

Rowan County Working Agricultural Lands Plan

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Acknowledgements

The North Carolina Department of Agriculture Development and Farmland Preservation Trust Fund (ADFP) awarded a grant to Rowan County to create a Working Agricultural Lands Plan. ADFP promotes this plan as a comprehensive guide for counties or governments to protect and preserve farms and forests, which contribute to the economy and quality of life in North Carolina. Rowan County contracted with the Lois G. Britt Agribusiness Center of the University of Mount Olive.

This plan was written by W. Stan Dixon and Ed Emory. Dr. Dixon has an Ed.D. from N.C. State University and served with N.C. Cooperative Extension in Martin, Wake and Greene counties. He retired in 2009 from N.C. Cooperative Extension as County Extension Director. Mr. Emory holds a B.S. and M.Ed. from NC State University and served with the N.C. Cooperative Extension Service in Pamlico and Duplin Counties for more than 28 years. He retired in 2009 after serving 19 years as county extension director in Duplin County.

The following agencies and individuals assisted with the development of this plan:

- North Carolina Cooperative Extension, Rowan County Center
- Rowan County Soil and Water Conservation District
- Rowan County Natural Resources Conservation Service
- Rowan Working Agricultural Lands Committee
- Rowan County Board of Commissioners
- Rowan County Manager
- North Carolina Forest Service
- Lois G. Britt Agribusiness Center, University of Mount Olive
- The citizens, farmers and agribusinesses of Rowan County

(Add Logos)

Executive Summary

Rowan County has a viable agricultural sector that is an important part of the total county fabric of life. The goal of this Working Agricultural Lands Plan is to reflect the importance of agriculture and assess the opportunities, challenges and issues that are currently facing the industry. This plan provides recommendations, based on citizen input on ways to enhance agriculture, forestry, agribusiness and agri-tourism.

Farmland is an irreplaceable natural resource, and the farmers who are stewards of the resource impact the economy and quality of life for all county residents. The economic impact of the agriculture sector in 2018 was 11.7 percent of the county's value-added total income. The agriculture sector also accounts for 13.8 percent of Rowan County's total employment¹. Rowan County has the resources, human and natural to ensure that agriculture can prosper in the future. The impact of agriculture in Rowan County in 2019:

- *Agriculture and agribusiness contributed \$81,781,000 in total income

- *Rowan County ranked 24nd in the state in corn production

- *Rowan County was 34th in the state in soybean production

- *Rowan County ranked 19th in the state in wheat production

- *Rowan County ranked 8th in cattle

- *Rowan County ranked 4th in dairy cows

- *Rowan County ranked 4th in sheep and goats

- *Rowan County ranked 2nd in tomato production

- *Rowan County ranked 4th in strawberry production

- *In total cash receipts from agriculture, Rowan County ranked 46th in the state²

Rowan County is experiencing population growth, with an increase of 9.4 percent from 2010 to 2021³. The county is a member of the Charlotte, NC Metropolitan Statistical Area (MSA) which is the 7th largest MSA out of 384 in the United States⁴. Growth in population and industry has resulted in competition for land. County farmers surveyed, 57 percent, lacked sufficient land to expand or diversify their operations. Rowan County farmers reported facing other critical issues, cost and availability of labor, rising production input cost and development pressure. The farmers are confronted by other challenges to their operations, such as aging farmer population, with the average age of farmers being 58.9 years old and 63 percent not having farm transition plans. These issues present opportunities to enhance agriculture through education and support of citizens and local government.

Of the non-farm citizens surveyed, 99 percent believe that local government should take action to preserve farmland as a valuable resource. Ninety five percent of non-farm citizens support the use of government funds to support farm and forest development. All of non-farm respondents support farm and forest preservation efforts in the county.

At the center of the Rowan County Farm Preservation Plan based on information provided by farmers, agribusiness leaders and non-farm residents through personal interviews and surveys are proposed recommendations. The recommendations and action steps were developed to provide a guide for protecting and enhancing agriculture in Rowan County. The success of this plan depends on the collaboration between local government, agricultural organizations, farmers, agribusiness and citizens of Rowan County. The plan needs to be evaluated annually to celebrate accomplishments and add new recommendations as needed. The recommendations are:

- 1. Support measures to protect and promote working forest and farmland in Rowan County.**
- 2. Educate Landowners on the benefits of enrolling Conservation Easement Program to keep land available for agricultural use.**
- 3. Expand Voluntary Agricultural District (VAD) and Enhanced Voluntary Agricultural District (EVAD) Programs**
- 4. Develop and conduct programs to assist Rowan County farm and forest landowners with farm transition planning.**

5. Promote appreciation and awareness of the benefits of agriculture to Rowan elected officials and citizens.

6. Expand and Support Youth Agricultural Educational Programs.

The intent of this plan is neither to limit nor restrict landowners' rights and uses. The plan is intended to serve as a guide for actions to provide farmers, landowners and citizens an increased awareness of farmland preservation opportunities. Agriculture is important to Rowan County and its economy and to the well-being of family farms. However, the final decision on farmland preservation rests in the hands of the owners of farm and forests.

A Need for Action

Agriculture, consisting of food, fiber and forestry, is North Carolina's leading industry. In a 2022 report by Mike Walden, emeritus professor and extension economist at North Carolina State University, more than 16% of the state's workforce was directly involved with agriculture, and industry that contributes \$95.9 billion, or 16%, of the gross state product in North Carolina. In Rowan County Agriculture accounted for 13.8 percent of Rowan County's employment in 2022⁵. According to US Census of Agriculture, agriculture and agribusiness added \$81,781,000 or 11.7 percent of the county's value-added total income⁶.

Rowan County's leadership is cognizant of the importance of agriculture to the local economy and is supportive of a Working Agricultural Lands Plan that addresses issues related to farm and agribusiness viability for the future. The goal of the Rowan County Working Agricultural Lands plan is to provide strategic actions that will guide local leaders in their efforts to preserve farms and forests, as well as market the many benefits of the agricultural industry. Rowan County is one of the fastest growing counties in North Carolina. According to the US Census 2021 estimates, Rowan County has a population of 148,150. This figure represents a 7.1 percent increase from 2010⁷.

The North Carolina Department of Commerce reported that in 2022, nearly one-third of Rowan County's population was over the age of 55⁸. When farms

are passed down to younger generations with little or no attachment to farming, farms are at risk of being removed from agricultural production and sold for development or other non-agricultural uses.

This plan is grounded in three basic tenets:

1. Agriculture is an important component of Rowan County's economy.
2. Preserving farms and forests is in the public interest.
3. Farms and forests are sustainable natural resources.

North Carolina is blessed to have 8 million acres of farmland, but it's losing agricultural lands to development at a fast pace. In fact, the American Farmland Trust ranks North Carolina as the second-most threatened state, behind only Texas, when it comes to the conversion of agricultural lands to other uses. As the state's population has increased, land has been removed from agricultural production to provide housing and services to the growing population.

From 2012 to 2020, North Carolina lost more than 8,900 farms and nearly 1 million acres of farmland. During the same time period, Rowan County experienced a loss of 4,708 acres of farmland⁹.

The development of the Rowan County Agricultural Development Plan was directed by the University of Mount Olive Lois G. Britt Agribusiness Center in partnership with the North Carolina Agricultural Development and Farmland Preservation Trust Fund. This plan reports the state of agriculture in the county and the opportunities and challenges confronting agriculture. Agriculture is defined to include horticulture, farming (row crops and livestock) and forestry. The North Carolina General Assembly defined agriculture in General Statute 105-277.2 through 105-277.7 as:

- Minimum acreage of production land:
 - 10 acres for agricultural use
 - 5 acres for horticultural use
 - 20 acres for forest use

- Production must follow a sound management plan.
- Agricultural and horticultural land must have at least one qualifying tract that has produced an average gross income of at least \$1,000 for the three years preceding the application year.
- Forest land must be following a forest management plan.

In order to determine challenges and opportunities to agriculture in the county personal interviews and written surveys were utilized. Surveys were distributed in hard copy form at agricultural and community meetings and electronically distributed via Survey Monkey. All responses to the surveys and interviews are confidential according to the University of Mount Olive Collaborative Institutional Training Initiative. The data collected depicts the state of agriculture and the future needs of Rowan County. This data was used to develop recommendations which will assist county leadership in keeping farm and forest land viable now and in the future.

Overview of Rowan County

Established in 1753, Rowan County originally consisted of territory north to Virginia, east to present day Guilford County and west to the mountains. The county was named for colonial Governor Matthew Rowan. The current county boundaries were established in 1836¹⁰.

The first European settlers in the area were Scotch-Irish immigrants who settled in the western part of Rowan County. A few years later, German immigrants settled in the eastern part of the county. Highly productive agricultural land was the main factor for settlement¹¹.

Farmers took advantage of the fertile soil in Rowan and the county grew throughout the 1740s and 1750s. As the Revolution neared, county residents became more involved in politics and the fight for independence. Rowan citizens eventually composed the Rowan Resolves, an article composed in

support of American Independence. The Rowan Resolves have been considered by historians and some Rowan County citizens as one of the first documents proclaiming North Carolina's involvement in the American Revolution.

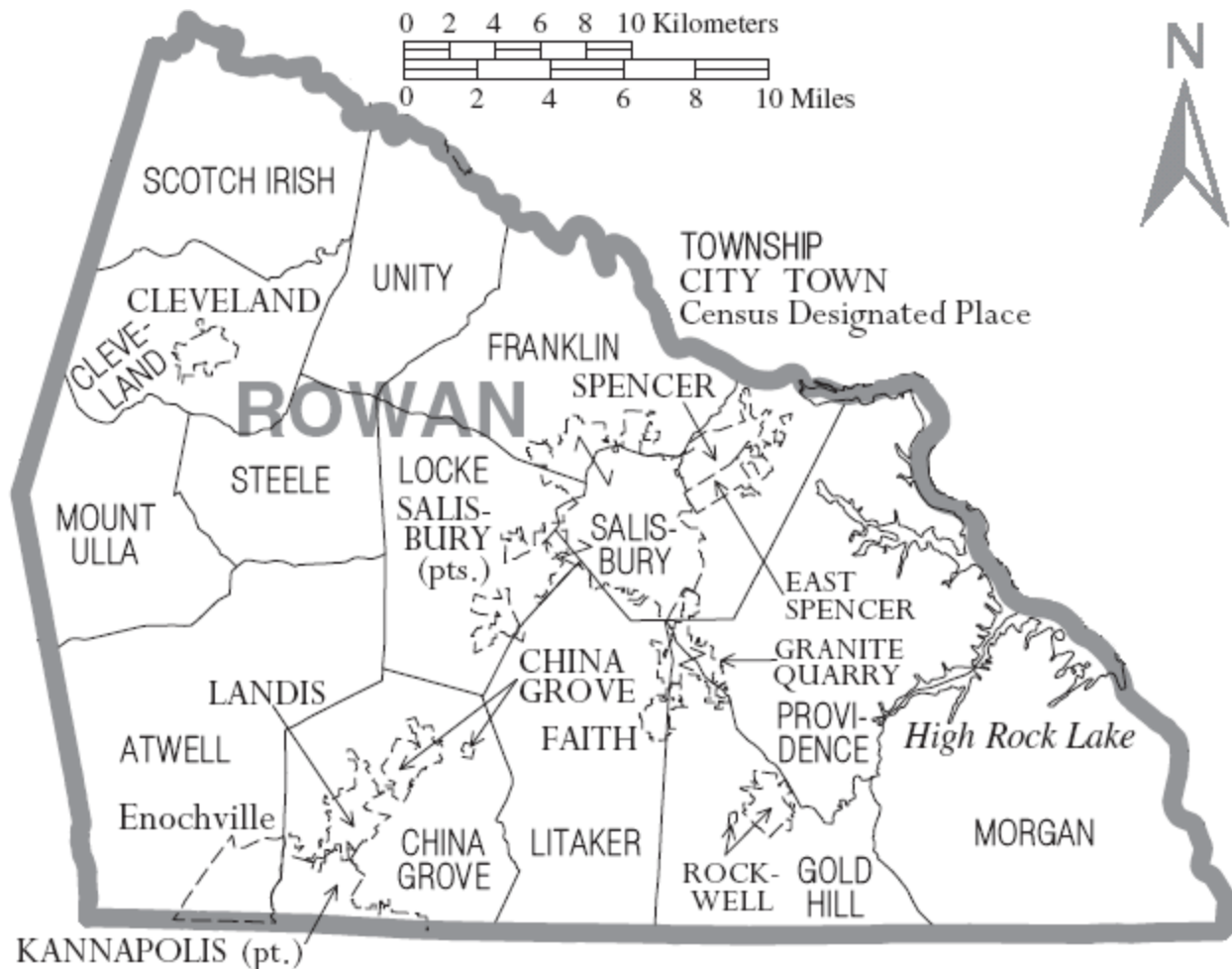
In the middle of the nineteenth century, a community appropriately known as Gold Hill prospered for several years during North Carolina's Gold Rush was discovered in North Carolina in 1799 at Reed Gold Mine in Cabarrus County and in 1824 the precious metal was found several miles away at Gold Hill in Rowan County. During operation, the mines at Gold Hill produced more than six million dollars in gold, eventually causing the government to construct a federal mint in Charlotte. After gold was extracted from the Gold Hill mines, copper was found in 1907, and a large mining operation followed the discovery of this metal.

Salisbury was established as the county seat in 1753 providing settlers with the services of a courthouse and jail. It was originally known as Rowan Court House. The location of the court house was at the intersection of two ancient Native American trails. The name Salisbury was adopted two years later most likely in reference to the English town.¹²

According to the US Census 2021 estimates, Rowan County has a population of 148,150. This figure represents a 9.4 percent increase from 2010. The county is 70.3 percent white, 17.1 percent African American and 10.1 percent Hispanic.¹³

Rowan County has the following incorporated areas: Cities of Salisbury and Kannapolis, and towns of China Grove, Cleveland, East Spencer, Faith, Gold Hill, Granite Quarry, Landis, Rockwell, and Spencer.

Rowan County is divided into eighteen townships which are Atwell, China Grove, Cleveland, East Spencer, Franklin, Gold Hill, Kannapolis, Litaker, Locke, Morgan, Mount Ulla, Providence, Rockwell, Salisbury, Scotch Irish, Spencer, Steele, and Unity¹⁴ as shown on this map:



Map 1: Rowan Township Map¹⁵

Rowan County is experiencing population growth, with an increase of 9.4 percent from 2010 to 2021¹⁶. The county is a member of the Charlotte, NC Metropolitan Statistical Area (MSA) which is the 7th largest MSA out of 384 in the United States.¹⁷

Economy

The North Carolina Department of Commerce ranks each of the state's 100 counties into three tiers based on the economic well-being of each county. Tier 1 is most distressed, and Tier 3 is least distressed. In 2022, Rowan County improved its designation from a Tier 1 to a Tier 2 county. North Carolina uses these designations to encourage economic growth through incentives in distressed counties. Rowan's tier status provides opportunities for certain grants and other incentives aimed at stimulating the county's economy¹⁸.

In 2021, the median household income in Rowan County is \$51,054.00 compared to the state figure of \$56,642.00. Fourteen percent of Rowan's population is considered below the poverty level, lower than the state's at 13 percent¹⁹.

Two percent or 857 working Rowan County residents work outside North Carolina. Thirty nine percent or 23,999 residents work within North Carolina but outside Rowan County. Fifty nine percent or 36,427 residents work within the county. The unemployment rate is 3.6 percent which is slightly higher than the North Carolina rate of 3.4 percent²⁰.

Agriculture and agribusiness provided jobs for 13.8 percent of Rowan County's working residents according to a study completed by Dr. Mike Walden²¹.

Rowan County's strategic location in the growing Charlotte, North Carolina metro region, its robust talent pool and workforce, and its wide range of affordable and flexible commercial real estate options make it a prime location for companies from a variety of industries. Rowan County is a diversified economy with a wide range of industries comprising its employment base. The largest sectors of employment are health care services (16.1%), manufacturing (15.4%) and retail trade (13.2%).

At nearly 2,500 businesses strong and growing, Rowan County is home to many Fortune 500 and international companies, including:

Food Lion	3500	HQ/Call Center/Distribution/Retail
Daimler Trucks North America LLC	1500	Vehicle Manufacturing
Chewy	1400	Pet Supply Distribution
Rowan Regional Medical Center	1044	Medical Services
Gildan	706	Clothing Manufacturing
Teijin Automotive Technologies	544	Manufacturing
Dillard's Inc.	300	General Warehousing and Storage
Wal-Mart Stores, Inc.	300	Discount Department Stores
Swing Transport, Inc.	250	General Freight Trucking
Schult Homes	246	Mobile and modular homes

Table 1. Rowan County Economic Development Commission, 2022²²

Cost of Services

American Farmland Trust conducted 151 cost-of-community-services studies, including six in North Carolina, to determine the contributions made to the economy by land uses. The studies focus on three main land uses: commercial and industrial, working and open land, and residential. Agricultural and commercial land uses require few public services than residential land uses, saving money for the county. For each \$1 of revenue received from each land use, the cost of community services study concluded that:

- Residential land cost \$1.16 in public services.
- Working and open lands (including agriculture and forestry) require \$0.35 for public services.
- Commercial and industrial land cost \$0.29 for public services.

While similar impacts would be expected in Rowan County, a study of this nature can help local leaders and developers understand the impact and importance of planned land-use development on the county's economy (American Farmland Trust)

Infrastructure and Transportation

Interstate Highway 85 transects Rowan County from north to south allowing major access to the Piedmont Atlantic Mega-Region. The I-85 corridor is a major business and industrial center for Rowan County serving the entire piedmont area of North Carolina. Rowan County has a network of well-maintained roads and highways that provide access to all areas of the county.

Rowan County is at the center of the largest consolidated rail system in the United States with more than 3,200 miles of track. The rail services, which serves 22 states in the eastern half of the country, consists of Norfolk Southern, CSX and Winston-Salem Southbound railroads. An Amtrak station is located in Salisbury.

Rowan County residents can access three international airports. Charlotte Douglas International Airport is 45 miles away, Piedmont Triad International Airport is 55 miles away, and Raleigh-Durham International Airport is 116 miles away.

Rowan County operates Mid-Carolina Regional Airport which is located near Salisbury. The airport offers a 5,500 foot by 100-foot runway, instrument landing system, non-directional beacon, and a full-length taxiway. It is 18 miles north of the Charlotte Motor Speedway²³.

Salisbury-Rowan Utilities is Rowan County's primary water provider, serving all municipalities except the towns of Faith and Cleveland. Maximum daily capacity is 18,000,000 gallons per day (GPD) with an average demand of 9,240,000 GPD. Surplus is 8,760,000 GPD above average demand. The Yadkin River provides Salisbury with its water with an average daily flow of 2 billion gallons per day. Salisbury-Rowan water and waste water system provides services to residential and business customers in Salisbury, Granite Quarry, Spencer, East Spencer, China Grove, Rockwell and some unincorporated areas of the county²⁴. The towns of Faith and Cleveland maintain independent water and waste water systems.

Rowan County operates a 415 ton per day landfill for residents and businesses that has a life expectancy of 50+ years.

Electrical power is provided by Duke Energy, Landis Electric City, Energy United and Union Power Cooperative.

Broadband internet services include Fision/Hotwire 100 per cent fiber network at 10 gigabytes per second. Other providers include Spectrum, AT&T, Nuvox and Windstream.

Public transportation is provided for citizens by the Salisbury Area Transit and Rowan County Area Transit²⁵.

Nine percent of Rowan County land area is located in a regulated flood plain²⁶.

Education

According to 2020 statistics, a majority (85.9%) of the Rowan County population over 25 years of age have completed high school, compared to 88.5 percent of all North Carolina citizens over the age of 25. Similarly, 19.8 percent of Rowan County citizens have a Bachelor's degree or higher, compared to 32 percent in North Carolina²⁷.

The Rowan-Salisbury Public School System enrolls 18,000 students in seventeen elementary schools, eight middle schools, an early college high school and seven high schools²⁸.

Rowan County is the home of nine private schools serving 1,273 students in the 2022-2023 school year²⁹.

The county is also served by the Rowan-Cabarrus Community College which is part of the North Carolina Community College System. The college enrolls 22,000 students in 32-degree programs, 30 diploma programs and 142 certificate programs. The college North Campus and Kannapolis Campus are located in Rowan County. RCC operates the NC Manufacturing Institute which is an eight-week training program leading to a Certified Production Certificate³⁰.

Catawba College, located in Salisbury, is a private liberal arts college affiliated with United Church of Christ. Founded in 1851, the College has an enrollment of 1,400 undergraduate and graduate students.

Livingstone College is a private historically black college in Salisbury associated with African American Episcopal Zion Church. Founded in 1879, Livingstone offers 23 academic majors offering BS, BA and Associate of Science degrees. In the fall of 2018, the college enrolled 890 students.

Natural Attributes

In Rowan County, as with all areas, natural resources are paramount in agricultural production.

Rowan County is in the piedmont physiographic province of North Carolina. The county is bounded on the north by the South Yadkin River which separates it from Davie County. On the Northeast side of the county, it is separated by the Yadkin River and High Rock Lake from Davidson County. It is bordered by Stanly, Iredell, and Cabarrus Counties. Rowan County consists of broad gently rolling to hilly landscapes. Rivers and major tributaries are bordered by moderately steep to steep slopes. The county's elevation is between 560 and 850 feet above sea level. The highest peak in the county is Young's Mountain with an elevation of 1,100 feet above sea level. Most of areas of Rowan County drain directly into the South Yadkin and Yadkin Rivers from creeks that flow Northeastward. Rowan County consists of 523 square miles.

Two large water reservoirs are located in Rowan County. High Rock Lake is a hydroelectric reservoir consisting of 15,180 acres in Rowan and Davidson Counties. Tuckertown reservoir consists of 2,500 acres. Both lakes offer opportunities for boating, fishing, hunting and other recreational activities.

Both land and water are irreplaceable resources. A combination of best management practices and wise conservation must be employed to keep the resources in good condition.

Soils

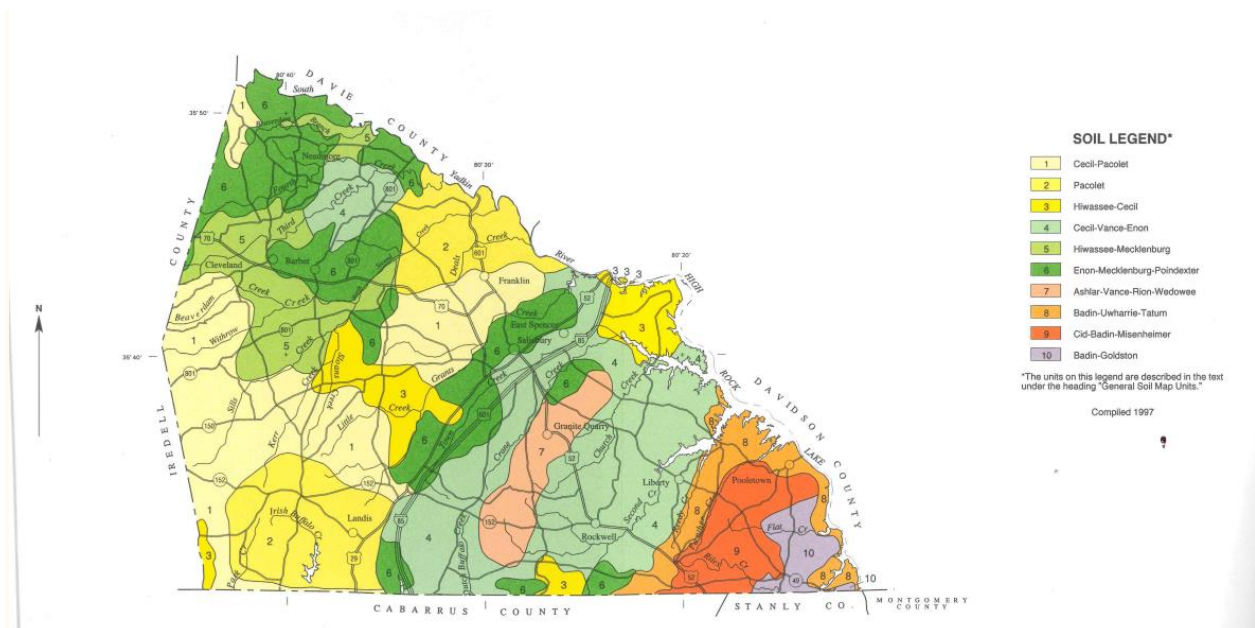
Soils are classified into different associations which help determine a soil's suitability for different uses. Soil uses include growing crops, growing trees and residential and commercial construction. Rowan County has ten major soil associations which are:

1. Cecil-Pacolet: Covering eighteen percent of western and north-central Rowan County, this classification is gently sloping to steep well-drained upland soil that have a loamy surface layer and a predominantly clayey subsoil with moderately deep to very deep to bedrock. Major uses are woodland, cropland, and pasture. Management concerns for agriculture are erodibility, soil fertility, and equipment use in steeper areas. Management concerns for urban development are restricted permeability, low strength, and slope in steeper areas.
2. Pacolet: Found in fourteen percent of southwestern and north-central Rowan County, this classification is gently sloping to steep, well drained soils that have a loamy surface and a predominantly clayey subsoil and moderately deep to very deep to bedrock. Major uses are woodland, cropland, and pasture. Management concerns for agriculture are erodibility, soil fertility, and equipment use in steeper areas. Management concerns for urban development are restricted permeability, low strength, and slope in the steeper areas.
3. Lloyd-Cecil: Found in 8 percent of the west-central and northeastern Rowan County, this classification is gently sloping to moderately steep, well drained upland soils that have a loamy surface layer and predominantly clayey subsoil with deep to very deep to bedrock. Major uses are woodland, cropland, and pasture. Management concerns for agriculture are erodibility, soil fertility, tilth, and equipment use in the steeper areas. Urban Development management concerns are restricted permeability, low strength, and slop in the steeper areas.
4. Cecil-Vance-Enon: Found in twenty two percent of the areas east of Interstate Highway 85 and a smaller area in the northwestern part of the county, this classification is gently sloping or strongly sloping, well drained upland soils that have a loamy surface layer and a predominantly clayey subsoil with a moderately deep and very deep to bedrock. Major uses are cropland, pasture, and woodland. Agricultural management concerns are erodibility and soil fertility. Management concerns for urban development are restricted permeability, low strength, and slope in steeper areas. Vance and Enon have high shrink-swell potential.

5. Lloyd-Mecklenburg: Found in eight percent of the west-central part of the county, this classification is gently sloping to moderately steep, well drained upland soils that have a loamy surface layer and a predominantly clayey subsoil moderately deep to very deep to saprolite, very deep to bedrock. Major uses are woodland, cropland, and pasture. Agricultural management concerns are erodibility, tilth, soil fertility, and equipment use in the steeper areas. Management concerns for urban development are restricted permeability, low strength, shrink-swell potential, and slope in the steeper areas.
6. Enon-Mecklenburg-Poindexter: Found in fourteen percent of the central and northwestern parts of the county, this classification is gently sloping to steep, well drained upland soils that have a loamy subsoil, moderately deep to deep to saprolite and moderately deep to very deep to bedrock. Major uses are woodland, cropland, and pasture. Agricultural management concerns are erodibility, soil fertility, and equipment use in the steeper areas. Management concerns for urban development restricted permeability, low strength, shrink-swell potential, depth to bedrock and slope in the steeper areas.
7. Ashlar-Vance-Rion-Wedowee: Found in four percent of the eastern part, in a northeast to southwest trending strip that includes the Granite Falls and Faith areas of the county. This classification is gently sloping to moderately steep, well drained upland soils that have a loamy surface layer and a clayey or loamy subsoil, moderately deep to very deep to saprolite, moderately deep to very deep to bedrock with rock outcrops in some areas. Major uses are woodland, cropland, and pasture. Agricultural management concerns are erodibility, rooting depth, soil fertility, and slope in the steeper areas. Management concerns for urban development are depth to bedrock, low strength, shrink-swell potential, and slope in the steeper areas.
8. Badin-Uwharrie-Tatum: Found in five percent of the southeastern corner of the county, this classification is gently sloping to steep, well drained upland soils that have a loamy surface layer and a predominantly clayey subsoil, very stony surface in some areas, moderately deep to very deep to saprolite, moderately deep to very deep to bedrock. Major uses are woodland, cropland, and pasture. Management concerns for agriculture are erodibility, soil fertility, rooting depth, and equipment use in the steeper areas. Management concerns for urban development are restricted permeability, low

strength, shrink-swell potential, depth to bedrock, and slope in steeper in the steeper areas.

9. Cid-Badin-Misenheimer: Found five percent of the southeast corner of the county, this classification is nearly level to strongly sloping, well drained to somewhat poorly drained upland soils that have a loamy surface layer and a clayey or loamy subsoil, shallow to moderately deep to saprolite, shallow to moderately deep to bedrock. Major uses are woodland, cropland, and pasture. Management concerns for agriculture are wetness, depth to bedrock, soil fertility, erodibility, rooting depth, and slope in the steeper areas. Management concerns for urban development are wetness, restricted permeability, low strength, and shrink-swell potential.
10. Badin-Goldston: Found in two percent of the southeastern corner of the county, this classification is gently sloping to moderately steep, well drained to excessively drained upland soils that have a loamy surface layer and a clayey to loamy subsoil, shallow to moderately deep to saprolite, shallow to moderately deep to bedrock. Major uses are woodland, cropland, and pasture. Management concerns for agriculture are erodibility, soil fertility, rooting depth, droughtiness, and slope in the steeper areas. Management concerns for urban development are depth to bedrock, shrink-swell potential, and low strength. (Soil Survey of Rowan County, NC, USDA-NRCS, 2004)



Map #2. Rowan County Soils Classifications

Acres of Farmland in Rowan County

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses. Rowan County has 155,000 acres of prime farmland.

Generally, additional farmlands of statewide importance include those that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce as high a yield as prime farmlands if conditions are favorable. Rowan County has 97,070 acres of farmlands of statewide importance.

Another descriptor of land as prime farmland is if it is drained and either protected from flooding or not frequently flooded during the growing season. Rowan County has 21,600 acres of farmland in this description.

Farmland classified as non-prime in Rowan County totals 52,275 acres³¹.

Forestry

Rowan County forestland totals 131,128 acres, with 99 percent owned by private landowners. According to North Carolina Cooperative Extension, the income from timber sales in 2018 was \$3.5 million. The total forest industry economic impact to Rowan County was \$267.9 million. One thousand sixty-nine people are employed in the Rowan County forest industry, with a total payroll of \$51.2 million.

The timber inventory in 2016 was 8.25 million green tons of hardwood and 4 million green tons of softwood. Of the 8.25 million green tons of hardwood, 6 million green tons were used for saw timber and 2.25 million green tons were for pulpwood. Of the 4 million green tons of softwood, 3.5 million were used for saw timber and .5 tons for pulpwood³².

Rowan County: The State of Agriculture

Agriculture is deeply rooted in the history of Rowan County. In 1821, the Rowan Society for Agriculture sponsored the first agricultural fair in North Carolina in Salisbury. Early cash crops included cotton, corn and grains. The United States Census of Agriculture in 1910 indicates that 3,241 farms existed in Rowan County. By 1969, the number of farms in Rowan County reduced to 1,304 farms. During the 1980's farm crisis, the number of farms fell to 823. A revival in farming occurred by 2012 bringing the number of farms to 1,011. In 2017, 925 farms were in Rowan County.

Agriculture accounted for 7.6 percent of Rowan County's employment in 2012. According to Mike Walden in 2012, agriculture and agribusiness added \$49,522,814.00 or 8.4 percent of the county's value-added total income.

The number of farms in Rowan County remained the same from 2002 to 2012, according to the US Census of Agriculture with 82 farms. The amount of total farmland in Rowan County increased from 34,802 acres in 2002 to 35,356 acres in 2012. The average farm size increased from 424 acres in 2002 to 431 acres in 2012. Of the farmland in Rowan County 32,144 acres were used in crop production in 2012.

The economic impact of the agriculture sector in 2019 was 11.7 percent of the county's value-added total income. According to Dr. Mike Walden, the agriculture sector also accounts for 13.8 percent of Rowan County's total employment. Rowan County has the resources, human and natural to ensure that agriculture can prosper in the future. Figure 1 illustrates the land in farms by land use in 2017 with 57% of land in farms being used to produce crops (US Census of Agriculture).

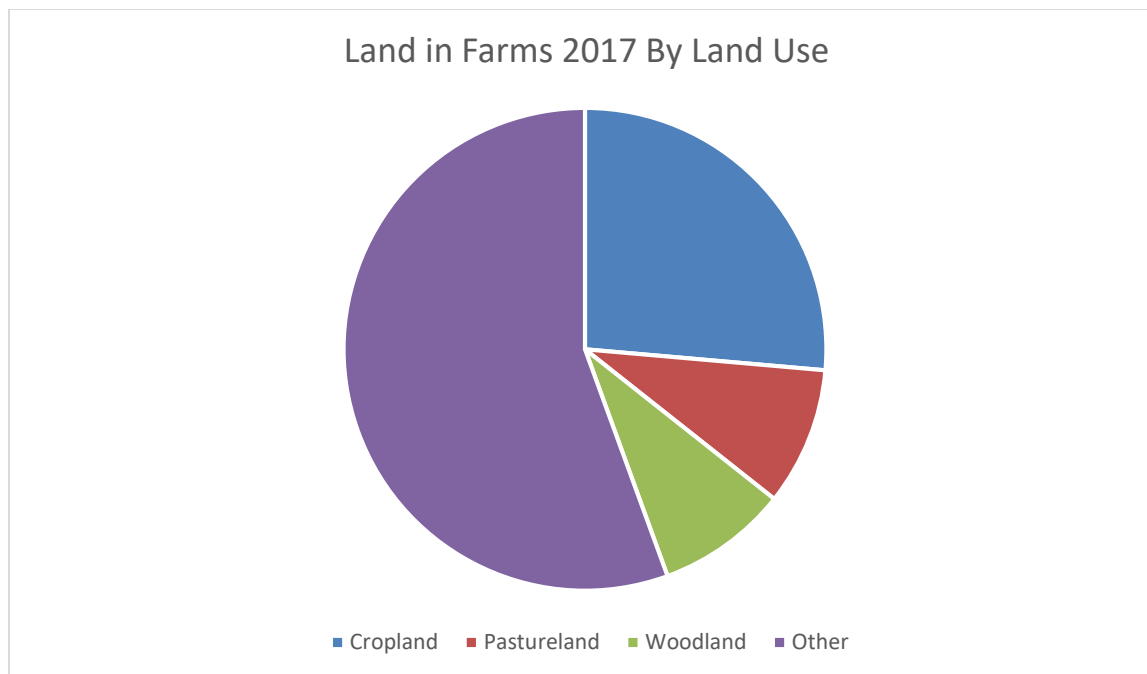


Figure 1. Land in Farms By Land Use in 2017.

Land Use Practices indicate how farmers manage land resources in crop production. These practices include No Till, Reduced Till, Intensive Till, and Cover Crops. In 2017, twenty-two percent of farmland was in No Till, one percent of land was in Reduced Till, seven percent was in Intensive Till and eleven percent used Cover Crops. The impact of agriculture in Rowan County in 2019:

*Agriculture and agribusiness contributed \$81,781,000 in total agricultural products sold

*Rowan County ranked 24nd in the state in corn production

*Rowan County was 34th in the state in soybean production

*Rowan County ranked 19th in the state in wheat production

*Rowan County ranked 8th in cattle

*Rowan County ranked 4th in dairy cows

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*Rowan County ranked 2nd in tomato production

*Rowan County ranked 4th in strawberry production

*In total cash receipts from agriculture, Rowan County ranked 46th in the state³³

According to the 2017 Census of Agriculture, crops accounted for \$48,073,000 of agricultural sales and livestock, poultry and livestock accounted for \$33,708,000.

Farmers markets and roadside stands are an important part of the agricultural economy in Rowan County. Also, farms that sell directly to consumers totaled \$1,127,000 in 2017.

Crops

In 2019, 925 farms in Rowan County harvested crops from 60,433 acres. Receipts from crop sales totaled \$48,073,000 in 2019. Production of major crops in Rowan County in 2019 includes:

- Soybeans, 19,200 acres

- Corn, 10,400 acres

- Wheat, 3,130 acres

- Hay, 18,481 acres

Livestock

In 2019, Rowan County farmers realized cash receipts from livestock, dairy and poultry of \$24,857,768, ranking the county 51st in the state of North Carolina.

Forestry

Rowan County forestland totals 131,128 acres, with 99 percent owned by private landowners. According to North Carolina Cooperative Extension, the income from timber sales in 2018 was \$3.5 million. The total forest industry economic impact to Rowan County was \$267.9 million. One thousand sixty-nine people are employed in the Rowan County forest industry, with a total payroll of \$51.2 million.

The timber inventory in 2016 was 8.25 million green tons of hardwood and 4 million green tons of softwood. Of the 8.25 million green tons of hardwood, 6 million green tons were used for saw timber and 2.25 million green tons were for pulpwood. Of the 4 million green tons of softwood, 3.5 million were used for saw timber and .5 tons for pulpwood³⁴.

Farmer Demographics

As cited in the 2017 US Census of Agriculture, the number of Rowan County farmers was 1,482 with an average age of 57.1 years of age. Principal operators by gender were 1,006 male and 476 female. The majority of farm owners are white.

Farm and Forest Protection Programs

Present-Use Value Tax Program Present-Use Value, or PUV, is a program established by N.C.G.S. §§ 105-277.2 to .7 and administered by the county assessor through which qualifying property can be assessed, for property tax purposes, based on its use as agricultural, horticultural or forest land. The present use value is the value of the land based solely on its ability to produce income. Qualifying property is assessed at its present-use value rather than its market value. The tax office also maintains a market value for the land, and the difference between the market value and the present-use value is maintained in the tax records as deferred taxes. When land becomes disqualified from the program, the deferred taxes for the current and three previous years, with interest, will usually become payable and due.

Basic Requirements

Minimum acreage of production land:

- 10 acres for agricultural use
- Five acres for horticulture use
- 20 acres for forest use

Production must follow a sound management plan.

Agricultural and horticultural land must have at least one qualifying tract that has produced an average gross income of at least \$1,000 for the three years preceding the application year.

Forest land must be following a forest management plan.

Benefits

Protection from increasing land values that are based on development potential and the potential increase in property taxes

More information can be found at
<http://www.dor.state.nc.us/publications/property.html>.

Voluntary Agricultural Districts (VAD)

Established by N.C.G.S. §§ 106-737 to 743 and administered at the county level, Voluntary Agricultural Districts are designated areas where commercial agriculture will be encouraged and protected. The purposes of the districts are to increase identity and pride in the agricultural community and to increase protection from nuisance suits and other negative impacts on properly managed farms.

Requirements

Land must be enrolled in the Present-Use Value program or otherwise be determined to meet the qualifications of the program.

The landowner must enter into a revocable agreement to limit development for a 10-year period.

Benefits

- Notification to buyers of nearby property that they're moving into an agricultural area
- Abeyance of water and sewer assessments
- Public hearings on the condemnation of farmland
- Stronger protection from nuisance suits
- Representation by an appointed board regarding concerns on threats to the agricultural sector

Enhanced Voluntary Agricultural Districts

Established by N.C.G.S §§ 106-743.1 to .5, an Enhanced Voluntary Agricultural District is a VAD formed of one or more farms that are subject to an IRREVOCABLE 10-year agreement to limit development. In return for the condition of irrevocability, the landowner receives the added benefits of being able to receive 25 percent of gross revenue from the sale of non-farm products and still qualify as a bona fide farm, and being eligible to receive up to 90 percent cost-share assistance from the Agricultural Cost-Share Program.

Conservation Easements

A conservation easement is a written agreement between a landowner and a qualified conservation organization or public agency under which the landowner agrees to keep the land available for agriculture and to restrict subdivision, non-farm development and other uses that are incompatible with commercial agriculture.

Basic Requirements

Permanently foregoing the right to subdivide or develop the land being conserved. There will be other limitations on activities to preserve the land's productivity, environmental values and rural character. Cash payments in the

range of \$20,000 to \$40,000 are needed to cover the costs of the transaction. These costs are for legal services, a survey, an appraisal, long-term stewardship services provided by the conservation partner and other miscellaneous activities. In some cases, grant funds will cover these costs.

Other Information

A portion of the property can be left out of the easement, thereby providing an area for future homes and other non-farm activities.

Agricultural activities, including forestry, are allowed under the agreement.

Despite the term “easement,” access to the public is not provided by the agreement.

The value of a conservation easement is determined by a licensed land appraiser and is typically between 25 percent and 75 percent of the land’s market value.

A periodic inspection of the property is required to ensure that development does not occur. This provision will be included in the agreement.

The agreement is recorded on the county’s land records and runs with the title. All future landowners must comply with the terms and conditions of the agreement.

Financial Benefits

If the conservation easement is donated, then the landowner will likely qualify for a federal income tax deduction and a state income tax credit. The value of these benefits depends on the appraised value of the easement and the income tax situation of the landowner.

A conservation easement also can be sold by the landowner through a transaction commonly referred to as a Purchase of Development Rights (PDR) or Purchase of Agricultural Conservation Easement (PACE). Funds to purchase a conservation easement can be raised from private and government sources. North Carolina and the federal government have programs to purchase agricultural conservation easements. Funding through these programs is very

competitive and will generally amount to a percentage of the easement's value. The tax benefits described above can be claimed for any of the easement's value above the purchase price.

Term Conservation Easements

Also called Agricultural Agreements, these agreements are similar to conservation easements but apply for a finite period of time agreed to by the landowner and conservation partner.

Transfer of Development Rights

A program set up by local units of government that utilizes conservation easements to preserve farmland by providing incentives to increase development density in a designated area. The program identifies the "sending area" where conservation is being encouraged and the "receiving area" where development is preferred. A landowner in the receiving area can purchase a conservation easement on a property in the sending area and receive additional density allowances. In North Carolina, counties must receive authorization from the General Assembly to develop and implement a TDR program.

Farm Transition Planning

Making careful plans for the transfer of ownership of farm property and assets from the current owner to the next can be enough to preserve a farm for decades. Many options are available when planning an estate or land transfer. Farm owners can increase the likelihood of a successful transition that maintains the viability of the farm by obtaining professional assistance early in the process.

Right-to-Farm Law

North Carolina has a state right-to-farm law (N.C.G.S. §§ 106-700 to 701(2006)) that protects farm and forestry operations from being declared a nuisance as long as they have been in operation for at least one year and are operated properly and without negligence.

N.C. Agricultural Development and Farmland Preservation Trust Fund

N.C.G.S. § 106-744(c) established a trust fund to be administered by the Commissioner of Agriculture. The purpose of the trust fund is to provide monies to purchase agricultural conservation easements and to fund programs that promote the development and sustainability of farming, and the transition of existing farms to new farm families. Counties and nonprofit conservation organizations can apply for grants for these purposes.

Challenges, Opportunities and Trends: Survey and Interview Results

The methodology employed to access information, perceptions and attitudes related to agriculture and agribusiness in Rowan County consisted of written surveys and interviews with three target audiences—agriculture producers, agribusiness owners and non-farm residents of Rowan County. Surveys were distributed by the Rowan County Center of the North Carolina Cooperative Extension Service.

In addition, key leaders in Rowan County from all three targeted groups were interviewed to better identify challenges and opportunities that exist in the county's agricultural segment. All descriptive statistics presented in this document were calculated using data obtained from these processes. Survey and interview information revealed pertinent information on the state of agriculture in Rowan County from the perspectives of farmers, agribusinesses, and non-farm residents as well as from data sources such as USDA and NCDA.

The results identify specific challenges and opportunities affecting the future of agriculture in the county.

Agriculture Producer Analysis

A review of the 2017 Census of Agriculture revealed that there were 925 farms in the county being cultivated by 1,006 male and 476 female operators. Rowan County farmers are predominantly white with 1,454 white operators,

15 African American operators, 2 Asian operators, and 11 more than one race operators. The average age of Rowan farmers was reported as 57.1 years in 2017. Farmers providing information for the Rowan County Working Agricultural Lands Plan represented operations from across the county. The average age of survey respondents was 53 years.

According to the survey, the majority of the operations (70 percent) were farm production only, primarily farm with some timber production was 27 percent, timber production only 2 percent, and primarily timber production with some farm production was 1 percent.

Sixty-seven percent of Rowan County farmers surveyed indicated that they had been in operation for more than 20 years. Sixty-six percent of the farmers surveyed had been in operation for 10-20 years, and 17 percent of respondents had been in operation 9 years or less (Figure 2).

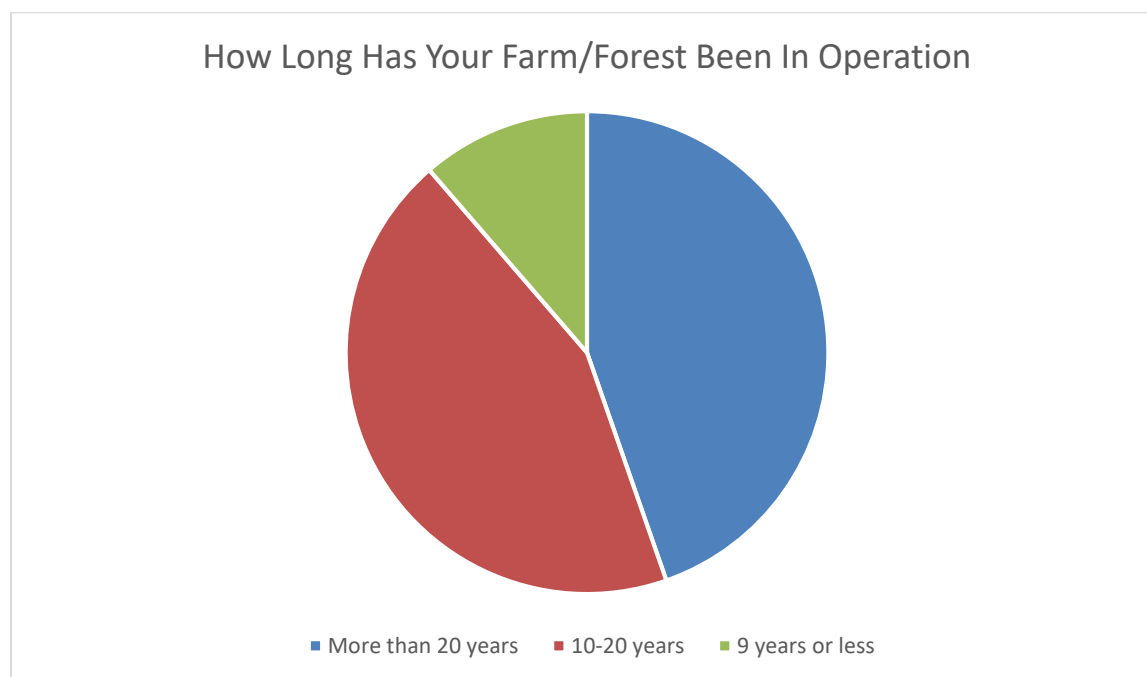


Figure 2. Source: Rowan Producer Survey 2022

Fifty-two percent of surveyed farmers indicated provided 0-24% of their total income, 24% indicated that farming provided 25-49% of their total income, 8 percent indicated that farming provided 50-74% of their total income, and

16% percent of the responding farmers indicated that their operations provided the majority of their household income.

Of the farmers responding, 48 percent did not expand operations during the last five years. Of those who wanted to expand but did not, listed the following reasons:

- Satisfied with current size
- Age of owner/operator
- Low profit margin
- High cost of equipment
- Lack of available land to purchase
- Lack of available labor

Notably, 57 percent of farmers surveyed stated that they did not own sufficient property to expand or diversify their operation. This indicates the importance of and need for leasable land for operational expansion in Rowan County.

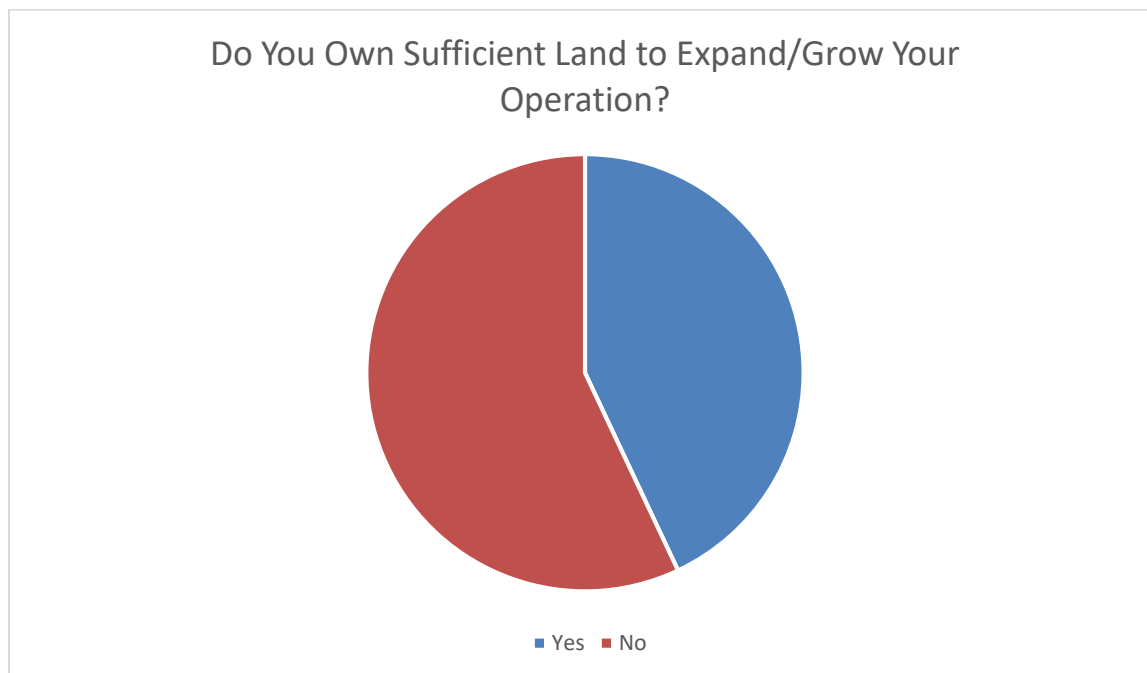


Figure 3. Source: Rowan Producer Survey 2022

Farmers who participated in the surveys identified the most critical issues expected to influence future farming operations as:

1. Production Input Costs
2. Competition for available land
3. Commodity prices
4. Residential housing expansion
5. Available labor
6. Land rental rates

Additional information from the farming community indicated that upon retirement, nearly 85 percent of farmers expected to transfer the farm to family members for continued operation as a family farm. However, 63 percent do not have a farm transition plan. This indicates a need to have training for some farm owners on developing effective farm transition plans. Family farms are the backbone of agriculture in North Carolina, educating farmers on how to pass their farms on to heirs or another generation of farmers is essential to the future of agriculture.

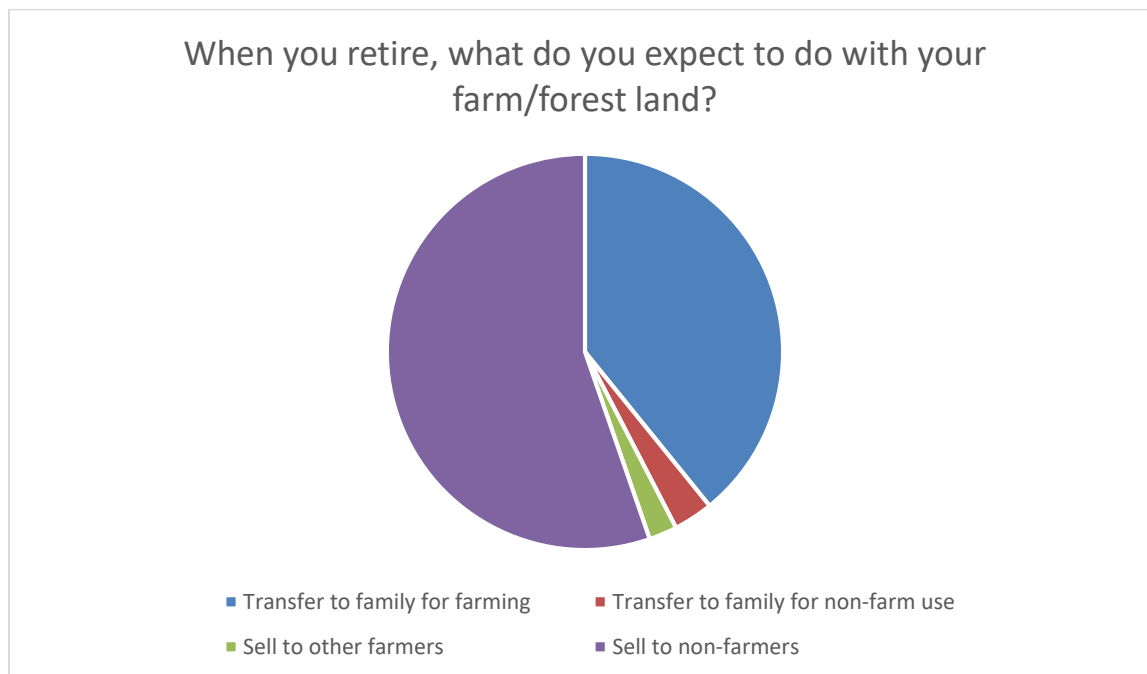


Figure 4. Source: Rowan Producer Survey 2022

Rowan County offers a deferred tax program beneficial to farmers and landowners designated as the Present Use Value Taxation program (PUV). This program offers owners of forest land and those operating legitimate farms a deferred tax program based upon their present use in agriculture, horticulture, or forest land. Sixty-eight percent of survey respondents answered that they were enrolled in the PUV program. Twenty-four percent are not enrolled in the PUV program. Eight percent answered that they did not know whether or not their farmland was enrolled. (Figure 5) These results indicate a definite need to educate all landowners on the benefits of the PUV program. While an increased knowledge of this program could result in additional land enrolled in the program and, in turn, reduce tax revenues, the cost of community services for agricultural land versus residential land shows that the revenue outcome still provides a net gain to the county coffers.

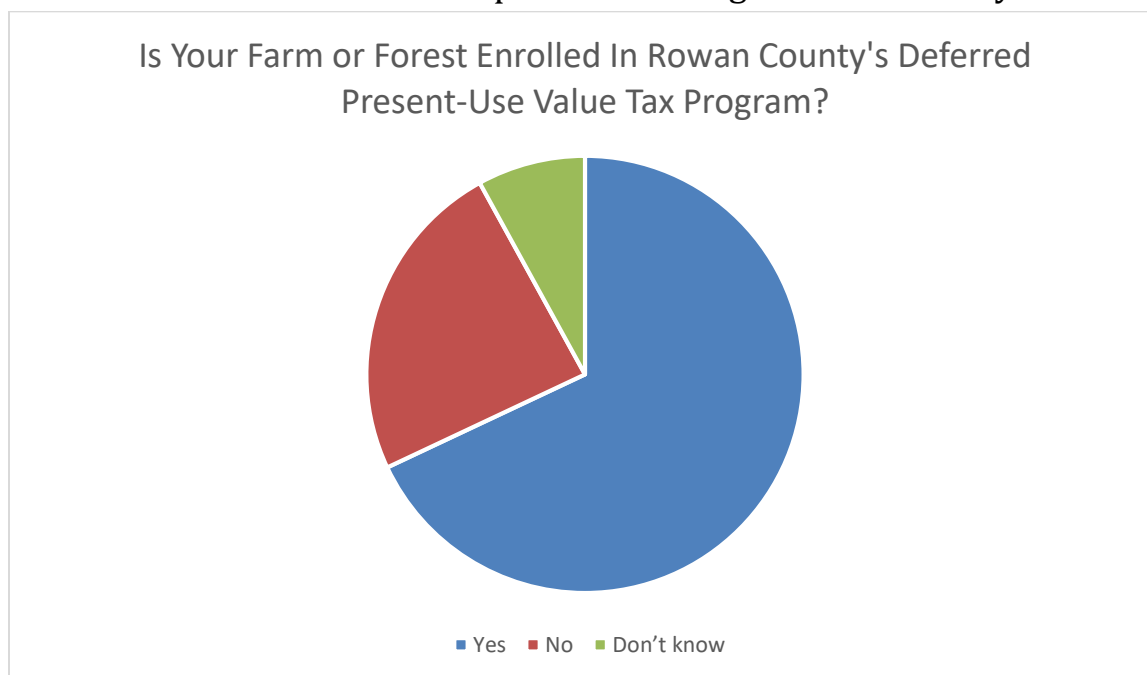


Figure 5. Source: Rowan Producer Survey 2022

When Rowan County farmers were asked to identify taxes that were impediments to their profitability, 59 percent listed estate taxes, 57 percent listed county real property taxes and 56 percent cited county property taxes on buildings and equipment as significant burdens on family farms. (Table 2)

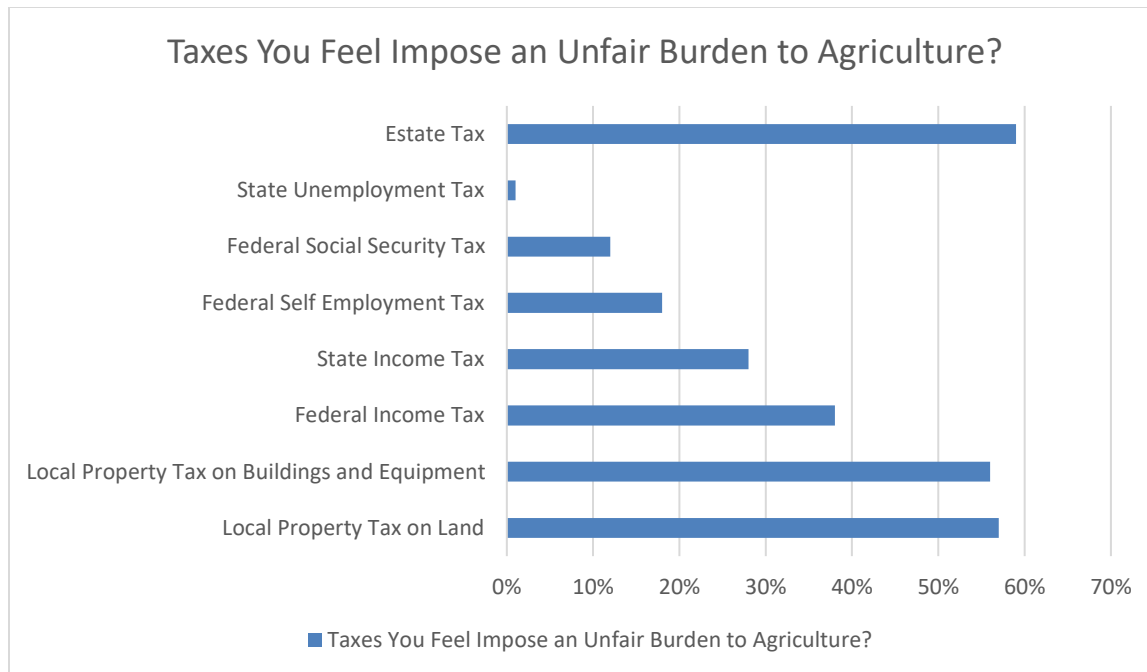


Table 2. Source: Rowan Producer Survey 2022

In 2017, the majority (99 percent) of forest land in Rowan County was privately owned. Forty percent of survey respondents have forest management plans, and sixty percent responded that they have no such plans. A forest management plan is a valuable tool for farmers and landowners to use this resource for greater sustainability and profitability. Management plans are required for forest landowners to enroll properties in the county's Present Use Value program. The survey data indicates the need for the development of an educational program to inform and train landowners on the benefits of a formal forest management plan. Farmers surveyed expressed interest in training in the following areas:

- Timber management
- Development of a forest management plan
- Selecting consulting foresters

Eighteen percent of survey respondents have experienced problems with neighbors in regard to their farming operation. (Figure 6) Of those experiencing problems, the issues centered on:

- Boundary or trespassing conflicts
- Dumping/littering issues
- Slow moving vehicle complaints
- Manure application complaint
- Smoke or Dust

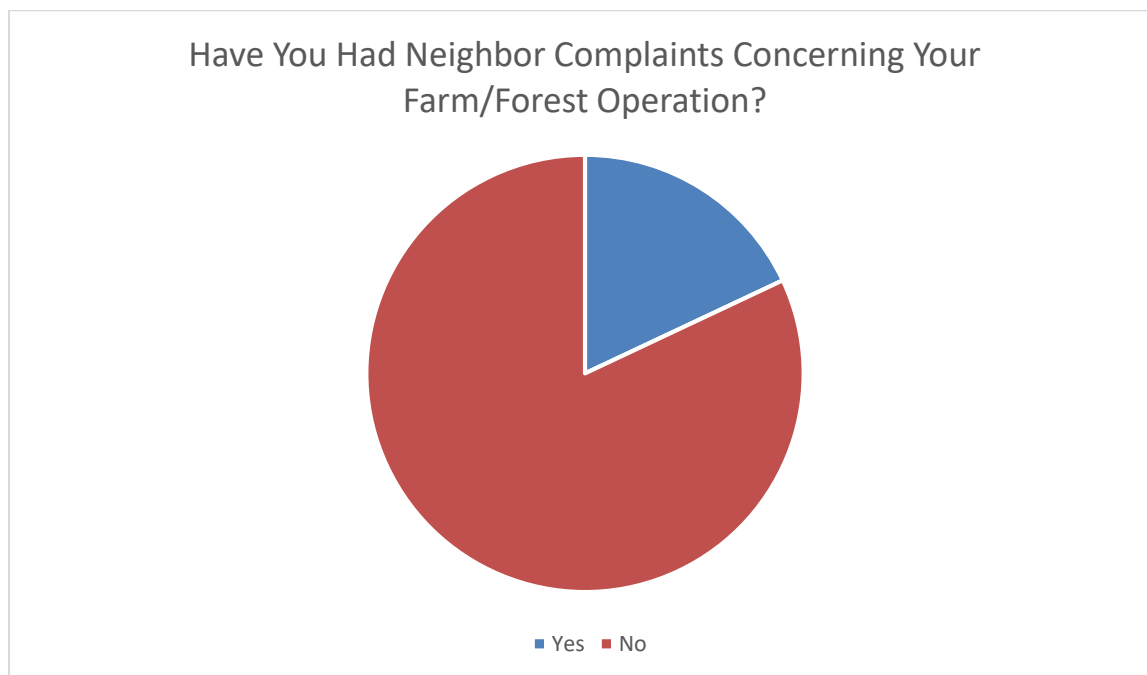


Figure 6. Source: Rowan Producer Survey 2022

Additionally, farmers expressed a need for management, technical and marketing training on the following topics to enhance their operations:

- | | |
|--|-----|
| - Forward pricing and hedging | 34% |
| - Direct to consumer marketing of products | 51% |
| - Identifying and managing risks | 32% |
| - Business website development | 29% |
| - Estate planning/Farm transition | 77% |

- Federal and State contract training 47%

There are multiple opportunities for training and education. This information should serve as a continuing guide for agencies and institutions involved in education within the county to develop plans for short-term and long-term training to serve the agricultural community.

Rowan County farmers surveyed (58 percent) showed no awareness of farmland preservation tools that could help them in their efforts to maintain their family farms. Forty-two percent of surveyed farmers were aware of farmland preservation tools. As of 2022, 332 farms covering 15,074 acres were enrolled in the Voluntary Agricultural District program. Forty-one farms covering 1,818 acres were enrolled in the Enhanced Voluntary Agricultural District. The creation and adoption of the Rowan County Working Agricultural Lands Plan by the county's leadership are essential steps to ensure support for the agricultural community.

Rowan County farmers who were surveyed and interviewed recognized the value of educating the non-farm public to the benefits of agriculture to the county. Ninety percent of farmers surveyed were in favor of a program to increase non-farm residents' knowledge of the social and economic benefits of agriculture.

Rowan County farmers and operators who responded to the survey (98%) stated that there is a definite need for agricultural education in public schools, 4-H and youth development, community colleges and other colleges and universities. Table 3 shows the strong support for such programs, which illustrates the need to train youth in the importance of agriculture and the diverse agricultural career opportunities.

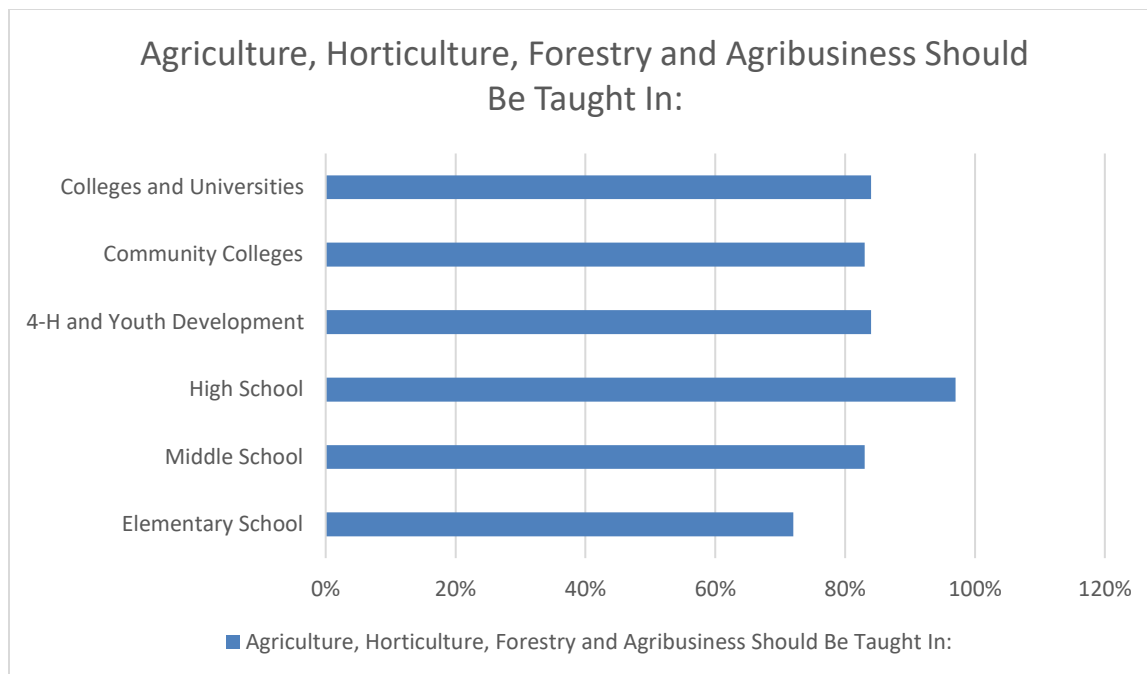


Table 3. Source: Rowan Producer Survey 2022

Surveyed farmers in Rowan County (92%) were in favor of government funds to support agriculture and agricultural economic development in the county.

Interviews were conducted with a cross-section of farmers to obtain their opinions on the issues, challenges and opportunities impacting agriculture in Rowan County. The following were stated as issues that impacted family farms as well as the perpetuity and profitability of these operations:

- Housing and commercial development pressures. Farmers see the influx of new housing developments taking over prime farm land. Development is causing land prices to increase and making it hard for farmers to hold on to existing farmland. Increased land prices lead to higher property taxes. Development is adding more traffic to country road ways causing problems for moving farm equipment.
- Lack of understanding among county elected officials and non-farm residents of the importance of agriculture to the economy and culture of Rowan County. County government is seen as pro development.

- Need for farm and estate transition planning. All farmers interviewed recognized the importance of planning, but only a small percentage had formal plans. Issues related to estate planning identified included no one in next generations to take over farming, equitable treatment of all heirs, and estate taxes.
- Drainage issues due to increased housing development. Drainage ditches are being filled in by housing developers resulting in flooding during rain events and increased debris in waterways.
- High input costs. Farmers expressed concern over the expense of new equipment and technology. Increased labor cost and shortage of qualified labor was also an issue. Low commodity prices make it hard to justify investments in new technology.

Agribusiness Survey and Interview Analysis

Agribusinesses provide essential resources and services vital to the success and profitability of agriculture production services. Agribusinesses, just as any other business, provide jobs and employment, which stimulate the local economy. Agribusiness respondents represented feed dealers, financial/insurance brokers, equipment dealers, agriculture and crop consultants, agriculture processors/distributors, produce marketers, agri-tourism operators, and horticultural services. Sixty-three percent of respondents agribusinesses have been in operation more than 20 years, while 37 percent were in business less than 20 years.



Figure 7. Rowan County Agribusiness Survey 2022

Agribusinesses surveyed (38 percent) recognized that 0-24 percent of their business was generated from the farm community. The majority surveyed (50 percent) that the farm community was responsible for 75-100 percent of their business clientele. (Figure 8) Though these agribusinesses offer agricultural services, many also provide services and products that meet the needs of non-farm residents and industries. In the last five years, 63 percent of agribusinesses surveyed have increased the size of their operations. The same percentage (63 percent) reported an increase of agricultural inventories and sales. As non-farm populations continue to grow, agribusinesses (88%) will continue to seek ways to service non-farm residents, which will provide additional support for these agribusinesses.

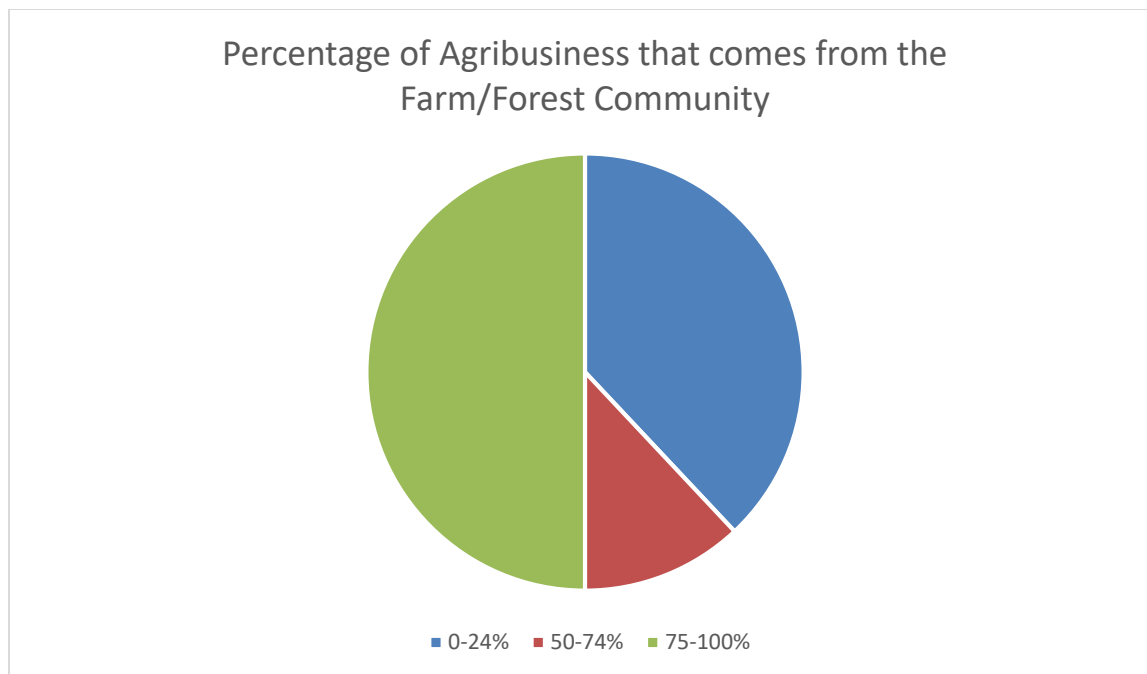


Figure 8. Source: Rowan County Agribusiness Survey 2022

Agribusiness owners also noted trends in agricultural production that could have impacts on their operations including, but not limited to, an increase in the number of small farms, a change to new types of farms, shift to more sophisticated farm operations, fewer large farms, more specialty and direct market operations, and more farm diversification. These trends are being driven by population increase, desire for farm value-added products and change in farm technology. Seventy-five percent of agribusinesses interviewed indicated that they would modify business to adapt to trends.

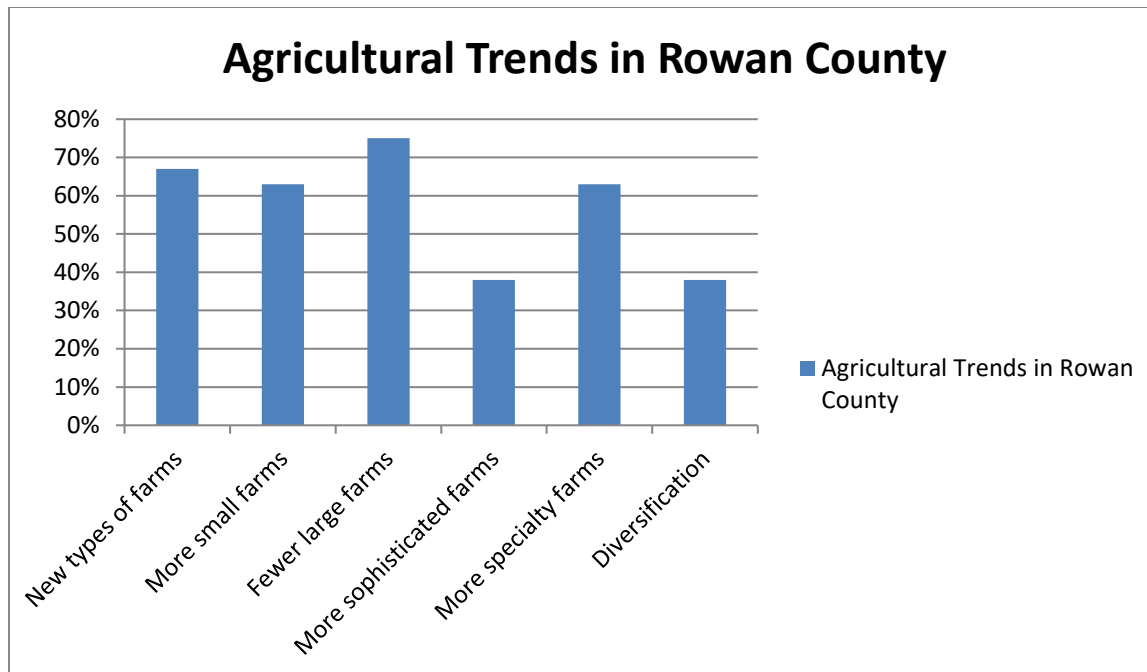


Table 4. Source: Rowan County Agribusiness Survey 2022

Following is a list of challenges and opportunities expressed by the respondents that will have an effect on agriculture in the future.

- One hundred percent of agribusiness respondents identified farm transition and estate planning as a major issue in Rowan County. They also expressed the need for professional assistance and training in transition and estate planning.
- One hundred percent of agribusiness respondents indicated that agriculture and agribusiness should be promoted as a career opportunity.
- One hundred percent of agribusiness respondents noted the importance of education of Rowan County citizens on the impact of agriculture and agribusiness on the county's economic viability.
- Forty-three percent of agribusiness respondents have problems with labor issues, especially being able to provide required health insurance and other benefits.
- One hundred percent of survey respondents saw a need for consumer education on economic impact of buying local in Rowan County.

- All of those questioned said that youth education in the field of agriculture is of great importance, and continued support of these programs in secondary and post-secondary schools is essential to the future of agriculture.
- Eighty-six percent of those surveyed noted agri-tourism was a viable opportunity for agricultural expansion in Currituck County.
- Eighty-six percent of respondents believe that government funding should be used to promote agricultural development.

When asked what would provide additional assurance of success in their business, fifty-seven percent identified succession planning training and the need for adequate financing to maintain or expand their businesses. Forty-three percent have a need for training on new technology in farming. (Table 5)

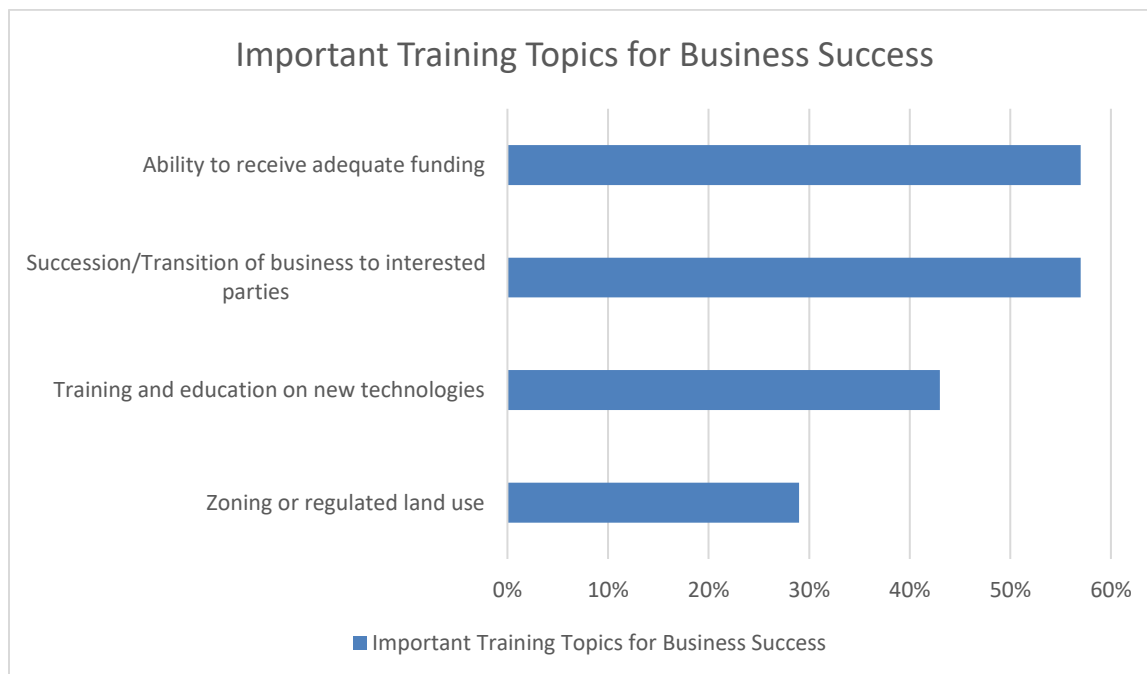


Table 5. Source: Rowan County Agribusiness Survey 2022

Rowan County Agribusiness leaders also identified several challenges and threats for farms and forests:

- Threat from housing development, industrial expansion, and urbanization takes farmland out of production.

- Lack of qualified labor force.
- Lack of agricultural education among non-farm citizens and elected officials. Increasingly, the general public doesn't know where their food comes from, nor do they understand how food is produced.
- The cost of new agricultural technology, while necessary for efficiency, is squeezing profit margins for farmers.
- The lack of succession planning among farmers and land owners.

Rowan County Agribusiness leaders identified the following opportunities:

- More young people becoming involved in agriculture
- Quality of Vocational Agriculture and 4-H Youth Development
- Agri-Tourism expansion
- Small farms- Local foods movement
- New technologies available in agriculture

Agribusiness enterprise owners recognize the value of farming to the economy and environment of Rowan County. Opportunities are limitless for developing new agricultural markets.

Non-Farm Resident Survey and Interview Analysis

Rowan County is home to people of diverse backgrounds. Some have lived in Rowan County their whole lives and others have chosen to relocate or retire in the county. The survey respondents represent an unbiased perspective of agriculture in the county. The majority (74%) that participated in the survey have lived in Rowan 20 years or more. Seventy-eight percent have lived near a farm or forest operation, with 60 percent currently living within one-quarter mile of a farm or timber operation. A positive result of this close relationship with agriculture is that 95 percent stated that farmers are good neighbors. With this in mind, 80 percent have not experienced a problem with their farm or forest neighbor. When problems have arisen, the respondents listed the following:

- Slow moving vehicles

- Pesticide use
- Manure application
- Odors
- Timber harvest

When asked about the state of agriculture as a viable industry in Rowan County, 52% percent of respondents felt that farming is holding its own and has some potential for future growth. Thirty-two thought agriculture is an expanding industry with significant growth potential. Sixteen percent said that agriculture has no potential for future growth in Rowan County.

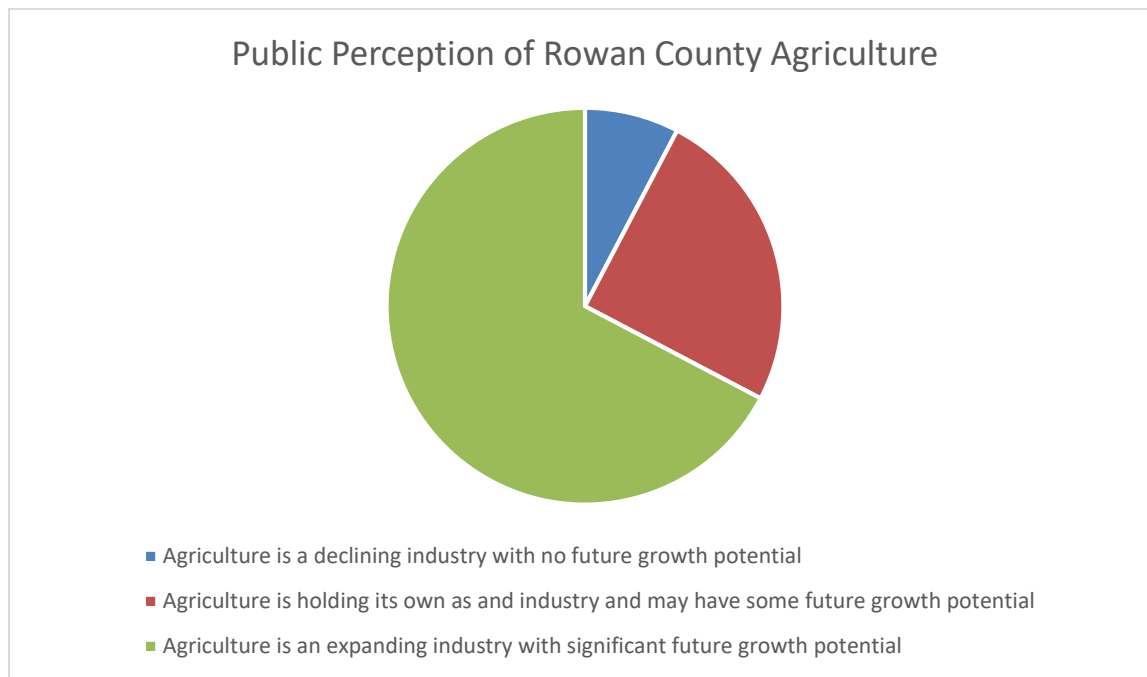


Figure 9. Source: Rowan Non-Farm Residents Survey 2022

Rowan County non-farm residents have a good understanding of the economic impact of the entire agricultural sector on the county's economy (Figure 9). The value of agricultural industry in 2017 provided a total economic impact of \$81,781,000 to Rowan County.

Ninety-six percent of surveyed non-farm residents felt that Rowan County should take steps to help preserve farms and forests. Ninety-four percent of

respondents reported that they support local farming by purchasing local produce from farmers markets; pick-your-own operations, and road side stands. Eighty-nine percent of non-farm residents say that they purchase plants from local greenhouses and nurseries. Additionally, 58 percent have participated in agri-tourism activities such as corn mazes, pumpkin patches and hayrides.

The statistics below reveal non-farm residents agreement or disagreement with statements about agriculture in the Rowan County.

- 98 percent agreed farms and forests enhance scenic beauty and open space
- 94 percent agreed farmers are good neighbors
- 99 percent agreed that local farmers deliver high quality products
- 92 percent agreed that farming has a positive impact on the environment
- 80 percent stated that farming and agribusiness are high technology businesses
- 68 percent agreed farming presents a good career for enterprising people
- 95 percent agreed that agriculture and forestry as viable career opportunities
- 89 percent stated that tax breaks for farmers are important
- 99 percent would support farm and forest preservation efforts in the county
- 95 percent would support the use of government funds for farm and forest development

These statements clearly illustrate that non-farm residents surveyed have a positive image of agriculture in the county.

Personal interviews with non-farm residents substantiated the finding in the surveys. The interviewees were 100 percent in support of farmland preservation efforts in Rowan County and were in favor of using local government funding to ensure policies and programs that encourage the preservation of agriculture.

The following statements from non-farm residents in Rowan County revealed the following threats:

- Expansion of housing developments, subdivisions
- Urban sprawl
- Solar farms
- Increasing value of developed land as opposed to the value of agricultural land
- Farmland being sold for development
- Age of farmers
- Younger generation not continuing to farm, selling land for development
- Lack of county support for agriculture
- High input costs
- No incentives or grants to start a farm
- Logging/deforestation
- Wildlife habitat destruction
- Government regulations and taxes
- Lack of understanding of the importance of agriculture among elected officials and general public

Potential opportunities as seen by non-farm residents:

- Specialty farming
- Produce farming
- Educational opportunities in schools, FFA and 4-H
- Roadside markets
- Good farm land
- Multiple generational farming
- Forest stewardship and expansion
- Tourism from Charlotte and Winston-Salem
- Close proximity to major highways for shipping
- More educational opportunities for public and public officials
- More careful thought when rezoning farmland
- Agritourism

- Buying local foods
- Distilleries, breweries and wineries
- Land trusts to preserve present farmland

Non-farm residents value Rowan County agriculture and are in favor of preserving and enhancing this vital economic sector. Housing development is the greatest threat to loss of farmland perceived by non-farm residents. It is critically important to have a citizenry and elected officials that are supportive of the preservation of the agricultural industry.

Recommendations

The major result of the Rowan County Working Agricultural Lands Plan is a set of recommendations with action steps that, when implemented, will bring about desired change. These steps are based on input from citizens affected by the plan as well as other agricultural sources. The following recommendations are extrapolated from data obtained through interviews and surveys of Rowan County farmers, agribusinesses and citizens and data from USDA and NCDA&CS.

For this plan to be effective, Rowan County citizen leaders, agencies and organizations must follow through with support and collaboration of these recommendations. This plan needs to be evaluated annually to remain up-to-date and viable. The annual update will ensure that recommendations are being accomplished and new ones added as needed. Following are the recommendations that can be used to maintain and enhance agricultural working lands in Rowan County.

Recommendation One:

Support Measures to Protect and Promote Working Forest and Farmland in Rowan County.

Endorsement, certification and advocacy of the Rowan County Working Agricultural Lands Plan are critical to protecting and enhancing agriculture in the county. Once the plan is endorsed by the Rowan County Board of

Commissioners and certified by the North Carolina Department of Agriculture and Consumer Services, the county will receive priority status for funding from the NCDA&CS's Agricultural Development and Farmland Preservation Trust Fund for agricultural projects. Though residents largely support agriculture, added education and understanding is needed. County officials should be continually informed of agricultural information affecting Rowan County.

Utilization of the Cost of Community Services Study (COCS) to increase awareness and guide leadership as development of working lands are considered. Most communities fail to realize that saving land saves money. While residents demand expensive public services and infrastructure, privately-owned working lands enhance community character and quality of life without requiring significant public expenditures. Their fiscal contributions typically are overlooked, but like other commercial and industrial land uses, agricultural (farm, ranch and forest) lands generate surplus revenues that play an essential role in balancing community budgets. This, perhaps, is the most important lesson learned from Cost of Community Services (COCS) studies.

COCS studies provide a baseline of information to help local officials and citizens make informed land use decisions. They offer the benefit of hindsight to see the effect of development patterns to date. They also demonstrate the fiscal importance of privately owned land in farm and forest uses.

The threat expressed by all target audiences included housing and commercial development pressures. Development causing land prices to increase makes it hard for farmers to hold on to existing farmland. An additional threat is a lack of understanding among non-farm residents as to the importance of agriculture to the economy and culture of Rowan County. One respondent stated that local leaders and residents don't fully understand the economic impact of agriculture and forestry to the county and the region. The Working Agricultural Lands Plan and Rowan County Cost of Community Services Study are tools that can assist in reducing these threats if used as tools for preservation of working lands. These and other tools exist which can be of

assistance to local leaders as planning and development occurs. Utility of tools may not eliminate the spread of development in Rowan County, but they can contribute to the awareness of the importance of farms and forests to the economic stability of the county and a need for balanced development.

Action Steps:

- Present the Rowan County Working Agricultural Lands Plan to the Board of Commissioners for endorsement and submit to NCDA&CS for certification. ***Timeline:*** January 17, 2023, 6 pm Rowan County Board of Commissioners meeting.
- Annually review the plan for progress and addition/adjustment of any needed recommendations. ***Timeline:*** 2023 and annually thereafter.
- Encourage the Rowan County Board of Commissioners to authorize a COCS for Rowan County. County Commissioners, developers, and planners can utilize and evaluate the results of the COCS for Rowan County and the impact of their decisions on the future land use in the county. ***Timeline:*** 2024 apply for ADFP funds for COCS funds.
- Utilize all available media outlets to inform county leadership and the public about the plan's progress and success. ***Timeline:*** ongoing.
- Develop and implement an educational program for farmers and landowners regarding available farmland preservation tools and incentives suited for Rowan County. ***Timeline:*** 2023-2024.
- Continue to educate landowners and farmers as to the benefits of the Present Use Value Taxation Program. Continue to encourage and assist with enrollment and ensure all eligible landowners are enrolled. ***Timeline:*** November 2022, Spring 2023, annually afterwards
- Encourage local government, economic developers, land developers, planners, and the North Carolina Department of Transportation to work with the Rowan County Agricultural Advisory Board to engage with one another and share information about county projects that will impact agricultural production. ***Timeline:*** 2023 work with Planning and Zoning board.

Responsible Parties: The Rowan County Working Agricultural Lands Committee, Rowan Cooperative Extension, Rowan Soil and Water Conservation District, Rowan Natural Resource Conservation Service, North Carolina Forest Service, Rowan County Planning and Development Department, Rowan Economic Development Commission, Rowan County Board of Commissioners, Three Rivers Land Conservancy, Farm Service Agency, Rowan Farm Bureau Young Farmers Group, Rowan Farm Bureau.

Recommendation Two:

Educate Landowners on the Benefits of Enrolling in Conservation Easement Programs to Keep Land Available for Agricultural Uses.

A conservation easement is a written agreement between a landowner and a qualified conservation organization or public agency and to restrict subdivision, non-farm development and other uses that are incompatible with commercial agriculture. For donated land, landowners can qualify for federal income tax deduction and a state income tax credit. A conservation easement can be sold by the landowner through Purchase of Development Rights or Purchase of Agricultural Conservation Easement programs. North Carolina and the federal government have limited funds for these programs. The development of local financial resources can attract more landowners to place farm and forest land in conservation easements.

Action Steps:

- Develop local funding through government and private sources to augment state and federal funds to entice landowners to participate in conservation easement funding. **Timeline:** 2023 Soil/Water District approaching the Robertson Foundation and Stanback Foundation Investigate other county programs funding.
- Design and implement a marketing plan to educate landowners on the benefits of conservation easement as a land preservation tool. **Timeline:** 2023 partnering with tourism to develop a marketing plan.
- Appropriate agency staff will encourage and assist landowner with the understanding and enrollment in conservation easement programs. **Timeline:** 2023.

Responsible Parties:

Rowan Soil and Water Conservation District, Rowan Cooperative Extension, Rowan Working Agricultural Lands Committee, Rowan Farm Bureau Board, USDA Farm Service Agency, Natural Resources Conservation Service, Rowan County Tax Office, Rowan County Register of Deeds, and the Rowan County Board of Commissioners, Three Rivers Land Trust, Carolina Farm Credit, Robertson Foundation, Stanbacks, James River John Deere, Rowan County Tourism Board.

Recommendation Three:

Expand Voluntary Agricultural District (VAD) and Enhanced Voluntary Agricultural District (EVAD) Programs

Rowan County has 332 farms and 11,000 acres enrolled in Voluntary Agricultural Districts and 41 farms and 1,818 acres enrolled in Enhanced Voluntary Agricultural Districts.

Action Steps:

- The Rowan County Working Agricultural Lands Committee will provide leadership in promoting Rowan County VAD and EVAD ordinances. ***Timeline:*** Spring 2023.
- Design and implement a marketing plan using all available media to educate farmers, landowners, developers and realtors as to the benefits of the VAD ordinance. ***Timeline:*** Spring 2023.
- Have appropriate agency staff encourage and assist landowners with understanding and enrolling in VAD and EVAD. ***Timeline:*** Winter 2022-2023.

Responsible Parties:

Rowan County Working Agricultural Lands Committee, Rowan County Cooperative Extension, Rowan County Soil and Water Conservation District, Rowan County Farm Bureau Board, Rowan County Tax Office, Rowan County

Register of Deeds, Rowan County Planning and Development Department and the Rowan County Board of Commissioners, Rowan Ag Advisory Board, Three Rivers Land Trust, Rowan County Tourism Board.

Recommendation Four:

Develop and Conduct Programs to Assist Rowan County Farm and Forest Landowners with Farm Transition Planning.

The average age of farmers in Rowan County was 57.1 years in 2017. According to surveyed farmers, more than 63 percent do not have farm transition plans. Additionally, interviews with farm lending authorities showed lack of farm transition planning as a leading concern about the future of agriculture in the area. 65 percent of farmers surveyed indicated a willingness to train an intern/young farmer with their farming operation to encourage the next generation to enter production agriculture.

Action Steps:

- Plan and conduct a series of workshops that use a variety of specialists and agencies to provide information on farm transition and estate planning. ***Timeline:*** Nov. 30, 2022- ongoing.
- Develop an apprenticeship program in which young farmers work with experience producers to learn more about agricultural production and gain more knowledge about transition opportunities. ***Timeline:*** 2024 research and implement successful models.
- Support the Rowan County Farm Bureau Young Farmers and Ranchers organization with information on the importance of farm transitions. ***Timeline:*** ongoing.
- Identify farmers willing to investigate innovative strategies for farm transition with beginning farmers. ***Timeline:*** 2023

Responsible Parties:

The Rowan County Agricultural Working Lands Committee, Rowan County Cooperative Extension, Rowan County Farm Bureau Board, Carolina Farm Credit, University of Mount Olive Lois G. Britt Agribusiness Center, Local attorneys, agricultural economic specialists, Boots on Ground, NC Farm School.

Recommendation Five:

Promote Appreciation and Awareness of the Benefits of Agriculture to Rowan County Elected Officials and Citizens.

Today, the majority of the general population is removed from farming and agribusiness. The public needs to understand the importance of agriculture to the local economy. Additionally, non-farm residents need to appreciate where food and fiber is produced. Respondents surveyed and interviewed voiced concerns that agriculture was not adequately represented on local governing bodies. Understanding agriculture will provide stronger relationships between producers and consumers as well as additional support for local farms.

Action Steps:

- Conduct a Cost of Services plan for Rowan County to show the economic impact of development versus agricultural production. **Timeline:** 2024-2026 as referenced in Recommendation one.
- Develop a comprehensive agriculture awareness plan and determine all feasible delivery methods such as social media, speakers' bureau, print and broadcast media. **Timeline:** 2024.
- Continue annual Rowan County agricultural promotion events and tours to promote diverse operations including forestry, row crop farming, animal production, road-side markets, wine and beer production, specialty crops and agritourism. **Timeline:** 2023 ongoing.
- Develop presentations that show the role of agriculture in Rowan County to be shared with civic, school and religious organizations. **Timeline:** Fall 2023.

- Expand and promote events that highlight local foods. **Timeline:** 2022 meat suite, 2023 Visit NC Farms App.
- Involve 4-H and FFA members in the promotion of agriculture by conducting a VAD sign design contest. **Timeline:** 2023.

Responsible Parties:

Rowan County Cooperative Extension, Rowan County Farm Bureau Board, Rowan County Grange, Rowan-Salisbury Public School System, Rowan County Chamber of Commerce, Catawba College, Livingstone College, Rowan Cabarrus Community College, Rowan County Tourism, Rowan County Chamber Agriculture Committee.

Recommendation Six:

Promote, Expand and Support Youth Agricultural Education Programs.

Agribusiness leaders, farmers, and non-farm residents were all in favor of youth agricultural education as a vital component to ensure the future of Rowan County agriculture.

Action Steps:

- Encourage youth to participate in all agricultural organizations such as FFA and 4-H in order to develop leadership skills and engage in agricultural experiences. **Timeline:** 2023 on going.
- Support teacher training for expansion of NC Farm Bureau's Ag in the Classroom curriculum for primary and elementary students. **Timeline:** EFNEP position funded 2024, 4H curriculum program assistant 2025-26.
- Work with funders, both public and private, to provide needed resources for 4-H and FFA programs. **Timeline:** 2024.
- Promote agriculture as part of the STEM (Science, Technology, Engineering and Math) initiative in the public school system. **Timeline:** 2023 on going.

Responsible Parties:

Rowan County Cooperative Extension, Rowan County Farm Bureau Board, Rowan County Grange, Rowan-Salisbury Public School System, Salisbury

Academy, Faith Charter Academy, Essie Mae Charter School, Henderson Alternative High School, North Hills Christian, Sacred Heart, Yadkin Path Montessori, Rowan County Home School Association, Catawba College, Livingstone College, Rowan Cabarrus Community College, Robertson Foundation, Stanback Foundation, Novant, Rowan County Health Department, Healthy Rowan.

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