



AgrAbility Virginia Program Evaluation Brief: 2021 Survey & Interview Results

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Introduction

AgrAbility Virginia promotes safety, wellness, and accessibility on the farm through education, rehabilitative services, and assistive technology. AgrAbility Virginia is a partnership program between Virginia Tech, Virginia State University, Virginia Cooperative Extension, and Easterseals UCP. AgrAbility Virginia is funded by the United States Department of Agriculture National Institute for Food and Agriculture. As a statewide program, AgrAbility Virginia works closely with Virginia's rehabilitation and agricultural service delivery system to increase organizational capacity and provide the best quality education and services for farmers across Virginia. AgrAbility Virginia especially works in partnership with the Virginia Department of Aging and Rehabilitative Services (DARS) to make recommendations for farmers regarding assistive technologies and new farm procedures and protocols that will make farming more comfortable and safer.

To evaluate our programming, we used a utilization-focused summative-mixed methods evaluation to quantify and qualify any changes in quality of life, hopefulness, farm safety, and other factors that have taken place as a result of a farmer's participation in AgrAbility Virginia programming. This brief shares results from two surveys—one for farmers (n=9) and one for service providers (n=8)—as well as farmer interviews (n=3). Most AgrAbility farmer clients indicated that AgrAbility was useful and made positive changes in their lives: seven agreed or strongly agreed that with AgrAbility Virginia's assistance, they are more hopeful in their ability to meet their farming goals (while two disagreed). Quality of life data was slightly mixed with majority positive outcomes reported. Overall, participants were satisfied with AgrAbility Virginia programming: seven out of nine participants indicated they were satisfied with AgrAbility Virginia's services and all interview participants shared positive experiences in collaborating with AgrAbility, describing how the partnership contributed to greater independence. Further, service providers reported overwhelmingly positive experiences partnering with AgrAbility Virginia.

Methods

The methods we used in this evaluation were based on the work of Kyle et al. (2017). Kyle et al. conducted a similar evaluation of Virginia's AgrAbility program in 2016 using a convergent parallel mixed methods design following the work of Creswell and Plano Clark (2011). According to Creswell and Plano Clark, in a convergent parallel mixed methods design, qualitative and quantitative data are to be collected and analyzed separately, before the researcher engages in joint analysis to identify commonalities across the two sets of data. In this study, we based our surveys on the one designed by Kyle et al.—this comprised the quantitative portion of the evaluation. The farmer client survey included 36 questions, including Likert scale questions and open-ended questions. The service provider survey included 21 Likert scale and open-ended questions. Similarly, we used the interview methodology designed by Kyle et al. to conduct the qualitative portion of our methods. Following the work of Kyle et al., these interviews were in-depth and semi-structured and lasted 15-20 minutes.

On January 29, 2021, we sent a pre-recruitment email or made pre-recruitment phone calls to make former and current clients, as well as service providers, aware of the upcoming survey. The surveys were sent by mail to those we didn't have email addresses for on Monday, February 1st. Emails with the link to the survey were sent on Tuesday, February 2nd. The first reminder emails and phone calls occurred on Thursday, February 11th, and the second reminder (email only) was sent on Thursday, February 18th. We conducted interviews with three farmers between March and May of 2021.

Brief Farmer Survey Results and Discussion of Farmer Survey Responses

A number of the clients changed their address and/or their phone number. Because of this, we reached only about 37 clients out of the original 48. In total there were nine respondents, four (44.4%) sent paper surveys back to Virginia Tech and five (55.56%) completed the survey electronically. The total response rate was 24.3 percent.

Demographics

Farmer participants that completed this survey ranged in age from 50 to 82 years old. Aside from one respondent who declined to fill in their age, all were 50 or older. The mean age was 63.5. Three participants were military veterans. All nine respondents reported gender: three female and six male respondents. Race was self-identified as white (n=8), and Hispanic or Latino (n=1). Most (n=5) AgrAbility Virginia participants who chose to partake in this evaluation have been farming for at least 20 years, with two reporting that they are beginning farmers (under three years), and one leaving the question blank. All survey participants reported being rural farmers who farm between 6-10 (n=2) acres, 101-200 (n=2) or over 200 acres (n=2). Three reported farming no acres—one is an aspiring farmer and the other we believe to be retired from farming.

These farmers grow crops such as forages, hay, grains, dry beans, oil seeds for human consumption, fruit, and mixed vegetables. Some are also raising livestock such as beef, sheep, poultry, honeybees, and other livestock. All but one reported utilizing family labor for production. One reported using no additional labor and another declined to answer. Their farms are all located in rural areas. Survey participants are located in the following counties: Augusta (n=1), Bedford (n=1), Bland (n=1), Highland (n=1), Nottoway (n=1), Prince George (n=1), Spotsylvania (n=1), Surry (n=1), and Tazewell (n=1).

AgrAbility Virginia also wanted to get a sense of where program participants sold their products, what kind of products they were selling, and how far away they needed to travel to sell their products. Most of the farmers (n=5) were not currently marketing products. Of the four that reported marketing products, all used a livestock auction while one also reported using a marketing co-op and another reported using commodity markets. Farmers reported selling products at their farm (n=1), or at markets 0-15 miles away (n=1), 26-50 miles away (n=2), and 50-100 miles away (n=1). One respondent declined to answer.

Technical Assistance Recommendations and Assistive Technologies

From the survey, we learned that particular AgrAbility Virginia recommendations and/or assistive technologies used by program participants included: hand controls for tractor brakes and throttle, a hoist for getting on and off a tractor, adapted gardening tools, a lift for a tractor, and stairs on grain bins. Some clients reported using other assistive technologies that were not recommended by AgrAbility. These included: a forklift man cage, a remote ground feeder for livestock, and a milk crate to get on and off the tractor. Most respondents agreed (n=3) or strongly agreed (n=4) that they “have received support needed to make decisions regarding modifications to my machinery.” One responded ‘neither agree nor disagree’ and another disagreed. Seven agreed or strongly agreed with the phrase “AgrAbility Virginia successfully assisted in finding necessary modified tools or equipment for my farm,” while one responded ‘neither agree nor disagree’ and one disagreed.

Some participants were aware of additional resources available to them. In response to the prompt “I know of additional resources (including service providers) I can access regarding my health because of AgrAbility Virginia's Program,” participants responded that they strongly agree (n=2), agree (n=2), somewhat agree (n=1), neither agree nor disagree (n=3), and disagree (n=1). Most respondents did not list other programs they are receiving assistance from (n=6), but those who listed them included “NRCS application,” “FSA Bee insurance,” “Beehive grant State of Virginia” and “The Small Farm Program and Virginia State University agriculture programs.”

Quality of Life and Other Changes in Attitudes

Most clients indicated that AgrAbility was useful and made positive changes in their lives (Table 1). Seven agreed or strongly agreed that with AgrAbility Virginia’s assistance, they are more hopeful in their ability to meet their farming goals (while two disagreed) (Table 2). When considering quality of life improvements, the results were slightly mixed (Table 3): three strongly agreed with the phrase “My quality of life has increased due to AgrAbility Virginia,” and one somewhat agreed, but three responded ‘neither agree nor disagree,’ one somewhat disagreed, and one disagreed. Overall, farmers feel secure in their ability to farm safely and productively (Table 4): five agreed with the phrase “I am confident in my ability to continue farming safely and productively,” another selected ‘somewhat agree,’ while one person selected ‘neither agree nor disagree’ and one selected ‘somewhat disagree.’ In responding to a question about changes in quality of life as a result of participating in AgrAbility Virginia programming, one respondent noted “[AgrAbility Virginia] has enabled me to be able to safely continue managing my land in spite of physical limitations. The ability to continue doing farm activities, which I very much enjoy, has improved my mental outlook a great deal. Feeling productive is vital to my well-being.” Another responded, “I could continue farming because of the services from AgrAbility.” One was more critical in their response, noting: “No change has happened. It was nice Ms. [Garland] took a three-hour ride to assess my needs, but I’m highly disappointed that AgrAbility does not have the funding or ability to offer equipment ...” Despite this comment, the majority of farmers wrote favorably of the AgrAbility Virginia program and the changes it has brought to their farms.

Table 1

Responses to the prompt: “I have experienced positive changes to my farming practices because of participating in the AgrAbility Virginia program.”

Item	Response (n=8)	Percentage
Strongly Disagree	0	0%
Disagree	2	25%
Somewhat Disagree	0	0%
Neither Agree nor Disagree	0	0%
Somewhat agree	0	0%
Agree	2	25%
Strongly Agree	4	50%
Total	8	100%

Table 2

Responses to the prompt: “I am more hopeful in my ability to meet my farming goals.”

Item	Response (n=9)	Percentage
Strongly Disagree	0	0%
Disagree	2	22.22%
Somewhat Disagree	0	0%
Neither Agree nor Disagree	0	0%
Somewhat agree	1	11.11%
Agree	2	22.22%
Strongly Agree	4	44.44%
Total	9	100%

Table 3

Responses to the prompt: “My quality of life has increased due to services provided by AgrAbility Virginia.”

Item	Response (n=9)	Percentage
Strongly Disagree	0	0%
Disagree	1	11.11%
Somewhat Disagree	1	11.11%
Neither Agree nor Disagree	3	33.33%
Somewhat agree	1	11.11%
Agree	0	0%
Strongly Agree	3	33.33%
Total	9	100%

Table 4

Responses to the prompt: “I am confident in my ability to continue farming safely and productively.”

Item	Response (n=9)	Percentage
Strongly Disagree	0	0%
Disagree	0	0%
Somewhat Disagree	1	11.11%
Neither Agree nor Disagree	1	11.11%
Somewhat agree	0	0%
Agree	1	11.11%
Strongly Agree	6	66.66%
Total	9	100%

The respondents indicated a variety of issues that are impacting their long-term farming success. Responses included: “Lack of necessary equipment to facilitate the mission. Inability to complete daily tasks which is discouraging. Each setback adds to diminished mental health.” As well as “a progressive neuromuscular disease,” “age,” and “multiple sclerosis.” One participant also noted “hearing loss” and “ambulation issues on uneven ground.” Another listed “T-4 paraplegic.” Listing the ways in which they have adapted their practices and routines to accommodate these challenges, participants noted the following:

- “After all but giving up on my dreams of farming when forced to move to a wheelchair due to a progressive neuro disease, [AgrAbility Virginia] has taken the time and effort to find ways that will safely

allow me to continue operating farm equipment including hand controls and mounting/dismounting of equipment.”

- “The modified and adapted tools allowed me to continue farming and helped to limit the secondary injuries caused by using the tools incorrectly to accommodate my main injury.”

Interview Findings

Those who participated in interviews were overall positively constructive about their participation in AgrAbility programming. The overwhelmingly positive results of the interviews may be a result of self-selection where those who had a positive experience with AgrAbility Virginia were more willing to volunteer their time to participate in an interview. Those who participated reflected on how recommendations from AgrAbility allowed them to continue farming and/or gave them more hope about the future and their ability to begin or continue to farm. Two farmers also discussed the need for further assistance from AgrAbility. These farmers also noted barriers to accessing AgrAbility’s services related to “pride” and lack of knowledge about the existence of programs like AgrAbility.

Several farmers discussed working independently and needing more help on the farm, noting that finding help was a struggle. Farmers who participated in the interviews generally expressed their appreciation for the work of AgrAbility Virginia and were positive about the changes in their lives as a result of AgrAbility services. Overall interview responses aligned with the results of the survey, though there was likely selection bias as farmers who had had a positive experience working with AgrAbility may have been more likely to volunteer to participate in an interview.

Table 5
Interview findings by theme

Theme	Interview findings
Continuing to farm	<p>“It helped me 100% because I lost my leg in 2010, my left leg, and I just couldn’t climb straight up but I could climb a set of steps.”</p> <p>“Y’all made my life 100% better than it was because I can do now what I couldn’t do before y’all. I can say y’all helped me 100% because with the staircases I can walk up there [to the top of the grain bins], it’s got handrails and all like that. Y’all helped me 100% because I didn’t even know they had stairways like this.”</p>
Need for further assistance from AgrAbility	<p>“Currently I feel very comfortable with what I’m doing but I feel very certain that as time progresses I will need further assistance from Virginia AgrAbility. Virginia AgrAbility seems to have a wide range of resources and they’re useful in all areas of farming whether it has to do with your disability or even your farming needs—they can tap into resources that I don’t have readily at hand or am not familiar with. So, in that respect I think Virginia AgrAbility will continue to be a very useful resource as I move down the road and getting back into farming progresses.”</p>

<p>Barriers to Access</p>	<p>“There’s so many people in my area that need y’all’s help but they won’t let it happen—they have too much pride for anyone to help them in a situation like I was.”</p> <p>“It seems to be, from my experience a very useful—or has the potential to be very useful in a number of different scenarios. I frankly was very surprised that I had never heard of them before and actually heard of them offhand through a tractor supply outlet so I think that maybe there’s an opportunity for Virginia AgrAbility to be more aggressive in their outreach program . . . it seems like there might be some opportunity for greater utilization of your services. I know in the disability world that I live in there are a lot of interconnections and a lot of people that I run into that certainly would benefit from your services and they, like I, have not heard of Virginia AgrAbility.”</p>
<p>Independence</p>	<p>“I can do a lot of things—there’s still a lot of things I can’t do. We have a registered cattle operation, and we were loading some cattle the other day—my daughter and I and another fellow, and I couldn’t get in the bin to hold the heifer and put ‘em up through the trailer and all. So, she was running from one end of the alleyway to the other end and back and forth and back and forth. . . . ended up having to get some more help”</p> <p>“We don’t have nobody right now, they don’t show up half the time and like yesterday I didn’t have anybody and I did what I could do myself and them [automatic gate openers] would be handy for me.”</p> <p>“It’ll be very very helpful not to worry about getting someone to come help me if I do get all these [automatic gate openers] completed and that lift.”</p>
<p>Positive changes</p>	<p>“I think the challenges that were preventing me from moving forward and chasing my aspirations, I think Virginia AgrAbility and the suggestions made by Garland and Jeremy have minimized those challenges to the point that I can move forward now, it’s just a matter of proceeding... It’s very exciting to get up every day and pursue this.”</p>

Brief Service Provider Survey Results and Discussion of Service Provider Survey Responses

We reached out to 13 service providers who had worked with AgrAbility Virginia in the past. Of the 13 we reached out to, eight (61.53%) responded to our request. All service providers completed the survey electronically, we sent no paper surveys via the mail.

Demographics

Participating service providers described their organizations in different ways. Two reported being from the Department of Aging and Rehabilitative Services, two from Virginia Cooperative Extension, one reported being from an “outreach program for small farmers and socially disadvantaged to provide technical support,” another reported that they represented a “nonprofit advocacy organization working to improve health and healthcare in rural Virginia,” and last, one described their organization as being “educational.” One participant declined to respond to the question.

Participants described their work with AgrAbility Virginia in different ways. In response to the question “in what capacity have you worked with AgrAbility?” service providers noted having received a referral from AgrAbility, serving on the AgrAbility Virginia advisory group. Another responded that they are a “liaison, educator, [and] share publicity” while one responded that they “refer potential clients to AgrAbility program coordinators and assist those clients with technical support related to farm enterprises.” Last, one participant responded that they serve in a consultation position with AgrAbility Virginia and another chose not to respond.

Six answered that they serve rural communities, three suburban, and one urban (participants could choose more than one). One noted that they serve the entire state of Virginia. Three had been referring clients to AgrAbility for more than three years, one for two years, one for six months or fewer, and three had never referred clients. Of those that refer clients to AgrAbility Virginia four responded that they refer 1-3 clients per year and one reported referring 3-6.

In response to the question “What are the primary conditions or disabilities that impact your farmers'/clients' ability to operate their farm?” five reported back injury and joint injury (shoulder/elbow/wrist/hip) (one participant chose not to respond and two responded “not sure” or “don’t know”). These were the two most common conditions or disabilities that impact farmers’ or clients’ ability to operate their farm. Next, four reported “Mental health conditions/Mental illness (e.g., depression, anxiety, bipolar, PTSD, etc.)” were impacting their farmer clients’ abilities to operate their farm. Other conditions included orthopedic injury (other), traumatic brain injury, cancer, arthritis/rheumatic diseases, hearing impairment, or vision impairment (all reported to be a primary condition or disability by three respondents). See Table 6 for the full list and results.

Table 6

Responses to the question: What are the primary conditions or disabilities that impact your farmers'/clients' ability to operate their farm? (Check all that apply).

Item	Response (n=7)
Amputation (upper extremity)	2
Amputation (lower extremity)	2
Back injury	5
Joint injury (shoulder/elbow/wrist/hip)	5
Orthopedic injury (other)	3
Spinal cord injury (paraplegia or quadriplegia)	1
Traumatic brain injury	3
Neuromuscular diseases (e.g., ALS, Freidrich's ataxia, Huntington's disease, muscular dystrophy, etc.)	2
Neurological conditions/disorders (e.g., stroke, cerebral palsy, epilepsy, M.S., etc.)	2
Cancer	3

Cardiovascular disease	2
Respiratory impairment	2
Chronic pain/fibromyalgia	2
Arthritis/Rheumatic diseases	3
Hearing impairment	3
Vision impairment	3
Chemical dependency	2
Chemical sensitivity	1
Diabetes/metabolic disorder	2
Mental health conditions/Mental illness (e.g., depression, anxiety, bipolar, PTSD, etc.)	4
Other (please specify)—Not sure, don't know	2

Level of Satisfaction Among Service Providers

From the survey, we learned that service providers have had an overwhelmingly positive experience working with AgrAbility. All agreed, somewhat agreed or strongly agreed that they had an awareness of what AgrAbility Virginia services are available to their clients, that the information provided by AgrAbility Virginia has been helpful in assisting clients, and that AgrAbility Virginia's services and advice are/were relevant and appropriate for their clients' needs. All also reported (by answering agree or strongly agree) that they would recommend the AgrAbility Virginia program to other farmers and farm families for assistance.

Finding out about AgrAbility Virginia

Knowing how service providers and farmers find out about AgrAbility Virginia is particularly useful to us in strategizing our marketing and communications. Service providers responded that they found out about AgrAbility through referrals directly from AgrAbility and learned more by following up and looking at the website, another found out through workshops hosted by the Virginia State University Small Farm Outreach Program, and one through an internal communication from Virginia Cooperative Extension. Service providers also provided insight into how the people they work with find information about programs and services like AgrAbility Virginia. Answers included: "pamphlets and other information which can be shared," "networking," through Virginia Cooperative Extension, the internet, fliers, newsletters, and social media.

Conclusion

AgrAbility Virginia, a program designed to support farmers experiencing illness, injury, or disability, conducted an evaluation using a convergent parallel mixed methods design. The evaluation consisted of three components: farmer surveys (n=9) service provider surveys (n=8) and farmer interviews (n=3). The results of the survey largely indicated that farmer participants experienced positive changes in their farming practices and an increased hopefulness about their ability to start or continue farming. Additionally, service providers were overwhelmingly satisfied with AgrAbility Virginia's services. Data derived from interviews was exclusively positive, with some suggestions for improvement. Recommendations based on survey and interview data include providing more focus on improving quality of life for farmer clients, providing education to prospective clients to reduce the barriers to

accessing AgrAbility Virginia services, and expanding outreach and communications to reach more potential clients.

References

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