



Agricultural, Life and Environmental Sciences
Graduate Students' Association
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ALES Graduate Research Symposium

March 24 & 25, 2022



Thursday, March 24, 2022 – Zoom

| Time (MT) | Agenda | | |
|--|--|--|-------|
| 9:00 – 9:15 AM | Opening Remarks | | |
| Session 1: REES & HECOL oral presentations | | | |
| 9:15 – 9:30 AM | Meghan Lim | Evaluating the impact of CCAFS CSA intervention on food security | REES |
| 9:30 – 9:45 AM | Jerico Fiestas Flores | Understanding intergenerational trauma in indigenous communities: The case of Canada and residential school | REES |
| 9:45 – 10:00 AM | Break | | |
| 10:00 – 10:15 AM | Sara Chitsaz | Fort Nelson First Nation-Owned Tu Deh-Kah Geothermal Project: A Case Study of Community Perceptions & Support | REES |
| 10:15 – 10:30 AM | Laura Woodman | Supporting Quality and Longevity in Alberta's Family Day Homes | HECOL |
| 10:30 – 11:00 AM | Guest speaker: Mr. Tyrone Butler (Critical thinking and Problem solving in consciences and industry) | | |
| Session 2: AFNS oral presentations | | | |
| 11:00 – 11:15 AM | Aldo Ríos Martínez | Characterizing the arthropod community and ground beetle diet in canola agroecosystems in central Alberta | AFNS |
| 11:15 – 11:30 AM | Shengjuan Li | Characterization of clubroot disease symptoms in Arabidopsis using the peat-based media and partially-hydroponic assay systems | AFNS |
| 11:30 – 11:45 AM | Dilrukshi Kombala Liyanage | Genome-wide association reveals the genetic basis of physiological parameters in soybean under drought stress | AFNS |
| 11:45 – 12:00 PM | Danielito Dollete | Effect of drought stress on nodulation, plant growth, soil nitrogen availability, and nitrogen fixation in alfalfa | AFNS |
| 12:00 – 12:05 PM | Break | | |
| 12:05 – 12:20 PM | Peineng Zhu | Preparation of transparent and thermo-reversible pea protein gels and their potential applications as gelatin alternatives | AFNS |
| 12:20 – 12:35 PM | Bingxin Hai | Upgrading the Lipid-to-Hydrocarbon Technology to Sustainable Aviation Fuel: a route to net zero GHG emissions | AFNS |



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| 12:35 – 12:50 PM | Dagem Haddis | Hydrothermal and Cellulase Treatment for Co-production of Cellulose Nanocrystals and Fermentable Sugars | AFNS |
| 12:50 – 1:05 PM | Kallum McDonald | Genetic Engineering of Carbon Flow Arabidopsis Seeds to Accelerate Breeding for High Protein Canola | AFNS |
| 1:05 – 1:20 PM | Kanishka Senevirathna | Investigation of the dispersal of diamondback moth (<i>Plutella xylostella</i>) across North America | AFNS |
| 1:20 – 1:30 PM | Closing Remarks | | |

Friday, March 25, 2022 – Zoom

| Time (MT) | Agenda | | |
|------------------------------------|---|--|------|
| 9:00 – 9:05 AM | Opening Remarks | | |
| 9:05 – 9:15 AM | Speaker: Ibronke Popoola (ALES & Alberta Innovates) | | |
| 9:15 – 10:00 AM | ALES virtual career café | | |
| Session 3: RENR oral presentations | | | |
| 10:00 – 10:15 AM | Andrii Oleksandrenko | Importance of site selection for studying trace elements and fallout radionuclides | RENR |
| 10:15 – 10:30 AM | Beckett Stark | Rare Plant Mitigation During Pipeline Construction on the Northern Great Plains | RENR |
| 10:30 – 10:45 AM | Na Chen | Trace elements in the acid soluble ash fraction of Sphagnum moss: Surrogate for atmospheric deposition of sub-micron aerosols within the Athabasca Bituminous Sands region | RENR |
| 10:45 – 11:00 AM | Sunny Choi | Chronic trace element toxicity of Lake Miwasin water and sediment to <i>Daphnia magna</i> . | RENR |
| 11:00 – 11:15 AM | Yu Wang | AF4-ICP-MS as a powerful tool to resolve colloidal trace elements in bog waters | RENR |
| 11:15 – 11:30 AM | Dulani Kandage | Influence of Concentration and Speciation of Trace Elements in Soil Solution on Plant Uptake and Accumulation by <i>Hordeum jubatum</i> L. | RENR |
| 11:30 – 11:35 AM | Break | | |
| 11:35 – 12:25 PM | Poster presentations | | |
| 12:25 – 12:30 PM | Closing Remarks | | |