



ADA Live! Episode 92: Let's Dig-In: The ADA, Accessible Farming & Gardening

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Speaker: Paul Jones, Manager of the Breaking New Ground (BNG) Resource Center and the National AgrAbility Project

Host: Rebecca Williams, Information Specialist Southeast ADA Center

Paul Jones: Hi, I'm Paul Jones and you're listening to ADA Live.

4 Wheel City: (rapping) Yo. All right, let's roll. Let's go.

Beth Miller-Harrison: Hello everyone. On behalf of the Southeast ADA Center, the Burton Blatt Institute at Syracuse University and the ADA National Network, welcome to ADA Live. I am Beth Harrison with the Southeast ADA Center. Listening audience, if you have questions about the Americans with Disabilities Act, you can use the online form any time at adalive.org.

The roots of agriculture run deep in our country, from large farms to community gardens, and it's vital to the quality of our lives. Farming and its related industries provide 11% of US employment and there are over 30,000 community gardens in large cities across the United States. And with spring right around the corner, together with long months of being inside, many of us are ready to be outside and get into the dirt by clearing, tilling and planting. Today, we'll be digging in to the topic of accessible farming and gardening with our guest, Paul Jones, manager of the Breaking New Ground resource center and the national AgrAbility project, both at Purdue University and our host for today is Rebecca

Williams, technical assistance specialist with the Southeast ADA Center. Becky, I'll turn it over to you.

Rebecca Williams: Welcome Paul. And thank you for being our guest. Now I'm ready to dig right into AgrAbility, your program and services. As Beth said, farming and gardening are such vital parts of our heritage and continue to be integral components of life across the United States. Decades ago, many people may have assumed that when a farmer acquired a disability, that was the end of their ability to be a farmer and earn a living. What are the roots of the AgrAbility Project? When, how and why was AgrAbility started?

Paul Jones: I think you're correct. In earlier days, there was an assumption that farmers with disabilities had to stop farming. If you look back at the roots of the federal vocational rehabilitation system, which started right after World War I, there was an emphasis on rehabilitating those veterans, including former farmers, but moving them into different, less physically demanding jobs. It's kind of interesting to note that the US farm population actually peaked right before World War I in 1916 when 32% of everybody in the United States lived on a farm. We had a lot of farmers going off to war and a lot of them coming back from World War I with significant disabilities. But as I said, a lot of those were moved to different jobs like maybe drafting or accounting or something like that. Really in terms of the roots of AgrAbility, the first formalized program started in 1966 and that was the Vermont Rural and Farm Family Vocational Rehabilitation Program. That was a partnership between the University of Vermont's cooperative extension service and Vermont's office of vocational rehabilitation. And that that program continued on until just a few years ago.

From our perspective at Purdue in 1979, a farmer called Purdue looking for help in getting back into his tractor after he'd been paralyzed in a truck collision and some efforts to help him eventually led to the beginning of the Breaking New Ground resource center here. A similar program started in 1986 in Iowa called the Farm Family Rehabilitation Management Program, which was started by Easter Seals Iowa. And those earlier programs eventually contributed to AgrAbility, which began officially at the federal level in 1990 through the 1990 farm bill. That's received US Department of Agriculture funding

and that funding began in 1991 with eight state and regional projects and then one national AgrAbility project. Currently we're up to 20 state projects plus the national project and then we're scheduled to expand to 21 projects beginning in September.

Rebecca Williams: Wow. Well, I want to thank you Paul, for sharing the roots of the AgrAbility project. I had no idea it went back that far. It certainly has a long history and you've come a long way. I want to mention to our listeners that the national AgrAbility project has a great website with lots of information. That's at agrability.org. It is spelled A-G-R-A-B-I-L-I-T-Y, and then ending with dot O-R-G. According to the national project website, the mission of AgrAbility is to enhance the quality of life for farmers, ranchers and other agricultural workers with disabilities so that they, their families and communities can work and live independently in rural America. Paul, will you please expand and share some examples of your mission at work?

Paul Jones: Yeah. AgrAbility's mission is really to assist anybody who's on the broad continuum of disability, who is also on the broad continuum of agriculture. In terms of disabilities, we deal with people that have amputations, spinal cord injuries, traumatic brain injuries, developmental disabilities, mental and behavioral health problems, all kinds of issues like that. Some of the people we work with may not have a disability that would rise to what the ADA would define as a disability. They may simply have back problems or arthritis or other musculoskeletal issues, but we still assist them with tasks that they might be having difficulty doing because of their functional limitation.

And then in terms of agriculture, it really depends on what area of the country you're in, what agriculture might look like for you. I know in the Midwest here, we have a lot of corn, soybeans, animal production, that type of thing, but out West, there's a lot of ranching. Various areas of the country there's a lot of produce being raised, vegetables and fruits, in California, Florida and places like that. We're seeing an expansion of urban agriculture where people are taking vacant lots in cities. They may even be inside in a warehouse or even a garage and doing aquaponics or hydroponics, aquaculture. There's opportunities for agritourism, niche markets, llamas and herbs, people growing flowers. Again, we've got very broad spectrums in both disability and agriculture that we try to address. Some of

those people might need help, not only with disability and agriculture issues, but business planning.

We've got a lot to deal with and I think it's important to point out that none of our AgrAbility staff can be experts in every area. I don't think anybody can really be an expert in every area of disability and every area of agriculture. It's really important that our staff knows how to network with other agencies that can provide that expertise that we don't have. One of those that's really crucial for us as state vocational rehabilitation, because our grants do not allow us to provide direct funding and equipment so we work closely with VR. And if you're interested in learning a little bit more about the specific impacts of the mission on individuals, we do have a little pod on our homepage of our website that's called what AgrAbility means to me. And that links to some really short client testimonials that talk about how AgrAbility has directly affected people's lives.

Rebecca Williams: Paul, sounds like you guys really cover all types of disabilities and impairments and provide fantastic, great supports and resources that help keep America's agricultural folks working. Would you now tell us a little bit about how AgrAbility is structured and does every state have an AgrAbility project that folks can reach out to?

Paul Jones: Well, AgrAbility is a competitively funded grant program through US Department of Agriculture's National Institute of Food and Agriculture and every project is funded on a four year cycle. Right now, there is only enough funding at the federal level for 20 state or regional projects. It can be a combination of different states that go together for a project and then the national AgrAbility project is also funded. And our main job with the national AgrAbility project is to support those state projects. And we also provide some limited services to people who live in states that don't have AgrAbility projects. The grants for AgrAbility have to be held by a land grant university and there is at least one of those in every state. In the Southeast region, you actually have two per state. You have what's known as the 1862 land grant, which every state interior has. And then you also have an 1890 land grant and those are the historically Black land grant universities. Either or both of those types of entities could hold an AgrAbility project grant.

As I mentioned, we're not able to provide direct funding or equipment through our grants. And again, that's why networking is one of the things that's really important for us. And the main areas that we generally focus on in AgrAbility are education. It could be through workshops or distance learning, that type of thing. Networking as I mentioned, with all kinds of agencies, not just VR, but Arthritis Foundation, Centers for Independent Living, ADA network and other related organizations. And then the direct services are what really impacts our clients the most. Our staff members actually go out to farms and ranches and other agricultural enterprises and do individual meetings and assessments with the clients.

Rebecca Williams: Wow, you guys really provide a lot of services. I didn't realize is extensive as that was. Think now we want to turn a little bit different way, because I think some of our listening audience may be interested in whether AgrAbility ever provides information to employers in farming and agricultural industries about their responsibilities to an employee with a disability under Title I of the Americans with Disabilities Act. Is that something that AgrAbility ever does?

Paul Jones: Yes, we do. The vast majority of people we normally work with, the farmers and ranchers we work with are what we call owner operators. They usually own their own enterprises or farms. However, there are definitely agricultural enterprises out there that have 15 or more employees. In those cases, we are able to talk with them about issues related to Title I and the need for reasonable accommodations.

Rebecca Williams: That's great. I appreciate that. And kind of also along that line, I'm also curious whether AgrAbility ever gets involved with activities of small farming businesses or programs of a municipality, maybe such as a cooperative extension program, 4H clubs, county fairs. Do you ever need to provide information about requirements for access under the ADA to those types of organizations?

Paul Jones: We've actually done quite a bit of work in that area. I know here in Indiana, we've done assessments of just about every county fairgrounds to help them improve their accessibility. And along with fairgrounds, of course is 4H, it's a natural connection there. Sometimes we do have issues with 4H leaders that might express concern about

participation of some of their members with disabilities. Normally that's framed in a concept of safety, but generally there's kind of an underlying paternalistic attitude that goes along with that. For example, there might be concern about the safety of a wheelchair user being in the show ring with a pig or a cow. And so in some cases like that, we're called on to intervene and help people understand what the ADA says and that we need to focus on the abilities of the 4H members and not disabilities.

Thinking back a little bit farther when the ADA first came out, we hear it breaking new ground, did some resource kits and outreach efforts. One of them called Improving Extension Accessibility and it focused on county extension offices, not just improving facility aspects, but also how to increase accessibility of services to people with disabilities. Another one was called Improving Your Rural Business with the ADA and that focused on businesses like farm implement dealers, grain elevators, hardware stores, other rural businesses that farmers might frequent. And it talked about obligations under the ADA, but also focused on how making your business more accessible can also improve your business. We've worked with some agritourism enterprises that wanted to improve access. Things like corn mazes, pumpkin patches.

Also rural libraries. We had an initiative to reach out to them. Many of those, especially in our area are kind of the old Carnegie libraries that were built decades and decades ago and we're not the most accessible. We've helped them with that. We've done some outreach to rural churches, which are generally exempt from the ADA, of course, unless they have a non-religious tenant that they're renting out to. But in any case, our efforts I think have improved accessibility to those facilities for people with disabilities.

Rebecca Williams: That is really fantastic outreach, Paul. You really cover a lot of different types of organizations and state, local government entity things. And it's great to know that you do provide information about ADA responsibilities. A little earlier, you mentioned that you provide educational outreach programs. I'm kind of curious if a participant needed an accommodation such as closed captioning or sign language interpreter due to a hearing loss, is there a way for this participant to request and receive such a service?

Paul Jones: Yeah, you're correct. We do do a lot of educational activities, both in person and distance learning programs. We make sure that we do ask about the need for accommodations. If we're doing an in person workshop, we ask about the need for a sign language interpreter or alternate formats for materials. And then we make sure that we caption our webinars so that people with any kind of hearing impairment might be able to access those.

Rebecca Williams: That's great to know that you guys are aware of the requirements for effective communication and that folks can receive those services. Now for a little bit different change up. People love, me included, to get their hands in the dirt, to plant and fuss over seedling, to water and nurture and watch the plants grow. What things should people with disabilities consider when they're planning maybe their own backyard garden?

Paul Jones: I think one of the most important things to realize is that gardening is an activity that can be enjoyed by virtually anyone no matter what their level of ability is. You can start with the smallest scale. And for example, I've got a little hydroponic tabletop garden kit. It's got its own light and seed starters so you really don't even have to have a window to start gardening, just a tabletop and one of those kits. You can do window box gardens. If you've got a patio, depending on where you live, you can garden and containers or hanging baskets and put those at whatever level might be best for you. If you've got a larger space outside, there's always raised beds or traditional soil gardens down at the ground level. You can even garden in straw bales. We've seen people do that. It raises the surface up and you don't even have to have a traditional garden bed for those. It's for everybody.

There's other things that you might want to consider. The size of what kind of garden you might want to engage in. Sometimes there's a temptation to think about all the things you might want to plant and grow and eat, but you have to remember that it's not just cultivating it and planting it, but it's weeding and watering and harvesting. It may be a six month venture, depending on where you live. You need to think about the terrain you're going to be navigating and how easy that is for you and what type of path you're going to

have between yourself and the garden and the type of weather conditions you're going to be having to navigate those paths in, the distance you're going to have to travel from a water source and tools. Are you going to be having to carry all those things? Is there something nearby that you can use?

And then something that people might not think of right off the bat is what kind of plants would work best for you? There's definitely high maintenance and low maintenance plants. Perennials of course, tend to be more low maintenance. Are you going to plant something that's going to require stooping or kneeling like lettuce, that's close to the ground? Or you've got things like tomatoes that will climb up on a trellis or a cage, might be easier for you to access. Even things like what time of day are you going to garden? Are you going to have to be out in the sun and the heat of the day? Can you do it in the evening or the morning? What kinds of things would you wear? Would you have proper sun protection, footwear, gloves? And so those are just a few things.

And then your routine, what kinds of repetitive motion tasks might you have to engage in? And how might you alternate your tasks to increase your endurance? What kind of posture might you need to think about? Are you going to be gardening from a seating position or a standing position? You need to think about taking breaks, hydrating, even stretching and warming up can be important for somebody that's going out to garden.

Rebecca Williams: Those are excellent pointers, Paul, and some of them I would not have not even have thought of and I've been gardening for 40 years. One thing you mentioned that struck me was you mentioned hydroponic gardening and then it just hit me that that might be a really great option for apartment dwellers that maybe want to grow fresh herbs, but have absolutely no outdoor space.

ADA Live listening audience, if you have questions about this topic or any other ADA Live topics, you can submit your questions online at www.adalive.org, or you can call the Southeast ADA Center at 1 (404) 541-9001. And now a word from our sponsor.

Commercial: The vision of AgrAbility is to enhance quality of life for farmers, ranchers and other agricultural workers with disabilities so that they, their families and their

communities continue to succeed in rural America. For this target audience, success may be defined by many parameters, including gainful employment and production agriculture or related occupation, access to appropriate assistive technology needed for work and daily living activities, evidence based information related to the treatment and rehabilitation of disabling conditions and targeted support for family caregivers of AgrAbility customers. AgrAbility addresses a wide variety of disabling conditions in agriculture. To learn more about the work of AgrAbility, please visit www.agrability.org.

Rebecca Williams: Welcome back ADA Live listening audience. Paul, we've been digging into the roots and programs of the AgrAbility project. Before the break, we were talking about how gardening can be made more accessible and you gave us some really great pointers for things for people to think about. Now what type of tools and assistive technologies are available to help gardeners with disabilities?

Paul Jones: Assistive technology is really one of AgrAbility specialties. And so to meet the needs of people that are working and playing outdoors, we've developed an online assistive technology database called The Toolbox. Right now, there are 1,640 different assistive technology solutions.

Rebecca Williams: Wow.

Paul Jones: That relate to any kind of outdoor or even shop related work. Main categories, some of them that you think of when you think about agriculture, like tractors, trucks, utility vehicles, that type of thing. But we also have a really extensive gardening section that's in that Toolbox database. Some of the main categories that we have in that gardening section would include garden beds and that would encompass things like raised beds or hydroponic systems that are available. Garden tools and accessories, ergonomic hand tools are in that category, planting aids, seats and kneeling pads, tool storage and transport, watering, a variety of different tools in that area. And then we've got a dedicated section just for yard carts and wheelbarrows.

Just to give you an example of one of the technologies we recently added, there's a device called a RotoShovel. It's a cordless handheld device about the size of a power drill

and you just push on the button and it's got a little auger that digs a hole for you. You can plant bulbs or other plants with that, without having to expend the physical effort you normally would. I've mentioned raised beds, there are kits available and there are also some homemade ideas on how to construct your own if you would prefer to use a raised bed. Things like seats and kneelers you use in the garden. A lot of those have wheels that can roll along for you. And then you have to have tool storage built into them so that you can put your trowels or other devices in the storage compartments.

And then with ergonomic hand tools, some of those are designed for people with limited gripping ability or to help enhance leverage like pruners and loppers that have gears on them so you don't have to exert the normal amount of effort to clip off things. Kind of along with the gardening section is a lawn care section. Some of those devices in that section would also be helpful if you're working outside in the yard and the garden. And then if you have a desire to increase your productivity and capacity, there's a whole different section of the Toolbox on vegetable, small fruit and flower production that would talk about things like if you wanted to start a small greenhouse even or work outside for larger production, there's all kinds of tools in there that might be helpful.

And just to close, I would again mentioned that, not everything in there in the Toolbox is a commercial device. There are homemade solutions and low tech solutions. I've mentioned raised beds before. But for example, in the low vision section, there's a system that basically involves just stakes at the end of a garden row with rubber bands on those stakes. And somebody with low vision can simply put a number of rubber bands on those stakes to tell them what is in that particular row. For example, if there's one rubber band on the stake, that might mean that they've planted lettuce and if there's two, perhaps they planted cucumbers or something else. There's all kinds of different ideas. Not all of them require you to purchase something expensive.

Rebecca Williams: Well I tell you, 640 types of assistive technology in your Toolbox that are there to assist with farming and gardening, that's quite impressive. And these devices seem to cover any need someone in agriculture or gardening would need. And I especially like the low tech devices, they're quite creative. Many veterans and older adults

and other underserved groups share passion for farming and agriculture and gardening activities. What outreach efforts and programs does AgrAbility offer to veterans and other underserved groups?

Paul Jones: Well, AgrAbility has always served people from the groups that you mentioned. Especially we think about older adults. The average age of farmers right now is 59.4 years, according to the census of agriculture. That's just the average. And that means we've got people farming actively in their sixties, seventies, eighties and even older. We've always worked with the older adults. That's always been a focus area. We have increased our outreach to other underserved populations recently. For example in 2013, we added an underserved populations outreach coordinator. He focuses mainly on African-American farmers, Native American farmers, Latin farm worker populations and even some of the old order Amish and Anabaptist groups. In 2014, we added a veteran outreach coordinator and she has 30 years of experience as an army officer. She was a graduate of Purdue with an animal science degree and owns her own family farm. She works with outreach to veterans all over the country. Again, networking is important. She works with the farmer veteran coalition and similar groups that have a specific outreach to veterans to help them meet their needs, either as a beginning farmer or as a farmer that wants to continue producing.

Rebecca Williams: Thanks for explaining some of your outreach there and underserved group programs, Paul. I grew up and still live in Lancaster County, Pennsylvania, an area of the country known for farming. Our news occasionally has a story of a youth or adult who is injured by farm machinery. For my last question, would you please share with us some of your most common types of farm injuries or disabling medical conditions that you work with? And what are some of the creative and innovative solutions AgrAbility has provided to help these folks keep farming?

Paul Jones: Farming is still one of the most dangerous industries in the United States. Usually it's in the top three with mining and construction. If we're thinking about fatalities, tractor rollovers are by far the single highest source, but there are many ways to be injured on a farm, even though farm machinery has become much more safe over the

decades, it's still possible to become entangled or pinched in moving parts of different types of machines. Falls are always an issue, not only in agriculture, but especially from machinery or from haylofts, grain bins, ladders. Animal contact or animal attacks can be sources of injuries if you're working with livestock. And then things like respiratory diseases from inhaling dust or gases can be a problem.

In addition to traumatic injuries, there's things like repetitive motion that can cause ergonomic problems, back issues, arthritis we've talked about, other musculoskeletal issues. One thing that people don't think about probably very much is machinery vibration. That kind of chronic vibration when you're sitting in a tractor or a combine for 12 plus hours a day during planting and harvesting can take its toll. And that's also something to think about for people with spinal cord injuries. If they're operating a tractor or combine for long periods of time, then pressure source can be something to think about.

And in regard to the solutions, I mentioned before that our staff do on farm assessments. And that's really, I think where the creativity comes in. The things we have to ask when we do those assessments are, what do you want to do? Or what do you need to do on your farm? And then what problems are you having doing those tasks? And then talking about potential solutions. And that might mean assistive technology like we've talked about. There are lifts to get somebody from a wheelchair up into a piece of machinery so they can continue farming. Variety of different mobility devices, including things like heavy duty outdoor wheelchairs or utility vehicles, automatic hitches so you don't have to manually hitch up your tractor to a baler or a planter, those types of things.

But in addition to technologies, it might simply mean eliminating a task or having somebody else do a particular task or it could be modifying the task or work practice that might involve grouping different tasks together to maximize endurance. For example, are there tools I can get together at one time during the day so I'm not running back and forth to a tool shed or something to get things? Can I carry those in a utility vehicle with me all day? Will a utility vehicle help me extend my endurance? It might be changing the way you do a task. For example, if you're used to using small rectangular bales that have to

be stacked by hand, maybe it's time to switch to a large round bale of hay that you can move by means of a tractor. There's all kinds of different things our staff have to be kind of in touch with what's going on with the assistive technology world, but they also have to be creative and be able to see what's going on on individual farms and be able to make specific recommendations for those people.

Rebecca Williams: It sounds like your folks do a lot of what we just call looking at reasonable accommodations under Title I of the ADA. How can this person get this job done? Thank you so much, Paul. What a wealth of information. We are grateful to you for sharing your time and valuable insights on the important work of AgrAbility and the Breaking New Ground resource center at Purdue University. And thank you, ADA Live listeners for joining us for this episode.

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4 Wheel City: (rapping)

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