in an *Arabidopsis* T-DNA line
14. Kušniarová Patrícia, Ing. – Root phenotyping of soybean [*Glycine max* (L.) Merrill] genotypes based on image analysis

**SECTION: ANIMAL BIOLOGY***Lecture room: A23**Start from: 9:45***Chairman: Prof. MVDr. Zbyšek Sládek, Ph.D.**

---

**9:45–11:00**

1. Kratochvilova Lucie, Ing. – Inflammatory cytokines produced by leukocytes of bovine mammary gland
2. Pillarová Lenka, Ing. – Bites between domestic dogs
3. Duřa Martin, Mgr. – Lynx in human dominated landscape of Moravian Karst: preliminary results
4. Mifková Tamara, Ing. – Nuclear genes carbamoyl phosphate synthetase and elongation factor-1 $\alpha$  as tool for identification of intraspecific gene variation in case of Lime Hawk-Moth (*Mimas tiliae*)
5. Štěpánková Kristína, Ing. – Life strategies of jumping spiders (ARANEAE: Salticidae) of genus *Pellenes* - a possible explanation of the unusual sociability

**11:00–12:30**

6. Wijacki Jan, Ing. – Microsatellite detection for variability study of MHC genes region in camels
7. Kubesova Anna, Ing. – Expression of keratine 8 and ATP synthase subunit beta genes in relation with boar taint
8. Pešková Petra, Ing. – Effect of dietary fatty acid composition on weight of model animals
9. Kováč Jozef – New modification of cultivation medium for isolation and growth of intestinal sulfate-reducing bacteria
10. Hamouzova Pavla, MVDr. – Influence of oestradiol and progesterone levels on the number of mast cells in the feline myometrium
11. Šimek Vlastimil, MVDr. – The age effect on selected blood biochemical parameters of young Dwarf Lop rabbits

**13:30–14:45**

12. Kala Robert, Ing. – Association of selected genes with milk fat in two breeds of cattle
13. Halo Marko, Ing. – Microelements and macroelements in seminal plasma affect oxidative balance of stallion semen
14. Tirpák Filip, Ing. – Dietary supplementation of *Rhus coriaria* (sumach) moderately affects the rabbit spermatozoa motility
15. Ďuračka Michal, Ing. – The effect of curcumin on in vitro induced bacterial contamination of rabbit ejaculates by *Enterococcus faecalis*
16. Sikora Agnieszka, Ing. – The assessment of occurrence of drug-resistant strains of *Escherichia coli* in the poultry

**SECTION: TECHNIQUES AND TECHNOLOGY***Lecture room: Q110**Start from: 9:45***Chairman: Assoc. Prof. Ing. Jiří Čupera, Ph.D.****9:45–11:00**

1. Poláková Nela, Ing. – Effect of heat treatment of CMT weld on its mechanical properties
2. Dokulilová Tereza, Ing. – Effect of bronopol on anaerobic stabilization of sewage sludge and biogas production
3. Čížková Alice, Ing. – Design and verification of formulas of compost piles with various proportions of grape pomace
4. Renčín Lukáš, Ing. – Comparison of differential hydromechanical and mechanical transmissions in terms of impact on the drawbar pull properties of a tractor
5. Dušek Martin, Ing. – The evaluation of greenery cover influence on the soil compaction in the inter-rows of grapevine

**11:00–12:15**

6. Rozlivka Jakub, Ing. – Utilization of acoustic emissions in the evaluation of machining process
7. Halenár Marek, Ing. – Research of biodegradable fluid during operating test
8. Miskowska Anna, MSc. – Change of water permeability of nonwoven geotextile exploited in earthfill dam
9. Popardowski Ernest BSc, MSc – Technocal-economic aspects of the eradication of energy willow plantations
10. Osinski Piotr – Soil water retention behaviour of granular soil - modified pore pressure transducer tests

## SECTION: APPLIED CHEMISTRY AND BIOCHEMISTRY

*Lecture room: M2.12*

*Start from: 9:45*

**Chairman: Prof. RNDr. Vojtěch Adam, Ph.D.**

### **9:45–11:00**

1. Luklova Marketa, Bc. – How much is not enough? Peptide-based identification and quantitation of proteins
2. Buchtelova Hana, Ing. – Ruthenium-based core-shell nanoparticles with exceptional in vitro biocompatibility
3. Tesařová Barbora, Ing. – Surface PEGylation and PASylation to regulate nanoparticle interactions with biological environment
4. Strmiska Vladislav, Ing. – Sarcosine degradation pathway is involved in the epigenetics of prostate cells
5. Berka Miroslav, Bc. – Limited drying and its effect on peptide recovery rates

### **11:00–12:30**

6. Charousova Marketa, Ing. – hNET as a Target for Neuroblastoma Nanomedicine
7. Lacková Zuzana, Ing. – Determination of hydroxyproline using Ion-exchange liquid chromatography with VIS detector and high performance liquid chromatography with fluorescence detector
8. Do Tomáš – Determination of the content of capsaicin and dihydrocapsaicin in twelve varieties of chilli peppers by using liquid chromatography with uv/vis detection
9. Ananbeh Hanadi, MSc. – Antioxidant activity of yoghurt supplemented with natural additives
10. Vaneckova Tereza, Ing. – Characterization of upconversion nanoparticles by fluorescence spectrometry and capillary electrophoresis
11. Jelínková Pavlína, Ing. – Antimicrobial activity of CdTe QDs modified with Lanthanides on *Pseudomonas aeruginosa*

### **13:30–15:00**

12. Zelníčková Jaroslava, Ing. – Comparison of interaction of two isoforms of metallothionein (potential source of the antitumor drug resistance) with platinum-based cytostatics and platinum nanoparticles
13. Buchtová Žaneta, Ing. – The effect of coffee supplementation on glutathione and total thiols levels
14. Bytešníková Zuzana, Ing. – Antibacterial activity of composite of graphene oxide with silver nanoparticles
15. Haddad Yazan, M.Sc. – Spectral analysis of human norepinephrine transporter homing peptides
16. Hutařová Jitka, Mgr. – Molecular imprinting technology for targeted analysis of proteins
17. Janštová Lenka, Ing. – New option for decreasing of concentration limit of detection in electrophoresis

**15:00–16:15**

18. Štuříková Helena, Ing. – The comparison of effect of zinc sulphate and zinc oxide nanoparticles on plants
19. Krausová Katerina, Bc. – Apoferritin-Mediated doxorubicin internalization through transferrin receptor 1
20. Němcová Natálie – Spiropyran-zinc interaction characterized by fluorescence spectrometry and capillary electrophoresis with laser-induced fluorescence detection
21. Dillingerová Veronika – Classification of archaeological glass samples using LA-IC-PMS
22. Sieczka Anna, M.Sc. – Evaluation of chlorides transport parameters in natural soils based on laboratory studies