



Virginia Cooperative Extension

Virginia Tech • Virginia State University

www.ext.vt.edu

Nelson County 2023 Situation Analysis Report

Erin Harris: 4-H Positive Youth Development Extension Agent, Grace Monger: Agriculture and Natural Resources Extension Agent and Lucinda MacRae: Administrative & Fiscal Assistant



Introduction

The Virginia Cooperative Extension (VCE) office in Nelson County consists of one 4-H Positive Youth Development Agent and one Agriculture and Natural Resources Agent, plus one experienced Administrative and Fiscal Assistant. In 2023, state-level VCE administrative faculty started with a state level needs assessment survey. This survey provided data on what Virginians viewed as high priority needs and issues in their communities. The data informs state level programs.

Also in 2023, the Nelson VCE faculty and staff listed above sought to collect unit level information, adopting the state level survey to collect information regarding the Nelson VCE Unit. This survey was intended to collect information from families who live and/or work in Nelson County. This survey was shared on paper at public events and electronically through social media, email blasts and directed emails.

Extension programming is designed to be needs-based. Even though Nelson VCE faculty and staff conduct regular, constant needs assessments on a day-to-day basis by working closely with community members, county government, and businesses, the survey is intended to fill gaps in those regular assessments and compare priority issues of Nelson County to those of the state. Knowing how Nelson County residents feel about issues in comparison to the state survey helps the local VCE office participate in state programming more efficiently, ensuring that state work has local benefits.

Unit Profile

Demographic Summary

According to 2021 Census data, Nelson County, VA has a demographic makeup of 81.01% white, 12.29% African American, 4.49% Hispanic, 1.53% two or more races, 0.23% Asian, 0.41% some other race, and 0.05% American Indian. Nelson County resident ages are fairly evenly spread from 0-85+, with slightly more residents falling in the 55-69 age ranges than other 5-year ranges. Except for that, age trends seem slightly skewed toward ages over 50, compared to the national percentages.

Agricultural Summary

The 2017 Census of Agriculture reports that Nelson county's top commodities by number of planted acres are hay (13440 acres), soybeans for beans, apples (747 acres), corn for grain (508 acres), and vegetables (291 acres). According to the Ag Census, the top crop by disclosed sales is "fruits, tree nuts, berries" at \$7.199 million. One of the limitations of the USDA Census of Agriculture is that some data is withheld to avoid disclosing data for individual operations. For Nelson County, which has several large and prominent producers of certain crops, that data is not available.

Nelson county ranked third in "Fruits, tree nuts, berries" in the state and 173rd nationally, putting it in the top 6% of counties in the US. This is in no small part due to a flourishing tree fruit and wine grape industry in the area. Nelson also ranked 9th in the state for "Nursery, greenhouse, floriculture, sod" crops, though other data is withheld. Nelson County ranked in the bottom 36% of livestock producing counties in the state, and the bottom 20% in the nation. The dominant agricultural industry here is commercial horticultural crops, which require high labor inputs. According to the 2022 VA Commercial Wine Grape Report, Nelson County accounts for nearly 6% of wine grapes grow in Virginia, but local data suggests that is closer to 12%.

Approximately 40% of the farming population is 65 and older, another 53% are aged 35-64 and 7% are under 35. The farming population is overwhelmingly white (95%) and male (62%). The majority of farms fall in the 10-to-499-acre range, with a per farm average of \$11,199 net cash farm income. Nelson County boasted a whopping 17% of farms that sell directly to consumers, which means that the local food system is strong here. 97% of Nelson County farms are family farms, meaning strong local ties to the industry. However, 35% of farms hired labor in 2017, a trend that is likely to increase.

Health Summary

From Lovingston, the geographic center of the county, there are two hospitals to the North: University of Virginia Hospital & Martha Jefferson Hospital and two hospitals to the South: Lynchburg General Hospital & Virginia Baptist Hospital. From Lovingston all are a 30–45-minute drive. In the county there are a few private practice health care providers, but the most utilized is Blue Ridge Medical Center, located in Arrington. It is a 501(c)3 non-profit, federally qualified health center and level III patient-centered medical home. Region Ten Community Services Board and the Thomas Jefferson Health District offer services in Nelson County. The town of Lovingston is also home to Town Creek Assisted Living which provides care to those who require daily assistance.

Data from countyhealthrankings.org taken from 2018-2020 estimates approximately 7,500 premature deaths (age-adjusted years of potential life lost before age 75 per 100,000 population) in Nelson County. This is a decrease from 8,400 premature deaths in 2017. The top two causes of premature death before the age of 75 include cancer and heart disease according to the CDC. The health summary data for Nelson County compared 2017 statistics with 2020. Adult obesity has increased from 30% to 35%. 14% of children are raised in single-parent households in 2021 versus 42% from 2017. 22% of residents indicated that they were physically inactive and 45% did not feel they had access to exercise opportunities potentially due to the lack of a formal recreation center in the county. This number is down from 56% in 2017. Although only 2% reported limited access to healthy foods, 50% of the restaurants in Nelson County are estimated to be fast food restaurants. Approximately 12% of people under the age of 65 in the county do not have health insurance. The teenage birth rate also declined from 28 births per 1,000 in 2018 to 19 out of 1000.

Educational Summary

During the 2021-2022 school year Nelson County Public Schools enrolled 1,538 students, a decrease from 1,882 students in 2017-18. There are two elementary schools, one middle school, and one high school. North Branch School is a private school within the community which teaches students ages 5-14 but it is unknown if all students attending are from Nelson County. Another 175 students were homeschooled during 2021-22, an increase from 154 in 2017. These education enrollment statistics were consistent with population trends. Of the public-school population 69.3% are White, 13.6% Black, 11.8% Hispanic or Latino, and 4.6% Multiracial and 0.5% Asian. 16.6% of students are reported to have disabilities, 62.6% are considered economically disadvantaged, and 4.3% are English Language Learners. In 2022, the high school graduation rate was 90.1%. 46.3% of those students graduated with advanced diplomas and 43.8% graduated with standard diplomas. 4.3% of students formally dropped out of high school which is lower than the state average of 5.4% in Virginia.

Business and Employment Summary

The top categories of employment based on percent of total employees in 2022 are:

1. Government (local, state, and federal) (19.5%)
2. Accommodation and Food Services (15.6%)
3. Manufacturing (14.7%)
4. Retail Trade (7.1%)
5. Agriculture, Forestry, Fishing and Hunting (6.6%)

Agriculture ranks higher than the state (0.3%) and national (1.7%) percentages of employees. Notably, 15.4% of all employees are local government employees, far exceeding the state national percentages of 9.6% and 9.2%, respectively. Out of the top 30 largest employers, seven are government, but 13 are agriculture or agritourism related. Five of the top ten employers are businesses with a significant agritourism component.

Community and Resident Perspectives: Local Needs Assessment

A county-wide survey was made available to the public over the course of several months in mid-2023. Results of the data collected in the Nelson County VCE Needs Assessment Survey can be seen in Appendix 2. The survey itself can be seen in Appendix 3. The top three issues are considered high priority issues. After an analysis of the current capacity and expertise in the Nelson County VCE office, we can report that we are equipped to handle the top three issues. The top reported community needs seem to match key components of the ANR programming, which means that the work in those areas is important to the community and should be continued.

In some areas, effort will be increased and program scope may be broadened over the next five years. In order to achieve goals and impact positive change locally, the Nelson VCE Office may request additional funding from various sources, including the state, federal, and local governments, grants, and charitable donations. A major challenge demonstrated during this Needs Assessment period in Nelson County is flow of information through varied communities. Many residents live in self-declared pockets of socio-economic similarity, making outreach efforts challenging, as different approaches are needed for different areas. Increasing the reach of Nelson VCE programming in the county, to better serve all of these groups/areas will continue to be a challenge, and one that may require additional staffing and funding.

Future Programming to Address Community Issues

Priority Issue 1: Water Quality

48.4% of residents indicated that they felt the local VCE team should spend very high effort on “protecting water quality”. This can be addressed directly and indirectly through the Agriculture and Natural Resources (ANR) Program.

The Nelson VCE office offers well water testing through the Virginia Household Water Quality Program (VAHWQP). Potential barriers to participation in that testing include the time of year (run once in July, annually) and the cost (\$65 per kit, limited subsidies). Over the course of 2023, the Nelson VCE team arranged a system for drop-off, as-needed testing through VAHWQP. This was successful and addressed some of the barriers to participation in household water testing. In the future, the Nelson VCE office will explore ways to reduce the cost of water testing for Nelson County Residents.

Additionally, preventing point-source pollution in our fresh water and groundwater is a topic that can be addressed in a variety of ANR programming. Our office runs multiple Private and Commercial Pesticide Applicator Recertification courses each year. While environmental considerations are certainly covered in these programs, a greater focus can be given to this. Some of the concerns of respondents can be attributed to sensationalized media attention on rare pesticide contamination issues, many of which paint agricultural operations in a bad light, so Nelson VCE plans to provide quality, fact-based information about pesticide contamination in drinking water, pesticide residuals, and health risks associated with these. Additionally, Nelson VCE assisted VDACS with the Pesticide Collection Program on two collection dates. Annually, VDACS partners with VCE to provide a safe and simple way for producers and homeowners to dispose of unwanted pesticides. In future years, Nelson may host a disposal program, site or Pesticide Collection Program to reduce potential contamination from these sources. These disposal options help keep our environment and water clean while taking the burden of disposal off of producers and county refuse centers

Lastly, the Central VA Commercial Fruit Program, run by the ANR agent in the Nelson VCE Office, has a significant reach with local agricultural producers. The local food system is heavily influenced by water quality and availability. Ensuring producers are aware of the food safety risks their water could carry is essential to maintaining a strong local food system. The ANR agent has recognized this as an issue and is seeking professional development to educate local producers on water quality implications. Easy to digest information and a good understanding of water-related regulations will help producers keep local food safe.

Overall, addressing this issue falls primarily within the ANR Agent’s current Plan of Work and well within their current capabilities. The ANR Program was unfortunately not adequately staffed for several years prior to this survey- the current ANR Agent started in January of 2022 and will continue to address water quality issues in the community through the above programs and sound advice to individuals.

Priority Issue 2: Pesticide and Fertilizer Use

43% of residents indicated that they felt the local VCE team should spend very high effort on “Reducing misuse and overuse of pesticide and fertilizers”. Federal and state pesticide laws require applicators to be certified to use restricted use pesticides. In addition, VA law requires all commercial applicators to be certified to use any pesticide and to renew their pesticide licenses through continuing education every two years. These laws are in place to protect both human health and the environment. There are nearly 100 certified commercial applicators, registered technicians, and private applicators in Nelson County. Virginia Cooperative Extension is tasked with providing high quality pesticide safety education and certification for these applicators.

Responsible use of pesticides and fertilizers is currently a primary focus of the Agriculture and Natural Resources (ANR) Program. While pesticides and fertilizers are necessary components of any agricultural or forestry operation, good management practices can reduce usage. Additionally, these inputs are costly to agriculture producers. Integrated Pest Management education, which is a core component of the current ANR Program, has helped applicators reduce pesticide usage and manage pest issues on their operations more efficiently. The Nelson ANR Agent plans to continue a robust educational program focused on IPM, invasive pest management, and pesticide safety education. One possible addition to this program is a homeowner pesticide safety and education component. According to local pesticide investigators and distributors, unlicensed applicators, such as homeowners, are most likely to make mistakes in product choice, use, and storage.

Overall, addressing this issue falls primarily within the ANR Agent’s current Plan of Work and well within their current capabilities. Exceptional state-level support is available to the Nelson VCE office on this issue, and it is an area of subject matter expertise for the current ANR agent.

Priority Issue 3: Ag, Natural Resources, and Environmental Literacy

48.4% of residents indicated that they felt the local VCE team should spend very high effort on “Promoting agricultural, natural resources, and environmental literacy”. The ANR and 4-H Extension agents are educators who provide research-based information to citizens and youth by employing various delivery methods targets to diverse audiences. The entire Nelson VCE office is well educated on these issues and will continue to put a focus on providing information to the public on these topics. Primarily, being well-educated and supporting volunteer educators like the Extension Master Gardeners will facilitate the flow of information through the county. Good advertisement strategies and creating opportunities to educate adults and youth in these subject areas will have the largest impact. Plans to address knowledge deficiencies locally will develop and evolve over time as the Nelson VCE office addresses this issue.

Appendices

Appendix 1: Nelson County VCE Needs Assessment Survey

Appendix 2: Nelson County VCE Needs Assessment Survey Results

Appendix 3: USDA Census of Agriculture, 2017 Nelson County Profile

Visit Virginia Cooperative Extension: ext.vt.edu

Virginia Cooperative Extension is a partnership of Virginia Tech, Virginia State University, the U.S. Department of Agriculture, and local governments. Its programs and employment are open to all, regardless of age, color, disability, sex (including pregnancy), gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, military status, or any other basis protected by law.