

AGRABILITY QUARTERLY



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AgrAbility Helps Kentucky Farmer Continue His Fresh Market Business

Just meeting Donnie McQuinn lets you know he is passionate about growing fruits and vegetables. Since 1980, he has been harvesting a variety of berries and vegetables on one and a half acres of his fourteen-acre Kentucky farm. His can-do attitude makes him successful as a farmer and in life.

As tenant farmers in Wolfe County, Donnie's parents wanted more for their eight children. Donnie, born with a birth defect that later was diagnosed as cerebral palsy, graduated from Morehead College with a Bachelor of Arts degree in English. He taught English for thirty-three years in Wolfe County. While teaching, he completed his Master's degree and obtained an additional graduate teaching certificate. He has been happily married to his wife, Patricia, for thirty years.

For Donnie, teaching wasn't enough. He wanted to return to his farming roots. He began his operation by raising blackberries, raspberries, strawberries, watermelons, banana cantaloupes, and an assortment of garden

vegetables. Donnie grows and harvests the produce, then sells it at his roadside stand and the local farmer's market. He is certified with the Farmers' Market Nutrition Program (FMNP), associated with the Special Supplemental Nutrition Program for Women, Infants, and Children, commonly known as WIC.

Donnie and one full-time farmworker complete the day-to-day farm tasks. In peak seasons, he hires an additional five workers to meet work demands. During the growing season, Donnie picks in the morning and sells his produce



Donnie McQuinn, a fresh fruit and vegetable farmer, stands behind his utility vehicle on his Wolfe County farm.

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Case Study

Donnie McQuinn

in the afternoons. What he is unable to sell, he freezes for a local business that makes jams and jellies throughout the year. The county agriculture extension agent, Ted Johnson, fostered this business relationship. Donnie prides himself on being able to sell all that he harvests without having any waste.

His steep hillside farm and the labor-intensive operation present unique challenges. Donnie's left leg is slightly shorter than his right, which affects his ability to walk and causes him to stumble frequently. His disability, coupled with the steep terrain of his farm, also makes it difficult for him to do some farm tasks, such as spraying, spreading straw, and picking berries on the trellis system. Aging, arthritis, and back problems compound his ability to perform these activities.

Ted knew that Donnie was having difficulty with mobility around the farm. The riding garden lawnmower he was using to get around was not safe. "Donnie's condition was deteriorating and farming was becoming more difficult with the rough terrain and laborious tasks." Ted continues, "My job was to find this farmer some help. John (Hancock) and the Kentucky AgrAbility program was the help he needed."

In October 2005, John visited Donnie on his farm and they discussed some of the difficulties he was having with his work tasks. Donnie knew the riding lawnmower was unsafe. "One time the transmission belt (on the lawnmower) broke and it about turned over in the pond," Donnie recalled. "With the hillside, I knew that a turnover was possible and had too many close calls."

John assessed Donnie's needs and determined a Kubota utility vehicle (UV) as the best option. "I

knew a little about [the UV], but had never used one before," Donnie said. After John's visit, AgrAbility connected Donnie with Jeff Ritchie, a Kentucky Vocational Rehabilitation counselor. Jeff agreed that a UV would help Donnie continue farming and funded the vehicle. Jeff, John, and Ted worked with the local Kubota dealership owners, Ted and Kay Holbrook, to get a discount on the UV. "It just isn't one person that made this happen for Donnie... county extension, Kentucky Vocational Rehabilitation, and AgrAbility... kept Donnie in business," Ted remarked.

December rolled around, and one morning John and Ted surprised Donnie by unloading the UV. Donnie went right to work using it. With the UV's dump bed and other features, he is able to spray his plants, spread straw, haul firewood, and pick trellised berries. "It is so accessible because of the bench seat ... I use it for all my farm chores. I didn't think I needed it until I got it," Donnie said.

Prior to AgrAbility's involvement, Ted helped Donnie set up a motorized over-head irrigation system that brought water to his produce from the pond at the base of the hill. Given his eagerness to expand his business and his new UV, Donnie has set up a test plot of blueberries. "The Kubota improved Donnie's productivity and increased his sales," Ted said.

Donnie is grateful for AgrAbility and stated that AgrAbility is knowledgeable about assessing the needs of farmers. There is nothing like a positive attitude

to tackle adversity. Donnie McQuinn has just that attitude about life and farming. "I will keep going as long as I can... I will be out there in the berries until I have to pull myself along inch by inch." ♦



"[The UV] is so accessible because of the bench seat ... I use it for all my farm chores. I didn't think I needed it until I got it," Donnie said.

Fresh Market and Direct Marketing Strategies

Small farms are increasing in numbers according to the U.S. Census of Agriculture, with many raising specialty crops for direct marketing to consumers.¹ Each year AgrAbility receives inquiries from individuals interested in changing their production system or starting an agriculture operation that accommodates a disability. Whether these individuals are interested in growing organic blueberries or specialty beans, one important consideration is marketing.

For growers of fresh vegetables and fruits, direct marketing (selling directly to the consumer) may bring the best price. Marketing begins with understanding the consumer's needs and preferences.

Today, more consumers buy from local producers because they trust those growers to provide quality produce. Consumer preference fosters direct marketing strategies for producers to "capture a much higher share of the consumer food dollar when they market their product directly to consumers."²

On-farm sales, roadside stands, and farmer's markets are common direct marketing strategies for producers. Some producers opt for less traditional strategies, such as house-to-house delivery, subscription farming, community-supported agriculture (CSA), and catalog sales.³ Regardless of how producers market their produce, limited harvest time and increased labor requirements need consideration. A grower with a disability must to consider his or her own physical abilities and limitations, as labor is often intensive.

On-Farm Sales

Word-of-mouth advertising can be effective, but is dependent on farm location. If consumers cannot find the producer, it is hard to sell the produce. Sometimes additional marketing strategies are needed, such as road signage on major highways, local ads, or news stories about the farm operation to build clientele.

Pick-your-own (PYO) or U-pick operations are probably the most common type of on-farm sales. At

a PYO, consumers harvest the produce reducing labor costs to the farmer. These savings, however, may result in produce damage-loss and could become an expensive trade-off. The popular trend of agri-tourism results in many PYOs looking for ways to entertain the consumer. Corn mazes and hayrides are examples of agri-tourism operations. Liability, zoning and health ordinances, and business and sales taxes are some additional areas to research for on-farm sales.⁴

"Value-added agriculture" is another option for on-farm sales. Donnie McQuinn, the Kentucky farmer featured in the client story, created a business relationship to sell berries not sold at market to a local business that produces jams and jellies year-round. By freezing the extra berries, he is able to supply this value-added business with fruit outside the berry harvest season.

Roadside Stands

Location is key to marketing through a roadside stand. Some state departments of agriculture and grower associations develop information to help consumers locate roadside stands. Staffing to operate a stand is a significant cost factor. Some producers find creative ways to resolve this issue by hiring youth or retirees. If the stand is close to the farm operation, an "honor" system with a lock box may be used.

Farmer's Markets

Currently more than 3,700 farmer's markets operate in the U.S.⁵ Many farmer's markets are located in cities and small towns and operate only during growing season. Other markets have grown into permanent sites and operate year-round.

Travel distance, space expense, and consumer interest factor into the pros and cons of selling at a farmer's market. Each farmer's market has its own set of rules for sellers and permit requirements. Before deciding to sell at a market, many producers spend time at the market visiting with sellers and consumers to get a feel for the "market environment."

Resources

Researching direct marketing strategies helps producers decide what agricultural operation works best in accommodating their disabilities. There are numerous decision-making tools for marketing available, such as:

- United States Department of Agriculture – Agricultural Marketing Service. Farmer Direct Marketing. -- <http://www.ams.usda.gov/directmarketing/>
- ATTRA (Appropriate Technology Transfer for Rural Areas) -- <http://www.attra.ncat.org>
- Sustainable Agriculture Research and Education -- <http://www.sare.org/publications/marketing/index.htm>
- North American Farmers' Direct Marketing Association -- <http://www.nafdma.com>
- Direct Marketing Guide for Producers of Fruits, Vegetables and Other Specialty Products, University of Tennessee Agriculture Extension Service, PB 1711. <http://www.utextension.utk.edu/publications/pbfiles/PB1711.pdf>
- State Direct Market Resources -- http://www.ams.usda.gov/directmarketing/DM_states.htm ❖

Accommodating a Disability on Fresh Market Farms

The ripe juicy watermelons are now too heavy for the farmer to pick and load for market. The farmer has difficulty climbing an orchard ladder, making it unsafe or impossible to harvest the fruits at the top of the trees. Reduced tolerance for sun and heat may make it hard to sit at a roadside stand or farmer's market. A grower with a disability must consider such factors when deciding to operate a fresh market operation.

Purchasing labor saving devices or agriculture-related assistive technology may not be financially feasible or practical for a smaller operation. Rather than describe assistive equipment, this section will focus on finding alternative management strategies to handle the limitations imposed by a disability.

Review Labor Alternatives

A starting point is to consider management options for handling specific job tasks. Labor demands are significant for fruits and vegetables. A study from the University of Wisconsin Center for Integrated Agricultural Systems reviewed labor use on nineteen fresh market produce farms. Small market gardens

(less than three acres) in the study averaged close to 2,000 hours of total labor per acre. Market farms (three to six acres) utilized around 1,000 hours per acre and those farms with six to twelve acres required 707 hours per acre. As expected, farm labor per acre fell to around 554 hours on the largest farms.⁵

To review labor needs, farmers can start by making a list of the various job tasks involved with the operation. Then, they break those job tasks down by seasonal activities such as pre-planting, planting, growing, pre-harvest, harvest, and post-harvest. In addition to manual labor, farmers should include management activities, like marketing, recordkeeping, and purchasing, in the list.

Family members involved in the operation are generally a part of this labor review process. Other professionals, like an AgrAbility staff member or occupational therapist, may help assess the farmer's ability for doing some tasks and suggest methods to restructure the task in order to accommodate the disability.

In considering labor resources, many farmers reassign tasks to family members or to hired labor as an option. If it is not possible to reassign tasks, a farmer can make changes in the production system to further reduce labor requirements.

Change Production Systems

Profitability is always a concern and the decision to change the production system must consider profit potential in addition to the investment cost. Some production system changes may be occurring in the industry that fit the scale of operations and consumer demand. For example, apple orchards are replacing standard size trees with semi-dwarf or dwarf varieties. Smaller trees are shorter, grown in narrower rows, and may require trellises. This reduces the labor required to harvest the fruit because of the reduced height and distance between trees. Another example is fall-bearing raspberries. The farmer mows off the old canes instead of hand pruning the old canes of summer bearing raspberries. This reduces physical labor to care for the plants and the fall fruits often bring a higher price at market.

The trend in smaller household size means that more consumers are looking for smaller produce or

units of products. The farmer may also find it easier to accommodate a disability by handling smaller packages or containers. To meet market demand and accommodate a disability, the farmer may grow plant varieties that produce smaller fruits or vegetables. An example would be growing a cabbage variety that weighs one to three pounds at maturity, such as Gonzales or Columbia.⁶ These varieties may be grown in narrow rows as well. If mobility devices such as a wheelchair or UV are used, crop row spacing needs to be wide enough to accommodate the equipment. This spacing may be greater than the seed provider's recommendations.

Consider New Enterprises

If the goal is to stay in farming, the farmer may ask, "What else can I do with my farm?" There is an extensive list of alternative enterprises for small acreages. Remember to look at the market potential for new enterprise. A current "hot" niche may become a cold niche in a short time if too many producers get into the same market. Thorough investigation of financial data about an enterprise is important before investing in that enterprise. The Missouri Alternatives Center compiled a list of websites from university research centers that provide sources to investigate alternative enterprises.⁷ ❖

Resources from state Extension systems, state departments of agriculture, and specific growers associations feature agricultural trends, new products, and marketing information.

- Iowa Fruit and Vegetable Growers Association -- <http://www.iafruitvegetablegrowers.org/index.html>
- Maine Organic Growers Association -- <http://www.mofga.org/>
- North American Strawberry Growers Association -- http://www.nasga.org/related_sites.htm
- United Fresh Fruit and Vegetable Association -- <http://www.uffva.org/>
- U.S. Apple Association -- <http://www.usapple.org/>

Kentucky AgrAbility Project

In 2002, nearly one in five Kentucky jobs were farm or farm-related. In 2004, overall farm product sales rose to more than \$4.1 billion in Kentucky, a 19% increase from the previous year. It is the sixth poorest state in the country, with more than 17% of the population living below the poverty line and more than 20% of residents reporting a disability.⁸ For all of these reasons, Kentucky AgrAbility services are critical.

Since 1993, Kentucky AgrAbility has served nearly 700 Kentuckians pursuing an independent agricultural lifestyle. The University of Kentucky Cooperative Extension Service has partnered with Cardinal Hill Rehabilitation Healthcare (an Easter Seals affiliate) since the project began. In more than a decade of service, Kentucky AgrAbility has seen trends emerge in the state, including a more diversified agricultural economy as farmers find alternatives to tobacco and more farmers from minority backgrounds succeed in agriculture.

Kentucky farmers are getting older, and younger farmers work off farm jobs in addition to part-time agricultural operations. Kentucky AgrAbility has seen a predominance of amputations and spinal cord injuries, with many of these injuries taking place off the farm.

KY in a Minute: QuickFacts⁹

- Number of farms: 86,541
- Average farm size: 160 acres
- Top five agricultural commodities in Kentucky: Horses/Mules, Broilers, Cattle and Calves, Tobacco, and Soybeans.

The project has a successful history of collaborating with outside partners to expand its impact. Kentucky AgrAbility is a primary partner on a recent grant with the University of Kentucky Human Development Institute and the Department of Physical and Rehabilitation Medicine. The project (awarded by the

Rehabilitation Services Administration) is a five-year training grant in rehabilitation technology aimed at resident physicians in Physical and Rehabilitation Medicine at the University of Kentucky and the University of Louisville. Kentucky AgrAbility will be involved in providing field experiences for resident

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Kentucky AgrAbility Project Contact Information

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 Lexington, KY 40546-2814

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 Phone | 800-333-2814 or 859-257-1845
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physicians to demonstrate agriculture-related rehabilitation technology. In addition, Kentucky AgrAbility will assist in developing content for online training targeted to physicians.

Kentucky AgrAbility strives to provide individualized services on the farm and in the home. The Kentucky Office of Vocational Rehabilitation serves many of the clients. Collaboration with this state agency leads to positive AgrAbility outcomes, including increased use of agriculture-related rehabilitation technology.

In addition to services on the farm, the project also has a strong national presence at both the National Farm Machinery Show and the North American Livestock Exposition with nearly half a million visitors from around the country each year. Attendance at these events leads to referrals for Kentucky and other AgrAbility projects around the nation. ❖

Kentucky AgrAbility Staff

John Hancock, MS, has been the project director for AgrAbility and the University of Kentucky Cooperative Extension Service since 1993. John provides technical assistance to farmers and farm families, training for professionals in rehabilitation, and partnership development to increase AgrAbility's outreach efforts.

Kathy Sheppard-Jones, PhD, has been the training coordinator for AgrAbility at the University of Kentucky since 1998. Kathy provides technical assistance to clients, organizes and participates in training conferences, and resource development.

Barney Fleming, PhD, is a rehabilitation engineer for the University of Kentucky since 1985 and has been working with the AgrAbility project for thirteen years. Barney works with Kathy Sheppard-Jones to provide technical assistance and resource development.

Courtney Williams, OTR/L, has been an occupational therapist for AgrAbility for one year and works for Cardinal Hill Rehabilitation Healthcare. Courtney's professional experience in assistive technology allows her to provide strong technical assistance and training for farmers, farm families, and AgrAbility staff.

Amy Culpert, OTR/L, is a recent addition to the AgrAbility staff as an occupational therapist with Cardinal Hill Rehabilitation Healthcare who provides service to the AgrAbility clients. Amy's extensive experience in assistive technology helps her deliver technical assistance and training for farmers, farm families, and AgrAbility staff.

Randy Martin began working with AgrAbility in 2005 as a farm specialist. He provides technical assistance to farmers and farm families as a consultant for AgrAbility.

Jeanie May has served as project assistant for the AgrAbility project at the University of Kentucky since 1993. Jeanie is responsible for providing administrative support to AgrAbility staff and running the main office. ❖

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The AgrAbility Project promotes success in agriculture for individuals with disabilities and their families through on-site assistance and educational resources. For additional information on the National AgrAbility Project or for a current list of state project sites, addresses and telephone numbers contact:

University of Wisconsin - Cooperative Extension

460 Henry Mall
Madison, WI 53706
866-259-6280 or 608-262-5166

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