

College of Food, Agriculture & Natural Sciences UROP Projects

Proposal Title	Fac Dept Name	College
Growth and Forest Dynamics in 190-year old <i>Pinus resinosa</i> at the Cloquet Forestry Center	Forest Resources	Food, Agricultural & Natural Resource Sciences
Quantifying the Global Sources of Atmospheric Benzene and Other Aromatic Compounds Using Ground and Airborne Measurements	Soil, Water, & Climate	Food, Agricultural & Natural Resource Sciences
Evaluation of Attic Performance in Northern Climate	Bioproducts and Biosystems Engineering	Food, Agricultural & Natural Resource Sciences
Identifying Nesting Habitat Use of Marbled Godwits and Willets	Fisheries & Wildlife	Food, Agricultural & Natural Resource Sciences
The Oxidative Stability of Spray Dried Flavorings	Food Science & Nutrition	Food, Agricultural & Natural Resource Sciences
Nutrient Concentration and Digestibility of Novel Microalgae Products Fed to Swine	Clinical & Population Sciences	Food, Agricultural & Natural Resource Sciences
Linking Predicted and Observed Soil Properties to Corn Yields in Somalia	Agronomy & Plant Genetics	Food, Agricultural & Natural Resource Sciences
Evaluating the Effects of Organic Fertilizers on Insect Herbivory of Brassicas	Horticultural Science	Food, Agricultural & Natural Resource Sciences
Controlling Crown Rust to Study Loose Smut Development in Oats	Plant Pathology	Food, Agricultural & Natural Resource Sciences
Analysis of Rapeseed Metabolites in Pig Digesta and Serum Samples through LC-MS-based Metabolomics	Food Science & Nutrition	Food, Agricultural & Natural Resource Sciences
Spatial and Depth Distribution of Lead in Urban Soils	Soil, Water, & Climate	Food, Agricultural & Natural Resource Sciences
Analysis of Amino Acid Metabolism in Young Mice Fed with Green Algae Grown in Waste Water	Food Science & Nutrition	Food, Agricultural & Natural Resource Sciences
Impact of Climate Change on Monarchs and Their Interactions with the Parasitoid <i>Pteromalus Cassotis</i>	Fisheries & Wildlife	Food, Agricultural & Natural Resource Sciences
Evaluating the Performance of Biostimulants on Vegetable Transplants in Organic Production Systems	Horticultural Science	Food, Agricultural & Natural Resource Sciences
The Influence of Baker's Law in Distant Island Colonization	Ecology, Evolution & Behavior	Food, Agricultural & Natural Resource Sciences
The Wheat Yield Gap	Bioproducts and Biosystems Engineering	Food, Agricultural & Natural Resource Sciences
Determining the Antibacterial Effect of Lemon Grass Essential Oil on the Survival of Multidrug Resistant <i>Salmonella Heidelberg</i> in Poultry Drinking Water	Animal Science	Food, Agricultural & Natural Resource Sciences
Hydrothermal Vent Particle Analysis Using Experimentally Developed SEM Methods	Soil, Water, & Climate	Food, Agricultural & Natural Resource Sciences
The Impact of Peruvian Transport Infrastructure Investment on International Tourism	Applied Economics	Food, Agricultural & Natural Resource Sciences
measurement of Enzyme Activity for Different Tree Species	Soil, Water, & Climate	Food, Agricultural & Natural Resource Sciences
Economic Implications of Women's Higher Education Participation in Tunisia and the United Arab Emirates	Applied Economics	Food, Agricultural & Natural Resource Sciences
Effects of Potassium, Magnesium, and Calcium Salt Cations on pH, Moisture Content, Texture, and Melting Phenomenon of Non-fat Cheese Model	Food Science & Nutrition	Food, Agricultural & Natural Resource Sciences
The Feasibility and Sustainability of Architectural Biomaterials	Architecture and Landscape Architecture	Food, Agricultural & Natural Resource Sciences
Alternative Selection of Host Plants within a Diverse Population of Sodium Rich and Sodium Deficient Female Cabbage White Butterflies	Ecology, Evolution & Behavior	Food, Agricultural & Natural Resource Sciences
N/A	Bioproducts and Biosystems Engineering	Food, Agricultural & Natural Resource Sciences
Anatomy of Fraud in the Comstock Lode, U.S. and German Minin laws, and the Role of Immigrant Miners from Saxony in the 1870s: Mining for Answers	Geology & Geophysics	Food, Agricultural & Natural Resource Sciences
A Question of Faith: Exploring the Basis of Trust for Minneapolis Halal Meat Consumers	Sociology	Food, Agricultural & Natural Resource Sciences
An Examination of Temperature Range and Cold Tolerant Adaptations of the Fungi <i>Cadophora Luteo-Olivacea</i>	Plant Biology	Food, Agricultural & Natural Resource Sciences
Correlation Between Lead Poisoning and Traumatic Injuries in Bald Eagles	Veterinary Population Medicine	Food, Agricultural & Natural Resource Sciences
Determining the Probiotic Potential of <i>Lactococcus lactis</i> Against <i>Listeria Monocytogenes</i> in Broiler Chicks	Animal Science	Food, Agricultural & Natural Resource Sciences

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Emerald Ash Borer Along the Mississippi: Documenting Visitor Knowledge to Inform Visitor Management & Education	Forest Resources	Food, Agricultural & Natural Resource Sciences
Estimating Soil Erosion Rates for Cultivated Lands in Minnesota	Soil, Water, & Climate	Food, Agricultural & Natural Resource Sciences
measure of Oxygen Uptake by Orange Oil and Analytical Method for Indicating Oxidation	Food Science & Nutrition	Food, Agricultural & Natural Resource Sciences
Forest Service-Tribal Relations: Strategies and Barriers of Environmental Conflict Resolution and Partnerships	Forest Resources	Food, Agricultural & Natural Resource Sciences
The Impacts of Nitrogen Fertilizers and Application Timing on Yield, Cone Quality, and Disease Suppression in Hops (<i>Humulus lupulus</i> L.)	Plant Pathology	Food, Agricultural & Natural Resource Sciences
Improving and Assessing East Fork Eagle Creek Trout Habitat	Fisheries & Wildlife	Food, Agricultural & Natural Resource Sciences
The Selection of Kentucky Bluegrass Cultivars for Improved Germination	Horticultural Science	Food, Agricultural & Natural Resource Sciences
Interspecific Competition and Allelopathy	Horticultural Science	Food, Agricultural & Natural Resource Sciences
Conducting Research on the Early Life History Needs of the Creek Heelsplitter to Improve Conservation Efforts	Fisheries & Wildlife	Food, Agricultural & Natural Resource Sciences
N/A	Animal Science	Food, Agricultural & Natural Resource Sciences
Is There a Correlation between Leaf Chlorosis and Senescent Breakdown in Honeycrisp Apple?	Horticultural Science	Food, Agricultural & Natural Resource Sciences
Human and Wildlife Conflit (Individual and Economic Perspectives): Amidst Nepal's Community Forests, Buffer Zones, and Surrounding Regions	Forest Resources	Food, Agricultural & Natural Resource Sciences
Efficacy of Probiotics on Increasing Sensitivity of Multiple Drug-resistant Salmonella Heidelberg to Antibiotics	Animal Science	Food, Agricultural & Natural Resource Sciences
Vegetable Consumption Trends in Families	Food Science & Nutrition	Food, Agricultural & Natural Resource Sciences
Usage of Chili Peppers Antimicrobial Activity in Organic Salad Dressings against Food Spoilage Yeasts and Molds.	Food Science & Nutrition	Food, Agricultural & Natural Resource Sciences
AACCI Leadership Development	Food Science & Nutrition	Food, Agricultural & Natural Resource Sciences
Mechanism by which Phosphorus is Retained in Bioreactor Columns	Bioproducts and Biosystems Engineering	Food, Agricultural & Natural Resource Sciences
Examination of How Altering the Proportion of Different Lactic Acid Bacteria Isolated from Kimchi Can Affect Their Antimicrobial Properties on Escherichia coli and Listeria Monocytogenes	Food Science & Nutrition	Food, Agricultural & Natural Resource Sciences
Visitor Perceptions of the Emerald Ash Borer	Forest Resources	Food, Agricultural & Natural Resource Sciences
Acid Whey Clean-up of Greek Yogurt	Food Science & Nutrition	Food, Agricultural & Natural Resource Sciences
Efficient nitrogen application timing and the difference between conventional-inorganic nitrogen sources and organic nitrogen sources	Plant Pathology	Food, Agricultural & Natural Resource Sciences
Evaluating the Efficacy of Different Compost Building Materials to Optimize Compost Production	Soil, Water, & Climate	Food, Agricultural & Natural Resource Sciences
Informational Masking in Cope's Gray Tree Frogs (<i>Hyla chrysoscelis</i>)	Ecology, Evolution & Behavior	Food, Agricultural & Natural Resource Sciences
We've Got Crabs: Measuring the Effectiveness of Using Live Animals in an Interactive Teaching Strategy versus Traditional Lecture Format	Biological Sciences	Food, Agricultural & Natural Resource Sciences
Understanding Water Quality Impacts of Landscape Management Scenarios Using Watershed Modeling	Soil, Water, & Climate	Food, Agricultural & Natural Resource Sciences
Development of a Biosensor for the Deterction of Nitrate Levels in Agricultural Soils	Bioproducts and Biosystems Engineering	Food, Agricultural & Natural Resource Sciences
Examination of the Antimicrobial Properties of Peppers and Leaves from Exotic Species of <i>Capiscum</i> from around the World	Food Science & Nutrition	Food, Agricultural & Natural Resource Sciences
Characterization of the Intestinal Immune Response Induced by High Fiber Diets in Pigs	Animal Science	Food, Agricultural & Natural Resource Sciences

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Conservation of the Freshwater Mussel Creek Heelsplitter (<i>Lasmigona Compressa</i>) through Life History Research	Fisheries & Wildlife	Food, Agricultural & Natural Resource Sciences
Understanding the Oviposition Preferences and Host Suitability of Spotted Wing <i>Drosophila</i> (<i>Drosophila suzukii</i>) in Soft-skinned Fruits	Entomology	Food, Agricultural & Natural Resource Sciences
How Do Different Management Histories Influence a Soil's Phosphorous Budget and the Broader Elemental Budget?	Soil, Water, & Climate	Food, Agricultural & Natural Resource Sciences
A Screening Approach to Identify the Effector AvrPc2 in <i>Puccinia coronata</i>	Plant Pathology	Food, Agricultural & Natural Resource Sciences
Evaluating American Black Bear (<i>Ursus americanus</i>) Habitat Use Using Updated GIS Land-Cover Classification Layer for the University of Minnesota Cloquet Forestry Center	Fisheries & Wildlife	Food, Agricultural & Natural Resource Sciences
Media Content of Neonicotinoids: Causes, Solutions, and Risks	Applied Economics	Food, Agricultural & Natural Resource Sciences
Increasing Temperatures and Seedling Germination Dynamics of Peatland Forests	Plant Biology	Food, Agricultural & Natural Resource Sciences
Thermal Balance Model for Dairy Cows	Bioproducts and Biosystems Engineering	Food, Agricultural & Natural Resource Sciences
Utilizing Genetic Resources for Crop Improvement: Analysis of the Barley Nested Association Mapping Population	Agronomy & Plant Genetics	Food, Agricultural & Natural Resource Sciences
Movement of Invasive Carp species into Minnesota Waters and Their Impact on Native Planktivorous Fishes	Fisheries & Wildlife	Food, Agricultural & Natural Resource Sciences
Yoga and Mindful Eating: A Qualitative Study	Food Science & Nutrition	Food, Agricultural & Natural Resource Sciences
Conversion of Lignocellulosic Materials to Fungal Lipids with the Use of an Isolated Fungal Strain	Bioproducts and Biosystems Engineering	Food, Agricultural & Natural Resource Sciences
Using LiDAR Data to Remotely Identify Trees with Suitable Cavities for Wildlife Habitat	Fisheries & Wildlife	Food, Agricultural & Natural Resource Sciences
Seasonal mortality in the black capped-chickadee population of Lowry Nature Center, Victoria, MN. 1969-2012.	Fisheries & Wildlife	Food, Agricultural & Natural Resource Sciences
Determining Whether Polyamines Function as Behavioral Deterrents in a Model Filter-Feeding Invasive Species, the Silver Carp (<i>Hypophthalmichthys molitrix</i>)	Fisheries & Wildlife	Food, Agricultural & Natural Resource Sciences
Uncovering the Molecular and Genetic Basis of Stem Rust Resistance in <i>Brachypodium distachyon</i>	Plant Pathology	Food, Agricultural & Natural Resource Sciences