Wilson County Agricultural Development Plan

Sandy Maddox, Ed. D.

December 2017

Table of Contents

Acknowledgements..... 4

Executive Summary.....

Recommendations 52
Recommendation One: 52
Recommendation Two: 55
Recommendation Three: 56
Recommendation Four: 58
Recommendation Five: 59
Recommendation Six: 61
Conclusion 63
References 64
Appendixes 67
Wilson County Producer Survey 67
Wilson County Agribusiness Survey 68
Wilson County Non-farm Resident Survey 69

Acknowledgements

The North Carolina Department of Agriculture and Consumer Services Agricultural Development and Farmland Preservation Trust Fund (ADFP) awarded a grant to the University of Mount Olive's Lois G. Britt Agribusiness Center to create Agricultural Development Plans for Chowan, Currituck, Pasquotank, Perquimans and Wilson counties. ADFP promotes these plans as comprehensive guides for counties or governments to protect and preserve farms and forests, which contribute to the economy and quality of life in eastern North Carolina.

This plan was written by Dr. Sandy Maddox. Dr. Maddox has an Ed. D. from N.C. State University and served with N.C. State University in both research and extension. She additionally served the NC Department of Agriculture and Consumer Services in the Research Stations Division until retirement in 2007. Since that time she has provided leadership to the Lois G. Britt Agribusiness Center at the University of Mount Olive and serves as chair for the Division of Agriculture at the university. The following agencies and individuals assisted with the development of this plan and the concurrent Cost of Community Services Study:

- North Carolina Cooperative Extension, Wilson County Center
- Wilson County Board of Commissioners
- Wilson County Manager
- North Carolina Forest Service
- Lois G. Britt Agribusiness Center, University of Mount Olive
- The citizens, farmers and agribusinesses of Wilson County

This project was funded by the North Carolina Agricultural Development and Farmland Preservation Trust Fund

Executive Summary

Wilson County has a viable agricultural sector that is an important part of the total county fabric of life. The goal of this Agricultural Development 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 input from members of the agricultural community as well as Wilson County non-farm residents on ways to enhance agriculture, forestry, agribusiness and agritourism.

Farmland is an irreplaceable natural resource, and the farmers who are stewards of this resource impact the economy and quality of life for all county residents. The economic impact of the agriculture sector in 2012 was 37.7 percent of the county's value added total income. The agricultural sector also accounts for 11.2 percent of Wilson County's total employment (Walden, 2015). Wilson County has the resources, human and natural, to ensure that agriculture can prosper in the future. The impact of agriculture in Wilson County in 2012:

*Agriculture and agribusiness contributed $2,514,082,618 in total value added income

*Wilson County ranked 2nd in the state in sweet potato production

*Wilson County ranked 5th in the state in flue-cured tobacco production

*Wilson County ranked 4th in the state in nursery, greenhouse and floriculture

*In total cash receipts from crops produced Wilson County ranked 4th in the state and 25th in the state for total cash receipts from agricultural products

Wilson County is experiencing modest population growth, but the growth is occurring in a section of the county that results in competition of land uses. Seventy-seven percent of county farmers surveyed lacked sufficient land to expand or diversify their operations. Sixty-six percent indicated that competition for available land is a major concern for the future. Wilson County farmers reported facing other critical issues, low commodity prices, rising

production input costs and development pressure. Farmers are confronted by other challenges to their operations, such as an aging farmer population, with the average age of farmers being 58.2 years old and 79 percent not having farm transition plans. These issues present opportunities to enhance agriculture through education and the support of citizens and local government.

Of the non-farm citizens surveyed, 89 percent believed that local government should take action to preserve farmland as a valuable resource. Eighty-six percent of non-farm citizens believed that farming enhances the scenic beauty and open spaces of the county while providing a positive impact on the environment. Ninety-five percent of non-farm respondents expressed support of farm and forest preservation efforts in the county.

At the center of the Wilson County Agricultural Development Plan, based on information provided by farmers, agribusiness leaders and non-farm residents through personal interviews and surveys, are six proposed recommendations. The recommendations and action steps were developed to provide a guide for protecting and enhancing agriculture in Wilson County. The success of this plan depends on the collaboration between local government, agricultural organizations, farmers, agribusiness and citizens of Wilson 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 Forest And Farmland In Wilson County.**
2. **Revitalize Efforts To Activate Voluntary Ag District Program And Develop, Adopt And Implement Enhanced Voluntary Agricultural District (EVAD) Programs**
3. **Develop And Conduct Programs To Assist Wilson County Farm And Forest Landowners With Farm Transition Planning.**
4. **Promote Appreciation And Awareness Of The Benefits Of Agriculture To Wilson County Elected Officials And Citizens.**
5. **Expand and Support Youth Agricultural Educational Programs.**

6. **Develop Technical, Business And Marketing Training For The Maintenance And Expansion Of Agriculture In Wilson County.**

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 Wilson 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 2017 report by Mike Walden, professor and extension economist at North Carolina State University, agriculture and agribusiness in 2015 accounted for one-sixth of the state's income. More than 17% of the state's workforce was directly involved with agriculture, an industry that contributes $84 billion, or 17%, to the gross state product in North Carolina (Walden, 2017). In Wilson County, Walden reported in 2015, agriculture accounted for 11.2 percent of Wilson County's total employment in 2012. Reported economic impact numbers for 2012 also noted that all agriculture and agribusiness added $2,514,082,618 total income or contributed 37.7 percent to the county's value added total income (Walden, 2015).

Wilson County's leadership is cognizant of the importance of agriculture to the local economy and is supportive of an Agriculture Development Plan that addresses issues related to farm and agribusiness viability for the future. The goal of the Wilson County Agricultural Development 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.

The US Census Bureau 2016 estimates for Wilson County reported an estimated population of 81,664. This figure represented a modest increase from the 81,234 reported in 2010. While population growth is less than 0.1% according to the Census, Wilson County still provides an environment that is conducive to growth in commercial/industrial and agricultural businesses.

The North Carolina Department of Commerce reported that in 2017, nearly one-third (29.4%) of Wilson County's population was over the age of 55 (NC Department of Commerce). 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 Agricultural Development Plan is grounded in three basic tenets:

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

As the state's population has increased, land has been removed from agricultural production to provide housing and services to the growing population. From 1997 to 2012, North Carolina lost more than 8,900 farms and nearly 1 million acres of farmland. During the same time period, Wilson County experienced a loss of 16,713 acres of farmland representing a 13% loss in farm acreage (US Census of Agriculture, 1997, 2012). While population growth has been modest, industrial growth has the potential to impact the decrease in agricultural acreages the same as residential growth does. However, the impact of these differing land uses does have a definitive difference in the economic impact to the county which is realized in the Wilson County Cost of Community Services Study, 2017.

The development of the Wilson 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 SurveyMonkey. 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 Wilson County. This data was used to develop recommendations which will enlighten county leadership as to possible actions to be taken to keep farm and forest land viable now and in the future.

Overview of Wilson County

Wilson County is proud of its history and describes it vividly through its county government and tourism websites (Wilson County Government, 2017).

Native American people of the Tuscarora tribe were the first known inhabitants of Wilson County. However, around 1740, European and African slaves settled in the area and began to produce turpentine and pitch from the vast stands of pine trees and began planting crops that would feed the new inhabitants of the region.

Population in the region grew as a result of the railroad which serviced the region and in 1849 the town of Wilson was incorporated. Not long after, 1855, the county of Wilson was incorporated after several surrounding counties ceded land to allow this to occur.

While the railroad played a pivotal role in the growth and prosperity of Wilson County by allowing access to the port of Wilmington and the cultural center of Richmond, agriculture changed the future of Wilson County. Farmers began producing cotton, but as the demand for flue-cured tobacco grew and as a result of Wilson County's climate and soils, the county by 1920 came to be known as the world's largest flue-cured tobacco market. NC Department of Agriculture and Consumer Services (NCDA&CS) 2016 Agricultural Statistics reported that Wilson County ranks 5th statewide in total cash sales of flue-cured tobacco illustrating the continued impact of agriculture on Wilson County. Wilson County ranks 2nd statewide in the production of sweet potatoes, and has a cash sales ranking of 3rd statewide in vegetables, fruits and nuts and 4 in all other crops to include greenhouse, nursery and floriculture. Agriculture has remained an important part of the history and economics of Wilson County.

Wilson County also grows industry well. The News and Observer in April 2017 reported, based on a study published by WalletHub a personal-finance website, that one North Carolina town was ranked among the top 10 best small cities in which to start a business. (WalletHub, 2017)

Wilson, the county seat of Wilson County was ranked No. 6 among the top 10 small cities to start a business. Rankings were determined by business environmental factors such as length of work week, average growth in number of small businesses, number of startups per capita and average revenue as well as access to resources and business costs. More than 1,200 small-sized cities were compared for the rankings. No other NC city ranked in top 20.

Agriculture and manufacturing business is important to Wilson County's past and are charting the direction for Wilson County's future.

Wilson County Demographics

Wilson County's population is made up of a fairly diverse distribution of residents. Of the county's population of just over 81,000 persons 47.5% are white, 40.6 % are African-American, 10.0% are Hispanic/Latino and 1.9 % are other (US Census, 2016).

Table 1 illustrates the reported age distribution by the NC Department of Commerce (NCDC, 2017) in Wilson County.

Wilson County Population Estimated Population By Age 2015		
2015 Est Median Age 40		
2015 Est Total Pop 0-19	21,502	26.4%
2015 Est Total Pop 20-24	5,280	6.5%
2015 Est Total Pop 25-34	9,478	11.6%
2015 Est Total Pop 35-44	9,988	12.2%
2015 Est Total Pop 45-54	11,323	13.9%
2015 Est Total Pop 55-64	11,052	13.5%
2015 Est Total Pop 65+	12,958	15.9%

Table 1. NC Department of Commerce, NCACCESS, 2017.

The Department of Commerce additionally reported the urban to rural representation in Wilson County to be 61.3% to 38.7% respectively. This is interesting when looking at the cities and towns that are located in Wilson County. Wilson County is located about 30 minutes east of Raleigh, NC and is intersected by Interstate 95, the major north/south artery on the east coast.

Interstate 95 intersects US Highway 264 (now Interstate 587) and Interstate 795, allowing access for agriculture and industry and enhancing the opportunity for development. Three mainline railroads provide north-south and east-west rail passenger and freight service and the county has use of two airports, the Wilson Industrial Air Center which is municipally-owned and the Rocky Mount-Wilson Airport located about 8 miles northeast of Wilson.

Wilson is the county seat and is located almost in the center of the county. It is the only city in Wilson County. Black Creek, Elm City, Lucama, Saratoga, Sims, Stantonsburg, a portion of both Sharpsburg and Kenly make up the towns located in the county. Figure 1 illustrates the city of Wilson and the towns and corresponding townships in the county.

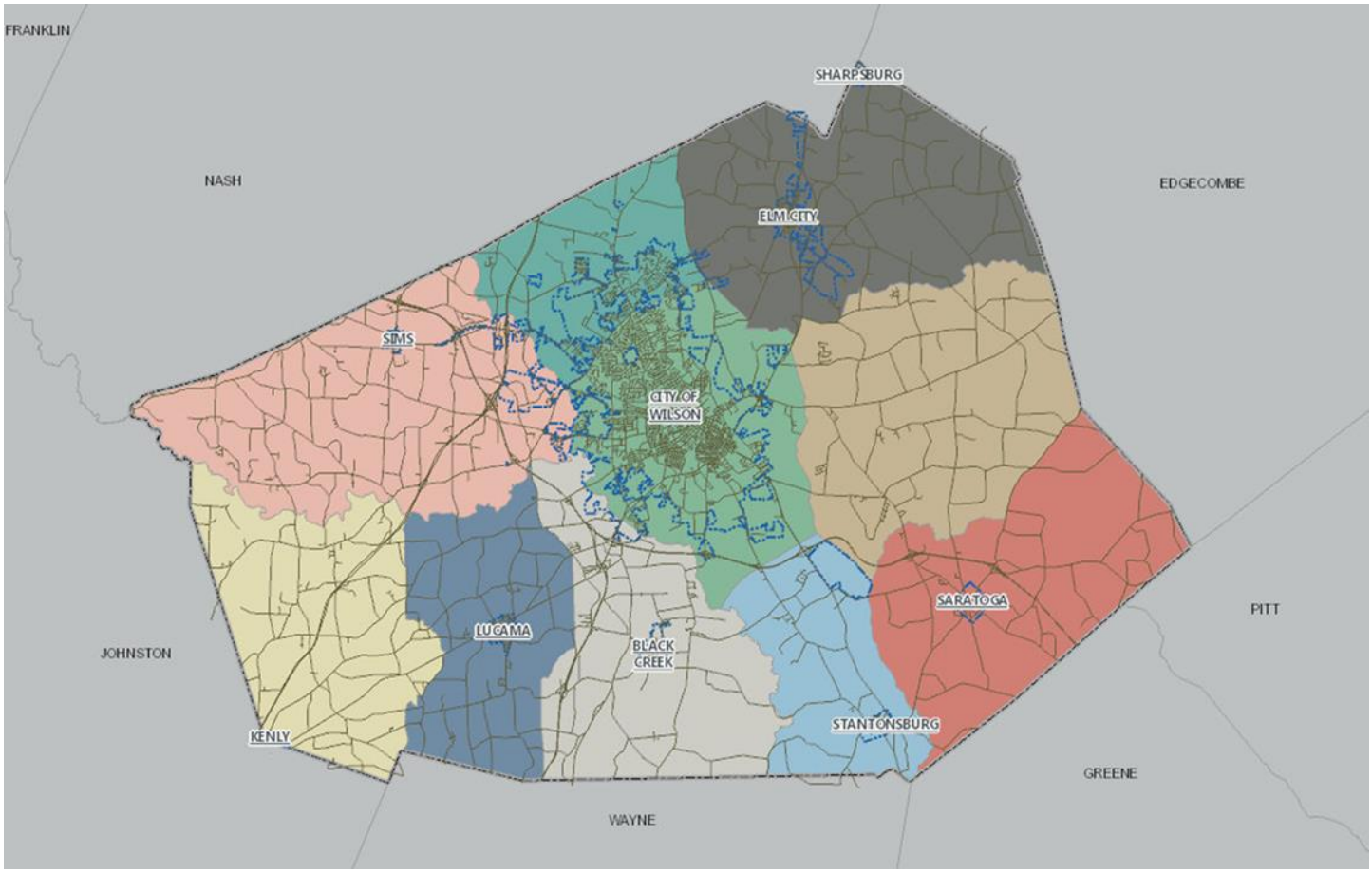

Figure 1. Wilson County Township Map

Economy

The North Carolina Department of Commerce (NCDC) 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. Wilson County is designated as a Tier 2 county and has remained in the Tier 2 classification since 2016. North Carolina uses these designations to encourage economic growth through incentives in distressed counties. Wilson County's tier status provides opportunities for certain grants and other incentives aimed at stimulating the county's economy (NC Dept. of Commerce, 2017).

The median household income in Wilson County in 2015 as reported by NCDC was $48,138.00 compared to the state figure of $46,868.00. Twenty-three percent of Wilson County's population is considered below the poverty level, which is higher than the reported state rate of 16 percent for this same time period (NC Dept. of Commerce, 2017).

Seventy-six percent or 25,704 working Wilson County residents worked inside of Wilson County. Twenty-four percent or 8,201 residents work within North Carolina, but outside Wilson County. Only 0.3% percent or 113 residents work outside of North Carolina. The unemployment rate reported in September of 2017 was 6.3% which was higher than the state unemployment rate of 4.1 percent, however it was down from the annual 2016 Wilson County rate of 8.1%. (NCDC, 2017)

Agriculture and agribusiness provided jobs for 11.2 percent of Wilson County's working residents according to a study completed by Dr. Mike Walden in 2015.

Commercial and industrial businesses have made a significant impact upon the Wilson County economy. Wilson County enjoys a diversity of industry in the county. The Wilson Economic Development Council (WEDC) categorized the leading industry sectors that are located in Wilson County by employment and reported these as:

- Manufacturing
- Retail Trade

- Healthcare
- Construction
- Accommodation and Food Services
- Public Administration

Wilson County is home to the Branch Banking and Trust Company which is identified today as BB&T, one of the largest banks in the southeastern United States. BB&T is recognized as a leading employer with a 2,000-person workforce in Wilson County. While reported by Walden in 2012 that all agriculture accounted for 11.2 percent of the total workforce in Wilson County, manufacturing is reported by WEDC to employ close to 22 percent of the county's well-trained workforce. Wilson County is touted as the largest industrial manufacturing county east of I-95 and within the top 10 counties statewide. Industry leaders include Bridgestone/Firestone and Smithfield Foods. The diversity of industry is apparent when companies include pharmaceutical giants like BD, Merck, Purdue and Sandoz with combined employment of over 1000 workers. The Department of Commerce in Table 2 lists the top 25 employers in Wilson County.

Quarterly Census of Employment and Wages (QCEW) Largest Employers 2017

Wilson County

Rank	Year	Period	Company Name	Industry	Employment Range
1	2017	02	Bb & T	Financial Activities	1000+

these and residential land uses and evaluate their impact on the cost of the provision of community services by local government.

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 fewer 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 on average concluded that:

- Residential land cost $1.16 in public services.
- Working and open lands (including agriculture and forestry) require $0.30 for public services.
- Commercial and industrial land cost $0.37 for public services.

In conjunction with the Wilson County Agricultural Development Plan the University of Mount Olive Lois G. Britt Agribusiness Center is conducting a Cost of Community Services Study for Wilson County. Similar impacts are be expected in Wilson County as have been found both nationally and in NC. The value of these studies is to encourage they be used to assist local leaders and developers to better understand and evaluate the impact and importance of planned land-use development to the county's economy (American Farmland Trust).

Infrastructure

In the city of Wilson, a $35 million fiber optic network accommodates connections of up to a Gigabit per second allowing the city to be tagged as the "Gigabit City." This system is said to be 100 times faster than the average high-speed Internet link and is the first-of-its-kind system in North Carolina. Service is available to all city residents, and significantly steps up information access to and from local government offices, libraries and schools. This initiative is attractive to businesses that are able to access the system as internet access remains a challenge in rural counties.

Education

During the years from 2012 to 2016, a majority (80.2%) of the population over 25 years of age in Wilson County completed high school, compared to 86.3 percent of all North Carolina citizens over the age of 25 during this same time. Similarly, 18.6 percent of Wilson County citizens have a Bachelor's degree or higher, compared to 29 percent statewide (US Census Bureau, 2016).

The Wilson County School System serves 12,105 students, including those from the City of Wilson. There are three high schools, six middle schools, and 13 elementary schools. In addition to its public schools, the County is also home to Greenfield School, Wilson Christian Academy, and Community Christian School. The Eastern North Carolina School for the Deaf, a public residential school for deaf children from kindergarten through grade 12, is also located in Wilson (WEDC, 2017).

The county also has post-secondary educational institutions including Wilson Community College which offers 2 year college transfer degrees in a variety of fields of customized training for industry serving 11,400 students annually. Barton College a 4 year liberal arts college offering weekend course delivery and serves 1300 students annually (WEDC, 2017).

Natural Attributes

Wilson County is located in the east-central region of North Carolina. While the majority of the county is in the Coastal Plain the extreme northwestern part of the county is located in the Piedmont region. The topography ranges from a strongly sloping to gently sloping in the Piedmont and upper Coastal Plain regions of the county to gently sloping and flat in the Coastal Plain region of the county. Wilson County consists of 373.75 total square miles with 368.17 square miles of land and 5.56 square miles of water (US Census Bureau, 2010).

There are 4 reservoirs in Wilson County, Buckhorn, Lake Wilson, Toisnot and Wiggins Mill, each of which provide multiple opportunities for recreation ranging from boating to duck hunting.

The vast majority of the county is drained by Contentnea Creek and the Toisnot Swamp. The Tar River drains a portion of the northeastern section of the county; the Little Contentnea Creek drains small areas in the southeastern section of the county and the Little River drains areas in the southwestern section of the county.

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. The Wilson Botanical Gardens showcase the diversity of plant material that can be successfully grown in Wilson County and is used as a resource to educate and entertain visitors both young and old.

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. Wilson County has five major soil associations which are:

1. Norfolk-Gritney-Wagram is nearly level to strongly sloping, well drained to moderately well drained soils that have a loamy or clayey subsoil. This association is found on the Coastal Plains upland. This association makes up 47 percent of Wilson County soils. The major soils in the map unit are primarily used for cropland and woodland however some may be used for pasture or urban uses.
2. Rains-Goldsboro is nearly level, poorly drained and moderately well-drained soils that have a loamy subsoil. These are found on the Coastal Plains upland. This association makes up about 29 percent of Wilson County and is mainly used for woodland and cropland.
3. Tomotley-Altavista-State is nearly level and gently sloping, poorly drained, moderately well-drained and well-drained soils that have a loamy subsoil and are primarily found on stream terraces. These soils are found mainly along Contentnea Creek and Black Creek and in the Toisnot Swamp. Making up 10 percent of Wilson County's soils, this association are used primarily for cropland, but can be used for woodland and pasture.
4. Bibb-Wilbanks-Wehadkee is nearly level, poorly drained and very poorly drained soils have a loamy or clayey subsoil and are typically located on flood plains. This association makes up to 8 percent of the

soil in Wilson County. The major soils in this map unit are used for woodland. Small areas are used for cropland and pasture but thisis limited due to flooding and wetness.

5. Tatum-Wedowee-Varina is nearly level to sloping, well-drained soils that have a clayey or loamy subsoil. This soil is found mainly on the Piedmont uplands and Coastal Plain uplands. This classification makes up 6 percent of the county's soils. Most of these soils are used for crops and pasture. The more sloping soils are used as woodland. (NRCS, USDA, 1983)

Forestry

Wilson County forestland totals 83,985 acres or 35% of the county land mass, with 100 percent owned by private landowners. There is no public nor reserved forestland in the county as reported in 2014 by NC State University Extension Forestry. According to this report, the income from timber sales in 2012 was $5.7 million. The forest industry economic impact to Wilson County which is based on the total effects of all forest products and wood based industry sectors totaled $66million with employment was reported at 223 individuals.

The timber inventory in 2012 was reported at 2.9 million green tons of hardwood with 2.4 million green tons of this inventory quantified as saw timber. Of the 2.1 million green tons of softwood reported 1.2 million green tons was valued as sawtimber. This inventory of saw timber both hardwood and softwood is indicative of the reported timber inventory for the Coastal Plain region in which Wilson County is located. It was noted that this region was producing 12% more volume in timber than harvesting (NCSU Forestry Extension, 2014).

Wilson County: The State of Agriculture

Agriculture is deeply rooted in the history of Wilson County. Whether from the time of the early settlers who produced turpentine and pitch from the vast stands of pine trees to when cotton was grown as the main cash crop to the production of flue-cured tobacco, the crop that afforded Wilson County to be known as the "world's greatest tobacco market," (WEDC 2017). Wilson County is still economically impacted by agriculture and agribusiness.

As reported by Walden (2015), in 2012, agriculture and agribusiness added $2,514,082,618 or 37.7 percent of the county's value added total income. Agriculture accounted for 11.2 percent of Wilson County's employment in 2012 as well.

The number of farms in Wilson County decreased by 2% from 2007 to 2012 from 304 farms to 207 farms. However, the acres of land in farms increased by 6% from 104,678 acres in 2007 to 111,395 acres 2012. An increase was also noted during this time in the average farm size with a 9% increase reported. The average farm size in 2012 was 375 acres up from an average size of 344 acres in 2007. Figure 2 illustrates the land in farms by land use in 2012 with 77.6% of land in farms being used to produce crops (US Census of Agriculture, 2012).

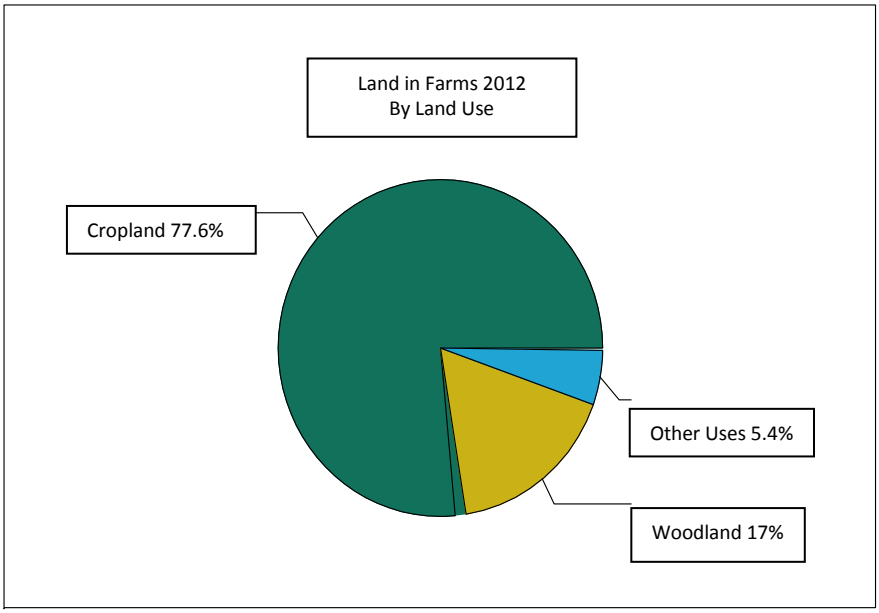

Figure 2. Land in Farms 2012 (US Census of Agriculture, USDA. 2012)

The market value of products sold in 2012 was reported as $179,632,000 which represented a 41% increase from 2007 of $127,799,000. Wilson County ranked 5th in the state in 2012 with the value of crops including nursery and greenhouse reported as $151,365,000 or 84 percent of the total of products sold. Livestock sales contributed $28,267,000 or 16 percent of the total (US Census of Agriculture, 2012).

The 2012 Census of Agriculture reported by commodity the value of sales and the state rank for each of these as noted in Table 3 and recognized in Table 4 top crops produced by acres.

VALUE OF SALES BY COMMODITY GROUP	($1,000)	State Rank
Grains, oilseeds, dry beans, and dry peas	28,386	21
Tobacco	47,008	3

The continuing importance of the same crops as reported in 2012 is noted in Table 5 and Wilson County's state rank in production of these crops (NCDA&CS, 2017).

Crops - 2016	Acres Harvested	Yield	Production	Rank
Corn for Grain: Bu.	13,600	138	1,878,000	23
Cotton: Lbs.: Production in 480 Lb. Bales	2,990	674	4,200	23
Peanuts: Lbs.	2,500	3,400	8,500,000	17
Soybeans: Bu.	34,400	35	1,210,000	20
Sweet Potatoes: Cwt.	10,400	205	2,132,000	2
Tobacco, Flue-Cured: Lbs.	8,390	2,095	17,580,000	5

Table 5. Wilson County Top Crops, 2016. NCDA&CS Ag Statistics, 2017

It may be noted that peanuts have allowed producers to diversify their operations and crop rotations in 2016.

The value of crop production is apparent from data provided, however income from livestock is notable as well. NCDA&CS reported in 2016 that hogs and pigs in Wilson County numbered 28,000 head and the county ranked 32nd in the state in production. Other livestock reported were cattle and beef cows with number of head 1,200 and 600 respectively. The hog and pig numbers in 2015 numbered 31,000 head so a decrease for 2016 was noted, but cattle numbers increased slightly from 2015 to 2016 from 1,100 to 1,200. Livestock contributed $9,837,727.00 to the 2016 total cash receipts and Wilson County ranks 66th in cash receipts from livestock.

In summary, Wilson County agriculture is critical to the economic viability of the rural communities in the county. Wilson County is a leader statewide in the production of a number of crops. State rankings based on the NC Department of Agriculture and Consumer Services Agricultural Statistics for 2016 were:

- 4th in cash receipts - Crops
- 2nd in sweet potatoes
- 5th in flue-cured tobacco

- 5th in all other crops (includes hay, greenhouses, floriculture, nurseries
- 17th in peanuts
- 20th in soybeans
- 23rd in corn for grain
- 23rd in cotton
- 32nd in hogs and pigs

Walden (2017) reported that all agriculture and agribusiness industries in Wilson County accounted for a total value added income of $2,514,082,618.00 or a 37.7% share of the county value added income. Agriculture and food industries accounted for the vast majority of this total as noted below, however fiber and forestry contribute as well.

Agriculture/Food Industries

• **Farming**	**$ 157,347,000**
• **Manufacturing**	**$2,259,890,405**
• **Wholesaling/Retailing**	**$ 45,202,144**
Total:	**$2,462,439,549 or 37%**

Natural Fiber Industries

• **Farming**	**$ 13,281,000**
• **Manufacturing**	**$ 4,473,763**
• **Wholesaling/Retailing**	**$ 11,550,872**
Total:	**$ 29,305,635 or 0.4%**

Forestry Industry

• **Farming**	**$ 3,518,000**
• **Manufacturing**	**$ 14,891,211**
• **Wholesaling/Retailing**	**$ 3,928,224**
Total:	**$ 22,337,434 or 0.3%**

All Agricultural/ Agribusiness Industries **$2,514,082,618.00 or 37.7%**

Wilson County's total county value added income was reported by Walden to be $6,660,071,436, so the contribution of agriculture and agribusiness to the economic viability of Wilson County is significant and important to support.

There are multiple market options for the crop and livestock products produced in Wilson County. Many of the primary crops grown in Wilson County lend themselves to export markets. According to the USDA, the total value of NC agricultural exports exceeded $4.1 billion in 2014, an increase of more than 200% from 2005. Exports in 2016 were still reported at just under $3.5 billion. Agricultural exports help boost farm prices and income, while supporting about 1,280,671 jobs both on and off the farm in food processing, storage, and transportation (USDA, ERS. 2017). This market option has proven to be important to producers in Wilson County when marketing products including sweet potatoes and tobacco. Alliance One International. Inc. and Smithfield Foods are examples of the agribusiness industries that impact the economic stability and sustainability of Wilson County.

Farmers markets and roadside stands are an important part of the agricultural economy in Wilson County as well. Also, farms that sell directly to consumers increased across the county. Community Supported Agriculture and the local foods movement are additional options that Wilson County producers use to diversify their market share.

The Upper Coastal Plain Regional Council (UCPRC) which was formed in 1971 and designated as an Economic Development District (EDD) through the US Department of Commerce's Economic Development Administration recently completed the Upper Coastal Plain Economic Development Strategy 2017 – 2022. This comprehensive development strategy was designed to identify regional priorities for economic and community development (UCPRC, 2017).

The Council focused on four strategic goals:

1. Build on the regions competitive advantage and leverage the marketplace
2. Establish and maintain a robust regional infrastructure

3. Create revitalized, healthy and resilient communities
4. Develop talented and innovative people

The plan specifically addresses agriculture as it relates to goal number three and suggests ways to develop local foods networks and to promote smaller scale farming for food production. The goal is to increase small business opportunities and to preserve land ownership. These goals are congruent with those of the Agricultural Development Plan for Wilson County (UCPRC, 2017).

Strategies recommended to accomplish this goal in the strategic plan include:

1. Develop a food network in the region
2. Increase community economic self-reliance with local foods
3. Promote community gardens and urban horticulture

Both short and longer term recommendations and action steps are identified which include the establishment of a regional local foods plan, funding a regional local foods coordinator, and establishing a regional food council to assist in linking local foods producers to potential markets. The Upper Coastal Plain Council of Governments, local governments in the region, and regional tourism authorities are called upon to lead these efforts (UCPRC, 2017).

The overall Upper Coastal Plain Economic Development Strategy 2017 – 2022 is far reaching in its efforts to support the region as spelled out in its four strategic goals, but it clearly recognizes the importance of agriculture to the region which is inclusive of Wilson County and identifies a need for action.

Agriculture and the complimentary businesses that support agriculture and forestry in Wilson County are important to this rural region's economic viability and sustainability. Opportunities and challenges exist which require that support of this industry be maintained.

There are multiple opportunities and challenges which are requiring the recognition and support of agriculture in Wilson County including:

- Strength of agricultural sector
- Farm to table movement

- Increased understanding of need for vocational training

Threats related to agriculture:

- Declining natural resources
- Political decisions affecting farming
- Development impact on natural resources

While Wilson County is only noting modest population growth and a loss of land for farming that is less than the state average, as infrastructural advances continue - interstate access, high-speed Internet linkages, and a growing industrial and commercial presence – the county and its leaders need to recognize the continuing needs to preserve working farms and forests not only from an economic perspective, but from a quality of life viewpoint as well.

Farmer Demographics

The Census of Agriculture reported in 2002, there were 216 principal operators reporting farming as their primary occupation in Wilson County. The 2007 Census reported a decrease of 16% in full-time farmers with a total number listed as 164. While the number of full-time producers declined from 2002 to 2007, the 2012 Census reported 182 full-time principle operators representing an increase of 11% over the last 5 year period reported.

The number of part-time farmers increased from 99 to 140 farmers from 2002 to 2007 (an almost 42% increase). This increase in part-time principal operators may have been in part as a result of such changes as the tobacco buyout and other agricultural program adjustments or changes. The decline in full-time operators during this same period may have resulted in this increase in part-time operators. From 2007 to 2012, a decline of 18% was reported as the number of part-time farmers declined from 140 in 2007 to 115 in 2012.

The average age of Wilson County farmers from 2002 to 2012 has increased from 55.4 years of age to 58.2 years of age. The aging farm operator population is of concern as land resources and assets are held by an aging population which may or may not have made arrangements for farm

transition. One of the largest threats to agriculture is the lack of planning for the operational future of these farms and associated assets. Work done by the University of Mount Olive's Lois G. Britt Agribusiness Center across North Carolina with over 1, 200 farm families indicated that over 70% of farm families contacted did not have a farm transition plan in place (USDA, RMA 2012). As this average age continues to increase so does the asset risk which must be addressed.

While the overwhelming majority of operators over the last decade, as reported by the Census of Agriculture (2002, 2007, 2012) in Wilson County and statewide, are white males there are a growing number of female operators engaging in agriculture and some slight increases in ethnic diversity as well. The number of male principal operators reported to be in Wilson County in the 2002, 2007, and 2012 Census of Agriculture 298, 270, and 259 respectively. During this same time as reported, female operators increased in number from 17 in 2002, to 34 in 2007, and last reported in 2012 to number at 38. While this increase in female operators reflects a diversification of operational leadership, the total number of operators is still on the decline thus increasing the risk of non-agriculture land uses and farmland conversion.

There is a strong agricultural foundation that exists in Wilson County, but just as with other counties across the state, there are challenges that local leaders and farmers face in an effort to attain a balance between agriculture and other competing opportunities. To assist landowners in addressing these risks it is important that they understand the tools that exist to assist in preserving their assets and their livelihood.

Farm and Forest Protection Programs

(Compiled by John Bonham, 2009)

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 (EVAD)

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

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 Wilson County consisted of written surveys and interviews with three target audiences—agriculture producers, agribusiness owners and non-farm residents of Wilson County. The number of surveys submitted were limited in number, but supported the information gained through interviews with target group members.

The survey responses and interviews allowed for Wilson County farmers, agribusiness owners and non-farm residents to have an opportunity to identify and express challenges and opportunities that they believe may exist in the county's agricultural segment. All descriptive statistics presented in this document were calculated using data obtained from these processes.

Agriculture Producer Analysis

A review of the 2012 Census of Agriculture revealed that there were 297 farms in the county being cultivated by 259 male and 38 female operators. The average age of Wilson County farmers was reported as 58.2 years in 2012. Farmers providing information for the Wilson County Agricultural Development Plan represented operations from across the county. The average age of survey respondents was 56.2 years, virtually the same as those completing 2012 US Census of Agriculture.

The majority of survey respondents (89%) and all producers interviewed indicated that their operations were defined as primarily farming with some timber production. Only 11 percent of respondents noted production of timber only.

All farmers surveyed and interviewed indicated that they had been in operation for more than 20 years. Ninety-three percent of those responding indicated that farming/forestry is their primary occupation (Figure 3.)

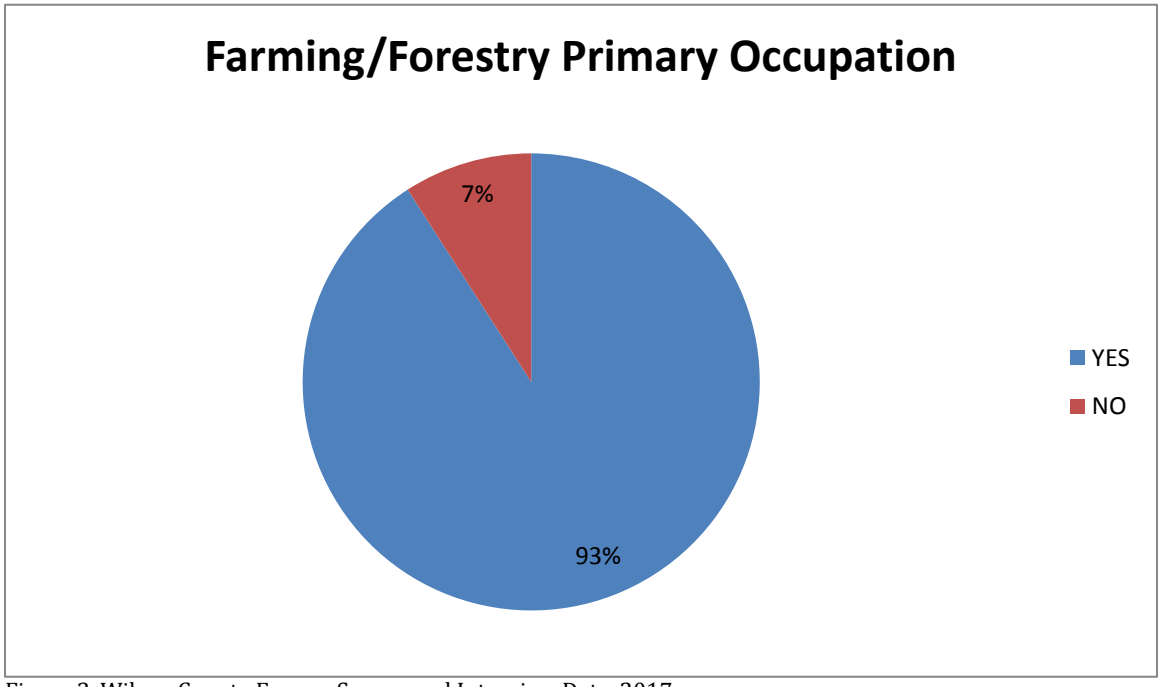

Figure 3. Wilson County Farmer Survey and Interview Data. 2017

Sixty percent of the responding farmers indicated that their operations provided the majority of their household income while 20% reported their operations provided 50 – 75% of their income and another 20% reported that their operation only provided 25% of their income. These varying income levels were attributed to family income provided by another family member off- farm.

Of the farmers responding, less than 50 percent have expanded their operations during the last five years. Of those who wanted to expand, but did not, listed the following reasons:

- Age of owner/operator
- High cost of equipment
- Lack of available land
- Satisfied with current size of operation
- Labor availability and cost

Notably, all farmers that were interviewed, indicated a lack of available farmland on which to expand as a result of residential development pressure and the subsequent increasing price of land as well as the transition of good farmland to solar farms. These were issues that concerned all growers and should be considered as development in Wilson County continues to expand.

Farmers who participated in the surveys and interviews identified the most critical issues expected to influence future farming operations were land rental rates, commodity prices, competition for available land, production input costs and affordable and available labor (Figure 4).

Of The Issues Listed Below Which Do You Anticipate To Most Influence Your Operation In The Next Five Years?

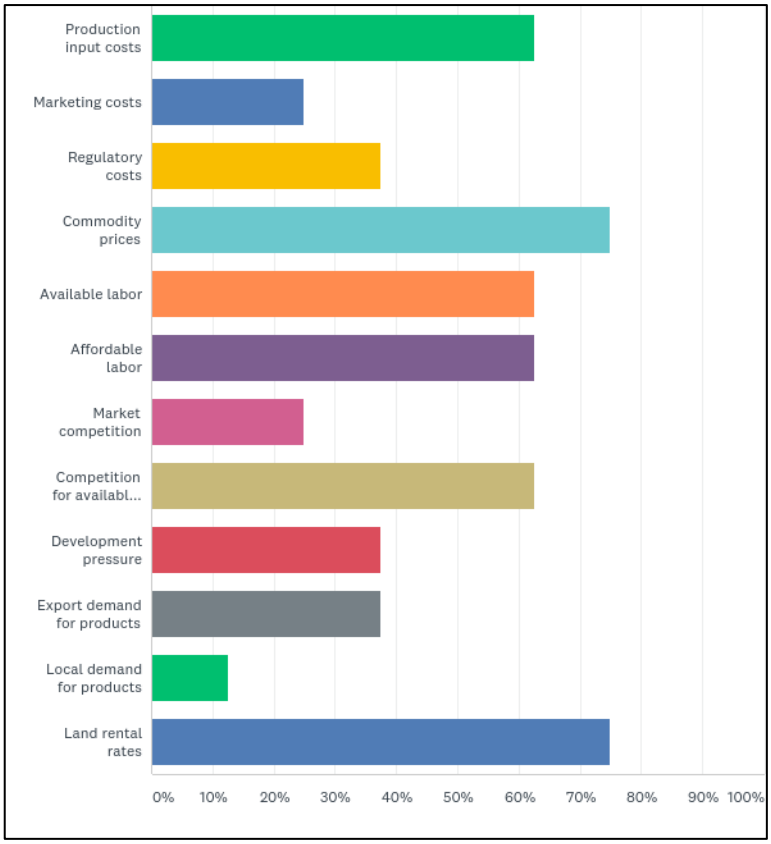

Figure 4. Wilson County Farmer Survey and Interview Data. 2017

Additional information from the farming community indicated that upon retirement, 100 percent of farmers expected to transfer the farm to family members for continued operation as a family farm. However, 79 percent of these same respondents 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.

Wilson County offers a deferred tax program beneficial to farmers and landowners designated as the Present Use Value (PUV) Taxation program. 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. Ninety-three percent of respondents reported that they were enrolled in the PUV program. 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.

Of those responding that they owned forestland, when asked if they had a written forests management plan that was followed to assure best management practices, eighty-six percent indicated they did have and used the plans (Figure 5). A forest management plan is required in order to enroll forested acreages of over 20 acres into the PUV program to limit taxation pressures. The cost of plan development is minimal when the tax deferred benefit is considered. With 100 percent of the forested acreage in Wilson County being privately owned, it is important to ensure that all landowners are aware of the importance of forest management plans from both a tax saving perspective and also an asset management perspective.

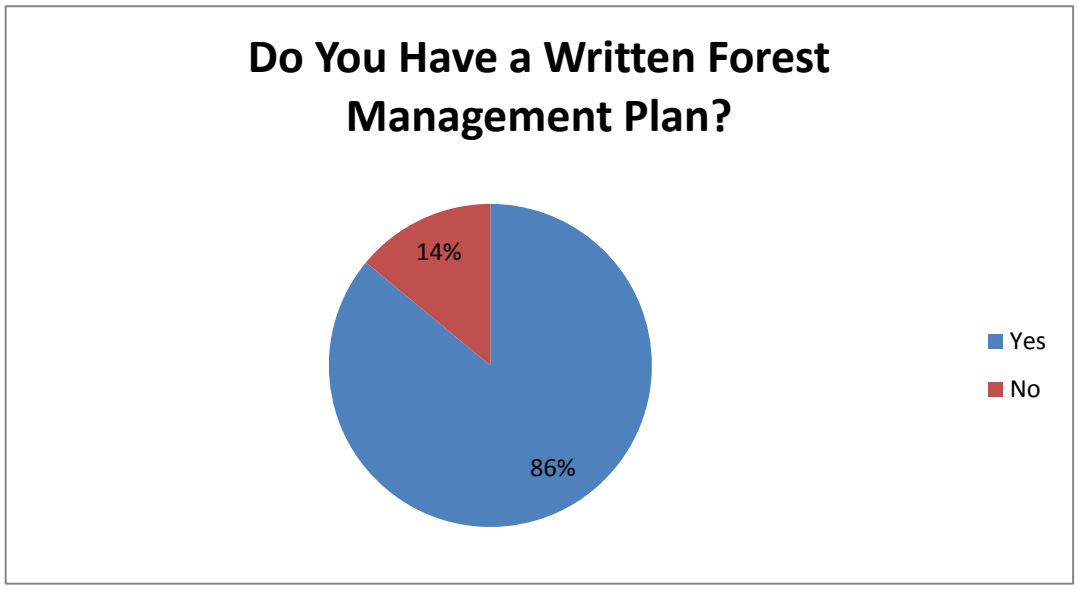

Figure 5. Wilson County Farmer Survey and Interview Data. 2017

When Wilson County farmers were asked to identify taxes that were impediments to their profitability, 75 percent identified estate taxes and 63 percent cited federal and state income taxes as significant burdens on family farms (Figure 6).

Of The Taxes Listed Below, Please Select The Top Three That You Feel Impose An Unreasonable Burden To Agriculture/Agribusiness.

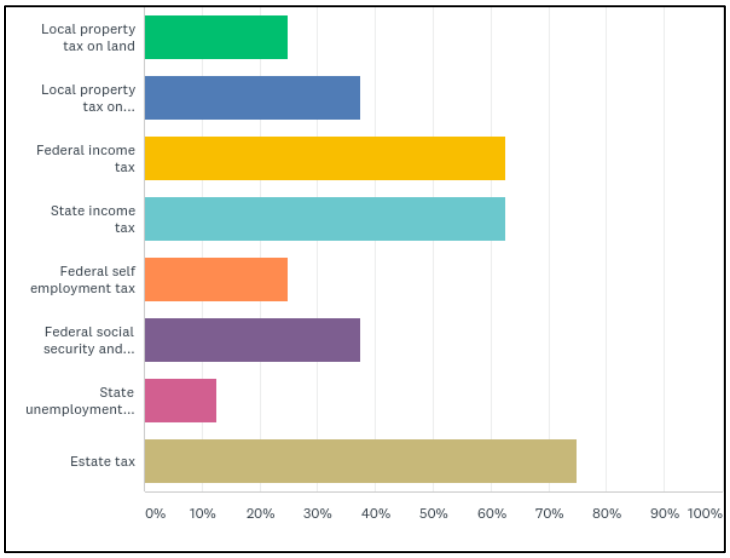

Figure 6. Wilson County Farmer Survey and Interview Data. 2017

Eighty-seven percent of farmers reported they have experienced problems with neighbors in regard to their farming operation. Figure 7 illustrates the areas of most issue.

Have You Had Neighbor Problems Concerning Your Farming Or Forestry Operation?

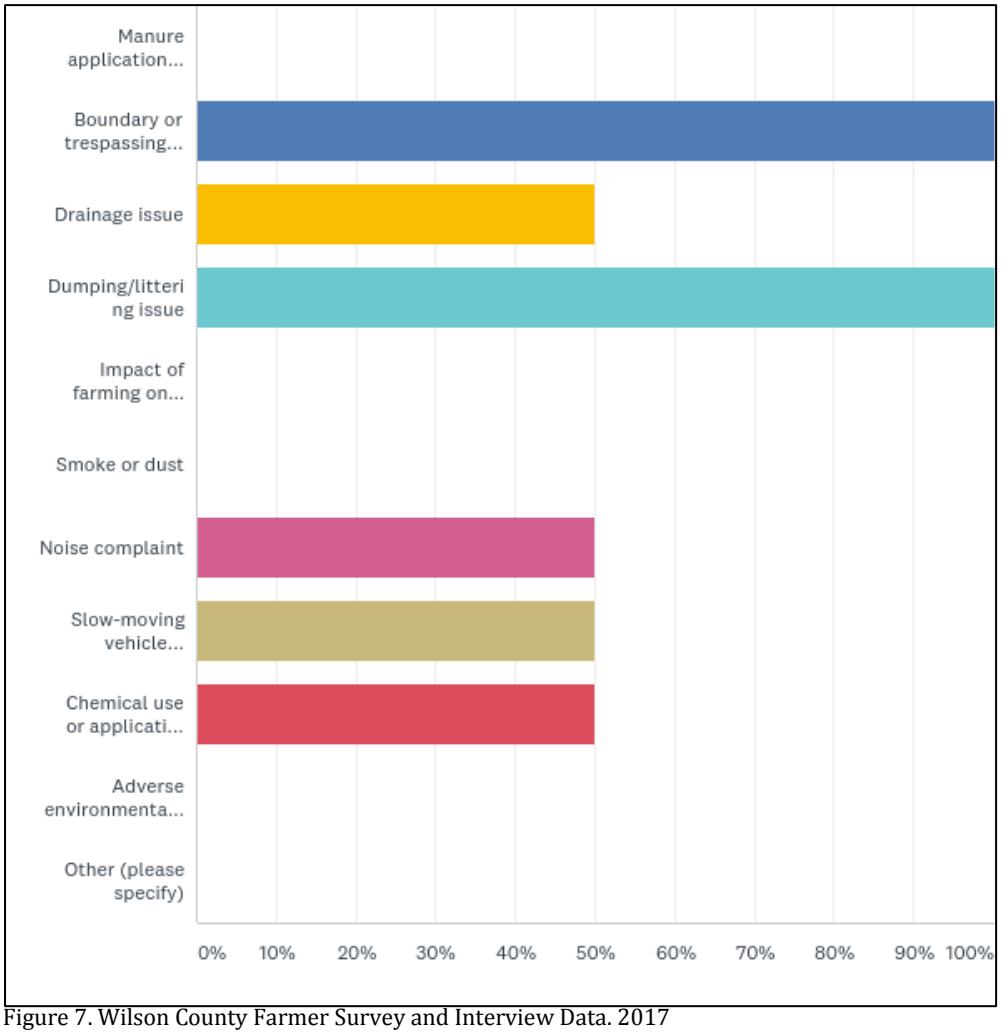

Figure 7. Wilson County Farmer Survey and Interview Data. 2017

Producers recognized that the general public does not understand modern agricultural practices. Producers also acknowledged the inconvenience of slow moving equipment or noise and dust, but contend this is a necessary means to an end. Continued public education about the business of agriculture and its importance to the local economy as well as the positive impacts related to the environment and quality of life in Wilson County is imperative.

Wilson County farmers surveyed or interviewed (50 percent) showed no awareness of the Voluntary Agricultural District Ordinance that exists in Wilson County. Eighty-six percent of those responding did not have land enrolled in the VAD program. The endorsement of the VAD program and the Agricultural Development Plan by the county's leadership are essential steps to ensure support for the agricultural community. The purpose of the VAD program is to create awareness and provide for a process and representation in the event that agricultural land enrolled in a VAD program is threatened. Multiple examples exist where municipalities and NCDOT have yielded to the VAD board in numerous NC counties.

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

- Timber management 78%
- Estate planning/Farm transition 67%
- Marketing and Sales Promotion 67%
- Forward pricing and hedging 64%
- Identifying and managing risks 45%

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.

Wilson County farmers and operators 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. Figure 8 shows the strong support for such programs, which illustrates the need to train youth in the importance of agriculture and the diversity of agricultural career opportunities. While support is strong it is important for producers to change the misconception that agriculture is a career with no jobs and no future. There is a need to educate parents and students as to the multiple opportunities for employment in the field of agriculture.

Agriculture, Horticulture, Forestry And Agribusiness Should Be Taught In:

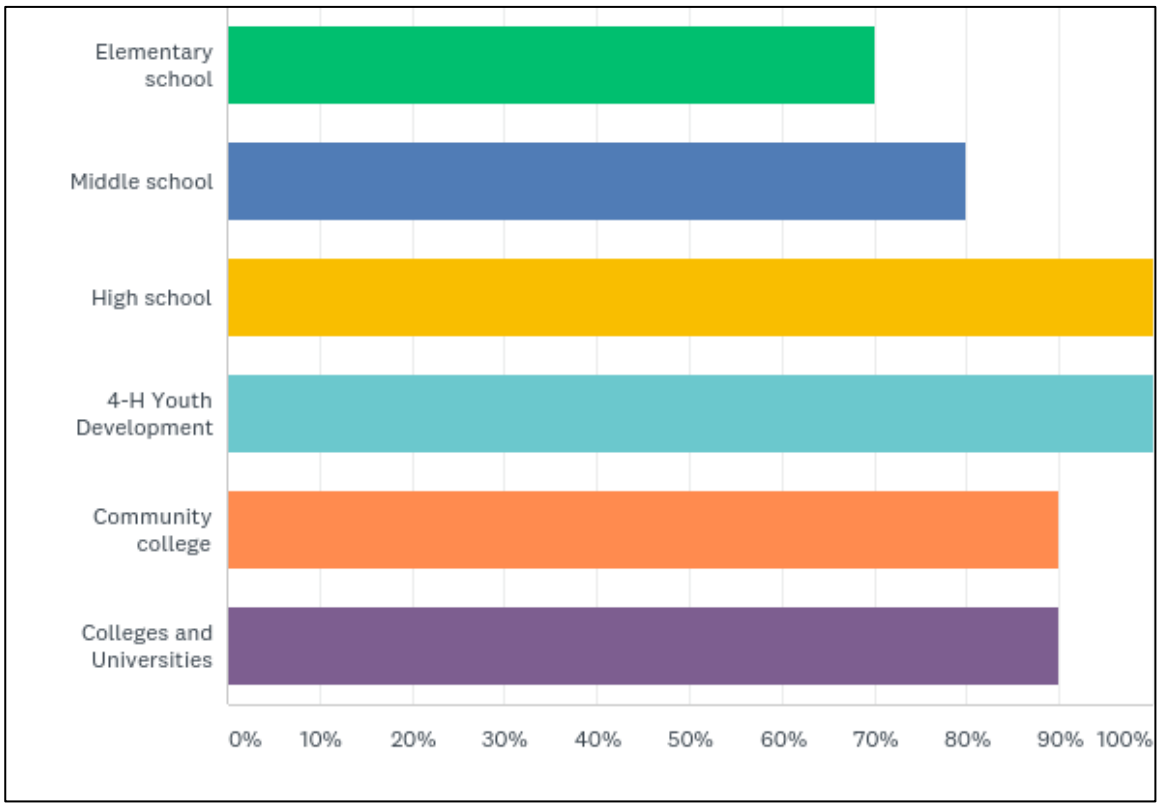

Figure 8. Wilson County Farmer Survey and Interview Data. 2017

Interviews conducted recognized additional issues, challenges and opportunities impacting agriculture in Wilson County. The following were stated as issues that impacted family farms as well as the perpetuity and profitability of these operations:

- Need for farm and estate transition planning. All farmers interviewed recognized the importance of planning, but not one of those interviewed had a formal plan. Issues related to estate planning identified included no apparent heirs to take over farms, equitable treatment of all heirs, and estate taxes.
- Housing and commercial development pressures. Development is causing land prices to increase and making it hard for farmers to hold on to existing farmland. This coupled with the lucrative agreements for the use of land for solar farms is impacting the availability of land for production agriculture.

- Lack of understanding among county elected officials and non-farm residents of the importance of agriculture to the economy and culture of Wilson 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.
- High input costs. Farmers expressed concern over the expense of new equipment and technology. Low commodity prices make it hard to justify investments in new technology.
- Voluntary Agricultural District. Wilson County has a VAD program, but knowledge of the program and the potential benefits are not readily known to producers. Farmers feel the ordinance doesn't have enough benefits or protection to justify enrollment.
- Unavailable local labor force, the cost of labor (H2A is expensive, but at least they will work) and the lack of tech savvy workers makes labor a major issue for the future.
- All producers felt the ability to diversify and to support foreign trade is crucial as commodity prices remain low and profit margins continue to narrow.

Agribusiness Survey and Interview Analysis

Agribusinesses provide essential resources and services vital to the success and profitability of agricultural production services. Agribusinesses, just as any other business, provide jobs and employment, which stimulate the local economy. Agribusiness respondents represented seed dealers, fertilizer dealers, farm supply store owners, financial lenders, insurance providers and leaf brokers. Additional interviews were used to support the survey responses which were limited in number.

One hundred percent of respondent agribusinesses have been in operation more than 10 years, and 43% of this total have been in business for more than 20 years.

Agribusinesses were surveyed to determine what percentage of their business comes from the farm and forest community. Figure 9 illustrates the percentage of business that originates from the agricultural community for each of the agribusinesses surveyed and interviewed.

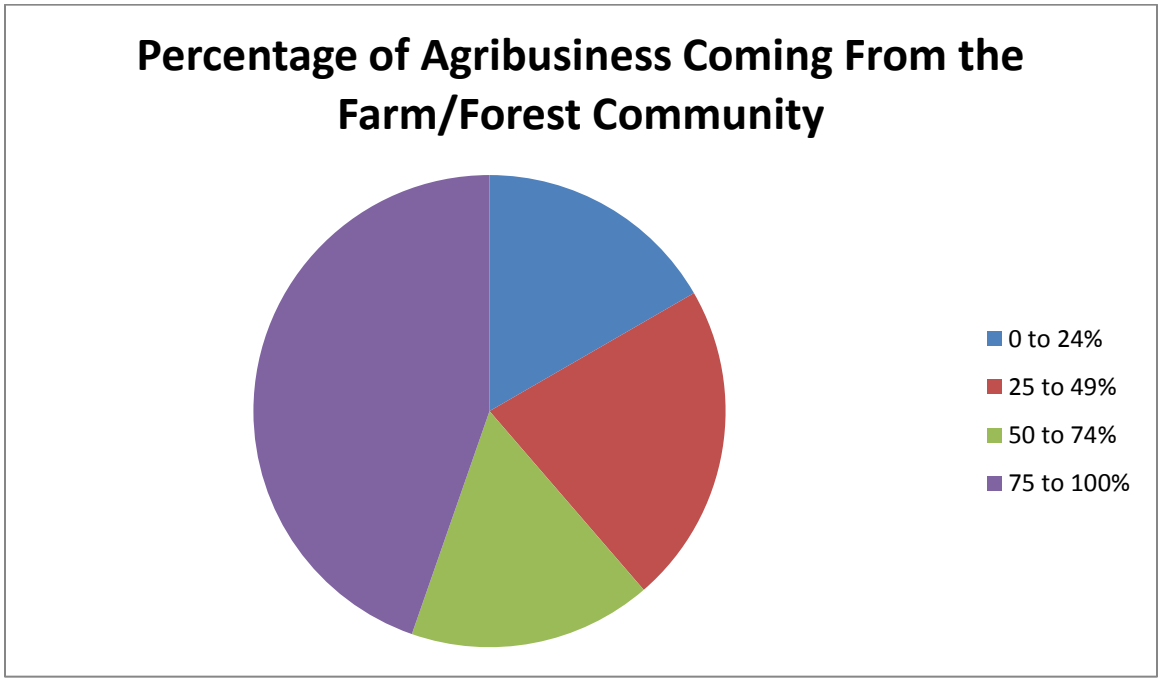

Figure 9. Wilson County Agribusiness Survey

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, 88 percent of agribusinesses surveyed have increased the size of their operations. Seventy-five percent have added service area to hold or expand their market share in the last five years and the same percentage (75 percent) reported an increase of agricultural inventories and sales. As non-farm populations continue to grow, agribusinesses will continue to seek ways to service non-farm residents, which will provide additional support for these agribusinesses.

Agribusiness owners also noted trends in agricultural production that could have impacts on their operations. Table 6 lists these trends including, but not limited to, a shift to more sophisticated farming operations, larger farms, and more specialty and direct market operations. (Table 6) One other trend noted

was increased sweet potato production and dependency. In many cases, these trends are being driven by lower commodity prices, consumer demand both local and abroad, and shifts in labor availability and subsequent farm technology.

Agricultural Trends	% Responses
A change to new types of farms	14.29%
More small farms	0.00%
Fewer small farms	57.14%
More large farms	85.71%
Fewer large farms	0.00%
A shift to more sophisticated farm operations	85.71%
More part-time farms	14.29%
More specialty and direct market operations	57.14%
More diversification	42.86%
No significant changes	0.00%
Other (please specify)	28.57%

Table 6. Wilson County Agribusiness Survey

Seventy-one percent of the agribusinesses responding said they would modify their business to adapt to these changing agricultural trends.

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

- Eighty-six percent of agribusiness respondents identified farm transition and estate planning as a major issue in Wilson County. They also expressed the need for professional assistance and training in transition and estate planning.
- One hundred percent of agribusiness respondents noted the importance of educating Wilson County citizens as to the impact of agriculture and agribusiness on the county's economic viability.

- While only 43% of respondents indicated having issues with labor, one hundred percent that reported problems noted a lack of qualified staff as the primary issue they face as an employer.
- One hundred percent of survey respondents saw a need for consumer education on the economic impact of buying local in Wilson 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.
- All of those surveyed noted agritourism was a viable opportunity for agricultural expansion in Wilson County.
- One hundred percent of respondents believed that government funding should be used to promote agricultural development.

Figure 10 illustrates agribusiness owner responses when asked what would provide additional assurance of success in their business.

Figure 10. Wilson County Agribusiness Survey

Wilson County agribusiness leaders also identified numerous challenges, and opportunities that may impact agriculture in the county:

- Increasing land rent as a result of development and the increasing production of sweet potatoes.
- The increasing number and complexity of FDA regulations. Certification requirements and third party inspections as well as the cost of certifications are limiting those that can contribute to that market share.
- Lack of qualified labor force to work in agribusinesses. Local labor force no longer interested in working. H2A labor too expensive and not realistic for an agribusiness or smaller farming operation.
- The cost of new agricultural technology, while necessary for efficiency, is squeezing profit margins for farmers.
- Increasingly, the general public doesn't know where their food comes from, nor do they understand how food is produced.
- The lack of succession planning among farmers and landowners.

Agribusiness enterprise owners recognized the value of farming to the economy and environment of Wilson County. Opportunities are limitless for developing new agricultural markets. Opportunities noted by agribusiness owners were:

- Agritourism and the Farm to Fork movements are viable business opportunities for new and existing Wilson County farmers.
- Adding new crops, organic produce, hemp, sage etc. Expanding into new markets for sweet potatoes. Diversification is key to economic stability.
- The knowledge and ability to understand and merchandise the changing technologies in agricultural production and processing.
- Sweet potatoes are an important part of Wilson County agriculture. Market expansion and product diversification are imperative to ensure continuity of supply.
- Increased understanding and delivery of support and training for estate and succession planning.

- Developing relationships with non-farm residents and encouraging them to better understand the business of agriculture. As a portion of the market share of county agribusinesses shifts to provide products and services to these consumers, it is imperative to educate them as to the importance of the industry.

Non-Farm Resident Survey and Interview Analysis

Wilson County is home to people of diverse backgrounds. Some have lived in Wilson County their whole lives and others have chosen to relocate or retire in the rural county. With the Interstate network in Wilson County, the county is also beginning to be considered as an option for a rural lifestyle.

The survey respondents represent an unbiased perspective of agriculture in the county. The majority (72%) that participated in the survey have lived in Wilson County 20 years or more. Seventy-seven 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 93 percent stated that farmers are good neighbors. With this in mind, 64 percent of non-farm residents responding have not experienced a problem with their farm or forest neighbor. When problems have arisen, the respondents listed the following:

- Crop dusting
- Odors
- Slow moving vehicles
- Noise
- Manure Application
- Pesticide use
- Smoke, Dust
- Timber harvesting

When asked about the state of agriculture as a viable industry in Wilson County, 71 percent of respondents felt that farming is an expanding industry

with significant growth potential. Five percent said that agriculture has no potential for future growth in Wilson County (Figure 11).

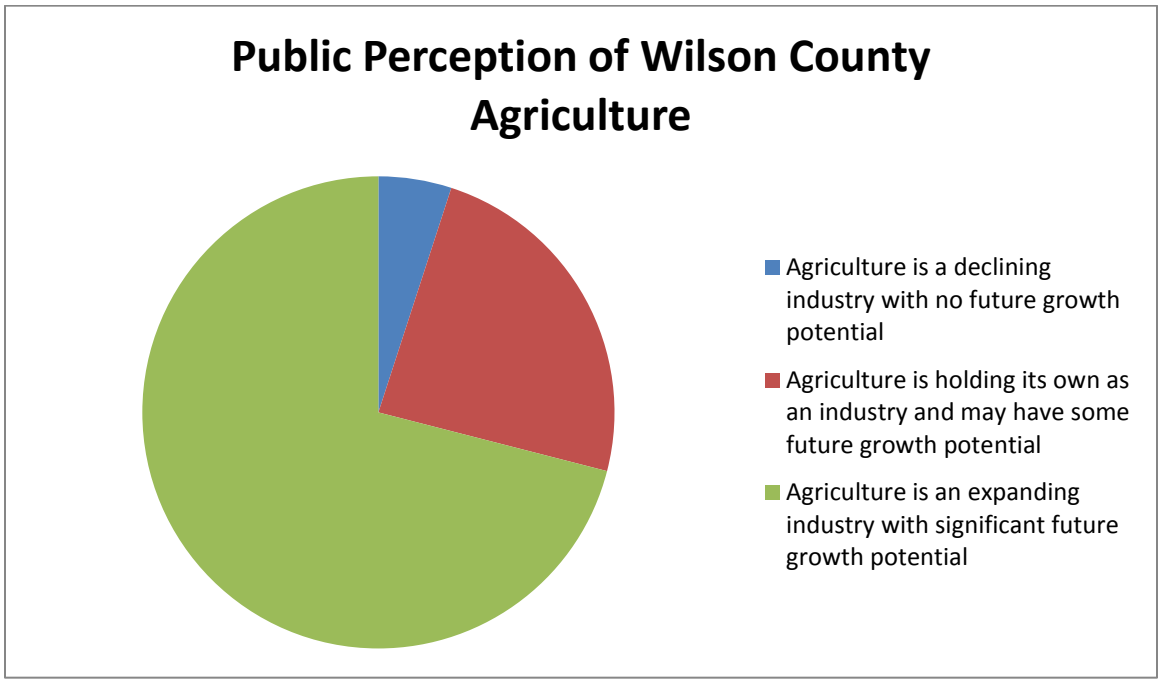

Figure 11. Wilson County Non-Farm Residents Survey

Wilson County non-farm residents do not fully understand the economic impact of the entire agricultural sector on the county's economy. Only 24% of the residents responding reported that the economic impact was greater than $300 million. The value of the agricultural industry in 2012, provided a total economic impact of $2,514,082,618 to Wilson County (Walden, 2015).

Figure 12 illustrates that the majority of Wilson County non-farm residents believed that Wilson County should take steps to help preserve farms and forests.

Ninety-five 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-six percent of non-farm residents say that they purchase plants from local greenhouses and nurseries. Conversely, only 46 percent have participated in agritourism activities such as corn mazes, pumpkin patches and hayrides.

Do You Feel That Wilson County Should Take Steps To Help Preserve Farms And Forests?

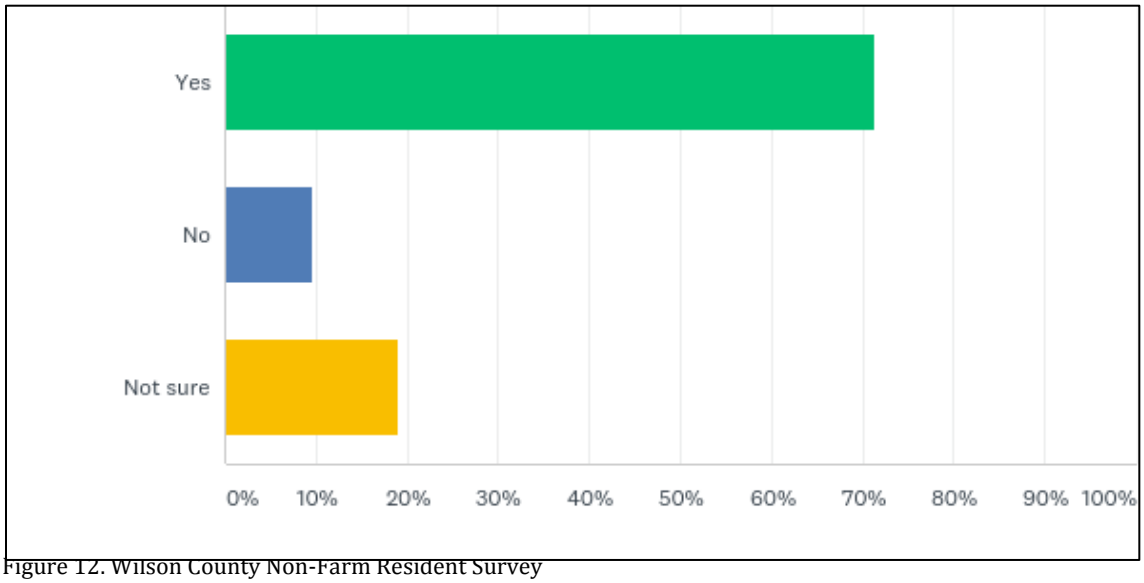

Figure 12. Wilson County Non-Farm Resident Survey

Additional statistics reveal non-farm residents agreement or disagreement with statements about agriculture in the Wilson County.

- 95 percent agreed farms and forests enhance scenic beauty and open space
- 91 percent agreed farmers are good neighbors
- 95 percent agreed that local farmers deliver high quality products
- 86 percent agreed that farming has a positive impact on the environment
- 82 percent stated that farming and agribusiness are high technology businesses
- 91 percent agreed farming presents a good career for enterprising people
- 100 percent agreed that agriculture and forestry are viable career opportunities
- 77 percent stated that tax breaks for farmers are important
- 95 percent would support farm and forest preservation efforts in the county
- 89 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.

The following statements from non-farm residents in Wilson County revealed these perceived threats to the agriculture industry:

- Expansion of housing developments, subdivisions
- Increasing value of developed land as opposed to the value of agricultural land
- Aging farm population
- No incentives or grants to start a farm
- Logging/deforestation

Potential opportunities as seen by non-farm residents:

- Specialty farming, organics
- Agritourism
- Roadside markets
- Local Foods and Community Supported Agriculture opportunities

Non-farm residents value Wilson County agriculture and are in favor of preserving and enhancing this vital economic sector. It is critically important to have a citizenry that is supportive of the preservation of the agricultural industry.

Recommendations

The Agricultural Development Plan for Wilson County serves as an overview of the impact of agriculture to the county. The primary outcome of the Wilson County Agricultural Development Plan is a set of recommendations with actions steps that, when implemented, will bring about desired change. These steps are based on input from the citizens affected by the plan as well as from other agricultural sources. The following recommendations are extrapolated from the data obtained through interviews and surveys of Wilson County farmers, agribusinesses and citizens and data from USDA and NCDA&CS.

For this plan to be effective, Wilson County citizen leaders, agencies and organizations must use this instrument to guide collaboration of these recommendations. This plan needs to be evaluated annually to keep it up to date and viable. The annual update will ensure that recommendations are being accomplished and new ones added as needed. Following are recommendations that can be used to maintain and enhance agriculture in Wilson County.

Recommendation One:

Support Measures To Protect And Promote Forest And Farmland In Wilson County

Endorsement, certification and advocacy of the Wilson County Agricultural Development Plan are critical to protecting and enhancing agriculture in the county. Once the plan is endorsed by the Wilson 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 informed of agricultural information affecting Wilson 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.

A 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. This coupled with the lucrative agreements for the use of land for solar farms is impacting the availability of land for production agriculture. An additional threat is a lack of understanding among county elected officials and non-farm residents of the importance of agriculture to the economy and culture of Wilson 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 Agricultural Development Plan and Wilson 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 Wilson 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 Wilson County Agricultural Development Plan to the Board of Commissioners for endorsement and submit to NCDA&CS for certification.
- Reappoint/Renew the Wilson County Agricultural Advisory Board to oversee and manage the plan for the benefit of agriculture in the county.
- Annually review the plan for progress and addition/adjustment of any needed recommendations.
- Submit, clarify and encourage the Wilson County Board of Commissioners, developers, and planners to utilize and evaluate the results of the COCS for Wilson County and the impact of their decisions on the future land use in the county.
- Utilize all available media outlets to inform county leadership and the public about the plan's progress and success.
- Develop and implement an educational program for farmers and landowners regarding available farmland preservation tools and incentives suited for Wilson County.
- Educate landowners and farmers of the benefits of Present Use Value Taxation to encourage enrollment and ensure all eligible landowners are enrolled.
- Encourage local government, economic developers, land developers, planners, and the North Carolina Department of Transportation to work with the Wilson County Agricultural Advisory Board to engage with one another and share information about county projects that will impact agricultural production.

Timeline:

County Commissioners should endorse the Wilson County Agricultural Development Plan by March 2018. Efforts to increase agricultural awareness and representation should begin in mid-2018.

Responsible Parties:

Wilson County Agricultural Advisory Board; Wilson County Cooperative Extension; North Carolina Forest Service, Wilson County; Wilson County Soil & Water Conservation District; Wilson County FSA: County Economic Development; the Upper Coastal Plain Council of Governments; Wilson County Planning Department, and Wilson County Board of Commissioners.

Recommendation Two:

Revitalize Efforts To Activate Voluntary Ag District Program And Develop, Adopt And Implement Enhanced Voluntary Agricultural District (EVAD) Programs

Wilson County has a Voluntary Agricultural District ordinance, but the majority of farmers surveyed were either unaware or not enrolled in the program. As housing development pressures continue to increase as has been noted in the southwestern section of the county, agricultural awareness and protection tools become more important. All target audiences agreed that increasing awareness of agriculture and the regions where production practices and inconveniences of these practices can be expected would possibly assist in alleviating confrontational non-farm/farm interactions through awareness.

Action Steps:

- The Wilson County Agricultural Advisory Board will be revitalized and will provide leadership in revitalizing the Wilson County VAD ordinance and provide leadership in the development and adoption of an EVAD program.
- The Wilson County Commissioners will approve and adopt the Wilson EVAD ordinance.
- Design and implement a marketing plan using all available media to educate farmers, landowners, developers and realtors about the benefits of the VAD and EVAD ordinances.

- Have appropriate agency staff encourage and assist landowners with understanding and

- Develop a network of lenders, financial planners, land lawyers, tax experts and local government officials that have dealt with estates with no transition documentation (clerks of court) that are willing to share information with farmers and agribusiness owners. These individuals exist within Wilson County and should be utilized. Pursue funding from sources - USDA, Risk Management and state level funding - to offset costs of organization and workshops.
- Develop an apprenticeship program in which young farmers work with experienced producers or agribusiness owners/operators to learn more about agricultural production and business opportunities. It is noted that all target audiences recognize agriculture as a viable career pathway and support agriculture being taught at all levels of the educational system from K-12 to universities. However, it is also noted that adults and young people do not fully understand the diverse opportunities for employment in the agricultural field. Less than 50% of the farmers contacted indicated a willingness to train an intern however the expressed lack of available labor in the agribusiness community may denote an opportunity to develop this program initially in this area.

Timeline:

Farm transition workshops should start in the winter of 2018 – 2019 and be repeated yearly. In the spring of 2019, a study should be conducted on the feasibility and interest in a farm apprenticeship/mentoring program.

Responsible Parties:

Wilson County Agricultural Advisory Board, Wilson County Cooperative Extension, Wilson County Farm Bureau, Ag Carolina/Farm Credit, and BB&T, agricultural economic specialists, universities.

Recommendation Four:

Promote Appreciation And Awareness Of The Benefits Of Agriculture To Wilson 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. Both agricultural producers and agribusiness owners feel that local government should support agriculture in Wilson County and 89 percent of non-farm residents agreed.

Action Steps:

- Develop a comprehensive agriculture awareness plan and determine all feasible delivery outlets such as social media, speakers' bureau, print and broadcast media.
- Conduct annual farm tour to promote Wilson County's diverse agricultural operations including forestry, row crop farming, farmers and roadside markets, specialty crops and agritourism. All target audiences expressed a need for continued education and awareness as to the impact of agriculture to Wilson County
- Develop presentations that show the role of agriculture in Wilson County to be shared with civic, school and religious organizations.
- Expand and promote events that highlight the local foods movement.
- With the inclusion of agriculture and local foods in the Upper Coastal Plain Comprehensive Economic Development Strategy and the expressed strategy to develop a regional local foods plan and support of a local foods coordinator position, Wilson County has a unique opportunity to provide leadership to this effort through participation.
- Involve 4-H and FFA members in the promotion of agriculture.

Timeline:

Efforts should begin after the adoption of the Wilson County Agricultural Development Plan in 2018 - 2019.

Responsible Parties:

Wilson County Agricultural Advisory Board, Wilson County Cooperative Extension, Wilson County Farm Bureau Board of Directors, North Carolina Department of Agriculture and Consumer Services, University of Mount Olive Lois G. Britt Agribusiness Center, USDA Farm Service Agency, Wilson County Soil and Water Conservation District, the Upper Coastal Plain Council of Governments, Wilson 20/20, and Wilson County Schools.

Recommendation Five:
Expand and Support Youth Agricultural Educational Programs

Agribusiness leaders, farmers and non-farm residents were in favor of youth agricultural education and noted its importance to the future of agriculture in Wilson County.

Action Steps:

- Encourage youth to actively participate in all agricultural organizations such as FFA and 4-H in order to develop leadership skills and engage in agricultural experiences.
- Support teacher training for the expansion of the NC Farm Bureau's Ag in the Classroom curriculum for primary and elementary students.
- Work with funders, both public and private, to provide needed resources for 4-H and FFA programs.
- Develop an agricultural career awareness campaign with industry and producer participation to overcome the lack of opportunity or career options perception held by both youth and adults.
- Reevaluate Wilson Community College program for Precision Ag Farmhand internship training and develop recruitment strategy and marketing plan to encourage enrollment.

- Promote agriculture as part of the STEM (Science, Technology, Engineering and Math) initiative in the public school system.
- Develop partnerships with agribusinesses that require STEM skills. Agricultural producers and agribusinesses cited the lack of a qualified or adequate labor. The gap between modern agricultural technology and preparedness of the workforce is apparent. By establishing career pathway programs with equipment dealers, research entities, and other agricultural entities this work-force partnership could begin to bridge this gap.
- Coordinate and promote high school and college internships with agricultural agencies, agricultural producers and other agricultural enterprises. These opportunities will allow FFA members to earn SAE hours as they develop interest and skills in agriculture.

Timeline:

Coordinated programming efforts will begin in the spring of 2019 and continue as planned throughout the year.

Responsible Parties:

Wilson County Cooperative Extension, Wilson County Public Schools, regional colleges and universities, Wilson County Farm Bureau, Wilson County farmers and agribusiness owners, Wilson County FSA, Wilson County Soil and Water District Board, Wilson 20/20, Wilson Economic Development.

Recommendation Six:

Develop Technical, Business and Marketing Training for the Maintenance and Expansion of Agriculture in Wilson County.

Wilson County farmers expressed a need for training in numerous areas relating to changes, growth and opportunities in agriculture.

Action Steps:

- Continue to develop an information network of support agencies and people who can assist new and existing farmers with training and knowledge as they plan and begin new enterprises.
- Conduct trainings on business planning that will enhance farmer knowledge about forward pricing and hedging, direct to consumer marketing of products, identifying and managing risks, diversifying through agritourism, marketing and sales promotion, and business website development. Utilize regional and local experts, agriculturalists, and regional universities to develop and deliver these trainings.
- Provide workshops and training experiences in timber management, development of a forestry management plan, and selecting consulting foresters.
- Facilitate grant writing training to help farmers apply and secure state and federal contracts for their products.
- Develop in coordination with the UCPCOG a database of regional revenue opportunities for food product sales and agricultural services accessible to the growing population centers of the region.

Timeline:

Programming efforts will begin in late 2018. Schedules for trainings, workshops and conferences will be developed by members of the implementation team.

Responsible Parties:

Wilson County Cooperative Extension, University of Mount Olive Lois G. Britt Agribusiness Center, NC Forest Service, NCDA&CS, USDA Natural Resources

and Conservation District, Wilson County FSA, and Wilson County Farm Bureau Board of Directors, regional colleges and universities.

Conclusion

Wilson County is fortunate to possess a diverse and profitable agricultural sector that adds tremendously to the quality of life for all citizens. Agriculture is a viable economic engine that produces more than $2.5 billion in value added income from agriculture and agribusiness receipts each year. Farming and agribusiness contribute 37.7 percent of the total county economy. According to a recently completed Cost of Community Services Study for Wilson County, agriculture generates $0.34 of net gain for every dollar in government services. But of even greater importance, agriculture provides needed open spaces, wildlife habitat, greenspaces and recreational opportunities.

Agriculture in Wilson County is being challenged by urbanization, changing markets and lack of understanding by citizens removed from the farm. Now is the time for local government, working through its agencies, to partner with farmers to actively preserve farmland, research new value-added markets and educate the public on the importance of agriculture. This plan has recommendations that are meant to enhance the future of agriculture in the county.

The county has an excellent cadre of organizations and agencies that, working cooperatively, can positively impact farming and rural life: N.C. Cooperative Extension, N.C. State University, Natural Resources Conservation Services, Voluntary Agriculture District Advisory Board, Chamber of Commerce, University of Mount Olive's Lois Britt Agribusiness Center, Wilson Community College, Wilson County Soil and Water Conservation District, Wilson County Forest Service, Wilson County Farm Bureau and multiple regional and local agricultural producers and agribusinesses.

In order for this plan to be viable and assist in the preservation and retention of farm and forestland in Wilson County, it needs to be evaluated annually by local government. An annual update will ensure that recommendations are being accomplished and that new ones are being added as the need arises. The author of this plan believes that strategic planning within and of itself is a valuable tool for farmland and farming preservation.

References

American Farmland Trust, 2017.
http://www.farmlandinfo.org/cost-community-services-studies

Census of Agriculture, USDA, 1997.
http://usda.mannlib.cornell.edu/usda/AgCensusImages/1997/01/33/1600/Table-01.pdf

Census of Agriculture, USDA, 2012.
https://agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_2_County_Level/North_Carolina/st37_2_001_001.pdf

NCDA&CS AG Statistics 2016.
http://www.ncagr.gov/stats/AgStat/Section03.pdf

NC Department of Agriculture & Consumer Services, Agricultural Statistics, 2017.
http://www.ncagr.gov/stats/AgStat/Section06.pdf

NC Cooperative Extension, Wilson County Center, 2017.
https://wilson.ces.ncsu.edu/

NC Department of Commerce 2017
http://accessnc.nccommerce.com/DemoGraphicsReports/pdfs/countyProfile/NC/37195.pdf

NC Department of Commerce 2017
http://www.nccommerce.com/research-publications/incentive-reports/county-tier-designations

NC Department of Commerce 2017, NCACCESS
http://accessnc.nccommerce.com/DemoGraphicsReports/pdfs/countyProfile/NC/37195.pdf
http://d4.nccommerce.com/QCEWLargestEmployers.aspx

NC Department of Commerce Labor and Economic Analysis, American Community Survey, 2010-2014.
https://accessnc.opendatasoft.com/pages/dashboard_education/

NC State University Extension Forestry, 2014
https://content.ces.ncsu.edu/wilson-county

Raleigh News and Observer, April 2017.
http://www.newsobserver.com/news/business/article145031179.html

UCPRC, Upper Coastal Plain Economic Development Strategy 2017 – 2022.
https://drive.google.com/file/d/0B_aur8a_TUBidWd4NmEwUFk1UHM/view

United States Census Bureau 2010.
https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF

United States Census Bureau, 2016.
https://www.census.gov/quickfacts/fact/table/wilsoncountynorthcarolina,US/POP060210#viewtop

https://www.census.gov/quickfacts/fact/table/wilsoncountynorthcarolina,NC,/PST045216

United States Department of Agriculture, Economic Research Service, 2017.
https://www.ers.usda.gov/data-products/state-export-data.aspx#.UzVxNoWa90w

United States Department of Agriculture, NRCS, 1983.
https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/north_carolina/wilsonNC1983/text.pdf

United States Department of Agriculture, Risk Management Agency. 2012. Risk Management Education Strategies and Succession Planning for Senior, Transitional, and Beginning Farmers in Central and Eastern North Carolina, University of Mount Olive, Lois G. Britt Agribusiness Center. The AG Risk Education Library. https://www.rma.usda.gov/

Walden, Mike. NCSU 2015. https://ag-econ.ncsu.edu/wp-content/uploads/2015/11/Wilson.pdf

Walden, Mike. NCSU 2017. https://ag-econ.ncsu.edu/wp-content/uploads/2017/05/NCState-WaldenAgBusinessReport-051017.pdf

WalletHub, 2017.
https://wallethub.com/edu/best-small-cities-to-start-a-business/20180/

Wilson 20/20 Community Vision, 2017.
http://wilson2020vision.org/

Wilson County Government, 2017
http://www.wilson-co.com/our-county/brief-history-of-wilson-county

Wilson County Tourism, 2017.
http://wilson-nc.com/

Wilson Economic Development Council, 2017.
http://www.wilsonedc.com/why-choose-wilson/industry-facts/
http://www.wilsonedc.com/why-choose-wilson/educational-resources/

Appendixes

Wilson County Producer Survey

Wilson County Agribusiness Survey

Wilson County Non-farm Resident Survey