

Breaking New Ground Technical Report

Farming With a Visual Impairment

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Introduction

What is the state of farming with a visual impairment? This report will attempt to answer this question by observing seven individuals currently actively involved in agricultural production who also experience some degree of vision loss. Each case study contains a description of the farming operation, the farmer's visual condition, any modifications or "helps" that the farmer has developed in order to successfully run his operation as well as personal concerns and attitudes of the producer concerning farming with a visual impairment.

Three of the case studies are excerpts from *Delivering Agricultural Extension Services to Blind and Visually Impaired Farmers in the United States: A Case Study in the Eastern Time Zone* (1991), a doctoral dissertation by Badr Helmi Shenouda, Ph.D., of Cornell University. The remaining studies are of farmers visited by Breaking New Ground staff in the State of Indiana during the summer, 1991.

Definition of Terms

The term "visually impaired" is a condition that is difficult to explain. If we consider sightedness as white and blindness as black; visual impairments are the shades of gray in between.

The term "visual impairment" is generally used to describe a condition in which an individual has some limitation due to an uncorrectable visual acuity. Acuity describes the amount of detail an individual sees compared to what a person with normal vision sees. The phrase "20/20 vision" refers to how acuity is measured. The first number, 20, refers to the dis-

tance (feet) at which measurement was taken; the second number, 20, refers to the distance (feet) at which a "normal" eye can see a specific size image. If a person has 20/50 acuity, it means he can see at 20 feet an object which someone with "normal" vision can see at 50 feet. The smaller the bottom number, the more sight a person has. Glasses and con-

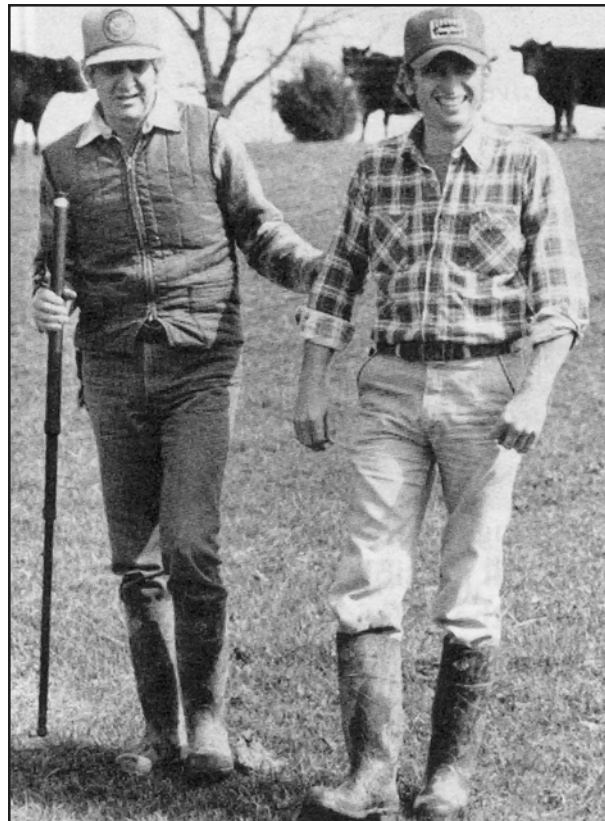


Figure 1. Techniques for farming with a visual impairment are as individual as farmers themselves. Personal perception of the loss as well as the actual degree of vision loss determine how a farmer will continue in his or her operation.

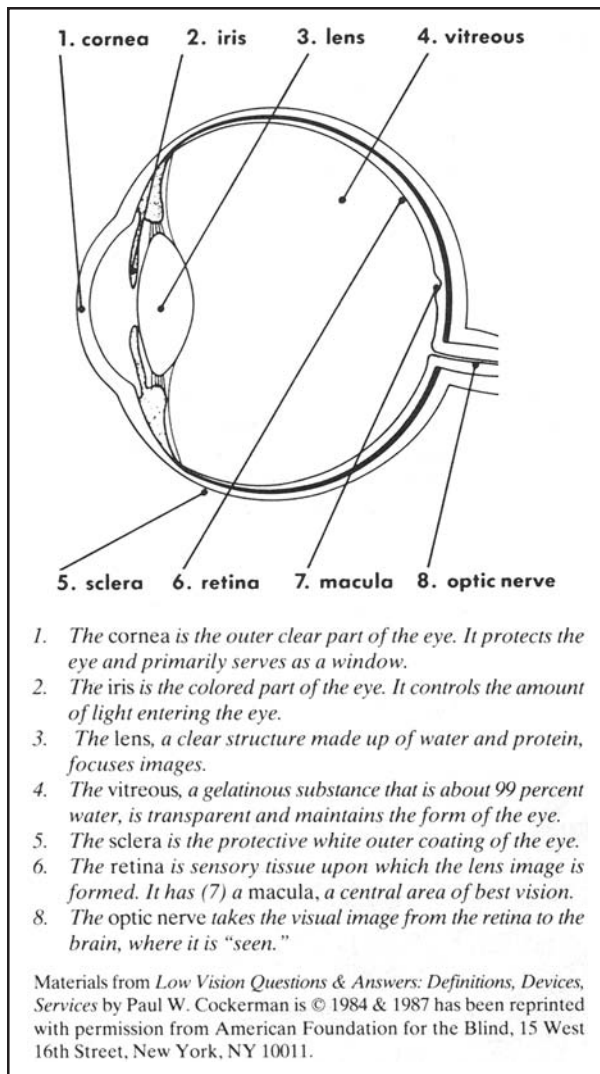


Figure 2. Parts of the Eye

tact lenses work to correct the discrepancy between the two numbers. As was mentioned previously, the general term “visually impaired” refers to any condition in which there is limitation due to an uncorrectable visual acuity (American Foundation for the Blind, 1987).

The term “low vision” is categorized as visual acuity correctable to 20/50 or less, but the individual does have some usable vision.

“Blindness,” in legal terms, is visual acuity of 20/200 in the best eye with the best possible correction. An individual can be legally blind, yet have some functional vision and also be both “visually impaired” and considered to be in the “low vision” category.

The major causes of sight loss are injuries and disease. Injuries damage the eye and are either repairable to a correctable sighted condition or vision is lost. Diseases, however, may degenerate vision over a period of time until it is totally diminished.

It is difficult to describe what a person does and does not see when we cannot see through each other’s eyes.

The only true way to understand is, unfortunately, to experience visual impairments. To aid in understanding the challenges that the visually impaired farmer is up against, this next section presents not only written descriptions but also pictorial descriptions of what your vision would be like if you experienced these conditions (American Foundation for the Blind, 1987).

Macular Degeneration (Fig. 3b): Causes loss of central field vision making it difficult to read or do close work. Side vision makes it possible to detect objects at a distance to both sides of the individual. It is most prevalent in older people and is sometimes called “age-related” or “senile” macular degeneration.

Detached Retinas (Fig. 3c): The retina becomes detached from its normal position when a tear or hole occurs causing the area to fill with fluid. This condition causes an obstruction of vision and can appear as dark shadows around the central field.

Diabetic Retinopathy (Fig. 4b): About 80% of those diagnosed as having this condition experience swelling and leaking of blood vessels which may cause blurred vision in the central field. The remainder of the cases has growth of abnormal blood vessels that rupture and bleed into the vitreous humor, the gelatinous fluid that maintains the shape of the eye. This interferes with the passage of light to the retina. Most often, some vision remains.

Cataracts (Fig. 4c): A clouding of the eye lens. The field of vision is not lost, but glaring light, double images, distortion and a general loss of detail are results that impair one’s vision. Sight can be restored by removal of the cataract.

Glaucoma (Fig. 5b): A disease in which tissues inside the eye are damaged. This is caused by a buildup of fluid in the eye which causes increased pressure. Side vision can be destroyed resulting in “tunnel vision,” a small, central area that a person sees. If treated early enough, tunnel vision can be reduced or prevented.

Retinitis Pigmentosa (Fig. 5c): An inherited disease affecting vision due to breakdown of tissue in the retina. Retinitis is characterized by night blindness and frequently leads to tunnel vision. It may affect central vision as well. This condition can do damage in spurts or in a gradual manner.

These diseases can cause temporary or permanent

vision loss and sometimes total blindness results. Rehabilitative training services are now focusing on making use of remaining vision so that persons can function in everyday life. Treatment of low vision as a condition is relatively new, however, and thus, services have not yet been perfected to a point where all needs can be met.

There is also a need for more accurate statistics in order to best service individual cases. For example, farming is not identified as a category in the national statistics for the frequency of these conditions. However, it is estimated that in the U.S. agricultural community, there are from 23,000 to 70,000 visually impaired and blind farmers (Shenouda, 1991). This

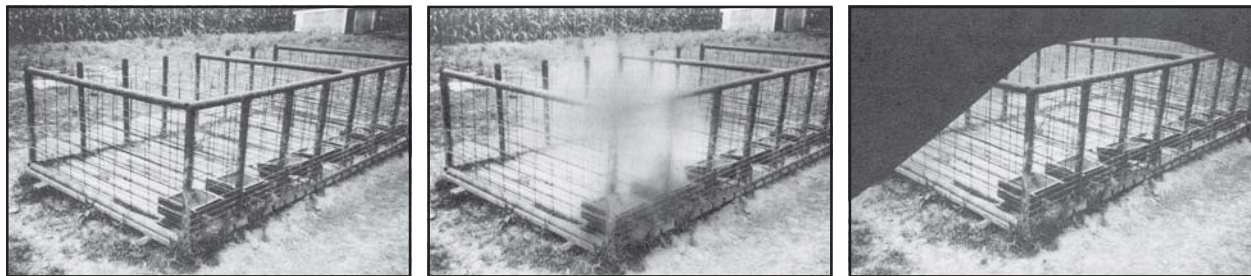


Figure 3. Gerald Schneider's feeding crates...(a) as seen without visual impairment,...(b) as seen through eyes affected by Macular Degeneration, and...(c) as seen with Detached Retinas.

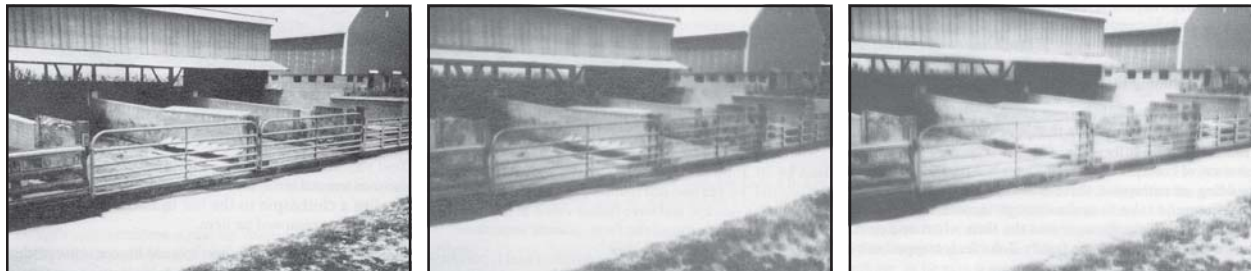


Figure 4. Gerald Schneider's finishing barn...(a) as seen without visual impairment,...(b) as seen through eyes affected by Diabetic Retinopathy, and...(c) as seen with Cataracts.

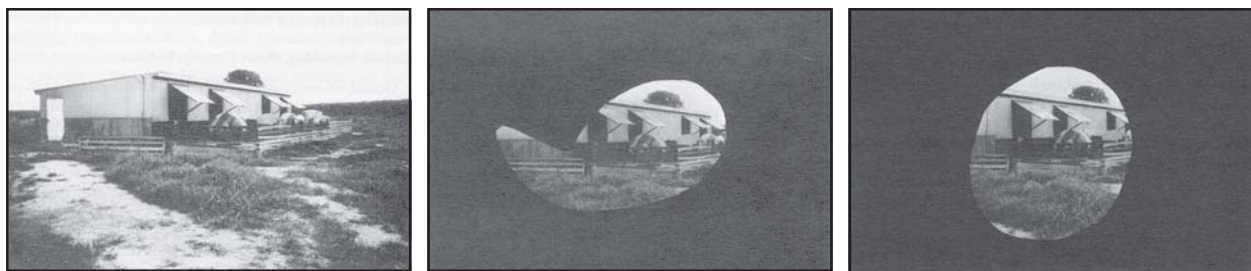


Figure 5. David Underwood's finishing barn...(a) as seen without visual impairments,...(b) as seen with Glaucoma, and...(c) as seen with Retinitis Pigmentosa.

number, although an estimate, is significant enough to warrant a closer examination of the problem.

Case Studies

The following case studies will exhibit aspects of being visually impaired in an agricultural environment. Each of the before-mentioned conditions is not represented in the case studies, but each profile will provide a general understanding of farming with a vision loss.

Gerald Schneider (Posey County, IN)

Gerald, 48, maintains a grain and swine operation finishing out 100 head of hogs at a time, and farms 280 acres in Posey County. Gerald and his wife, Janet, have six children in age from 9 to 24.

Gerald was born with *retinitis pigmentosa* which has reduced his vision over the years and rendered him now legally blind. He is able to get around the farm without the aid of a cane or assistance of other people. After a close call five years ago when a tractor nearly turned over on him, Gerald no longer operates large equipment. His two oldest sons now do the field work. Gerald has, however, adapted his operation in many ways so that he can maintain the hog operation.

One of the ways in which he has accomplished this has been to design a system for measuring feed to his hogs. Old watering tanks hold the specific type of feed, and a smaller container which measures only the proper amount is kept inside the tank (Fig. 6). The tanks are on skids so they are mobile and can be positioned to suit Gerald's needs.



Figure 6. Old watering tanks make it easier to measure the proper amount of feed.

Gerald also has constructed feeding cages from recycled oil well pipe and hog paneling. These cages help Gerald identify and mark the hogs that he suspects are sick or injured. He is then able to have the marked animal inspected at a later time by a sighted person. The cages are also portable and can be used to separate sows during breeding, gestation and farrowing. Gerald says he is able to de-



Figure 7. Clothespins help indicate where to return extra nuts and bolts.

termine when a sow is ready to give birth by feeling her mammarys.

Even Gerald's shop is arranged to accommodate his low vision. Tools are arranged on a workbench backboard so that he knows exactly where each tool is located. Gerald also uses a metal bin system to store nuts, bolts and washers. He clips a clothespin to the bin to indicate the location where he last removed an item (Fig. 7).

Gerald believes that it is best to keep his operation within his means and is reluctant to expand. He is quite concerned that the size of his operation may be too small to support his sons and their families, yet too much for him alone if the sons decide to leave. He lives and works a day-to-day existence and his major complaint is that he would like to do more. Gerald's situation is not so different from sighted farmers in this respect. Gerald knows that he would not be happy if he should have to cash out and move to the city.

John Cohran (Orange County, IN)

John, 39, and his wife have four children ranging in age from 14-20. John has 51 acres used to produce mainly hay and vegetables. He also has *retinitis pigmentosa* causing him to be blind in one eye and have tunnel vision in the other. He is mobile and gets around the farm without assistance.

John recently sold his haying equipment and is currently investigating alternative ways to supplement his income. He and his family still produce and can the vegetables they grow. John has one sow which bore ten pigs, and he is now considering building a hog operation. Other options considered include producing and selling compost and/or creating a firewood business. Returning to construction contracting is also a possibility as John has in the past built 14 homes, including the two-story log home he built for his family.

John's major concern is that it will take some time for him to become fully self-sufficient. The transition to an alternative enterprise can be difficult and frightening. When building an enterprise, there is always a lapse between the time it would take to make enough income to reduce or eliminate public assistance and the time when one could make enough to support a family. John feels trapped in his situation but says, "I'll get by."

David Underwood (Ripley County, IN)

David, 30, and his wife, Julie, have one son, who is three years old. David works two farmsteads; one of 240 acres and the other of 160 acres. He also raises cattle and hogs in addition to corn, beans, wheat and hay.

David has *retinitis pigmentosa*. The disease has not advanced too far as yet and David is still doing field work although he does not drive on public roads. His plans include finding ways to accommodate his vision difficulties and try to adapt to its worsening condition.

One adaptation that David has learned to use has been an air-powered, injection gun. He has found

this to be an invaluable tool for measuring and administering the small, precise dosages of medicine required for his young stock. The advantage is that the injection gun provides and refills pre-measured dosages after each application.

David has also discovered that, for him, incandescent, high wattage light bulbs with clear glass provide the best usable light. He has replaced most of the bulbs on the farm with this type of lighting.

David's major concern is that his vision will deteriorate to the point of having to hire full-time help. His father is retired and his son is very young — he's virtually a one-man operation.

Joseph Durma (Orange County, NY)

Joe, a 57-year-old dairy farmer, has three children. The oldest son has worked for his father all his life and, along with the hired hand, does most of the work. Joe's daughter currently does the bookkeeping, and Joe has maintained his role as the primary decision-maker. Along with the dairy operation, he produces corn and hay as well as raises Belgium draft horses and Beagle puppies.

Joe has *retinitis pigmentosa*, which was diagnosed when he was 30. His vision has steadily deteriorated to the point that even a bright light at night seems dim. He uses a heavy cane to aid his mobility and to make noise when moving cattle.

Joe does the milking himself; however, the dairy barn does not accommodate a visually impaired person very well since it has several levels and steep stairways. Joe tries to compensate for this the best he can. For example, he shovels feed down a chute to the floor below, then fills a cart in the room below to distribute feed to each cow.

In addition to the feeding routine, Joe has worked out a system which aids him in milking. He carries everything he will need with him; a one-legged stool, bucket of udder cleaning solution and a bottle of disinfectant. He washes the milking machines and flushes the lines when the milking is done. The lines are flushed with sanitizer and water. Joe has notched the valves introducing each of these so that he is

able to distinguish each. Joe does not use his cane when milking, as he says it gets in the way.

Joe has several low vision aids such as a talking calculator and a closed-circuit television system that enlarges printed text, but he says he does not use them much. He has some mobility problems in the winter when the snow comes, but help from his family keeps Joe's paths clear.

David Hartman (Dauphin County, PA)

David is a poultry farmer who has been totally blind from birth. David, 36, runs Clearview Hatchery, a mail order and direct-sales poultry business he started in 1974. His business is located on his parent's 174-acre hog and grain farm in central Pennsylvania. David raises several types of birds including: chickens, turkeys, ducks, pheasants, and Hungarian partridges. He produces breeding stock, but also markets eggs to the public. He employs one full-time and five part-time workers.

David's vision loss is the result of being born prematurely. With his condition, *retrolental fibroplasia*, David has been fitted for artificial eyes for both medical and cosmetic reasons. David's other senses assist him in getting around the farm. The smell of the shrubbery, the sounds of the machinery, the texture of the driveways, the noises of the animals and the feel of the sun on his face are all types of "vision" for him.

David maintains his operation through careful organization and coordination of effort. David and his workers always put things in their designated places to insure that David can find what he needs to perform a certain task. The operation requires storage of several types of feed in bags and in bins. It is important that each species get the proper feed to get the best production. David can distinguish the feed by the feel and smell of each one and his workers always store the feeds in the same areas. David can tell the birds apart and describe each species although he has never seen them.

He does business all over the United States, so the need for a telephone is essential. The telephone bell

is wired to an outside speaker so that telephones (located in several strategic places) can be heard from anywhere on the grounds. Beside each phone is a slate and stylus for writing in braille. David also keeps much of his records and accounts in braille.

David has a very positive attitude and enjoys his work. Raising birds has given him a sense of control which is important to anyone whether they are blind or sighted. David resented being told once in high school that blind people are an imposition on other people, and he wishes that sighted people would treat him more like themselves. He is patient with those who do not treat him that way. David's major frustration is the difficulty he experiences in getting current poultry information. He must rely on sighted people to take the time to read it to him, but, he is persistent because he wants the information. Overall, David says "blindness can only interfere with farming if you let it."

Bernard Silverman (Horry County, SC)

Bernard, 43, operates Bee Riddle Farm, about 15 miles inland from Myrtle Beach. Bernard's products are herbs (70%) and flowers (30%) which are grown in a 2,000 sq. ft. greenhouse on five of his 22 acres. He has a beehive and Italian honeybees, goats, chickens, and plans to add horses to his farm. Bernard was previously in landscaping and started farming in 1984.

He has *retinitis pigmentosa*, which has left him with 10-15% of his field of vision, resulting in tunnel vision and night blindness. His familiarity with the location of the buildings and roads benefits him as he tries to get around on the property. He plans to install lights along the pathways for better mobility at night. Bernard's greatest mobility problem is that he is unable to drive and can't deliver his products to his customers.

In his greenhouse (designed by staff at the Commission for the Blind at Columbia, SC), everything is arranged to accommodate his needs. He only has problems when folks move items and don't tell him.

In the gardens, Bernard uses black plastic sheeting

for weed control. The contrasting black color also helps him orient himself when tending plants. Bernard uses his senses of touch and smell to distinguish between various types of plants, stages of growth, and conditions of disease.

Bernard plants seeds in trays using thin boards cut to the same size as the trays. One board is used to level the potting soil, another is for making grooves in the soil, and the third is slotted to match the grooves. Seeds are dropped through the holes of the slotted board. Bernard then pinches the soil over seeds and waters the tray.

Bernard uses a tractor and a tiller for planting in the gardens. He uses landmarks when operating the equipment. Bernard can do simple machine repairs himself and has his tools strategically organized in his garage.

Bernard uses a computer to maintain his records and do his financial planning. He has no difficulty using the computer and also uses audio tapes to store records. Bernard's major concerns are that not being able to drive hurts both his business and pride and that sighted persons need more understanding about him as a businessman and how to treat the visually impaired.

Perey Neihauser (Pulaski County, IN)

Perey, 57, is a grain farmer. Along with his wife, Sally, and their three daughters, the Neihauers farm 500 acres and manage livestock.

Perey has been blind three different times in the last 25 years. His vision problems started in 1959 after an accident with anhydrous ammonia. His right eye was damaged much more than his left. Following an unsuccessful cornea transplant, the right eye was removed. A few years later, a battery explosion imbedded a fragment of lead into Perey's left eye. A second cornea transplant was successful until 12 years later when his body suddenly rejected it. He finally underwent a third, and successful cornea transplant.

Perey has made many adjustments to having the sight of one eye. For example, he has learned to

recognize people by the way they walk and the sound of their voices. When planting, he sets the marker as deep as it will go to get the best possible guide. He lines up the center mark on the hood of the tractor as a guide to plant straight rows.

Perey thinks he is probably more safety conscious than the average farmer. His family (especially his grandchildren) are careful to be sure that he acknowledges their presence when he is running equipment. Perey is cautious in all aspects of his work and appreciates being able to do the tasks he does. He says, "Part of farming is making the best of what you've got," whether it's equipment or eyesight.

Conclusion

The state of farming with a visual impairment is uncertain. We have seen here that there are many causes of visual impairment. Diseases and injuries causing vision loss leave the individual with varying degrees of loss, and some cases are marked by continuing deterioration at different rates and degrees. The descriptions of specific levels of vision loss are hard to determine, and the enabling aids and techniques for coping with those levels of vision loss are specific to the individual. Each case of vision loss is different, and the remedies for one may or may not be applicable to another. Visually impaired persons have different needs and concerns depending on the way they interpret their individual vision status.

In agriculture, the concern may be that the visually impaired producer does not know how long they will be able to continue in their operation or how they might be able to expand their operation. Gerald Schnieder and Joseph Durma have these concerns and need adaptive techniques that are not readily available or not conceived of yet. Other concerns include wondering which alternatives are going to work and whether or not the time has come to make changes such as the concerns John Cohran has about making ends meet while building a self-sufficient operation. David Hartman and Bernard Silverman are concerned with the social acceptability and understanding that is necessary to cope

with low vision in a “sighted” world. Some individuals have lost sight, regained it and feel fortunate to have done so. However, the facts may prove that their recovery may not be 100% permanent such as in the case of Perey Neihauser.

In each case there is economic concern. The risk of not being able to handle expansion, or even maintain an operation, is a problem for all producers, but failure has a more immediate and devastating effect for a farmer with a physical disability. Emotional stability and pride play a role as well as being understood and treated fairly in dealing with the public and being a part of society. The special needs of these farmers are not being met with the resources available. The innovative adaptive techniques that farmers come up with themselves are usually not enough. Rehabilitation services and low vision clinics need to recognize the fact that agricultural work presents its own set of needs. More attention should be given to the needs that visually impaired producers have when considering the design of agricultural machinery and equipment.

Technological developments in areas such as satellite and microwave transmission research need to produce navigation equipment for farm field equipment. This high tech approach needs to be affordable to the user. Again, too many times the answer to a problem is too expensive to be practical.

Research in the area of developing new uses for old technologies could be less expensive and more appealing for the producer since most farmers like using and reusing things until there is no use left at all! One farmer suggested that there might be a way to use the same type of radio transmitter that is used to tag and track animals to assist the visually impaired farmer moving around the farm.

Programs need to be developed that not only teach the use of special equipment and techniques, but allow for practice and hands-on use of such equipment. The solution may be a farmstead school that accommodates disabilities and is equipped with the technology and expert instruction necessary to enable producers with physical disabilities to compete and succeed as any other producer would.

Breaking New Ground Resource Center, Purdue University

The common thread among the farmers of the case studies presented here is that the last thing they want to do is to sell out and move to town. In order to “keep’em on the farm,” more research, design and development needs to occur. Perhaps the potential for solutions to a great many disability-related problems is on the horizon. The agricultural community needs to make itself known as a part of the social process to ensure that its numbers are counted.

Tips for the Visually Impaired

The following are tips to make farm tasks easier and safer for visually impaired producers.

Wind Chimes

Chimes not only look nice and sound nice, but can be a sonic landmark for you. Put them on the house to mark your major point of return or ‘tune’ your farm buildings by using different chimes to identify different buildings. Chimes can be made from copper or aluminum tubing suspended with fishing line. Different lengths and diameters make different sounds and, depending on your musical talent, can be made to make very pleasant sounds.

Tennis Balls

A tennis ball hanging on a string or piece of twine can provide a marker to tell you when to stop a vehicle or piece of equipment when driving into garages and other buildings. If necessary, you can even use a child’s playground ball which can be purchased at the grocery store for less than two dollars. The idea is to run into something on purpose (that costs two dollars) to avoid running into something accidentally (that probably costs more than \$2).

Hanging Feed Sacks

Hang an old feed sack about two feet away from an overhead object such as a lowered beam or light fixture. You will hit the sack before you hit the more painful immovable object. Burlap works better than other materials because it will more likely catch on your hat making a stronger warning than material,

that slides off. Where heat from lights or other sources of heat is a concern, you can use fiberglass screen door mesh.

On The Boardwalk

You can level the terrain on a regular path by making a board sidewalk out of scrap lumber. Pressure treated lumber is the best, but a walk can be fairly expensive to build with all new material. The walks do not have to be continuous or elaborate, as long as they get you to your destination safely and with confidence. Maintain them well to insure your safety.

Measuring Aids

Different lengths of wood marked appropriately can be used as spacers for locating plant spacing in the garden or any repeated measurement you may have to make. A piece of wood can be turned into a gauge to measure distances, depths, and even precise dimensions for setups on saws (like a radial-arm, table, band, or miter saw).

Work Bench Backboard

If you keep your hand tools in a drawered chest, you may have difficulty finding one when it's hiding among all the others. A four-by-eight-foot sheet of plywood (3/4 inch CD) mounted on the wall behind your bench enables you to separate tools and give them a permanent place so you can always find them. Put the heavier tools lower on the board so that they don't have far to fall.

Workbench-to-Work Relationship

The further you have to carry tools to a job, the harder it is to maintain order. Some equipment may require you to work outside the shop, so putting your tools and bench near the main door is practical. If weather is a concern, a 'tool closet' to protect the tools can be built from plywood (CDX) and painted so that it will last quite some time. This 'closet' can be designed with built-in benches or other features for your needs. If the need arises to do remote work, consider carefully which tools you need for the job and how to tote them.

Measuring Devices

When measuring liquid, overflow is always a problem. Pour from a larger container into a smaller one with another container underneath to catch the overflow which can then be poured back into the original container. When mixing large amounts, try to mix them using the entire contents of the original container. Store excess in smaller containers such as clean motor oil containers and mark them appropriately. This results in manageable batches that save time in mixing. Materials measured by weight such as powder chemicals and feed supplements can also be put in containers that will only hold a certain number of pounds or ounces. The key is to mark the container and designate it for that material. You would not want to use the same four ounce measuring container for two-cycle motor oil as for liquid fertilizer for the garden.

Landmarks

Landmarks are objects that never move and let you know where you are. These things can be trees, rocks, fences, and buildings. You can add landmarks to increase the safety of your travels. Shrubbery, flowerbeds, and ornamental fixtures such as a bird-bath can be strategically located to enhance your mobility and improve the appearance of the farm.

Old Garden Hose

A cracked garden hose will not keep water, but it can keep you away from danger without catching your clothes or scratching your skin. You can make guards around obstacles and machinery that will not injure you using that no-good old hose. Split lengthwise, a piece of hose makes a protective surface for the edges of barrels, tanks, and buckets. Old air hose works as well. You can also nail hose to the top of a post on each side of the driveway long enough to lay on the ground so you can pull yourself across and not be disoriented. Air hose can stand being run over by vehicles much better than rope and still guide you across the drive or other spans of space that have inadequate landmarks.

Tape and Rubber Bands

Duct tape can be purchased in various colors which accommodates color-coding items such as rakes, hoes, and shovels. Rubber bands can be simply looped and wrapped around small hand tools to distinguish between items such as standard and Phillips head screwdrivers or you could put a rubber band on each of the metric end wrenches in your tool set to tell them from the standard ones. You could use more than one rubber band on some tools to tactilely distinguish some tool groups from others. Rubber bands can also be used to hold groups of small tools together such as those little ignition wrenches or Allen wrenches.

Kitchen Magnets

If you use a metal bin system for nuts, bolts, washers, etc. , you can put a magnet on the bin you took a handful of items out of so that you can return the unused ones to the proper bin. You can also use them to hold small parts where you can find them while you are doing something else. Magnets also can be used for such things as marking the level of a holding tank.

Miscellaneous Markers

With wire or twisty ties that come with trash bags or bread sacks, you can attach about anything to a valve, a switch, a lever, a drawer, or a door. The way and materials you use to identify items and controls are up to you. Different sizes and numbers of items such as little blocks of wood left after using a holesaw can be attached to handles of implements or machinery to identify its function and use.

Blocks and Stops

Mark areas on you table saw or radial arm saw tables where you should never put your hands. In these areas use pusher sticks or boards you have made out of old scrap lumber. Marking these danger zones with paint, tape or marker does not guarantee safety, but, acts as a reminder of the precaution you should and must take when using these tools. You can use blocks of wood held in place with C-clamps as guides and stops to insure accurate

rate, straight, and safe cuts. No matter what your visual situation, always use safety glasses, goggles, or face shields when running power tools.

Timers and Creative Wiring

For the safety of the sighted people that are on your farm, use timers on at least some of the lights in your buildings. These timers plug into a regular wall receptacle and are inexpensive. In the long run they could end up saving electricity as well as eliminate the need to check whether you turned the light on or off. With high voltage and machinery controls, use a type of breaker or switch that is easy to determine the on/off position and try to have the various switches as much alike as possible (have them mounted so that up is always the “on” position or vice versa). As you add circuits or systems for your farm, be consistent in the selection and use of switches, controls, and fixtures.

Bungee Cords and Springs

The bungee cords can be used to hold doors open or closed, as gate latches, or to hold yard tools to the wall. Springs can be used to make any hinged door or lid return to whatever position you desire. The bungee cords come in a variety of lengths so that you can span short or wide distances and they can be connected together to make very long stretchable lines that are substantial enough to be a warning barrier but not injure you or your clothes. Both the springs and the bungee cords can be used to temporarily hold something out of the way which leaves your hands free to do a task. They can be left hanging out of the way when not in use.

Nails

Partially driven nails present a convenient place to hang your hat and coat but may be a hazard to your shirt sleeve or pants leg. Don't throw away that old air hose or any small diameter rubber or plastic hose. Cut length of hose just a little longer than the nail and slide it over the nail like a sleeve. The nail will hold your hat, but, it won't rip your clothes or scratch your skin. If you are hanging something that requires a small nail and the hose is not practical, use finish nails and put the nail shoulder high or higher

so that it will be above where your clothing can get caught. Hunt and remove unused nails and try to put the ones you need in out of the way places.

Written Signs

Don't hesitate to make and post signs indicating things you need done to make finding tools and doing your work easier. Sighted people need reminders to help them help you keep track of your tools and equipment.

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