Proposal Description

Sustaining the Field Crop Growers

In 2007, A Farmland Protection Plan was led by the Alamance County Extension Office looking at Agricultural Land Use and Agricultural Development. "The purpose of the project was to analyze and understand the foundations of Alamance County's agricultural economy and to create a Farmland Protection Plan that would address a suite of issues facing farmers in the County as well as setting the stage for agricultural growth in the future." Extension's goal is to review their findings and recommendations and develop a "Field Crop" educational program to address the ever-changing landscape in Alamance County's agriculture and sustain many of the farmers for the future through research and education.

Agriculture in Alamance County, North Carolina, is an extensive industry consisting of 720 farm enterprises on nearly 80,042 acres of farmland (down from 98,000 acres of farmland in 2007). In 2017, the last year for which comprehensive data is available, Alamance County's farm output totaled over \$42 million (up from the \$32 million in 2007).

The industry, however, was and still is after fifteen years in rapid transition. Much of this change is structural and has been driven by the loss of tobacco markets. Full transition and recovery are still happening. The net result to Alamance County's economy is what appears to be a temporary decline in overall agricultural productivity while agricultural markets readjust. Since 2004, gains in livestock revenue have begun to offset this change due mostly to growth in poultry operations. Non-traditional operations, such as equine, wineries, fruit and vegetables, greenhouses and other horticultural operations have also been on the rise during this period.

These economic changes have occurred at a time when Alamance County is adding households at a rate greater than both the State and region. This is due to its lower cost of housing and its convenient location between the cities incorporating the Triad, to Alamance County's west, and the Triangle, to the east. Most of the growth in housing is occurring along the I-85 corridor or is oriented toward Orange and Chatham Counties to the South. This finding was true fifteen years ago and is still moving fast today.

In 2021, there were only 126 farmers that were growing field crops (corn, soybeans, tobacco, small grain, etc.) and this number continues to decline as land prices continue to soar from urban sprawl and razor thin profit margins. Along those same lines, when Extension Agent, Dwayne Dabbs, started working with Cooperative Extension in 2014, there were about 20 farmers growing tobacco, now only 7 remain. Acreage of commodities planted between 2021 and 2022 all declined and for the most part will continue to fall. Unfortunately, farmers cannot compete with the cost of land rent and have a hard time trying to purchase land with the margins that they face.

Since one of Alamance County's Strategic Initiatives is to preserve Agriculture, the main focus of this project is to use the requested equipment to help farmers make choices that will make them more profitable and preserve the farmer. The equipment will allow Extension to put in more small-plot research in Alamance and surrounding counties (Person, Caswell, Rockingham, Guilford, & Orange), so that farmers can see what works in their area and on their farm's. With

the small plot equipment, Extension can conduct University-level research on an acre, so that the grower can see it in action, without interfering with the majority of the field.

The "Sustaining the Field Crop Growers" project aligns with the Golden LEAF priority that supports agriculture projects as an economic development engine. The grant for our agriculture project would support the development of scientific research, training for farmers, and improving cost-effective techniques for agricultural businesses. Extension would collect data to support outcomes by looking at the number of participants at our trainings, new publications directed toward the farmers and monthly use of agricultural equipment to conduct the research on the farms. As a result of this research, Extension would be measuring short, medium, and long term changes in agricultural practices such as new varieties of crops grown and other measures of the agricultural project. Extension would also be looking at some economic impacts, such as revenue growth of farms, new agricultural business formations, and other economic outputs.

Cooperative Extension is the appropriate organization to implement this project because it was founded on doing research/Extension demonstrations on farms and have kept farmers competitive throughout the State. Dwayne Dabbs, is our lead Field Crops Agent, who has just completed his MS degree in Crop Science at NC State. He will be working with a number of specialists from the University, Seed Companies, and farmers to help expand his program area and research. Dwayne has done many crop demonstration plots throughout the county, but is limited with the resources he presently has available. This project would expand his research demonstration plots to more farmers and supply sufficient data to help the growers.

Extension will be serving corn, soybean, wheat, livestock and other Alamance County commodity farmers and future generations. Extension has the support of the Alamance County Farm Bureau, Seed companies and other farm businesses and many of the farmers in the county. They have expressed their support by writing three support letters for the project which are attached to our application.

Alamance County Cooperative Extension also has the support (In-kind donation) to build a structure and house the farm equipment at the Buster Sykes Agricultural Demonstration Farm, owned by the NC Agricultural Foundation, located in Mebane. The in-kind support would be estimated at \$50,000 for the land if Extension would have to go out and get their own land. Extension would be using the land on the farm not only for storage facilities, but also a possible site for Extension and Research trials on the back fields. Extension has the total support from the Alamance County Farm Community.

If the funding is available on July 1, 2024, one of the first activities will be the planning and construction of the storage shed for equipment on the Buster Sykes Farm, Mebane. The equipment will be ordered next. In the Winter of 2025, the planning and development of the field demonstrations with the farmers will take place with cooperators who already have committed to have demonstrations on their farm. In the Spring of 2025, Extension will put out a number of field demonstrations on grower's farms. In the late Summer and Fall, Extension

will be harvesting the plots and taking data on the crops. Field demonstrations will be held in the Summer and Fall for the various crops. Publications, emails, social media, and other communication methods will be sent out to the growers. Short and mid- term surveys of the growers will be conducted to gather economic data on their operations and what changes will be made for next year plantings. The process will repeat itself for the next five years to see how the growers progress and what changes were successful.

In the ongoing years when the Golden Leaf funding is expended, the County will be helping to maintain the equipment such as the tractor, weigh wagon, planter and other equipment. Other grants and donations from various ag sources such as Farm Bureau, Farm Credit, Grower associations (Corn, Soybean, etc.) will be used to help maintain the equipment. Seed & fertilizer companies, state specialists, farmers, and other in-kind donations will be other sources to help out with the project. Extension will supply the resources to conduct the trials, collect the data, run meetings, publish, and disseminate results to educate the farmers on the new practices.