Environment and Natural Resources Trust Fund

2027 Request for Proposal

General Information

Proposal ID: 2027-447

Proposal Title: Pesticide Research and Education to Lower Use

Project Manager Information

Name: Vera Krischik

Organization: U of MN - College of Food, Agricultural and Natural Resource Sciences

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Project Basic Information

Project Summary: F2. Outreach/research on pesticide residues in wildflowers around crops and effects on beneficial insects will be performed and mitigation suggested. Create online outreach education resources on sustainable pesticide management.

ENRTF Funds Requested: $496,000

Proposed Project Completion: June 30, 2030

LCCMR Funding Category: Land (F)

Project Location

What is the best scale for describing where your work will take place?

Statewide

What is the best scale to describe the area impacted by your work?

Statewide

When will the work impact occur?

During the Project

Narrative

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

This proposal meets the criteria stated in the proposal priorities under F2. land .... to enhance education, technical assistance and public outreach...to promote practices beneficial to the environment...

The end goal of the research is to create sustainable land management practices and educate land managers and growers on the proper pesticide to use that conserves pollinators and biocontrol agents, the risks of certain pesticides, and less toxic pesticide alternatives. To do this, we need both research and outreach.

The research objectives are to continue research on the effects of residue of pesticides near crops and treated landscapes on survival and behavior of beneficial insects. We have one year of residue data from a previous LCCMR grant and need two more.. Through bioassays of varying pesticide doses that we found in field residues, we can determine in acute and chronic studies the effects on behavior and survival of good bugs.

The outreach objectives are to update the LCCMR sponsored website called "IPM and Pollinator Conservation" (https://ncipmhort.cfans.umn.educ and https://pesticidecert.cfans.umn.edu/, 1,200 visits/mo) with an updated 2004 300-page IPM manual, three new online courses with videos, and pesticide information for education on sustainable practices.

What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.

Pesticide use is identified by the Fish and Wildlife Service and researchers as contributing to the decline of endangered rusty-patched bumblebee and threatened monarch butterflies. Professionals and consumers need an accessible online website to go to for information on IPM (integrated pest management) and beneficial insect conservation (bee, butterfly, and biocontrol agents). This website will link to other Minnesota state and university sites and will not duplicate other websites. New EPA information on reducing pesticide drift wil be included.

IPM is a sustainable, integrated approach that utilizes cultural, biological and chemical tactics to minimize economic, health, and environmental risks. Past LCCMR funding permitted the development of a website called "IPM and Pollinator Conservation" containing bulletins and insect identification information (https://ncipmhort.cfans.umn.educand https://pesticidecert.cfans.umn.edu/, 1,200 visits/mo). We were motivated to continue education by our recent LCCMR grant which revealed that 40 Minneapolis homeowners had their lawns destroyed by grubs, as they used an ineffective organic insecticide.

We will perform research to document pesticide residues near crops and treated landscapes and effects on good bugs and educate managers. Recent MDA and MN DNR pesticide surveys indicate increased pesticide residues in ditches that grow wildflowers.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

The goal and outcomes of this proposal are to develop sustainable land management as described in F2 of the proposal priorities.

The specific research outcomes are to quantify pesticide residues near crops and treated landscapes and determine if these levels kill good bugs: butterflies, bees, and predators and biocontrol parasitoids. Actual pesticide residues (neonicotinoids, pyrethroids, glyphosate, strobins) will be tested in bioassays for short--term (acute) and long-term (chronic) effects on behavior and survival.

The outreach educational outcomes are to make available pesticide education (IPM manual, bulletins, videos,courses) on a LCCMR sponsored website (ncimphort.cfans.umn.edu).

Activities and Milestones

Activity 1: Education on pesticide residue data from wildflowers near sites reported in MDA surveys https://www.mda.state.mn.us/neonicotinoid-insecticides

Activity Budget: $100,000

Activity Description:
Activity 1 is research on determining pesticides residues in 5 crops to educate land managers

In 2020 we collected wildflowers near soybean, corn, and potatoes and determined what pesticide residues were found. For wildflower samples collected near potato fields, we found that 100% of 36 samples had at least one pesticide and as many as 15 different pesticides. For corn, 100% of the samples had only one pesticide, atrazine. For soybeans, all sites had a few pesticides. The report for one year of wildflower residues sponsored by a LCCMR grant are online, https://ncipmhort.cfans.umn.edu/ipm-krischik-lab-research/conservation-biocontrol-results

Since UMN , MDA, and MN DNR websites and surveys show increased pesticide residues, especially of neonicotinoids, we wanted to repeat this study with 2 years of data and more sites.We will collect wildflower samples in ditches near apple, blueberry, corn, soybean, and potato crops.Cornell University will perform the residue analysis. We will look for a Cornell collaborator to lower prices. We will collect 2 years of data for 5 crops x 4 sites=20 x 5 plants species/site=100 x 2 composite samples/plant species=200 samples per year for two summers. Residue data will determine bioassay dose.

Activity Milestones:

Description	Approximate Completion Date
Pesticide residue data from crop borders and treated landscapes	April 30, 2030

Activity 2: Pesticide residue effects on nontarget insects, including predators, parasitoids, butterflies, and bees

Activity Budget: $200,000

Activity Description:
We will determine if current pesticide residue on wildflowers near crops affect beneficial insects. We will collect data on acute and chronic bioassays of pesticides on 6 species:Vanessa cardui, painted lady butterfly, Danaus plexippus monarch butterfly, Bombus impatiens, a parasitoid, lady beetle predator, and lacewing.

Insecticide residue data from leaves and flowers of wildflowers cannot be correlated to butterfly and bee mortality, unless acute and chronic LC50 are known. For the insecticides, fungicides, and herbicides we will use the residue found in field studies to know the correct dose n short-term (acute) and long term (chronic studies), See Scholer and Krischik 2014 and documents in attachments for details. We performed some bioassays on butterflies with a $125,000 Target in 2021 and published papers with protocols for the other species..

For each of the insecticides, herbicides, and fungicides we will use 3 field relevant doses, 10 replicate units /dose*trt, and at least 4 of the pesticides with the highest residue. Honey bee and bumblebee acute LC50 will be gathered from EPA documents and research papers, unless not known, and then it will be studied. These data will explain whether field residues are affecting survival and long term health.

Activity Milestones:

Description	Approximate Completion Date
Pestidice residue effects on butterflies and bees	April 30, 2030

Activity 3: Online sustainable land management of pests and conservation of good bugs: Website, manual, and 3 courses

Activity Budget: $196,000

Activity Description:
It is often difficult for managers to find pollinator friendly pest management information. For instance, pymetroxzine (Endeavor) can replace neonicotinoid insecticides, as its chemistry affects sucking insects, such as aphids, and it is bee friendly. Spinosad (Conserve) can replace organophosphates, pyrethroids, and carbamates for sawfly and beetle larvae, and is bee-friendly.

The bulletin entitled “Understanding pesticide toxicity to pollinators” is essential for growers and managers to use so that the toxicity of insecticides to non-target beneficial insects can be determined and the appropriate insecticide can be used. A video and chapter in a course needs to explain how. Discussion of this information will help beneficial insect conservation and should be a key element of landscape and greenhouse management.

The current LCCMR sponsored website contains a 300-page 2004 IPM manual that needs to be updated. The USDA NCERA 224 members from various universities have agreed to help update the manual with 30 new pest profiles,15 new introductory chapters, and updated pesticides. The manual and online resources will serve as a library for the 3 online courses (Pollinator conservation IPM, Turf and tree IPM, and Greenhouse IPM) that were partially developed on the website to show their feasibility.

Activity Milestones:

Description	Approximate Completion Date
Sustainable land management of pests outreach materials	January 31, 2029

Dissemination

Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.
All LCCMR grant products will be branded with the ENTRF LCCMR logo and associated language on project print and electronic media, publications, signage, and other communications per the ENTRF Acknowledgment Guidelines
For outreach and research dissemination, the LCCMR UM sponsored website will be updated with relevant pesticide issues, outreach bulletins, manual, and 3 courses.

The collaborators will work together to develop outreach programs, IPM protocols, bulletins, and commodity journal articles that will be posted on the LCCMR sponsored Pollinator Conservation website https://ncipmhort.cfans.umn.edu/ that currently gets around 1,200 visits during the growing season.

Collaborators on the Advisory Committee will meet online in zoom every 4 months to discuss the research and outreach program.
Cassie Larson, Director and Dr. Jim Calkins, Regulatory Affairs, MNLA
Erin Buchholz, IPM specialist, Minnesota Landscape Arboretum
Dr. Robert Koch, UMN Professor, Soybean Specialist
Dr. Fei Yang, UMN Asistant Professor, Corn Specialist
Dr. Bradon Miller, Plant Sciences UM and MN Arboretum
Jean-Marc Versolato, Midwest Plant Health Manager, Bailey Nurseries
Nick Sargent, owner and CEO, Sargent's Nursery
Paulta LaPlanta, CSO and owner, Prescription Landscape
Kaitlin Ryan, Manager Lake Harriet Rose Garden, Minneapolis Park & Recreation Board
Chris Aumock, MN Golf Course Superintendents Association
Ryan Murphy, Associate Professor, UM Forestry, Internationals Society of Arboriculture
Heidi Wolf, MN DNR, Ecosystem Management and Protection Section Manager
Laura Van Riper, MN DNR, Terrestrial Invasive Species Program Coordinator
Mark Abrahamson, MDA Plant Protection Director and State Regulatory Official
Raj Mann, MDA Pesticide and Fertilizer Management.
MN Pollution Control Agency (MPCA)
Angie Gupta, University of Minnesota Extension, Forestry
Marissa Schuh, University of Minnesota Extension, Fruit and Vegetable Growers
Other members will be identified in discussions with the collaborators.
UM Extension Educators, Master Gardener and Master Naturalist members

Timeline
F2; Pesticide research and education to lower use
Project PI: Vera Krischik
Pollinator Research & Outreach
Timeline

Sept 2027	Research: Meta-analysis of papers on insecticide residue in wildflowers near field crops, bioassays
	Outreach: Start working on website, IPM manual, 3 online courses
	Outreach: Talks to State agencies, commodity groups, restorations, Master Gardeners, Master Naturalists
June 2028	Research: Collect field residue data

Outreach: Continue working on website, IPM manual, 3 online courses
Outreach: Talks to State agencies, commodity groups, restorations, Master Gardeners, Master Naturalists
Sept 2028 Research: Pesticide residue analysis of samples, bioassays
Outreach: Continue working on website, IPM manual, 3 online courses
Outreach: Talks to State agencies, commodity groups, restorations, Master Gardeners, Master Naturalists
Jan 2029 Research: Pesticide residue analysis of samples,bioassays
Outreach: Continue working on website, IPM manual, 3 online courses
Outreach: Talks to State agencies, commodity groups, restorations, Master Gardeners, Master Naturalists
June 2029 Research: Collect field residue data
Outreach: Continue working on website, IPM manual, 3 online courses
Outreach: Talks to State agencies, commodity groups, restorations, Master Gardeners, Master Naturalists
Sept 2029 Research: Pesticide residue analysis of samples, bioassays
Outreach: Continue working on website, IPM manual, 3 online courses
Outreach: Talks to State agencies, commodity groups, restorations, Master Gardeners, Master Naturalists
Jan 2030 Research and outreach completed; website, IPM manual, and 3 courses available online
with daily metrics compiled by google analytics for outreach visits data
June 2030 All research and outreach completed, publications submitted, website and online courses available, google analytics recording use
Website and courses maintained by PI and MN arboretum

Recent funds
2024-2027 LCCMR “Mitigating the spread of jumping worm with pollinator friendly management”, $470,000
2024-2027 USDA MDA Spec Crop, “Managing JB in fruit crops and conserving pollinators”, $125,000
2021-2024 LCCMR “Biocontrol of bee lawns and park lands”, $420,000
2019-021 Target gift on pollinator research $125,000

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this work be funded?

This proposed outreach/research is a continuation of previous LCCMR proposals, a MDA grant, and a large gift from Target. For outreach/research, we will collect data on field pesticide residues and effects on beneficial insect behavior and survival in short- and long-term bioassays. For outreach, these data and other information will be turned into online educational resources for sustainable land management. The online website will be maintained in the future from the PI and collaborators at the MN Arboretum through grants. The research will be published in peer review journals and provided in talks to Minnesota and national groups.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Invasive Species Biocontrol in Bee Lawns and Parklands	M.L. 2021, First Special Session, Chp. 6, Art. 6, Sec. 2, Subd. 06d	$425,000
Mitigating the Spread of Invasive Jumping Worms	M.L. 2024, , Chp. 83, Art. , Sec. 2, Subd. 06b	$470,000

Project Manager and Organization Qualifications

Project Manager Name: Vera Krischik

Job Title: Associate professor Entomology, UM Pesticide and non-target effects research and outreach

Provide description of the project manager's qualifications to manage the proposed project.
Vera Krischik is an Associate Professor in CFANS at the University of Minnesota. Vera has 35 years of experience promoting Integrated Pest Management (IPM), biocontrol, and compatible insecticides to protect pollinators and other good bugs in greenhouses, nurseries, lawns, urban forests, parks, and restorations, https://entomology.umn.edu/people/vera-krischik. Our lab's research identifies the best ways to manage pests through IPM to reduce non-target effects on native pollinators and biocontrol insects, such as parasitoids, lady beetles, native butterflies, and native bees, such as rusty patched bumblebee, Bombus affinis, and monarch butterfly, Danaus plexippus.

This proposal continues outreach/research on field-relevant pesticide doses and good insect survival. In November 2025 at the National Entomology Society meeting, I was invited to talk on this research in 2 symposiums. Our research on biocontrol of Japanese beetle was supported by a LCCMR and MDA grant. Our research on managing jumping worms with biorational insecticides was supported by a LCCMR grant.Target provided $125,00 for pesticide research.

The Krischiklab is the contact for information on insecticides and bees by the UM Bee Squad, Master Gardeners, MPRB, and MNLA and recently the city of Minneapolis on their new pollinator protection guidelines for insecticides. We maintain a Pollinator Conservation and IPM website for the public that was initiated by LCCMR funds at http://ncipmhort.cfans.umn.edu/ . We were members of both the USFS monarch and rusty-patched bumblebee review committees. In 2024 as part of an LCCMR grant, we worked with 40 households in Minneapolis and learned that they were applying a bacterial insecticide that was ineffective. This compelled me to create an online resource for all land managers.

This outreach/research proposal will continue our efforts to create sustainable management for MN lands to reduce pesticides use and drift into flowering plants and water.

Organization: U of MN - College of Food, Agricultural and Natural Resource Sciences

Organization Description:
The University of Minnesota UMN) Twin Cities is a top-ranked public research university. A recent 2026 ranking was #59 in National Universities by U.S. News & World Report .In 2025 UMN took the spotlight in the Times Higher Education's first-ever Interdisciplinary Science Rankings (ISR). Among 749 institutions across 92 countries, the U of M was ranked the top U.S. public university and sixth overall (https://twin-cities.umn.edu/news-events/university-minnesota-earns-top-spot-global-interdisciplinary-science-rankings).

UMN CFANS, the College of Food and Agricultural Sciences, is committed to protecting land, wildlife and forest. maintaining species diversity, feeding a planet, and building sustainable practices (https://cfans.umn.edu/).

The main research of the Krischiklab is to reduce pesticide use by finding sustainable cultural and biologically based alternatives to conserve pollinators and beneficial insects.The main finding of recent research was that chlorantraniliprole that is used for Japanese beetle management kills butterfly larvae and adults when sprayed on leaves. Consequently we researched the use of natural microsporidean for biocontrol that kills grubs and adults,

The purpose of the Krischiklab website entitled "Pollinator Conservation Biocontrol",

https://ncipmhort.cfans.umn.edu/ , is to provide technical information on how to manage planscapes, restorations, bee lawns, and backyards with sustainable tactics.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	$ Amount
Personnel								
PostDoc 3yr		Works with the PI, other PostDoc, and Undergraduate students in the lab and field, develop experimental designs, collects data, performs statistical analysis of the data, develops graphics, and peer reviewed research papers, update websites, engage in outreach. 3yr. $65,5000 x26.1% fringe=$62,232 (2027) 3%yr increase			26.1%	3		$242,566
Undergraduate researcher, 3yr		Works with the PI, Post Doc, and Researcher3 to help perform the research, update website, write bulletins, engage in outreach. 426 hr/yr x $15.00/hr =$6,390 3yr. Total = $19,215 for 3yr			0%	0.9		$19,215
Lab researcher and outreach coordinator, 2yr		Perform lab research with PI and PostDoc, on collecting pesticides samples, bioassays, and writing reports. For outreach, develop the Sustainable Land Management website, create pesticide information bulletins on nontarget effects of pesticides, update the online IPM manual, and update/create 3 courses.			32.3%	4		$120,856
							Sub Total	**$382,637**
Contracts and Services								
Pesticide residue analysis https://blogs.cornell.edu/ccecf/the-facility/ We will find a Cornell collaborator to lower analysis cost.	Service Contract	4 crops (apple, soybean, corn, potato, 3 sites each) , collect wildflowers at 3 dates (1 at planting, 2 in July) and 4 samples/date. Total =4 sites x3 sample dates x 4 samples/date=48 samples/crop x 4 crops=200 samples.yr x 2yr.				0		$51,159
UMN Greenhouse space for rearing insects and bioassays 3y	Service Contract	UMN Greenhouse space for growing host plants,insect colonies and				3		$10,801

		bioassays for 3 yr, 12mo x $300/mo=$3,600 x 3y=$10,800						
							Sub Total	**$61,960**
Equipment, Tools, and Supplies								
	Tools and Supplies	Supplies to rear host plants, rear insects, perform bioassays	Research: PPE (goggles, shields, disposable coverall, gloves, plastic GH shoes, spill kits, first aid kits, heat stress kits) for safety around chemicals, pesticides, bioassay chemicals,insects purchased from insectaries, insect food for colonies, bioassay containers, insect netting, bagged soil, mulch, containers for bioassays, plants for rearing butterflies, lab cleaning supplies, new scale for lab and GH, tweezers, dissecting tools, USb storage devices, etc; Total = $30,303 for 3yr					$30,303
							Sub Total	**$30,303**
Capital Equipment								
							Sub Total	**-**
Acquisitions and Stewardship								
							Sub Total	**-**
Travel In Minnesota								
	Miles/ Meals/ Lodging	Rent UMN Fleet services car by month to drive to crop and ditch sites to collect wildflowers for residue analysis, 2yr	Instate travel: Summer travel rent UMN car by month. Travel to research sites, outreach workshops, field days, meetings.UM rental car $800/mo x 4mo x 1yr= $3,200 for 3yr. Total = $9,600					$9,600
							Sub Total	**$9,600**
Travel Outside Minnesota								

	Conference Registration Miles/ Meals/ Lodging	Provide 2 talks at a National and MN based meetings of the Entomological Society, Society of Toxicology and Chemistry, Horticultural Society, MN Fruit and Vegetable Growers, Soybean and Corn Growers Associations, or other annual meeting, 2 trips, per trip, $800 airfare+$200/night x 3 nights + $75/diem + $100 taxi to and from airport =$1,800 x 2 +$3,600. Local trips will be covered by car rental for day trips	Disseminate research results at national meetings provide visibility of MN efforts to manage biodiversity and provide dialog on how to educate people to change practices.Research data is important to share on pesticide residue and effects on good bugs so policy can change if residues are an issue.	X				$3,600
							Sub Total	**$3,600**
Printing and Publication								
	Printing	Outreach programs: Print materials for outreach programs at meetings, workshops, and field days to provide information to park managers, landscapers, mulch groups, and consumers on JW issues and management through IPM. Total = $1,000 for 3yr	Printing of outreach materials for meetings					$1,600
	Printing	Research: Pay page charges for publishing research in a peer-reviewed journal, 3 papers.	Outreach programs: Print materials for outreach programs at meetings, workshops, and field days to provide information to park managers, landscapers, mulch groups, and consumers on JW issues and management through IPM. Total = $1,000 for 3yr. Research: Pay page charges for publishing research in a peer-reviewed journal, 2 papers x $1,600/each. Total=$3,300					$3,300
							Sub Total	**$4,900**
Other Expenses								
		Shipping plant material for residue analysis on ice overnight.	Cornell Chemical Ecology will perform residue analysis.					$3,000

			Samples must be shipped overnight which is around $250/box.					
							Sub Total	**$3,000**
							Grand Total	**$496,000**

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
Travel Outside Minnesota	Conference Registration Miles/Meals/Lodging	Provide 2 talks at a National and MN based meetings of the Entomological Society, Society of Toxicology and Chemistry, Horticultural Society, MN Fruit and Vegetable Growers, Soybean and Corn Growers Associations, or other annual meeting, 2 trips, per trip, $800 airfare+$200/night x 3 nights + $75/diem + $100 taxi to and from airport =$1,800 x 2 +$3,600. Local trips will be covered by car rental for day trips	Research data is important to share on pesticide residue and effects on good bugs so policy can change if residues are an issue. Travel to national meetings permits visibility of the data and promote discussion among scientists, state agencies, annd pesticide companies.

Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
			State Sub Total	**-**
Non-State				
			Non State Sub Total	**-**
			Funds Total	**-**

Total Project Cost: $496,000

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: 2486e79e-e19.pdf

Alternate Text for Visual Component

Graphic. F2. The objectives are to perform outreach/research to determine pesticide residues in wildflowers near crops. These field relevant doses will be used in acute and chronic bioassays on good bugs. The outreach goals are online sustainable management resources to educate land managers on pesticide issues, use, and reduction....

Supplemental Attachments

Capital Project Questionnaire, Budget Supplements, Support Letter, Photos, Media, Other

Title	File
2026 Krischik UMN SPA authorization	82d96804-994.pdf
2026 Krischik UMN SPA authorization letter	30434567-1cb.pdf
2026 neonic effects birds	691513aa-c3d.pdf
2025 Krischik website google analytical metrics 1700 visits/mo April 2025	8463efde-fe1.pdf
2026 Krischik web pages on IPM, Pollinator Conservation, pesticides	4d7ff7dd-085.pdf
2026 Krischik web pages on IPM manual, 2 partially completed online IPM courses, prof development site used for dissemination	043bf22b-800.pdf
2026 F2Pesticider research and education to lower use budget justification and timeline	a9e5ae3a-0bc.pdf
2026 Krischik UMN pesticide residue research details	287ba384-b1e.pdf
2026 Krischik IPM manual pest IPM ID page	cf22e1e3-2dd.pdf
2020 Understanding pesticide toxicity to pollinators	2e66597a-43f.pdf
2026 Krischik bee and butterfly LC50 data so far	7ed74d39-bcc.pdf
2026 Krischik Pesticide residue on wildflowers near crops 1 yr data	77012834-9e9.pdf
2026 Krischik UMN lettersup research	eaf74469-551.pdf
2026 Krischik UMN lettersup outreach	98fb95ee-0fe.pdf
2026 Krsichik UMN CV	4b3431af-955.pdf

Administrative Use

Does your project include restoration or acquisition of land rights?

No

Do you understand that travel expenses are only approved if they follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?

Yes, I understand the UMN Policy on travel applies.

Does your project have potential for royalties, copyrights, patents, sale of products and assets, or revenue generation?

No

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

N/A

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

N/A

Does your project include original, hypothesis-driven research?

Yes

Does the organization have a fiscal agent for this project?

Yes, Sponsored Projects Administration

Does your project include the pre-design, design, construction, or renovation of a building, trail, campground, or other fixed capital asset costing $10,000 or more or large-scale stream or wetland restoration?

No

Do you propose using an appropriation from the Environment and Natural Resources Trust Fund to conduct a project that provides children's services (as defined in Minnesota Statutes section 299C.61 Subd.7 as "the provision of care, treatment, education, training, instruction, or recreation to children")?

No

Provide the name(s) and organization(s) of additional individuals assisting in the completion of this proposal:

The groups and individuals below will be contacted again and the collaborations renewed if the grant is funded.
Erin Bucholz, IPM Specialist MN Arboretum
Brandon Miller, Horticulture, UMN
Ryan Murphy, Researcher Forestry, UMN
NCERA 224 IPM of nursery and landscapes committee, 15 collaborating universities on research and outreach, 26yr
Pollinator Friendly Alliance, Stillwater, MN
Xerces Society of Invertebrate Conservation, MN chapter
MNLA, MN Nursery and Landscape Association
MN Fruit and Veg Growers Association
MN Soybean and Corn Growers Associations

Do you understand that a named service contract does not constitute a funder-designated subrecipient or approval of a sole-source contract? In other words, a service contract entity is only approved if it has been selected according to the contracting rules identified in state law and policy for organizations that receive ENRTF funds through direct appropriations, or in the DNR's reimbursement manual for non-state organizations. These rules may include competitive bidding and prevailing wage requirements

Yes, I understand