Growing Young Agriculture Producers: Assessing the Need for a 4-H Farm Stand Program in Greene County

Masters Project

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Table of Contents

Abstract

Youth agriculture programs are important in generating interest in agriculture and aiding its future. With the average age of farmers rising and fewer youth enrolling in supervised agricultural experiences, the creation of programs to engage youth in agriculture are necessary to sustain the industry and local communities. In Greene County, Ohio, many programs in Extension have been developed to educate youth in agriculture and local foods including school gardens and 4-H livestock projects. One aspect that has not been explored is that of a youth farm stand program. Therefore, this project aimed to explore interest from local stakeholders in establishing a youth farm stand program. A community environmental scan was utilized to gather feedback and interest from local stakeholders to determine whether the Greene County Youth Farm Stand Program should be created. Findings from the environmental scan indicated that there was interest in youth farm stand programming. Respondents provided feedback on their thoughts of what should be offered by the program for both youth participants and consumers. A SWOT Analysis was also conducted from the results of the environmental scan and a review of literature to determine areas of concentration for decision makers if they choose to move forward to develop a youth farm stand program.

Section 1: Introduction

Context and Need for the Project

Engagement of youth in agriculture is important for sustaining the food and agriculture industry, supporting local food needs, and fostering civic engagement. According to the Natural Resources Conservation Service, food and agriculture is the top industry in Ohio (NRCS, n.d.). The food and agriculture industry provides Ohio with 778,763 direct jobs and $107.9 billion in direct output (Feeding the Economy, 2022). Job outlook and economic growth is possible within the industry. However, the average age of an Ohio farmer is 55.8 (National Agricultural Statistics Service, 2017). In recent decades, enrollment in high school agriculture programs has increased, but supervised agricultural experiences have seen a decline (Retallick & Martin, 2008). However, agricultural experiences can have a positive effect on health behaviors in youth. High school students with agricultural experiences have more favorable perceptions of local produce, are more willing to try new fruits and vegetables, and more often consume the adequate daily recommendation of vegetables than students with no agricultural experiences (Greer et. al., 2017). Some programs in urban Ohio that combine social entrepreneurship with growing food have seen success like Five Rivers Metro Parks/Adventure Central's City Beets program (City Beets Full Eight Week Curriculum and Activities, 2013). So, could introducing a 4-H Farm Stand Program focusing on agricultural entrepreneurship in Greene County be beneficial? Would the prospects of earning cash and/or supplying food for low-resource communities catch the attention of young, potential future farmers or entrepreneurs?

In 2019, USAID (2019) conducted a case study which explored multiple global programs, many in Africa and southeast Asia, intended to engage youth in agriculture and the use of information and communication technologies. USAID reported that youth "offer great

opportunity for many countries as the entrepreneurial and innovative energy of young people can revitalize and enhance local economies." (USAID, 2019). Findings from the study highlighted the challenges and potential opportunities for engaging youth in agriculture. The identified challenges to involve youth in agriculture programs included family and community pressures, lack of perceived profitability, access to land, access to finance, and access to education, technical training, and resources. The study reported that potential opportunities for improving engagement of youth in agriculture included shifting the perception of farming within rural families and communities, exposing youth to agriculture early on, incorporating all aspects of the supply chain, increase profitability and productivity of farming, and introduce agricultural problems to youth to resolve them (USAID, 2019). While the USAID case study focused on youth programs implementing new technologies in developing countries, the basis for how and why to engage youth in agriculture is important for all youth agriculture programs.

Many of the challenges and opportunities for engaging youth in agriculture are true whether in Sub-Saharan Africa or in Urban America. As reported by Broaddus, Przygocki, and Winch (2015), inner city youth in Baltimore, Maryland identified profitability, competence, autonomy, and relatedness as both barriers and motivators in their engagement in an urban agriculture program. Financial literacy, addressing the perceived profitability of agriculture, and increasing access to education, training, and information are ways to address the challenges in engaging youth in agriculture. A youth farm stand program could be one way to enhance the potential opportunities mentioned by USAID (2019). Youth would have the opportunity to see the profitability of entrepreneurs involved in agriculture and assist in marketing practices. Youth would also be exposed directly to the food supply chain through the sale of their products. The USAID case study highlighted that youth are usually early adopters of new technology and can

provide an "innovative, tech-savvy perspective to solving the most difficult problems in agriculture" (USAID, 2019). Youth, as demonstrated in the case study, could assist older farmers in adopting technology and new strategies for application in their farming and marketing practices. Engagement of youth in solving agriculture problems in the community is a great way to help them utilize their skills while supporting the community at large. Community programs through Extension, such as 4-H, were mentioned in the USAID case study for a way to engage youth in agriculture across the globe (USAID, 2019).

Extension programs provide research-based education, skill building, and awareness to the community through the four main program areas: Agricultural and Natural Resources, Family and Consumer Sciences, 4-H Youth Development, and Community Development. Each of these areas addresses the local food system at some level and educates the community on their role in food systems. Programs like the Fairborn Digital Academy gardening program were developed in Greene County to help low-income teens learn about agriculture and nutrition and develop gardening skills that will help participants grow their own food. In many 4-H programs, including Greene County's, youth can take cooking, nutrition, gardening, and/or livestock projects that help them learn skills that are useful within our food systems. For instance, a youth completing a livestock project learns the best practices for raising, selling, and even harvesting livestock to enter the food chain.

In Greene County, Ohio, there has been increased interest among OSU Extension partners in local food initiatives. OSU Extension Greene County started a local food council in the spring of 2017 that brought together producers, consumers, and Extension partners around the idea of expanding local food sales, access, and consumption to benefit Greene County. In October of 2021, OSU Extension Greene County offered a Pumpkin Program to celebrate

National Farm to School Month and showcase local pumpkin producers. The program was a collaborative effort to bring greater awareness to local foods and foster partnership between agencies that serve low-income youth and local producers. Nine partners showed interest in participating but only six were able to due to COVID-19 restrictions at the time. The Family and Consumer Sciences Educator and Supplemental Nutrition Assistance Program Education (SNAP-Ed) team had an in-person presence at the six sites handing out tastings and information that included recipes and information on selecting, preparing, and storing pumpkins and other squash. A total of 369 participants were seen across all the participating sites.

The Project

As highlighted in literature and existing research, there is a need for engaging youth in agriculture to support communities, develop life skills, contribute to the production and distribution of local foods, and provide hands-on learning opportunities. While there are existing programs to meet some of these needs in Greene County, Ohio, there is not an existing program that promotes development of all the needs. Therefore, it is proposed that a youth farm stand program be considered as a new 4-H youth program. This project undertook an environmental scan to determine if there was interest among local stakeholders and to identify areas of focus for the local youth to support the local food system through a farm stand program. The farm stand program is a direct-to-consumer method of commerce and is one of the many ways producers can sell the products they grow, raise, and create to consumers; farm stand programs may be appealing opportunities for youth who are interested in entrepreneurship opportunities. A farm stand program may also have appeal among those interested in community development work like the locavore or food security movements.

The farm stand was a foundational part of the community in America's early history. Farm stands and farmers markets provide both a place of trade, social connection, and community development. Many model youth farm stand programs have been developed and supported by Extension and 4-H. It was for this reason that this project focused on Extension and 4-H acting as the foundational support for the Greene County Youth Farm Stand Program. The idea of a Youth Farm Stand Program (YFSP) in Greene County was presented to the 4-H Extension Educator, 4-H/Family and Consumer Sciences (FCS) Program Assistant, and the FCS Extension Educator by Greene County SNAP-Ed in the summer of 2020.

The idea presented was to create a YFSP that allows youth to learn how to create a business around locally grown produce, market their product, and sell their product at a farmers market that accepts SNAP benefits and provide low-income families with better access to healthy foods. Greene County Extension Professionals expressed an interest in the program and the potential to meet community needs, such as providing access to healthy food for lower-income families. The Agriculture and Natural Resources (ANR) Extension Educator also expressed interest when presented the idea and saw the potential to involve the Local Food Council. In the same way that 4-H youth livestock exhibitors can auction their animals at fair, the YFSP would provide youth interested in gardening, horticulture, or crop production with the opportunity to market and sell their product. One goal for the YFSP would be to expand upon the idea to offer other Extension programs through the Farm Stand Program, and include opportunities for youth involved in different 4-H project areas to extend their learning. An example of another Extension program that could develop because of the YFSP would be a SNAP-Ed nutrition education series offered to low-income families who visit the farm stands. An example of including other project youth in the YFSP would be having photography project

youth team up with a youth selling their produce to help create visual marketing for their farm stand. These examples would create opportunities for youth in multiple 4-H project areas to develop skills in business and collaboration while engaging youth with the agriculture industry. The 4-H program continues to develop new ways to provide both urban and rural youth educational experiences that allow them to explore a wide range of career fields and skills. YFSPs have been explored by many organizations including 4-H and Extension. Many of these youth farm stand/market programs had the goal of giving youth the skills to be successful in business and the workforce.

However, in bringing any new program, it is important to obtain feedback from the community on their interests and needs. Environmental scans are a common method for obtaining community feedback on the needs and interests of a community. The purpose of this project was to determine the interest among stakeholders to start a Youth Farm Stand Program (YFSP) in Greene County, Ohio that meets the education, skill building, and food access goals of the local 4-H youth and community. To accomplish this work, a community environmental scan was adapted to the Youth Farm Stand Program in Greene County, Ohio and a SWOT analysis was performed using the environmental scan data and other sources to inform the next steps in planning the program.

Statement of Purpose and Project Objectives

YFSPs are intended to provide youth education and skill development in business, marketing, entrepreneurship, financial management, and leadership. Some YFSPs combine the business skills with agriculture production and community engagement through school or community gardens. Business skills, production skills, and leadership skills developed through YFSPs naturally blend with the program areas of 4-H: STEAM, Healthy Living, and Civic

Engagement. Agriculture production, business, marketing, entrepreneurship, and financial management align with existing STEAM programs. Nutrition, physical activity, and building social-emotional intelligence are aspects of many of the YFSPs and align with the Healthy Living programming focus. By including youth farm stands as part of the local food system, youth are then engaged in their community and help to provide access to local products. These aspects would promote Civic Engagement by making youth active participants in their community.

Initial planning began to determine next steps. The Greene County SNAP-Ed team suggested the idea of Youth Farm Stands in the summer of 2020. As part of SNAP-Ed's planning process for Policy, Systems, and Environment (PSE) change initiatives, the Greene County Extension Educators were asked to complete the Building Capacity for Obesity Prevention (BCOP) PSE Readiness Assessment and Decision Instrument (READI) Team Assessment. This PSE READI Tool was developed through a partnership between Case Western University; The Ohio State University, SNAP-Ed Program; and Ohio Department of Health, Creating Healthy Communities Program. This tool is utilized by the OSU SNAP-Ed program to assess the viability of Policy, System, and Environment change ideas amongst collaborators and to acquire recommendations for planning. These recommendations are intended to show areas where a team should place time and resources to ensure success of a PSE initiative. The first recommendation was to connect with other practitioners and programs that are like the Youth Farm Stand idea being planned. The second recommendation focused on assessing the community's interests and needs for a YFSP. The last recommendation focused on engaging Cooperative Extension, farmers market managers, farmers groups and food policy coalitions in the planning and implementation processes. The first recommendation to connect with other practitioners and

other youth farm stand programs has been explored by looking into literature and curriculum of other programs and connecting with practitioners who have implemented those programs. This information was used to fulfil the intention of this project which stems from the second recommendation of conducting a community environmental scan with 4-H families and local agriculture producers to better understand the preferences of these groups toward a youth farm stand program in Greene County.

The success of any program relies on interest and support from partners, stakeholders, and volunteers. Support from stakeholders can help to sustain a new program for years to come. In Greene County, Ohio, there has been expressed interest in establishing a 4-H Youth Farm Stand Program among the four program areas of Extension: Agriculture and Natural Resources, 4-H Youth Development, Family and Consumer Sciences and Community Development. There has also been an expressed desire among 4-H professionals and volunteers to create more leadership and workforce development opportunities for 4-H youth in Greene County. Furthermore, food insecurity and access to healthy foods have been labeled areas of concern by the county's Local Food Council, while a trend of locavore foods has been growing. Greene County school districts receiving SNAP-Ed programming have also expressed interest in farm to school programming and school garden projects. Each of these build support for creating a YFSP in Greene County. While there has been expressed interest for a YFSP, a formalized process to assess stakeholder interest and needs will ensure that a beneficial program is created. Therefore, the purpose of this project was to assess local stakeholder interest in developing a Youth Farm Stand Program (YFSP) in Greene County that meets the needs of the local 4-H youth and community. The objectives guiding this project were:

1. To develop an environmental scan for local stakeholders in Greene County to report their interest in a Youth Farm Stand Program.
2. To describe levels of interest in a Youth Farm Stand Program from local stakeholders in Greene County utilizing the environmental scan instrument.
3. To develop a Strengths, Weakness, Opportunities, and Threats (SWOT) analysis to be used to make programmatic decisions related to developing a Youth Farm Stand Program in Greene County.

The goal of this project was to determine the need for a YFSP among the primary audience and stakeholders of the program: 4-H families and local agriculture producers, as well as with local farmers market managers and members of the local food council in Greene County, Ohio. The outcome of this project will help to determine the next steps in the Greene County Youth Farm Stand program planning process.

Section 2: Review of Literature

Background

The 4-H youth development program has a long history of providing youth with opportunities to learn and grow in a variety of skills and fields. The 4-H youth development program is an outreach program that spans the globe to help develop youth into future citizens and leaders through a variety of interest projects, camps, and community service opportunities that promote life skills and team building (Fetsch & Yang, 2005; National 4-H Strategic Plan, 2018). 4-H began on January 15, 1902, as the "Boys and Girls Agriculture Club" in Springfield, Ohio. A. B. Graham focused the club on teaching girls gardening and boys cooking (Steel, 2018). Today, youth can choose from over 200 project options. The 4-H program has provided youth the opportunity to explore their passions and develop new ways of contributing to their communities (Steel, 2018). In the United States, 4-H is implemented through the land grant universities' Cooperative Extension System and the United States Department of Agriculture. The mission of 4-H is "to provide meaningful opportunities for all youth and adults to work together to create sustainable community change." (National Institute of Food and Agriculture, 2018). The 4-H program places an emphasis on accomplishing its mission through engaging youth in civic engagement, leadership, healthy living, and science (National 4-H Strategic Plan, 2018). These areas of development are embodied in the 4-H pledge: "I pledge my head to clearer thinking, my heart to greater loyalty, my hands to larger service, and my health to better living, for my club, my community, my country and my world." (Borden et. al., 2009).

The 4-H program promotes life skills and team building through "out-of-school learning, leadership experiences, and adult mentoring" (Lerner et. al., 2013; National 4-H Strategic Plan, 2018) and accomplishes this through the guiding principles of positive youth development,

partnerships, learning, and focus on the youth (Lerner et. al., 2013; National 4-H Strategic Plan, 2018). Most 4-H programs in the United States allow youth to enroll between the ages of nine and nineteen. The 4-H program provides a practical application of positive youth development utilizing skill building, meaningful leadership, and long-term caring adult relationships to develop the "Six C's" of positive youth development: character, caring, competence, confidence, connection, and contribution (Lerner et. al., 2013). As Richard Lerner, Jacqueline Lerner, and colleagues (2013) discovered in a longitudinal study of 4-H positive youth development, 4-H youth, when compared to their peers, are four times as likely to contribute to their communities, two times more likely to be civically active, two times more likely to participate in science, engineering, and computer technology programs outside of school, and two times as likely to make healthier choices (Lerner et. al, 2013). This data supports the goals of 4-H: to develop youth to reach their full potential, become active contributors to society, and reduce risk behaviors. The 4-H motto, "To Make the Best Better", is core to that mission and has propelled the 4-H program since it was formalized in 1924 (Borden et. al., 2014). 4-H has also continued to build upon the mission of the land-grant universities' Cooperative Extension System, which is "to engage people to strengthen their lives and communities through research-based programming". (Borden et. al., 2014; OSU Extension, 2022).

The three program areas of 4-H are: 1. Science, Technology, Engineering, Agriculture, and Math (STEAM); 2. Healthy Living; and 3. Civic Engagement. These three program areas utilize mentoring and career readiness as core elements and this programming is available through local 4-H clubs, schools, and grant-funded programs (National 4-H Council, 2021). Each program area focuses on different areas of exploration for youth. STEAM programs include the focus areas of computer science, robotics, environmental science, agri-science, financial literacy,

entrepreneurship, and veterinary science (National 4-H Council, 2021). Healthy Living programs focus on empowering youth to be healthy in body and mind and aims to develop skills to make healthy choices (National 4-H Council, 2021). The area of healthy living through 'body' focuses on physical fitness, health, nutrition, and safety. The area of healthy living through 'mind' focuses on social and emotional well-being. Lastly, Civic Engagement programs focus on empowering youth to be well-informed and active citizens in their communities and the world (National 4-H Council, 2021). Civic Engagement programs develop youth in the areas of civic affairs, decision-making, leadership, and connecting with other people (National 4-H Council, 2021). These three program areas, STEAM, Healthy Living, and Civic Engagement, encourage 4-H participants to collaborate with other Extension program areas and give youth the opportunity to learn from and connect with caring adults who are involved in these areas.

The Cooperative Extension system and 4-H both work to educate and develop the current and next generations of leaders. The 4-H program promotes opportunities for leadership and development through fair projects, project clinics and educational workshops, leadership opportunities, and camping programs. In the Greene County, Ohio 4-H program, many new initiatives are being made to give 4-H youth the opportunity to explore other avenues for leadership and skill building. Some of these initiatives such as the Assembly Building Royalty program, were created to give non-livestock project youth more opportunities to run for royalty and leadership positions like their peers who choose livestock. Also, the Ham Radio 4-H Club in Greene County provides youth the unique opportunity to learn how to operate Ham radios and allows them to learn these skills alongside adult mentors. Programs that connect 4-H youth with their community and all areas of Extension can greatly benefit them and their community. One area of Greene County 4-H that has not been explored among youth is that of youth farm stand

programs. Youth Farm Stand Programs may be beneficial to Greene County's 4-H program by expanding the opportunities for youth interested in projects related to locally grown and marketed food products, again spurring their entrepreneurial and/or social community development spirit.

Many legislative acts, historical events, and program structures helped to establish the 4-H youth development program, Cooperative Extension, farmers markets, and youth farm stands into what they are today. The legislative acts and history of these programs will provide the foundation needed to plan a successful YFSP in Greene County, Ohio. The legislation that led to the formation of the land-grant institutions, and later Cooperative Extension, 4-H youth development, and vocational agricultural education, paved the way for educating adults and youth in their interests and provide them the skills to succeed in life, work, and play. Much of the literature demonstrates the rapid growth and successes of these programs over the last three centuries.

Legislative Acts Supporting 4-H Programming

The 4-H youth development program was formalized in 1924, after the Cooperative Extension System was established through land-grant universities. Land-grant universities were established through the passage of the Morrill Act of 1862. The 1862 Morrill Act established a public university system and federal funding with the purpose of providing public education in the areas of agriculture and industry within each state (West et. al., 2009). The Morrill Act was expanded in 1890 and 1995 to extend the mission of providing "a liberal, practical education" to working class families in agriculture, military tactics, and mechanical arts (West et.al., 2009).

The Hatch Act of 1887 further expanded the mission of the Morrill Act to include funding for agricultural research and established agricultural research stations at each land-grant

university with the intention of converting research-based evidence and innovation into practical application (West et. al., 2009). The system for disseminating research through the Hatch Act provided a wealth of knowledge that farmers learned from and encouraged them to adopt new practices in the field. Seaman A. Knapp and George Washington Carver worked within this mission of disseminating new knowledge to communities and began taking education to the farmers in their fields. Knapp purported those farmers would be more likely to adopt new agriculture practices if they were demonstrated out in the field or on their own farm (Comer et. al., 2006). George Washington Carver, following Knapp's approach, packed tools in a buggy and put on demonstrations across his county (Comer et. al., 2006). He later became the director of this "movable school", a stagecoach that traveled around with lecturers on the weekends to teach farmers new research-based agricultural approaches (Comer et. al., 2006). This approach of teaching and communicating knowledge would become the model of the Cooperative Extension System.

The Smith-Lever Act (1914) expanded the mission of land-grant universities to formally establish the Cooperative Extension System. Extension serves as the outreach arm of the land grants universities bringing the research and education of these institutions to the public; "Helping farmers farm better" was the motto used to describe its early mission (West et. al., 2009). The need for youth based agricultural education would soon become the next frontier of the land-grant institutions. The USDA began exploring the feasibility of federal support of vocational education after the Smith-Lever Act's passage (Hillison,1996). This led to the Smith-Hughes Act of 1917. The Smith-Hughes Act provided federal support for formalized, vocational education for youth in public schools (Hillison, 1996). In summary, the Smith-Hughes Act

established formal agricultural education in K-postsecondary education, while the Smith-Lever Act established non-formal agriculture and extension education for all ages (Hillison, 1996).

Early 4-H Programming

The early boys' and girls' clubs that would later become the 4-H program were originally intended to provide agricultural and home economic education. A.B. Graham is credited with starting the first 4-H club in Clark County, Ohio in 1902. Graham developed a boys and girls agricultural club that met after school teaching girls to garden and boys to cook (Steel, 2018). His club was not only the first 4-H club, but the first youth organization to give "equal attention to both boys and girls" (Fetsch & Yang, 2005). The early established 4-H clubs followed Graham's example and were also inclusive of white, black, and Hispanic children and promoted equality (Steel, 2018). The history of 4-H is steeped in pioneering inclusion and working toward the betterment of youth. According to the National 4-H Council's A & B Annual Report for 2018, 4-H serves six million youth, 36% were identified as minority youth (Nation 4-H Council, 2018).

The 4-H youth development program is a model for the positive youth development (PYD) perspective and Lerner's "Six C's" of PYD are the foundation of the program's approach and mission (Lerner et. al., 2013). The Six C's include: competence, care, character, connection, confidence, and contribution. The 4-H Formula for Success is the logic model and method of operations of the 4-H program. The 4-H Formula for Success takes the inputs of the 4-H approach and translates those into measurable outcomes and impacts (Lerner et. al. 2013; Appendix A). All youth can benefit from the 4-H model of PYD and the Formula for Success because, while the outcomes and impacts are measurable, one of the guiding principles of 4-H is the youth themselves: their needs, interests, abilities, and cultural norms (National 4-H Strategic

Plan, 2018). This 4-H Formula for Success aims to expand upon the experiential learning model already present in Extension Education and the mission of the Land Grant University system.

Experiential learning

In addition to positive youth development, 4-H embraces hands-on experiential learning. The 4-H program promotes "learn by doing" which is simplified from the five-step experiential learning cycle of Pfeiffer and Jones (Strieter & Hughes, 2009). In Pfeiffer and Jones' cycle, the participant: 1.) experiences the activity or event, 2.) shares their results, reactions, and observations publicly, 3.) processes by discussing and looking at the experience; analyze and reflect, 4.) generalizes to connect the experience to real world examples, and 5.) applies what was learned to a similar or different situation (Enfield et al., 2007). This experiential learning cycle is found in 4-H through: 'Do, Reflect, and Apply'. 'Do' is the hands-on experience as demonstrated in Pfeiffer and Jones' step one. 'Reflect' incorporates both the sharing and processing steps as a youth shares their experience and reflects on what they have learned as found in steps two and three of Pfeiffer and Jones' learning cycle. 'Apply' incorporates the generalize and apply steps (four and five) as youth generalize their experience to real world examples and then applies their knowledge into practice. The 4-H project curricula and adult volunteer training materials are built around this concept of 'Do, Reflect, and Apply'. Many of a 4-Her's experiences are geared toward giving them opportunities to experience their projects and develop knowledge and skills. Many county 4-H programs offer educational clinics or workshops for different project areas. These educational opportunities allow 4-Hers to learn more about their projects and connect with a mentor in that area. Clinics and workshops provide opportunities to expand different concepts or skills related to the project. One example of these educational clinics and workshops would include livestock showmanship clinics. During a

showmanship clinic, a 4-Her might be given the opportunity to demonstrate showmanship skills while a mentor gives feedback to assist the 4-Her to grow in this area. This opportunity allows the 4-Her to do the skill, reflect on their performance, and then apply it later at the county fair livestock show. Farm stands and farmers markets can be a great place for experiential learning as they have a long history of community development and providing access to food and resources.

Farm Stand and Farmers Market History

Farm stands and farmers markets are a part of many communities across the United States. In the United States, farm stands and farmers markets have been around since the 1600s and provide opportunity for farmers to have a source of direct income; furthermore, farmers markets aid in the development of community with consumers and the citizens of their locale (Robinson & Hartenfeld, 2007). Farmers markets and farm stands were a major part of everyday life until the mid-nineteenth century. During that time, farmers markets were the primary source of food products for the urban populations of the day. They also were a major trade and social gathering place for the community. For majority of the late nineteenth and twentieth centuries, innovations in transportation, agriculture, and distribution soon gave rise to supermarkets and greater uniformity and quantities of products throughout the United States (Robinson & Hartenfeld, 2007). This led to a decline in farmers markets as consumers started to prefer the availability and affordability of the supermarket over the uniqueness of the farmers market (Robinson & Hartenfeld, 2007, p. 37). However, farmers markets have experienced multiple revivals throughout that time.

In 1943, at the height of World War II, many of the food and agricultural resources were diverted to support the war effort. The government encouraged families to grow their own fresh produce in “victory gardens” (Robinson & Hartenfeld, 2007, p. 48). However, John Brucato of

the San Francisco Victory Garden Council saw that urban families were not growing enough fresh vegetables in their victory gardens. He also observed that farmers were losing a lot of product and money in trying to get their products to central processing plants and factories and were wasting edible produce. Brucato then decided to start a farmers market due to the substantial need and abundance of waste that he had observed. Brucato's new farmers market movement would go on to push for a more direct exchange between consumers and producers (Robinson & Hartenfeld, 2007). This gave farmers the opportunity to get better prices for their products and consumers to have better access to fresh, local foods.

In 1976, fueled by greater interest in returning to traditional farming and marketing practices, Congress passed the Farmer-to-Consumer Direct Marketing Act which directed the United States Department of Agriculture to developed programs to help facilitate a direct, mutually beneficial relationship between farmers and consumers. This legislation gave farmers the ability to sell directly to the consumer and experiment with new products and practices like organic food (Robinson & Hartenfeld, 2007). The legislation also helped in reviving the farmers market economy of old. In 1970, there were about 350 farmers markets operating in the United States. That number rose significantly over the next thirty-seven years to nearly 4,000 in 2007 (Robinson & Hartenfeld, 2007). In 1994, nearly 20,00 farmers utilized farmers markets. By 2000, that number reached 66,700 farmers with 2.75 million customers a week and approximately $900 million dollars in sales for that year (Robinson & Hartenfeld, 2007). Farm stands also saw a resurgence thanks to the direct-to-consumer programs and the increase interest in local food direct from the source (Robinson & Hartenfeld, 2007). Originally used to supplement a farmer's income, the farm stand was now turning into a "one stop shopping area" thanks to the growing interest (Robinson & Hartenfeld, 2007, p. 64). Farmers were now able to

control all aspects of their business from production to sale. For the consumer, it now gave them greater access to local foods and they could support local producers (Robinson & Hartenfeld, 2007).

Youth Farm Stands

Youth farm stands and markets have the unique opportunity of allowing youth to apply classroom learning in math, science, and health to real world settings. Through youth farm stands, youth have the opportunity to learn and apply communication, marketing, and entrepreneurial skills. Youth can also learn and become more involved in the local food system. Food affects everyone through the need for nourishment, landscapes, neighborhoods, economies, and quality of life (*Michigan Youth Farm Stand Project Toolkit,* 2009). Knowing how to grow, preserve, purchase, and prepare healthy foods is important in moving individuals and the community to a more sustainable future. These concepts provide the basis for many of the approaches that have occurred thus far. Rutgers Cooperative Extension's Seeds for Success, Five Rivers Metro Parks/Adventure Central's City Beets program in Ohio, Michigan Youth Farm Stand program, Slow Foods Denver's Youth Farm Stands, Young Entrepreneur Market, and Second Chance Youth Garden are just a few well-established programs focused on a youth farmers market experience.

Rutgers Cooperative Extension's Seeds for Success program was started in 2003 with the intention of creating a farmstand initiative that prepare special needs, at-risk youth in New Jersey's Gloucester County for the workforce with classroom and on-the-job training (Strieter & Hughes, 2009). The goals of this youth farmstand initiative were multi-faceted and intended to serve the youth, farmers, and community-at-large. The four key goals were to: 1. support local farmers by creating new retail outlets for their products, 2. increase workplace readiness skills in special needs, at-risk youth, 3. improve life skills in special needs, at-risk youth, and 4. build

food security and healthier, stronger communities. Youth involved in the Seeds for Success program participate in nutrition education, food safety, banking, and financial education during the school year. During the summer, participants apply their knowledge while working at one of three farmstands and experiencing the routine of a "retail entrepreneurial enterprise" (Strieter & Hughes, 2009). As noted by Strieter and Hughes (2009), this program provided local farmers with a lucrative alternative to previous attempts at creating a farmers market targeted toward lower income customers. Previous collaborations between farmers and local agencies resulted in failed portable markets that provide little profit, a lack of interest from farmers and consumers, and awareness and support from the community. With limited labor investments, eight farmers were able to expand their markets and sell over $67,000 worth of produce within the first five years of the Seeds to Success program (Strieter, L. A. & Hughes, L. J., 2009). The collaborative nature of the Seeds for Success program allows for all departments of Extension to be integrated.

Michigan State University and the CS Mott Group for Sustainable Food Systems broaden the audience of the Seed to Success program and created their own curriculum and toolkit for youth farmers markets in the autumn of 2005. The program focused on local youth and sought to develop a curriculum that taught about nutrition, local food systems, how to grow food, and business basics and marketing (*Michigan Youth Farm Stand Project Toolkit,* 2009). A secondary goal of the Michigan initiative was to develop a toolkit that adults and youth could easily adapt to their community's needs (*Michigan Youth Farm Stand Project Toolkit,* 2009). They chose to focus on the creation of a guide that could be utilized by adult leaders and the youth participants (*Michigan Youth Farm Stand Project Toolkit*, 2009). Michigan's curriculum focuses on group activities that utilize the BIG paper (i.e. flip charts, butcher paper, newsprint) to guide group discussions and brainstorming sessions. These activities seek to help the youth by visually listing

ideas, preventing revisits of the same concepts over again, and to record group progress (*Michigan Youth Farm Stand Project Toolkit*, 2009). Each lesson section is organized by topic: It's All About Food (Nutrition and Food Systems), Growing in the Garden (Gardening/Agriculture), Business Basics, and Farm Stand Marketing. The last two sections are additional resources or Appendices and Evaluation tools. The Nutrition Education that is allowable by the USDA's Supplemental Nutrition Assistance Program Education Program (SNAP-Ed) is denoted by a veggie icon in the curriculum (*Michigan Youth Farm Stand Project Toolkit*, 2009). The program also includes three evaluation methods in the form of skill cards, veggie voting, and journaling (*Michigan Youth Farm Stand Project Toolkit*, 2009). Some activities throughout the curriculum include an "SC" designation which means they correspond to a skill card (*Michigan Youth Farm Stand Project Toolkit*, 2009). Journal questions are included in each lesson, and it is recommended to have participants keep a journal for the duration of the program (*Michigan Youth Farm Stand Project Toolkit*, 2009). Veggie voting is used to capture willingness to try and like new fruits and vegetables (*Michigan Youth Farm Stand Project Toolkit*, 2009).

Five Rivers Metroparks/Adventure Central's City Beets program followed a similar process as Michigan's program. As described in the Curriculum (2013), "City Beets is an eight-week youth gardening program inside of Five Rivers MetroParks. Teens must apply, interview, and then be selected for the program. In City Beets, teens grow vegetables in a Five Rivers MetroPark Community Garden, learn leadership & job skills, sell food at the 2nd Street Public Market, take local volunteer field trips, learn about where food comes from and food systems, prepare & eat snacks from harvested food and make new friends. Teens receive a stipend for satisfactory completion of the program." City Beets developed out of a program in

Massachusetts called The Food Project. Five Rivers Metroparks and Adventure Central focused on developing youth workforce preparation skills through their farmstand program. The program's mission became "to create active youth leaders that are knowledgeable, skilled, and empowered through the process of growing, sharing, and selling of food" (*City Beets Full Eight Week Curriculum and Activities*, 2013). The program selects 20 teens: 16 youth participants and 4 youth managers who are selected based on leadership skills and/or prior City Beets experience. The main components of the City Beets curriculum include weekly food systems classes, journaling and chef's notes, weekly nutrition, and cooking classes, "The Market" (harvesting, market prep, and training for the market day), team games, closing "Rose and Thorn" activities, and the salad party (*City Beets Full Eight Week Curriculum and Activities*, 2013). Each of the components reinforce what is learned and experienced by the youth participants. The classes, activities, and field trips give the youth knowledge and experience. The journaling and chef's notes are an opportunity for the youth to reflect on what they have learned, and the garden and market are opportunities to apply what they have learned. Michigan's Youth Farm Stand program and City Beets both provide a curriculum and structure that can easily be adapted to most 4-H programs.

Slow Foods in Denver, Colorado is a global movement focused on "Good, clean, and fair food for all" (Slow Foods Denver, n.d.). This organization accomplishes its mission by highlighting the "significance of supporting local farmers, the importance of food culture and the value of gathering around a table to connect with one another around food" (Slow Foods Denver, n.d.). Slow Foods Denver has implemented Youth Farm Stand programing in Denver and expanded the program to other areas like Washington, D.C. (Slow Foods USA Youth Farm Stand Toolkit, 2017). Their model is school based and creates a student-run single vendor market

on school grounds where students sell fresh produce from their school gardens and, occasionally, produce from local farms and gardens (Slow Foods USA Youth Farm Stand Toolkit, 2017). The model is adaptable to meet the needs and resources of schools and communities outside of Denver. The model embraces four components: education, fundraising, outreach, and an overall transformation of food culture. Youth (and the community) learn about the local food supply chains from producers to consumers, the seasonality of fresh produce in their area, how to provide nutritional support for the community, how to run a small business and set prices, how to handle a financial transaction and exchange money, customer service skills, accounting, banking, and budgeting techniques, marketing and promotion of events, identification of fresh produce, and mental math (Slow Foods USA Youth Farm Stand Toolkit, 2017). Slow Foods also emphasizes the importance of parents, teachers, and community partners in the creation and implementation of a youth ran farm stand or market. The curriculum utilizes seven lessons that focus on the food supply chain, the Farmers Market, marketing, pricing products, and roleplaying.

Another YFSP program is the Young Entrepreneur Market or YEM. YEM is a program of the Young Entrepreneur Institute at University School in Chagrin Falls, OH. YEM provides youth with real-world selling opportunities at farmers markets and community events throughout Northeast Ohio (Young Entrepreneur Institute, 2021). The intention of this program is to help youth "gain skills and knowledge in product development, customer interaction, pricing, and pitching" (Young Entrepreneur Institute, 2021). The Young Entrepreneur Institute partners with organizations, the community, and farmers markets to provide youth with a location to set up and sell their products. The Young Entrepreneur Institute covers the booth fees at public events and markets and provides financial aid for secure transportation to market and to prepare inventory

by request (Young Entrepreneur Institute, 2021). They also provide educational materials and workshops for educators to prepare students for the market (Young Entrepreneur Institute, 2021). YEM's focus is on entrepreneurship, marketing, and business in general with little to no emphasis on the food production. Youth sell their own product from whatever industry they pursue.

Like many of the other youth farm stand programs, the Second Chance Youth Garden seeks to give youth positive pathways to success by helping them cultivate the skills needed to succeed. Second Chance's mission is "to disrupt the cycles of incarceration and poverty by helping people find their way to self-sufficiency" (Second Chance Program. n.d.). The Youth Garden program is one aspect of that mission. The Youth Garden program is an eight-week garden-based training program for young people ages 14-21 where youth seed, cultivate, transplant, and harvest fresh produce (Second Chance Program. n.d.). Participants learn about composting, soil fertility, irrigation, and plant anatomy (Second Chance Program. n.d.). Participants also learn sales and marketing skills by assisting in the sale of the produce through a Community Supported Agriculture Program, restaurants, and pop-up farm stands (Second Chance Program. n.d.). Aside from the skills that the youth learn, they also receive a weekly stipend, school credit, job placement assistance, and personalized case management (Second Chance Program. n.d.). There are many successful examples of youth farm stands and youth farmers markets across the United States. All the mentioned models and curricula will serve as a guide and foundation for developing a program that embraces the positive youth development and experiential models of 4-H, and a community centered approach to education and outreach.

Section 3: Methods

The goal of this project is to determine the interest in a Youth Farm Stand Program among the primary audience and stakeholders of the program: 4-H families and local agriculture producers (and others above) in Greene County, Ohio. The outcome of this project will help to determine the next steps in the Greene County Youth Farm Stand program planning process. There were three objectives guiding this project; each objective guided a specific part if the methods process.

1. To develop an environmental scan for local stakeholders in Greene County to report their interest in a Youth Farm Stand Program.
2. To describe levels of interest in a Youth Farm Stand Program from local stakeholders in Greene County utilizing the environmental scan instrument.
3. To develop a Strengths, Weakness, Opportunities, and Threats (SWOT) analysis to be used to make programmatic decisions in developing a Youth Farm Stand Program in Greene County.

The first two objectives for this project were to develop an environmental scan instrument to collect data to be used to assess the levels of interest for developing a Youth Farm Stand Program in Greene County, Ohio. The environmental scan instrument was adapted from a survey template used in the Farmers Market Federation of New York's "Guide to Developing a Community Farmers Market" (2009). The original survey was recommended by the OSU SNAP-Ed PSE READI Tool when developing Farmers Market Policy, System and Environment (PSE) changes. The Youth Farm Stand Program would be offered through Greene County Extension, and therefore it was deemed appropriate to adapt the survey for this project. General structure and length of the survey was not changed from its original version.

The survey questions consisted of both quantitative and open-ended items. Fourteen Likert-scale items asked respondents to identify their interest levels in youth farm stand programs, provide feedback on farm stand offerings, provide feedback on educational opportunities offered through the youth farm stands, provide feedback on how often farm stands should be offered, identify ideal frequency of education opportunities offered through youth farmstands, and identify anticipated levels of involvement in youth farm stands.

The interest items throughout the survey provided the opportunity for respondents to identify their general interest levels in youth farm stand programs and their interest in being involved in the youth farm stand program in Greene County, Ohio. An example interest item included, “How interested are you in a 4-H Youth Farm Stand Program in Greene County?”.

Farm stand offering items sought to collect information from respondents on potential products to be sold at youth farm stands and included recruitment related information. Example questions included “What products would you like to see youth learn to make and/or sell?” and “Would you like see the youth farm stands develop into their own farmers market or for them to be added to existing farmers markets?”.

Survey items related to educational opportunities offered through farm stands included items to identify potential educational opportunities for youth and patrons who participate in youth farm stands. Example items included, “If dedicated educational programming was developed, what topics would you like to see offered to youth interested in the farm stand program?” and “If educational programming was offered to farm stand consumers, what topics would you like to see offered?”.

Frequency of farm stand and education items focused on how often respondents would like to see farm stands open and how often educational opportunities should be offered through

the farm stands. Example items included, “If youth were to run their own stands alongside experienced local producers, how often would you shop at a youth farm stand?” and “How often would you like to see programming geared toward visitors of the farm stand?”.

Level of involvement items focused on respondents’ current level of involvement in 4-H and agriculture, and allowed respondents to report their desire for future involvement in the youth farm stands. Examples included “Are you an agriculture producer?” and “Would you be interested in helping educate and assist youth in the operation of a farm stand?”.

Two open-ended questions provided the opportunity for respondents to offer suggestions and concerns regarding the development of a Youth Farm Stand Program in Greene County, Ohio. These questions included “Do you have any suggestions you would like to offer in the planning of the youth farm stand program?” and “Do you have any concerns you would like addressed in the planning of the youth farm stand program?”.

Face and Content Validity of Survey Instrument

This environmental scan utilized an established instrument to collect data to meet the project objectives. Since the original instrument was altered and tailored to a specific audience, there was a need to establish face and content validity before distributing for data collection. Face validity examines how an instrument appears to look on the surface; content validity examines if the instrument appears to be asking relevant questions and appropriate terminology for the target audience. To establish face and content validity, it is appropriate to use a panel of experts on the subject matter. For this project, a panel of five experts included Greene County ANR and 4-H Professionals, Greene County SNAP-Ed Program Staff, and community members with farm stand knowledge or research expertise. All panel experts had experience planning, implementing, and evaluating educational programs and working with youth participants and

adult volunteers. Three experts had knowledge of farm stand or direct-to-consumer methods of commerce. The panel of experts provided feedback on whether the survey items were relevant and worded appropriately in measuring the needs and interest of local stakeholders regarding a youth farm stand program. Per recommendations of the panel, adaptations were made to tailor the survey to be specific to Greene County, Ohio 4-H families and agriculture producers. These adaptations include the inclusion of the 4-H involvement and educational offerings questions, and edited wording to the questions to make them more specific to a youth farm stand program in Greene County instead of general farmers markets. More answer choices were added to the interest in a farm stand question as suggested by the panel of experts used to review the instrument. Minor adjustments were made to the order of questions to improve flow and edits were made to some answer choices to expand choice and minimize confusion. Specific edits were made to the youth farm stand interest question expanding it from four to five response options, and making it a sliding scale from "Not at all interested" to "Extremely interested". The 4-H involvement, farm stand offerings, and educational offerings questions were expanded to include an "Other, Please Specify:" answer choice for respondents who may feel the choices do not accurately apply for them.

Data Collection Process

The target audience for completing the environmental scan survey included stakeholders involved in Greene County 4-H and/or agriculture community. This included Greene County 4-H members, parents, alumni, volunteers, professionals, agriculture producers, FFA professionals, and master gardeners. The environmental scan survey was distributed by Qualtrics link from December 15, 2021 through January 27, 2022, in Greene County's Extension weekly e-newsletter and blog to 4-H families and agriculture producers. E-newsletters were sent out via

email and Facebook posts twice by Greene County Extension professionals to extension volunteers and social media followers. There are over 900 followers on the Greene County Extension Facebook page and "over 200 4-H adult volunteers" in Greene County (OSU Extension Greene County, 2022). Reminder announcements in a follow-up email newsletter and Facebook post were utilized on January 5, 2022; to increase response rate and mitigate issues such as loss of documents or emails being sent to spam. Contact information was included in all correspondence to address any issues, questions, or concerns with the survey or the items therein.

Respondents voluntarily completed the survey using the public link. No sensitive, personal, or identifying information was collected through the survey, and the survey data was used solely for the environmental scan of the Youth Farm Stand Program in Greene County, Ohio. Data collection was conducted from December 15, 2021 through December 29, 2021. However, due to a low response rate, possibly due to the winter holidays data collection was extended to January 27, 2022. Between December 15-29, three responses were collected. At the end of the January 27, a total of 13 responses were collected. The data gathered from the environmental scan survey were analyzed and then utilized in the creation of a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis to determine areas of focus in future planning efforts.

Data Analysis

The quantitative data collected in the survey were analyzed using descriptive statistics. Absolute frequencies and percentage frequencies were used to describe the responses for each survey item. Frequency was used to measure the number of times a specific response was recorded. Frequency distribution is used to organize collected data to show data in a meaningful manner for better understanding. Frequencies were recorded in frequency distribution tables;

tables include both absolute frequency and percentage frequency to identify the percentage of responses for each survey item. The quantitative data was used to identify points of interest for strengths, weaknesses, opportunities, and threats.

The two open-ended survey items were analyzed using qualitative methods. The responses were read through to get a sense of the respondents' comments. The responses were then categorized to identify patterns and themes from participants. The categorized responses were organized to allow for better understanding of the information and the ability to draw reasonable and meaningful conclusions from the data.

After the environmental scan survey data were analyzed, a SWOT analysis was completed by summarizing and ranking the findings based on both the quantitative and open-ended data. The rankings considered the frequency of the data and utilized them for prioritizing next steps. For each area of the SWOT analysis, accompanying suggestions on how to proceed with each item were included in the final report to Greene County Extension professionals.

Reporting the Data

Data and the SWOT analysis were reported to Greene County Extension educators and program staff in a follow-up meeting with an accompanying report. The report will be used to by those in positions to make programmatic decisions to determine the sustainability of a Youth Farm Stand Program and the next steps in the program planning process. Implications and conclusions were also reported in this meeting.

Section 4: Findings

The environmental scan findings were organized based on the survey items categories: Level of Involvement, General Interest in Youth Farm Stand Program, Frequency of Youth Farm Stands, Feedback on Farm Stand Products, Feedback on Educational Offerings for Youth, Feedback on Educational Offerings for Consumers, Frequency of Educational Offerings for Youth, Frequency of Educational Offerings for Consumers, Interest in Leadership Opportunities for Youth, General Interest in Youth Farm Stand Location, and Open-ended Responses. During the data collection process, thirteen responses were collected with six being partially completed. All data was kept and utilized in the data analysis. Reports of the findings and individual responses were generated in Qualtrics.

Level of Involvement Items

The level of involvement section of the survey included five items focused on current levels of involvement in agriculture production, farmers markets and stands, and 4-H and future involvement in a youth farm stand program. In response to the question, "Are you an agriculture producer?" there were eleven responses: six responses reported *Yes* and five responses reported *No* (Table 1).

Table 1

Are you an agriculture producer?

Response	*n*	%
Yes	6	54.55
No	5	45.45
Total	11	100.0

To identify level of interest in involvement with future youth farm stands, there were seven responses to the survey question, "Would you be interested in helping to educate and assist

youth in the operation of a farm stand?". Five respondents reported *Yes*, they would be interested, while two respondents reported *No*, they would not be interested (Table 2).

Table 2

Would you be interested in helping to educate and assist youth in the operation a farm stand?

Response	*n*	%
Yes	5	71.43
No	2	28.57
Total	7	100.0

The level of 4-H involvement survey item allowed for respondents to choose multiple responses to reflect their current involvement in 4-H. There were seventeen responses (Table 3). *4-H volunteer* was the most identified involvement with five responses. Other responses included: *4-H parent* with four responses, *4-H Alumni* and *Other* with three responses each. *Current 4-H member* and *I am not involved in 4-H* each had one response. No participants reported involvement as a *County 4-H Professional* or *State 4-H Professional*. The answer choice, *Other*, allowed for respondents to give more detail to their response. Two out or the three respondents identified "FFA Advisor" and "Greene County Master Gardener" as their involvement in 4-H.

Table 3

What is your level of 4-H involvement? Check all that apply

Level of Involvement	*n*	%
4-H Volunteer	5	29.41
4-H Parent	4	23.53
4-H Alumni	3	17.65
Other: "FFA Advisor" "Greene County Master Gardener"	3	17.65
Current 4-H member	1	5.88
I am not involved in 4-H	1	5.88
County 4-H Professional	0	0.00
State 4-H Professional	0	0.00
Total	17	100.0

Participation in Farm Stands/Farmers Markets

There were eleven responses for the participation in farm stands and farmers markets as a consumer. All respondents (n = 11) reported *Yes*, they have shopped at a farmers market or farm stand (Table 4).

Table 4

Have you ever shopped at a farmers market or farm stand before?

Variable	*n*	%
Yes	11	100.00
No	0	0.00
Total	11	100.00

Nine respondents identified if they had participated in farm stands or farmers markets as a worker (Table 5). Two of the respondents reported *Yes*, they have worked at a farmers market

or farm stand, while seven of the respondents reported *No*, they had not participated in a farm stand or market as a worker.

Table 5

Have you ever worked at a farmers market or farm stand before?

Response	*n*	%
Yes	2	22.20
No	7	77.78
Total	9	100.00

General Interest in Youth Farm Stand Program

When asked, "How Interested are you in a 4-H youth farm stand program in Greene County?", ten respondents recorded their response (Table 6). Four respondents reported that they were *Moderately interested* in a 4-H youth farm stand in Greene County. Responses, *Very interested* and *Extremely interested* had three responses each. No responses were reported for *Not at all interested* or *Slightly interested*.

Table 6

How Interested are you in a 4-H youth farm stand program in Greene County?

Level of Interest	*n*	%
Not at all interested	0	0.00
Slightly interested	0	0.00
Moderately interested	4	40.00
Very interested	3	30.00
Extremely interested	3	30.00
Total	10	100.00

Frequency of Youth Farm Stands

When asked, "If youth were to run their own stands alongside experienced local producers, how often would you shop at a youth farm stand?", ten participants recorded their responses (Table 7). Six participants identified *Weekly* as the level of frequency they would shop at a youth farm stand. Three participants responded they would shop *Once a month*, and one participant responded they would shop *Occasionally*. There were zero responses for *Seldom* and *Not interested* in shopping at a youth farm stands at this time.

Table 7

If youth were to run their own stands alongside experienced local producers, how often would you shop at a youth farm stand?

Variable	*n*	%
Weekly	6	60.00
Once a month	3	30.00
Occasionally	1	10.00
Seldom	0	0.00
Not interested in youth farm stands at this time	0	0.00
Total	10	100.00

Feedback on Farm Stand Products

The survey question regarding farm stand products allowed for respondents to choose multiple responses for what products they would like to see offered through a Youth Farm Stand Program in Greene County. There were a total of 82 responses (Table 8). The item with the most frequent responses was *Fresh, Local Vegetables* (n = 9), followed by *Fresh Local Fruit, Eggs, Fresh Herbs,* and *Maple Syrup* with eight responses each. *Cheese* and *Homemade Jams and Jellies and other processed foods* had six responses each, followed by *Meats, Organic Produce, Crafts,* and *Fresh Cut Flowers* with five responses each. *Bedding Plants* and *Homemade Baked*

Goods had four responses each, and *Other* had one response of "Honey". *Ethnic Foods* had zero responses.

Table 8

What products would you like to see youth learn to make and/or sell? Check all that apply

Product	*n*	%
Fresh, Local Vegetables	9	10.98
Fresh, Local Fruit	8	9.76
Eggs	8	9.76
Fresh Herbs	8	9.76
Maple Syrup	8	9.76
Cheese	6	7.32
Homemade Jams and Jellies and other processed foods	6	7.32
Meats	5	6.10
Organic Produce	5	6.10
Crafts	5	6.10
Fresh Cut Flowers	5	6.10
Bedding Plants	4	4.88
Homemade Baked Goods	4	4.88
Other: please specify "Honey"	1	1.22
Ethnic Foods: please specify	0	0.00
Total	82	100.00

Feedback on Educational Offerings for Youth

The survey question results for identifying topics for educational offerings for youth through farm stand programs are found in Table 9. There were 104 responses. The items with the most frequent responses were for *Agribusiness* and *Gardening/Crop Production* (*n* = 9). Other frequent responses items included: *Healthy Food Promotion, Marketing, Money Management, Small Business Management,* and *Social Skills* with eight responses each. Topics on *Entrepreneurship*, *Food Security* and *Proper Food Handling and Safety* had seven responses

each. Topics on *Leadership, Nutrition,* and *Public Speaking* had six responses each. Topics on *Cooking/Food Preparation* had four responses and *Food Systems* had three responses. *Other* and *Not interested in dedicated educational programming for farm stand youth* had zero responses each.

Table 9

If dedicated educational programming was developed, what topics would you like to see offered to youth interested in the farm stand program? Check all that apply

Program Topic	*n*	%
Agribusiness	9	8.65
Gardening/Crop Production	9	8.65
Healthy Food Promotion	8	7.69
Marketing	8	7.69
Money Management	8	7.69
Small Business Management	8	7.69
Social Skills	8	7.69
Entrepreneurship	7	6.73
Food Security	7	6.73
Proper Food Handling and Safety	7	6.73
Leadership	6	5.77
Nutrition	6	5.77
Public Speaking	6	5.77
Cooking/Food Preparation	4	3.85
Food Systems	3	2.88
Other, please specify:	0	0.00
Not interested in dedicated educational programming for farm stand youth	0	0.00
Total	104	100.00

Feedback on Educational Offerings for Consumers

The survey question, "If educational programming was offered to farm stand consumers, what topics would you like to see offered?", yielded 60 responses (Table 10). The items with the

most frequent responses were for *Local Foods* and *Food Preservation* (*n* = 9). These items were followed by topics on *Cooking/Food Preparation* and *Nutrition* with seven responses each. Topics on *Gardening/Crop Production* had six responses. Topics on *Proper Food Handling and Safety* had five responses each. Topics on *Food Shopping* and *Financial Planning* had five responses each. Topics on *Agribusiness* had three responses. Topics on *Dining with Diabetes, Healthy Aging,* and *Healthy Relationships* had two responses each. *Other* and *Not interested in educational programming for farm stand patrons* had zero responses each.

Table 10

If educational programming was offered to farm stand consumers, what topics would you like to see offered? Check all that apply

Program Topic	*n*	%
Local Foods	9	15.00
Food Preservation	9	15.00
Cooking/Food Preparation	7	11.67
Nutrition	7	11.67
Gardening/Crop Production	6	10.00
Proper Food Handling/Safety	5	8.33
Food Shopping	4	6.67
Financial Planning	4	6.67
Agribusiness	3	5.00
Dining with Diabetes	2	3.33
Healthy Aging	2	3.33
Healthy Relationships	2	3.33
Other, Please Specify:	0	0.00
Not interested in educational programming for farm stand patrons	0	0.00
Total	60	100.00

Frequency of Educational Offerings for Youth

When asked about the recommended frequency of educational programming for youth at a Youth Farm Stand Program in Greene County, eight participants responded *Once a month* was identified as the preference for majority of respondents (n = 8). *Weekly* and *Occasionally* options were followed with one response each. *Seldom* and *Not interested in dedicated educational programming* had zero responses each.

Table 11

How often would you like to see dedicated educational programming toward preparing youth for the farm stand operation?

Frequency of Programming	*n*	%
Weekly	1	10.00
Once a month	8	80.00
Occasionally	1	10.00
Seldom	0	0.00
Not interested in youth farm stands at this time	0	0.00
Total Number of Responses	10	100.00

Frequency of Educational Offerings for Consumers

When asked about the recommended frequency of educational programming for consumers at a Youth Farm Stand Program in Greene County, four participants responded *Once a month* as their preference (Table 12). *Occasionally* was the second preferred frequency offering (n = 1). *Weekly, Seldom*, and *Not interested in programming for farm stand visitors* had zero responses each.

Table 12

How often would you like to see programming geared toward visitors of the farm stands?

Frequency of Programming	*n*	%
Weekly	0	0.00
Once a month	4	80.00
Occasionally	1	20.00
Seldom	0	0.00
Not interested in programming for farm stand visitors	0	0.00
Total Number of Responses	5	100.00

General Interest in Leadership Opportunities for Youth

When asked, "Would you like to see leadership opportunities developed within the program for participating youth?", All respondents (n = 10) identified that they would like to see leadership opportunities developed for the youth through the Youth Farm Stand Program in Greene County (Table 13). Ten responses reported *Yes* and zero responses were reported for *No*.

Table 13

Would you like to see leadership opportunities developed within the program for participating youth?

Response	*n*	%
Yes	10	100.00
No	0	0.00
Total	10	100.0

General Interest in Youth Farm Stand Location

When asked if the youth farm stands should be a standalone farmers market, added to existing farmers markets, or both, eight respondents identified *Both* as their choice. Two

responses identified *Existing farmers market* as their choice. Zero responses were reported for *Its own farmers market* and *No Preference*.

Table 14.

Would you like to see the youth farm stands develop into their own farmers market or for them to be added to existing farmers markets?

Youth Farm Stand Location	*n*	%
Its own farmers market	0	0.00
Existing farmers market	2	20.00
Both	8	80.00
No Preference	0	0.00
Total	10	100.0

Opened Ended Responses

The survey included two open ended questions that allowed respondents to share suggestions and concerns related to a Youth Farm Stand Program in Greene County. Regarding suggestions, there were three responses. Responses included: “I think it is a great idea”, “You can partner with the library in Xenia to print vinyl banners for each kid/clubs stand. Designing the banners will be a great marketing project”, and “It’s a great idea”.

There were two responses submitted for the open-ended item that addressed concerns for the Youth Farm Stand Program in Greene County. The first concern included: “Be sure to recruit people who are used to/ skilled at working with children. I don't know what ages you are considering, but grownups need to recognize that even teenagers are still developing. They need clear guidelines and direction. They need to be treated as individuals but held accountable to the expectations of the organization. I kind of fudged one of those answers. I am a parent of former 4-h participants and was a participant myself. Now I am a grandparent --- retired jr. high/ high school math teacher. Students need adults/ teachers who are prepared, have a sense of humor, are

willing to talk to them plainly and guide with a caring spirit. Yes, they can be aggravating at times....so was I, I am sure, 55 years ago when I was 18!!!!" The second concern shared included "Just how to inform the community about the market and advertise. Not everyone uses Facebook.".

Section 5: Discussion

The purpose of this project was to identify the interests of stakeholders in developing a Youth Farm Stand Program (YFSP) in Greene County that meets the needs of the local 4-H youth and community stakeholders. The data collected from the environmental scan identified an interest from local stakeholders to develop a Youth Farm Stand Program. While there is an expressed interest in the program, program planning can be a complex process and should consider as many factors as possible before committing resources, time, and personnel to creating a new program. Therefore, a SWOT analysis was done on the survey results to help identify areas that could impact future program development and program goals.

SWOT Analysis

An analysis of Strengths, Weaknesses, Opportunities, and Threats (SWOT) is often used as a tool in business to assess an organization's standing in the market compared to its competitors (Teoli et. al, 2021). However, a SWOT analysis can be useful at a program or individual level as well. A SWOT analysis can help to form organizational or personal strategies by assessing internal and external elements. Strengths and Weaknesses are internally focused, whereas Opportunities and Threats are externally focused (Teoli et. al., 2021).

The third objective of this project was to utilize the environmental scan to develop a Strengths, Weakness, Opportunities, and Threats (SWOT) analysis to be used in making programmatic decisions in regard to developing a Youth Farm Stand Program in Greene County. While the total number of responses to the environmental scan was low, the results indicated that there was interest among responding stakeholders, thus supporting the SWOT analysis process. The Greene County YFSP SWOT analysis was developed using information from the

environmental scan, Greene County Extension data, and existing literature related to youth farm stand programs (Appendix B).

Strengths

Several strengths were identified that would support a Youth Farm Stand Program in Greene County. The first strength was an expressed interest in a YFSP in Greene County among local stakeholders. Having identified support from stakeholders is important in the development of any program or strategy. As the Slow Foods Denver's Youth Farm Stand Toolkit (2017) indicates, support from community stakeholders is important because they are not only your potential customer base, but your pool of volunteers. They are also the potential source of partnerships and future funding. Greene County Extension has strong support within the community and established partnerships with many local schools, businesses, farmers, farmers markets, organizations, and city and county government agencies. These partnerships and support will be important to the success of a youth farm stand program. The second identified strength was that Greene County Extension has a strong volunteer base demonstrated by over 200 4-H volunteers and over 60 active Master Gardener volunteers. The number of volunteers within the county Extension programs indicates that there is potential to develop additional supporting stakeholders for the program. Third, responses on the environmental scan indicated an interest in educational programming for both youth and consumers through a Youth Farm Stand Program. This is a strength toward developing a YFSP because it could be important in generating more interest and support, as well as sustained community involvement through a Youth Farm Stand Program. The youth involved in the Youth Farm Stand Program could utilize the education to help them succeed in the program. The interest in education for consumers through a YFSP provides the opportunity to involve the community and provide them access to

resources and skill development. Many of the Extension programs could be utilized to provide this access to resources and skill development, thus further sustaining future programming. Fourth, responses on the environmental scan indicated a modest interest among stakeholders to be involved in educating and assisting youth with operation of the youth farm stands. This is considered a strength because, while interest in a program is good, stakeholder interest in participating as volunteers or leaders is needed to bring a program from the planning stages to implementation. One of the important inputs of 4-H positive youth development is a "long term caring adult" (Lerner, et. al., 2013). The strength of modest stakeholder interest in educating and assisting the youth with the youth farm stands is also important for sustaining the program and encourage continued participation from the youth. A fifth strength included the potential partnership for new partnerships and development youth visual design or marketing projects developed through the YFSP. This is considered a strength because stakeholders are beginning to see potential partnerships with other community resources and entities. Also, it demonstrates an opportunity to involve more youth in the program and thus generate interest in participating. Using a developed Youth Farm Stand Program to create additional youth opportunities would allow the program to extend learning opportunities to more youth. Finally, a sixth strength identified was that community and school gardens were identified as potential resources for the program indicated in the environmental scan. Many community and school gardens have been developed across Greene County. This is an additional strength because it can save time and resources in planning a Youth Farm Stand Program. It also provides potential opportunity for youth who may not have access to a garden and could provide opportunities for youth with limited resources to participate. A seventh identified strength is the demonstrated collaboration of the Extension program professionals at the Greene County Extension office. This is an

identified strength because each program area has resources and programming that can benefit the Youth Farm Stand program. There are also many collaborative Extension programs in Greene County that have been successful due to the interoffice relationships. Examples include the Fairborn Digital Academy Apprentice Gardener Program, Real Money. Real World, LOOK to Ohio, and SNAP-Ed Cooking Matters. These programs utilize collaboration between two or more program areas in the Extension office. This collaborative nature can help a Greene County Youth Farm Stand Program succeed.

Weaknesses

Further exploring the data sources, there were some weaknesses identified for developing a Greene County Youth Farm Stand Program. First, it should be recognized that stakeholder environmental scan generated a low number of responses. Therefore, a weakness in the data was that a limited number of perspectives were considered in exploring stakeholder interest in developing the program. A second weakness was expressed concern reported in the environmental scan for recruiting volunteers to assist with the Youth Farm Stand Program who are experienced working with youth. This is a weakness because the program's focus is to educate and assist youth in building the skills necessary to successfully run a farm stand business. The volunteers who educate and assist the youth will need to be able to work effectively with youth and establish the long-term caring relationship that is important in positive youth development. While 4-H trains volunteers to be good role models and caring adults, this expressed concern in the environmental scan should be noted. Third, there was an expressed need in the assessment for better methods of communication for advertising and marketing of a Youth Farm Stand Program. This is identified as a weakness because there is a need for better methods of advertising and promoting farmers markets and programs in general. Developing

efficient methods for advertising, marketing, and communicating the needs and successes of the Youth Farm Stand program will need to be priority when moving forward in the planning process. A fourth weakness identified included the lack of a clear plan to ensure fairness among all participants. This is a weakness because, although it is still early in the planning process, decisions need to be made to ensure that all participants are given equal opportunity to succeed. Each of the model Youth Farm Stand Programs mentioned in the literature review take a different approach to ensure fairness in inputs and outcomes for the youth participants. In 4-H, it is important to give equal opportunity. However, in doing so, attention must be paid to not give a youth an edge over their peers. In terms of the Youth Farm Stand Program, the source of products to be sold and the reward for successful completion will need to be determined. The approach taken will depend upon the resources and direction of the planning committee. A fifth weakness identified from the environmental scan was the lack of experience working a farmers market or farm stand among participating stakeholders. This is identified as a weakness because, while there may be a strong volunteer base, volunteers with knowledge and experience in operating a farm stand may be harder to find. In recruiting volunteers to assist and educate youth in the operation of the farm stand, consideration will need to be taken to ensure that youth are given the skills necessary. This may mean training volunteers in farm stand operations and recruiting volunteers from area farmers markets. A sixth weakness is identified as the potential for competition with local farmers at the farmers market for sales. This is identified as weakness because consideration will need to be taken to ensure that both the youth and the farmers markets will benefit from the program. If the youth farm stands are at existing farmers market, strategies will need to be determined to make sharing the market advantageous to all participants. One possible solution would be to have youth work alongside an established farmer and their stand. A

seventh weakness identified is liability of the youth farm stands. This is considered a weakness because decisions on how the stands are operated will depend on what measures need to be taken to ensure the safety of the products and youth involved. In Ohio, a vendor's license at farmers market is not needed when selling products that fall under the food exemption from sales tax. The food exemption is defined as "food for human consumption off premises where sold (food does not include alcoholic beverages, dietary supplements, soft drinks, or tobacco)." (Barrett, E., et. al., 2019). Most of the preferred product offerings identified by stakeholders in the environmental scan fall under the food exemption thus a vendor license would not be needed for the youth farm stands. Strategies can be taken to ensure that food safety can be incorporated into the implementation of the youth farm stands. Slow Foods USA's Toolkit (Slow Foods USA Youth Farm Stand Toolkit, 2017) includes checklists that can be adapted to properly prepare the stands. Extension training in food safety and proper handling can also be implemented to train both youth and volunteers in best practices.

Opportunities

The external elements of the Greene County YFSP SWOT analysis were harder to pull directly from the environmental scan. Other data sources including Greene County Extension data and existing literature were utilized as primary sources of information. External elements of a SWOT analysis usually explore threats from competition and opportunities in the market for business. Therefore, some of the Opportunities and Threats are gathered from the literature since there are no YFSPs in Greene County. Opportunities for a Youth Farm Stand Program in Greene County include the potential to develop youth farm stands as standalone markets or in collaboration with existing markets. This could be an opportunity to collaborate with existing farmers markets in the county and create opportunities for both the youth and adults to work

together and learn from one another. The inclusion of youth farm stands may help to generate larger interest in the existing farmers markets and bring in more consumers. Collaboration with existing farmers markets can also help to create a greater sense of community for the youth, farmers, and the consumers. The second opportunity is the benefit that the youth farm stands could help provide access to healthy foods in food insecure neighborhoods across Greene County. Greene County has 9.9% overall poverty with 13% children in poverty. The Greene County Department of Job and Family Services states that majority of SNAP recipients reside Fairborn and Xenia. Both these cities have a seasonal farmers market. Yellow Springs, a village in Greene County, has a farmers market that accepts Produce Perks, which allows SNAP recipients to use their benefits at the farm stands. The Youth Farm Stand Program could utilize these developments to help serve a greater need in the community. A third opportunity includes the potential partnership between a Youth Farm Stand Program and Xenia Library. This potential collaboration could be an opportunity for youth to work with library professionals to create vinyl banners for youth farm stands, thus promoting additional business skill development for youth. A fourth opportunity identified was the potential development of farm stand teams consisting of youth participants and adult volunteers for leadership and interest placement. This opportunity would build retention as youth and adults could choose the skill areas they are most interested in. It would also help youth with less access to gardens or products the opportunity to still learn and participate and thus promote fairness and teamwork within the Youth Farm Stand Program. A fifth opportunity identified included a potential expansion of the educational programming where the Youth Farm Stand Program provides a platform for local food and food preservation education for consumers. Additional programming provides the opportunity for Greene County Extension to enhance the Cooperative Extension model of bringing education to communities.

Furthermore, an interest from the environmental scan identified additional programming opportunities to promote education in in agribusiness, gardening and crop production, developing social skills, business, marketing, and money management skills for youth. The potential educational programming areas could be a collaborative opportunity to utilize community professionals as speakers or presenters to teach local youth real-world skills. A sixth opportunity identified is the strong external partners of the Greene County Extension office. Greene County Extension is partnered with many of the county's school districts, non-profit organizations, city governments and agencies, community centers, churches, and alternative schools. These partnerships provide the opportunity for marketing for consumers and potential recruitment of youth and volunteers. There are also potential for resources and other supports for the youth farm stand program. One example is the utilization of established school and community gardens for education. Fairborn Digital Academy's students experiment with raised bed and container gardening and could assist in the teaching of the Youth Farm Stand participants how to grow vegetables in limited space conditions.

Threats

As with all new programs, threats were identified that could impact the development of a Youth Farm Stand Program in Greene County. First, it should be recognized that a Youth Farm Stand Program's viability post-covid has yet to be observed in the literature. This could be a threat to the Greene County YFSP because it is hard to predict how covid or other environmental impacts may continue to impact these programs. Second, it should be recognized that there is little information on the consumer data from farmers markets in Greene County. A closer look at consumer feedback may assist to determine marketing strategies that would benefit the farmers markets and the Youth Farm Stand Program in Greene County. Third, a low response rate to the

environmental scan instrument among youth participants could negativity impact retention and interest in a new farm stand program. A low response rate could indicate that the interest seen in the environmental scan may not be indicative of the entire population of potential stakeholders in Greene County. Fourth, clear benefits from a Youth Farm Stand Program in Greene County need to be defined. Benefits of a YFSP can be hypothesized from the existing literature, however, benefits specific to the Greene County community are all assumed at this point in the planning process. However, it is important to consider how to foster a learning experience while also demonstrating tangible benefits for participation that meets the needs and interest of Greene County. A fifth threat included a need for better advertising and marketing of farmers markets/farm stands in Greene County. The current lack of advertising and marketing is considered a threat because most Greene County farmers markets utilize Facebook to advertise their dates and times.

The SWOT analysis indicates both the areas the program should expand on and those that should be addressed to make the Youth Farm Stand Program in Greene County a sustainable program. The Strengths are the advantages the program already has in this early stage of planning. The strong volunteer base and expressed interest and ideas for the program provides a foundation that could make the program successful. These are the external strengths we can pull from the outside to benefit the program. Many of the need assessment participants expressed interest in having YFSP at existing farmers markets or having both a standalone market for the YFSP and youth farm stands at existing markets. Potential partnership with the Xenia Library to create vinyl banners for the farm stands and the development of Farm Stand teams for leadership and interest placement give the youth the opportunity to become much more invested in the program. Multiple YFSP models and curricula in the literature provide the opportunity to utilize

best practices over trial and error. The educational preferences found in the environmental scan results help demonstrate the growing awareness for certain topics to be addressed. Local Foods and Food Preservation education for consumers help us see the growing desire for food sovereignty that has developed out of the COVID-19 pandemic and supply chain shortages (Brimm K., 2020). Interest in the topics of Agribusiness, gardening/crop production, social skills, business, marketing, and money management skills demonstrate the desire for youth to develop skills that will help them either start their own business or run their family farm.

When looking at the Threats, these are the outside impacts that could lead to problems for the program. Many of the YFSP models found in the literature have seen success prior to the COVID-19 pandemic. Unfortunately, it still too early to see what their programs look like post COVID-19. Low yields among youth participants could negatively impact retention and interest in the program. Volunteer participation and youth participation in this type of program are linked. It is hard to recruit youth without volunteers and vice versa. Addressing the compensation/reward from the program is an area that could benefit recruitment and retention of youth and volunteers. By clearly defining the costs and benefits, youth have a goal to strive to and can see how their work pays off in the end. Much like the livestock sales at county fairs, there must be the sense completion of the project. Whether it is a premium or they receive the amount sold, this needs to be addressed. Farmer markets and farm stands need better advertisement and marketing in Greene County. This is true of the program and the existing markets themselves. If the youth stands are at existing markets, this will need to be addressed to ensure the time and place is fully communicated to consumers. Along these lines, strategies are needed to ensure both youth and adult farmers market sellers are benefitting from the program.

Next Steps

Based on the SWOT analysis, six areas of concentration for next steps were recommended if the decision makers decide to move forward with the Greene County Youth Farm Stand Program: 1. Volunteer recruitment, support, and retention, 2. Establishment of Community Partnerships, 3. Curriculum acquisition/development, 4. Benefit development for youth and adult participants, 5. Establishment of effective communication and marketing practices, and 6. Establish open channel for community feedback. However, the results of the environmental scan and SWOT analysis do have shortcomings in their current state.

Limitations

Limitations are recognized weaknesses within the design or implementation of the project that could have impacted the results or findings. One limitation of the project is that the results from the environmental scan can only be applied to a small portion of the 4-H and agriculture communities in Greene County. Due to the low response rate, it cannot be concluded that the responses represent the entire population of stakeholders in Greene County. The methods of utilizing Facebook and emailed newsletters in distributing the environmental scan link could have contributed to the low response. These methods were used to ensure anonymity and privacy of respondents. However, a personalized email and reminders may have made potential respondents feel more inclined to participate. Also, separate surveys for youth and adult stakeholders would help to better understand interest among potential youth participants and adult volunteers. A respondent wrote in one of the open-ended questions on the environmental scan that a better method needs to be found to inform and advertise to the community about the markets because “not everyone uses Facebook.” This statement also holds true to the way the environmental scan was distributed and how future attempts at gathering feedback on the Youth Farm Stand Program need to be planned.

One approach to addressing this problem in the future is to follow the Fairborn Farmers Market's model for advertising. The Fairborn Farmers Market advertises its market on their Facebook page and then shares it on the City of Fairborn Municipal Government and Fairborn Communicates Facebook pages. The calendar of market dates and times is also shared on the City of Fairborn website. The City of Fairborn also partners with Food Trucks to have Food Truck Rallies in conjunction with the Farmers Market to bring in more consumers. The utilization of multiple communications (Facebook, websites, email, etc.) and partners' following may be the better approach to informing the community and gathering feedback in the future. Moving forward, efforts will need to be made to continue to collect feedback from the 4-H and agriculture communities in Greene County to ensure all needs and interests are addressed in the planning process of a youth farm stand program.

Another limitation of this project is that the SWOT Analysis may not give a full understanding of all the internal and external elements involved. This limitation is partially due to the low response in the environmental scan, as well as unknown factors that may exist when creating a new program. The low response makes it difficult to know if all needs, preferences, and interests were gathered. The other contributing factor to this limitation is that the program is in the idea phase and has yet to transition to the planning phase. A SWOT analysis is most robust and helpful when analyzing an existing program that has competition. No Youth Farm Stand Programs currently exist in Greene County, and it is still too early to see all the strengths and threats to the program. However, the Greene County YFSP SWOT Analysis and environmental scan results provide a good starting point and help to focus any future planning and implementation efforts. It will be necessary to continue updating the SWOT analysis in the

future as new strengths, weaknesses, opportunities, and threats become apparent throughout the planning and implementation of the Youth Farm Stand Program.

Implications

Implications explain how findings may be important for developing policy or practice, Implications should be considered by decision makers when utilizing the results and findings of this environmental scan to make programmatic decisions for a Youth Farm Stand Program in Greene County. One implication of the environmental scan is that the data could benefit a Youth Farm Stand Program in Greene County as well as benefit the county's farmers markets in offerings and advertisement. Majority of the stakeholders who responded to the environmental scan stated that they had shopped at a farmers market or farm stand. The data for product and educational offerings from the environmental scan could help to inform market managers and vendors of the items that consumers are interested participating in at the market. For instance, fresh, local vegetables and fruits, eggs, fresh herbs, and maple syrup were the top five responses for product offerings for the youth farm stands in the environmental scan. Farmers market could focus on these offerings in advertising and marketing to bring in more consumers.

A second implication is that the environmental scan data may be useful in exploring new educational programming for youth and adults interested in the local food systems. As observed in the environmental scan, the top preferred educational offerings for consumers at the youth farm stands were Local Food, Food Preservation, Cooking/Food Preparation, Nutrition, and Gardening/Crop Production. The top preferred educational offerings for youth participants were Agribusiness, Gardening/Crop Production, Healthy Food Promotion, Marketing, Money Management, Small Business Management, and Social Skills. All the preferences are topics that

can be addressed though different Extension programs focused on the target audience. This can also guide future program planning and topics for future events.

A third implication from this project is that more research needs to be done on the sustainability of Youth Farm Stand programs. Many of the model programs saw success in their first few years. However, there is little information on the status of those program in the literature today. In Greene County, the Youth Farm Stand Program is a new idea and there are no observed programs locally that are similar in nature. Without competition or a local model to adapt from, the model youth farm stand programs from across the country will provide the potential program basis. Continued evaluation of the program for impacts and outcomes will be beneficial both to the program and the literature.

Recommendations

The next steps in the process of planning and implementing a Youth Farm Stand Program in Greene County, Ohio will rely on the results of the environmental scan and the SWOT Analysis. The findings from the environmental scan will be shared with local decision makers. It is recommended that local decision makers review the findings and SWOT analysis to determine the next step in considering a Youth Farm Stand Program in Greene County. If the decision makers feel there is sufficient interest and need for a program it would be recommended that a committee is formed to oversee the development of the program and important aspects of it. This committee should at least consist of 4-H and agriculture community members interested in a YFSP in Greene County, Extension Professionals, county farmers market managers/vendors, 4-H/FFA youth interested in participating, schoolteachers/administrators, and county/city officials. The inclusion of representatives from the stakeholders will help in creating a program that meets the communities needs and the acquisition of resources necessary to ensure successful

implementation. Agriculture and 4-H community members are an important stakeholder group as they will make the base of volunteer support. Extension Professionals will provide majority of the educational materials and have been primary planners in the early stages. Farmers market managers and vendors will be an important partner in establishing this program and will provide much of the needed resources to ensure the Youth Farm Stands have a location. 4-H/FFA youth are the primary stakeholder group as they will be the target participants. Their input, as seen in other programs, is vital to ensuring their needs and interest are the primary focus. Schoolteachers and administrators, while potentially overlapping with other stakeholder groups, provide potential resources and opportunities that could help to further develop the program. Also, the expressed need to recruit volunteers experienced working with youth may be addressed with their inclusion. Lastly, county/city officials, such as city planners and county commissioners, are included as they may be able to provide support in establishing the program and generating advertising and support. One example of this may be creation of city sponsored events at the farmers markets generate more interest and attendance at the farmers markets.

Once the planning committee is established, a mission and vision statement would be developed to guide the planning process. This step is foundational to establish the plan for the youth farm stand program and focused direction for the planning committee. After the fundamental planning of establishing a new program in Greene County Extension, the committee should then prioritize and include further planning that focuses on curriculum acquisition and development for both youth and consumers, models for compensation for farm stand participants, strategies for equity and sustainability among farm stand participants, and identifying potential products to be sold at the farm stands. Furthermore, the planning committee should develop a plan for continued feedback from the stakeholder community. Lastly, effective

means of communication and marketing needs to be established with both the youth farm stand program and local farmers markets in mind. As the program develops and reaches implementation, the SWOT analysis will be revisited to further assess new areas of concentration.

Conclusion

The purpose of this project was to assess interest in a Youth Farm Stand Program in Greene County, Ohio that could help meet the needs of the local 4-H youth and community around agricultural entrepreneurship, local food production, and community development. An environmental scan was adapted to collect the data necessary to determine interests, suggestions, and concerns regarding the implementation of Youth Farm Stand Program in Greene County. The environmental scan results indicated that there was interest in a Youth Farm Stand Program among stakeholders in Greene County. Their responses indicated their preference on what the stands should offer, the educational topics for both youth participants and consumers, the frequency of education, and where these stands should be located. Their responses also indicated the suggestions of partnering with the Xenia Library to print farm stand banners designed by the youth and to make sure volunteers are experienced and knowledgeable in working with youth. The concern indicated by the environmental scan results was to find better methods of advertising and marketing the farm stands. From the results of the environmental scan, literature of review of similar programs, and other sources of data in the county, a SWOT Analysis was performed to figure out the next steps in the planning process.

The SWOT analysis indicated that a Youth Farm Stand Program could be successful if considerations were taken upfront in the planning process. If decision makers decide to move forward with planning a Youth Farm Stand Program in Greene County, six areas of

concentration were determined. These included: 1. Volunteer recruitment, support, and retention, 2. Establishment of Community Partnerships, 3. Curriculum acquisition/development, 4. Benefit development for youth and adult participants, 5. Establishment of effective communication and marketing practices, and 6. Establishment of an open channel for community feedback. Each of these areas consider the strengths, weaknesses, opportunities, and threats that were indicated in the SWOT analysis. The SWOT analysis is limited by the low response to the environmental scan and lack of recent data on youth farm stand programs. However, the results can be utilized to determine whether to move forward and what the next steps should be to develop a successful Youth Farm Stand program in Greene County.

A youth farm stand program can benefit youth and the community in a variety of ways. Youth can learn a variety of skills that will help them succeed in future careers. These include how to run a small business and set prices, how to handle a financial transaction and exchange money, customer service skills, accounting, banking, and budgeting techniques, marketing and promotion of events, identification of fresh produce, mental math, leadership, basic nutrition, food safety, and workforce readiness skills (Slow Foods USA Youth Farm Stand Toolkit, 2017; Strieter, L. A. & Hughes, L. J., 2009; *Michigan Youth Farm Stand Project Toolkit,* 2009; City Beets Full Eight Week Curriculum and Activities, 2013). Youth can also have the opportunity to learn with an experienced, caring adults furthering the inputs of the 4-H Formula for Success (Lerner et. al., 2013). Youth farm stands give youth the opportunity become contributing citizens to their communities.

The community can benefit from a youth farm stand program in education about local food supply chains from producers to consumers, the seasonality of fresh produce in their area, and through the providing of nutritional support to consumers (Slow Foods USA Youth Farm

Stand Toolkit, 2017). The community also benefits from the increase access to healthy foods and food security for low-resource residents. As indicated in the environmental scan results, the community could also benefit from education programs geared toward local foods and food preservation. Another benefit to the community is the increase of youth interest in the farmers markets. Through social media and knowledge of technology, youth may be able provide ideas and solutions to market and advertise the farm stands to a wider consumer base. Youth are often early adopters of technology and innovations and can aid in education and support of new advances. The farm stands could become a place where youth and adults both trade knowledge, various skills, and best practices. For instance, youth can learn about agriculture and social entrepreneurship from the adults while the adults can learn social media marketing and influence strategies from the youth. The youth may also become the next generation of agriculture producers in community and the youth farm stand may better equip them to sustain the farmers markets and local food supply in the future.

The youth farm stand program provides an opportunity for youth to further explore interests in areas of agriculture entrepreneurship, local food production, and social community development and thus allows to them to explore agriculture at all aspects of the supply chain. By utilizing the foundational supports of Extension and 4-H Youth Development, a youth farm stand program can build upon experiential learning to teach youth the skills that would not only bring success at a farm stand, but in multiple careers. The community can also reap benefits from the program by establishing a greater sense of community like that of the farms stands of old and create greater access to local food and food security for low-income residents. In Greene County, the decision makers will be presented with the results of this project to determine whether to move forward with the development of the Youth Farm Stand program and direction it will take.

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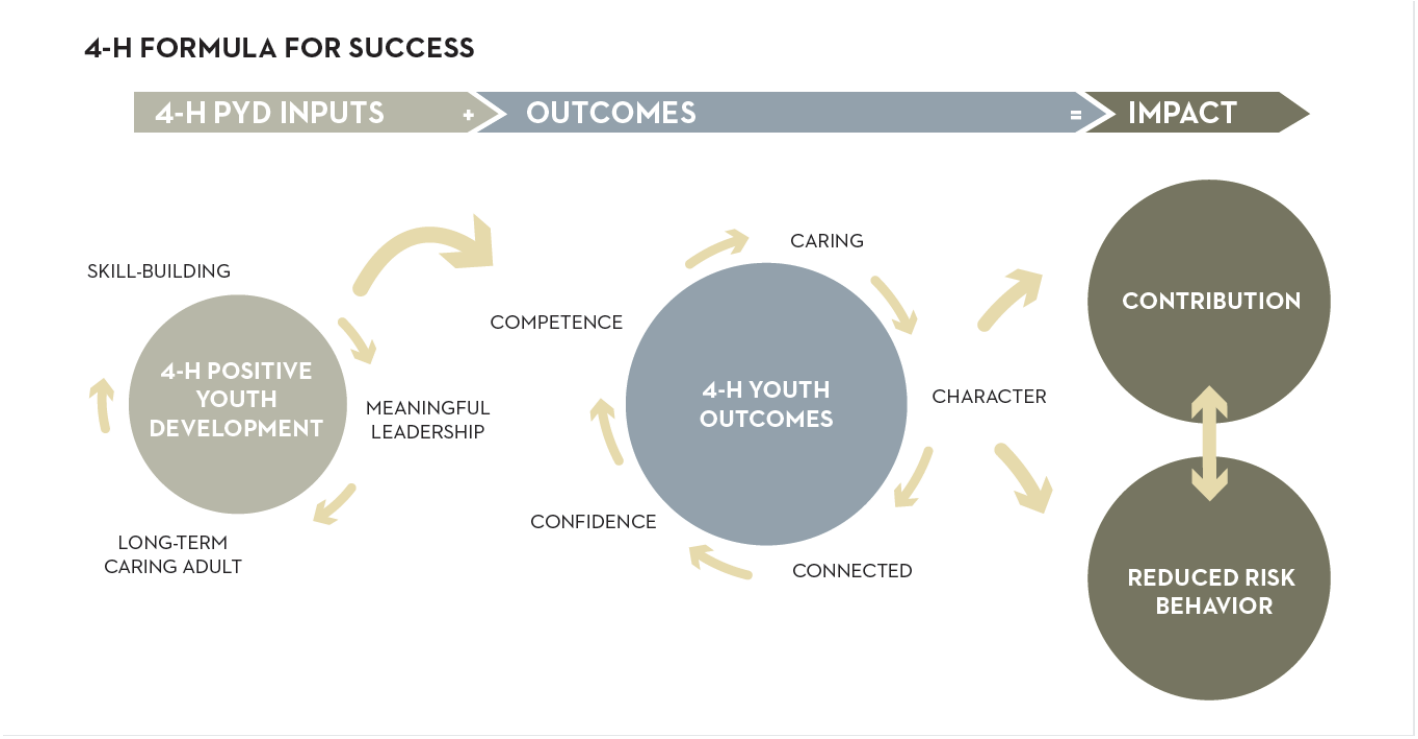
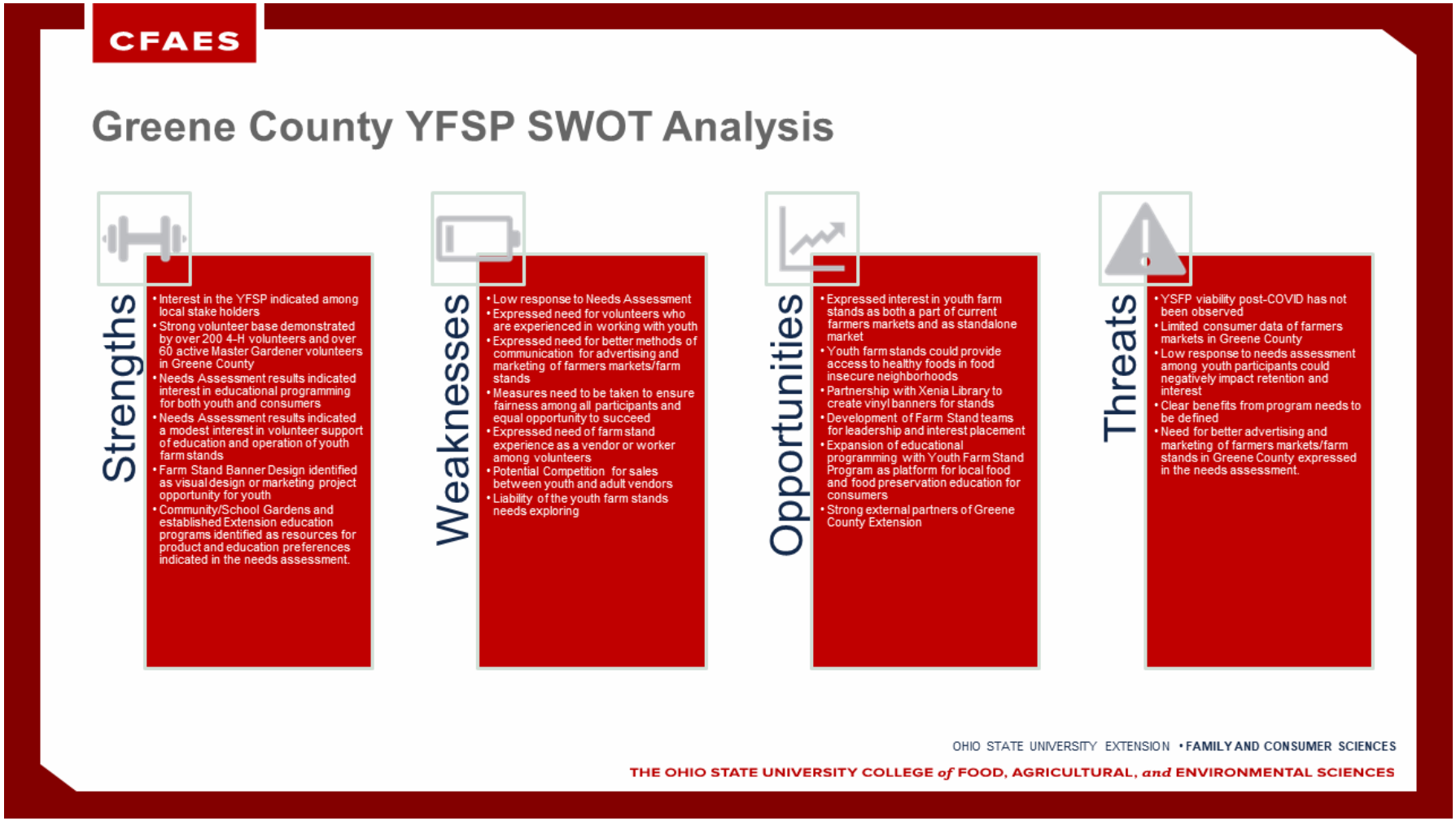
Appendices

Appendix A.



4-H Formula for Success from Lerner et. al. (2013). Chart shows the 4-H logic model for positive youth development.

Appendix B.



Greene County YFSP SWOT Analysis