

A PROPOSAL TO
NORTH CAROLINA SMALL GRAIN GROWERS ASSOCIATION, INC.

FOR RESEARCH OR EDUCATION ENTITLED
Small Grains Problem Diagnosis Support for Cooperative Extension Agents

COVERING THE PERIOD FROM **10/01/2023** TO **09/30/2024**

REQUESTING SUPPORT IN THE AMOUNT OF **\$2,000**

SUBMITTED BY:

Project Leader	Departmental Affiliation
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Senior / Key Personnel	Affiliation
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Note: This is a fundamental research or scholarly project and, as such, the University shall be free to publish or disseminate the results of this research or otherwise treat such results as in the public domain, and it will conduct the research in an open forum consistent with the University's mission of research, instruction and public service.

Project #: 23-07 (2023-24 Funding Request)

OBJECTIVE(S):

1. This project will support efforts by cooperative extension agents to diagnose specific crop nutritional or disease problems in small grains.
2. This project will fund a limited number of samples to be submitted by cooperative extension agents for analysis at the NCDA&CS Agronomic Division plant tissue or nematode lab, and at the NCSU Plant Disease & Insect Clinic.

PROJECT DESCRIPTION AND RELEVANCE:

While most North Carolina producers routinely submit soil samples for predictive or diagnostic purposes (without a user fee except during the peak season), relatively few producers utilize the diagnostic services available from fee-based laboratories such as the NCDA&CS Agronomic Division plant tissue lab, and at the NCSU Plant Disease & Insect Clinic. Problem diagnosis is an important tool that cooperative extension agents use in advising producers to select appropriate corrective management approaches. In the absence of such tools, producers are left to attempt diagnosis based only upon visual symptoms that often can be misleading, and to correct problems by selecting among numerous potential practices, products, and advertising claims.

For decades, the NCSU Plant Disease & Insect Clinic was able to provide cooperative extension agents with a limited number of vouchers, allowing them to submit samples without the standard fee. This provided a learning opportunity for extension agents, and introduced producers to the inherent value of scientific diagnosis. Recent budget constraints have curtailed this program.

Our approach to strengthening crop problem diagnosis efforts is to request funding from each of several commodity groups to fund analysis of samples submitted by cooperative extension agents. This is not intended to cover all analytical needs, but for program support to allow agents to diagnose specific problems important to their region of the state. This project will fund analysis of 180 plant tissue samples and 45 plant insect & disease clinic samples collected from problem small grain fields.

Funds will be managed through a spreadsheet tallying cumulative samples & remaining funds for each commodity involved. Fund availability will be advertised to NCSU and NCA&TSU Cooperative extension agents, as will notification of fund usage & specific problem diagnosis for each crop. Rather than distributing voucher quotas, this will begin as a demand-based system, with future proposals based on actual usage distribution among agents.

IMPACT:

This program should result in more qualified agricultural agents, and in farmers that better understand their production constraints. Once the value of these diagnostic efforts is better understood, we expect producers will be more willing to pay the standard diagnostic fees themselves. This project will also allow us to monitor problem diagnosis and more formally document the potential crop losses or economic benefits if managed per recommendations.

RELATIONSHIP TO SIMILAR PROJECTS, IN NC AND OTHER STATES:

Funding will also be requested from the North Carolina Cotton Quality Improvement Committee, the Corn Growers Association of North Carolina, Inc., the North Carolina Soybean Growers Association, Inc., the NC Tobacco Research Commission, and possibly other commodity groups.

FUNDS REQUESTED:

2023-24 \$2,000

Previous funding:

2022-23 \$2,000*

* – And, historically, via 11-08 for more than a decade.