

Breaking New Ground Technical Report

Farming/Ranching with Cerebral Palsy

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Introduction

What is Cerebral Palsy (CP) and how does it affect an individual? How common is it? What problems does it create for individuals who live and work on farms and ranches? What can be done to assist persons with CP who want to participate in agricultural production? This report will answer the first

three questions by summarizing what is currently known about CP. The fourth question will be answered by a series of case studies completed on farmers who have varying degrees of impairment due to CP. Also included is a list of strategies successfully being used by these farmers.

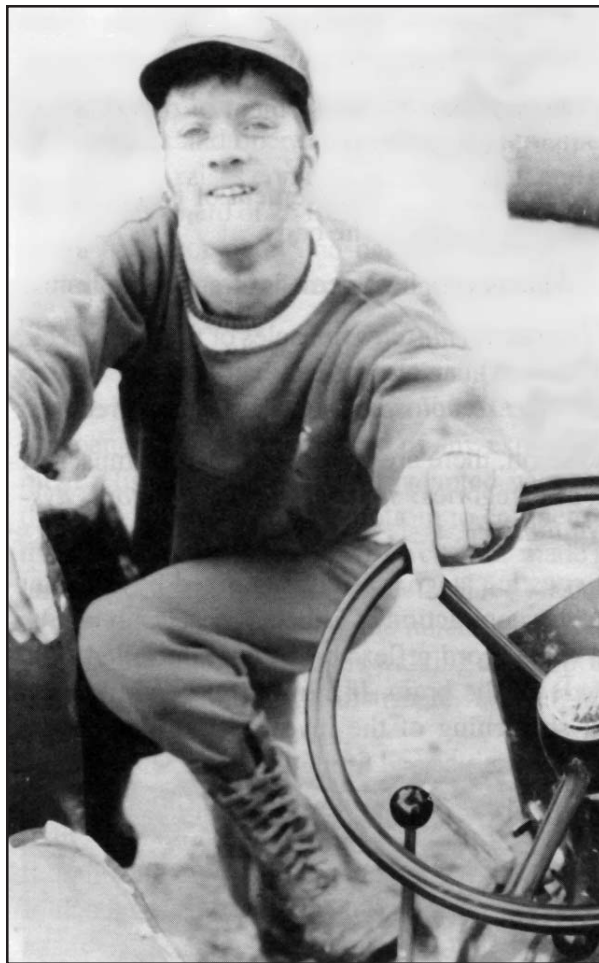


Figure 1. Individuals with Cerebral Palsy can participate safely in agricultural production if given the opportunity!

What is Cerebral Palsy?

Cerebral Palsy is a term used to represent a cluster of non-progressive symptoms that commonly develop during the first years of life. The symptoms arise from brain injuries that may occur before, most often during, or shortly after birth.

Some degree of *neuromuscular impairment* (i.e., impairment of muscle control) is present in all people with CP. Various *associated deficits* (i.e., impairments that can exist in addition to neuromuscular difficulties) may or may not be present depending on the non-motor areas of the brain which have been damaged. In other words, those areas of the brain not involved in the control of movement can also be affected. The severity of any deficit depends on the extent of damage to the area of the brain that controls that function. As a result, there is a wide range of ability and disability among people with CP. Consequently, it is not possible to provide a universal “cookbook” of solutions that will work for all persons with CP.

Neuromuscular Deficits

The muscular difficulties exhibited by those with CP arise from incomplete control of muscles by the brain, not from muscle weakness. Neuromuscular

Quadriplegia—Relatively equal involvement of all four limbs.

Diplegia—Involvement is primarily in the legs with only mild involvement of the arms and hands.

Paraplegia—Involvement of lower limbs only.

Monoplegia—Involvement of one limb, either upper or lower.

Hemiplegia—Involvement of two limbs on the same side of the body.

Triplegia—Involvement of any three limbs.

The *oral facial muscles* (i.e., muscles of the head, neck, face, and throat) can also be involved. As a result, the ability to speak and/or swallow can be impaired.

In addition, there are five different neuromuscular symptom categories: *spastic*, *ataxia*, *athetoid*, *dystonic*, and *mixed*.

The *spastic* category is characterized by constant involuntary contraction of affected muscles. It results from a spinal cord reflex that is not controlled (i.e., inhibited) by the brain. If allowed to continue, permanent shortening of the involved muscles occurs causing deformities and limitation of free movement. The limitations can be so severe that no voluntary movement of the limbs involved is possible. Other cerebral (brain) reflexes may also be uncontrolled. It is beyond the scope of this article to discuss each of these reflexes. Suffice it to say that these reflexes make it difficult to perform a voluntary movement with one limb without movement occurring in another limb elsewhere on the body. In severe cases, they can cause the individual to assume positions from which it is difficult or impossible to break out of voluntarily.

Everyone with CP has some degree of difficulty with balance and coordination. This is especially true for those with *ataxia*. Ataxia is a difficulty in accurately controlling muscle length, and therefore, limb posi-

tion. It may result from reduced awareness of joint movement (i.e., awareness of limb position) or, more frequently, from an inability to appropriately start and stop muscles accurately and rapidly. It is characterized by errors in range, rate, and direction of movement, so the individual often overshoots targets. This is followed by repeated over correction. According to Easton & Halpern (1981), the over-correction can give rise to continuous tremors during voluntary movement. In walking, persons with ataxia have a staggering gait (manner of walking), characterized by uncertain foot placement, poor balance, and constant readjustment.

In persons with *athetoid* CP, involuntary, purposeless movements occur when voluntary movement is attempted. The unwanted movements may occur in other parts of the body as well as in the part of the body being purposely moved.

Persons with *dystonic* characteristics have abnormal movement patterns caused by simultaneous contraction of muscles that perform opposite movements. Dystonia is often seen in the hyperextended position of the finger joints during voluntary reaching. The condition makes efficient handling of objects difficult.

The final category is *mixed*. Persons with this type of CP exhibit symptoms from more than one of the categories described above. It is important to note that all neuromuscular deficits related to CP can be intensified when the individual becomes stressed or emotionally upset. When the stress is removed, the person's ability to function improves.

Associated Deficits

As previously mentioned, other conditions may occur in addition to the neuromuscular deficits just described. It is beyond the scope of this article to go into the specifics of all possible conditions. However, the following listing of some of the associated deficits is included to give the reader a sense of the variety of challenges a person with CP could face.

- blindness
- hearing impairments

- perceptual deficits
- seizure disorders
- degenerative joint disease
- curvature of the spine
- overly sensitive to touch
- cognitive impairments

The cognitive (or mental) impairments may include difficulties with:

- memory
- sequencing
- attention
- problem solving

Some individuals with CP may be totally dependent physically and have an appearance that may lead some to think that they are mentally retarded; however, they may be highly intelligent. Likewise, some individuals with CP who may be less physically impaired could need lifelong supervision because of associated cognitive, perceptual, and/or behavioral deficits.

For more information concerning all aspects of CP, please refer to the references at the end of the article. The United Cerebral Palsy Association is an especially good resource.

How Common is Cerebral Palsy?

According to The United Cerebral Palsy Association (1993), there are approximately 500,000-700,000 people in the United States with CP. The total farm population is approximately 4.6 million. (United States Bureau of Census, 1992). Assuming that people living on farms are just as likely to be born with CP as anyone else, we can estimate that there may be 9,000-13,000 people with CP living on farms in the United States.

Effects of Cerebral Palsy on those involved in Agriculture

A farmer or rancher with CP may have some degree of difficulty with one or more of the following activities depending on its type and severity:

1. Walking on uneven, unstable, narrow, or slippery surfaces.
2. Maintaining balance during animal healthcare activities.
3. Maintaining balance during lifting and carrying.
4. Moving quickly to avoid injury.
5. Mounting and/or accessing equipment.
6. Accessing buildings, silos, grain bins, and other farm structures.
7. Handling livestock.
8. Reaching the controls on tractors, combines and other equipment.
9. Operating controls in a timely and smooth manner.
10. Manipulating switches, tools, parts, fasteners, and other small objects.
11. Attaching hydraulic hoses and power take-off drive lines.
12. Monitoring implements towed behind a tractor while simultaneously operating controls.
13. Communicating with other workers.
14. Working for extended periods of time or under adverse weather conditions.

Case Studies

The following case histories represent individuals affected by CP who are currently involved in several types of agricultural production in a variety of geographic locations.

David Hughes (Crawford County, IL)

David, 41, has a mild case of *spastic monoplegia*. He manages and operates a 389-acre farm operation on which he raises corn, soybeans, wheat, and clover. He also has a herd of 25 Black Angus beef cattle. David and a neighbor plant and harvest together. David's father does some maintenance and field work for the operation as well.

David's physical abilities appear unimpaired except

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Figure 2. Running boards on his truck make access easier for David Hughes.

for the limited movement in his left ankle. He walks independently without the aid of any external equipment. His left shoe is custom adapted with an extra thickness of rubber on the bottom to compensate for the shortness of his left leg. Two custom-made inserts have also been made for his left shoe. The wedges insert at the heel and along the inner side of his shoe. The inserts help stabilize his walking and improve his balance by helping him distribute his weight more evenly on his left foot.

David uses several techniques that have helped make his work easier and safer. Like many with CP, David trips easily. As a result, he keeps his hayloft floor chaff-free to prevent stumbling during bale piling. He eliminates the need to handle fertilizer bags during planting by broadcast fertilizing with a spreader, and then working it in with his tillage equipment.

David is occasionally unable to move quickly enough to escape being kicked or stepped on during animal health care activities. Maintaining a herd of “gentle cattle” is what he calls his compensation technique. He sells animals that are hard to work with as soon as possible and selectively breeds his cattle to bulls known to be of even temperament. David compensates for the limited movement in his left ankle when riding his all-terrain vehicle (ATV) by reaching down with his left hand to shift the foot activated gear shifter. He has found that equipping his truck with running boards has made it easier to access (Fig. 2).

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Paul Wischmeier (Jackson County, IN)

Paul, 18, participates in the operation of his family’s 800-acre grain farm, raising corn, soybeans, and wheat. He has a mild case of *mixed* CP with involvement of all four limbs and his oral facial muscles. It appears that Paul has a combination of *spastic* and *dystonic* characteristics.

Paul is able to do most tillage and harvesting tasks by using a standard spinner knob on the steering wheel and having help to attach hydraulic and power take-off lines. Because of the limited range of motion in his hips, knees, and ankles, one of the hardest tasks for Paul is mounting the tractor or combine. He is able to walk without the aid of any assistive devices. The abnormal muscle tone in Paul’s facial muscles results in speech impairment. His speech, however, is understandable. Range of motion in his arms is slightly affected, with his left arm being more affected than his right. So he steers with his right hand. As a result, he can only monitor equipment over his left shoulder.

Paul indicated that the abnormal muscle tone in his hands makes it hard for him to handle small objects (pens, shoelaces, nuts, bolts, money, etc.). To compensate, he utilizes a computer for writing (Fig. 3), fastens shoes adapted with Velcro closures, uses insulated cup holders and adaptive scissors (Fig. 4), and where possible makes purchases with a credit card, which is easier than handling money.

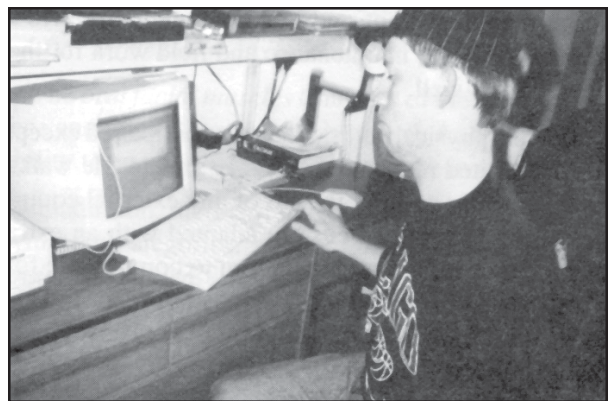


Figure 3. As a college student, Paul Wischmeier relies heavily on his computer and finds it easier to use than writing by hand.

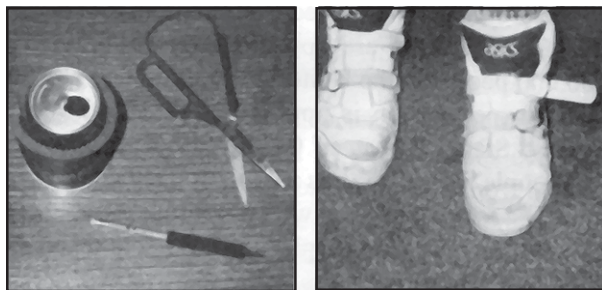


Figure 4. Pencil enlargers, insulated can holders, adaptive scissors, and Velcro-closure shoes help make day-to-day activities easier for Paul.

Paul Breese (Rensselaer County, NY)

Paul, 32, participates in the operation of a 200-acre dairy farm with his father and brother. Their operation consists of a herd of 80 Holsteins and approximately 25 head of young stock.

Paul has a mild case of *mixed* CP with involvement of all four limbs and his oral facial muscles. He described *spastic, ataxic, and dystonic* characteristics during the course of the discussion.

Paul is responsible for the feeding of the livestock and some field operations that do not require use of several controls at one time. He is able to tow loads, disk, cut hay, rake hay, and haul manure. Paul has



Figure 5. Fine motor control is often difficult to achieve with CP as is shown here by Paul Breese's grasp on this knob.

some of the same kinds of abilities and limitations as Paul Wischmeier. He walks independently, has adapted his shoes with Velcro closures, writes with a typewriter, and needs help attaching implements. He has some difficulty controlling his movement and using tractor controls (Fig. 5). As a result, he has had to adapt the starter switch on two tractors, because eventually he breaks the keys off trying to start them. He has enlarged the key on one and installed a push button switch on the other (Fig. 6). Furthermore, he has adapted the turn signal in his car to be operated from the right side so that his left hand never leaves the wheel.

For recreation, Paul enjoys biking and skiing. A ski sled allows him to downhill ski without concern for his balance limitations.

Randy Sanders (Tippecanoe County, IN)

Randy, 45, is owner-operator of a 120-acre grain and livestock enterprise, raising 15-20 polled Limousin beef cattle. He also runs a seed corn dealership.



Figure 6. A push button stand switch eliminates the occurrence of breaking ignition keys due to Paul's difficulty in controlling movement.



Figure 7. Randy Sanders demonstrates getting up into his forklift which allows him to load, unload and store pallets of seed.

Randy's CP can be described as *spastic paraplegia*. His movement appears limited in both knees and hips.

Randy's seed corn business handles the sale of more than 8,000 bags of seed a year. In order to reduce the lifting and carrying involved, he has installed a concrete floor in his storage building. This allows him to load, unload, and store whole pallets of seed with a forklift (Fig. 7). He delivers seed to his customers with a flatbed trailer and a pickup truck equipped with a bumper drawbar system that telescopes and slides side to side. This makes hooking and unhooking easier.

Randy has installed phones in several of his buildings and carries a portable cellular phone in his truck and tractor. As a result, he rarely misses a call because of not being able to reach the phone in time.

Regarding his cattle operation, he has developed some unique strategies. His home is positioned so that he can check his cattle from a window by using a pair of binoculars. The fact that his animals are polled (genetically hornless) eliminates the need to dehorn them. He also has a well-trained stock dog to help him handle his cattle.

Harlan Temple (Turner County, SD)

Harlan, 49, and his wife operate a 200-acre combination grain and beef operation with his parents. They raise corn, soybeans, alfalfa, and oats. Their beef herd consists of 44 head of registered Simmentals. Harlan also has his own insurance agency.

Harlan has *spastic quadriplegia* with no involvement of his oral facial muscles. Therefore, he has no difficulty speaking. Because Harlan's spasticity is more severe than the others discussed so far, he uses an electric wheelchair for mobility. In order to get around in more demanding terrain, he uses a hydrostatic Dixon lawn mower that comes with hand controls as standard equipment (Fig. 8).

Harlan is responsible for all the management activities of the farm operation. With the aid of tractor-mounted platform lifts for access, lever extenders, and additional mirrors, he is able to do field work provided that he has help attaching implements (Fig. 9). His father takes care of the livestock, and a neighbor helps with livestock health care activities as needed.

Harlan and his wife have designed their home to be wheelchair accessible. Entry ways have doors of adequate width, level approaches, and low thresh-



Figure 8. Harlan Temple's lawn mower is also used for mobility around the farm.

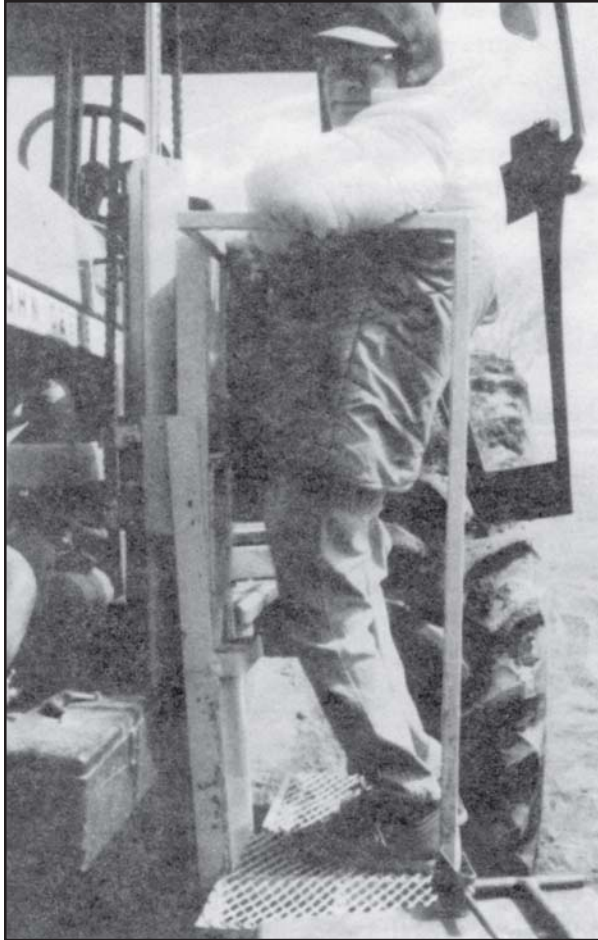


Figure 9. A tractor-mounted platform lift enables Harlan to continue farming.

olds. The family's large bathroom is equipped with a raised tub, grab bars, and a sink that provides room for Harlan's legs.

David Wolff (Black Hawk County, IA)

David, 51, owns and operates a commercial wholesale potted plant and bedding plant business. He sells plants retail as well. His operation has grown from a single greenhouse to seven greenhouses, and he now employs three people in addition to himself. David makes all management decisions and performs all tasks required for the operation except for heavy maintenance, soil mixing, and "ladder work." These tasks he delegates to others.

David has *spastic quadriplegia* with no involvement of his oral facial muscles. However, he does have a history of scoliosis (curvature of the spine)

and grand mal seizures (temporary electrical disturbances in the brain that cause loss of consciousness and involuntary movement throughout the body). Outwardly, David looks like he could drive a car with hand controls. However, because medication has not been able to prevent his seizures, he chooses not to drive in the interest of safety. He said the seizures commonly occur when he becomes hot or stressed.

David can walk with a standard walker, but he chooses to use a swivel-seat-equipped electric three-wheeled scooter for mobility while working. This helps prevent fatigue. After getting the scooter, he had the tables in the main greenhouse rebuilt to allow for wider aisles, adequate leg clearances, reachable water lines, and shelves that could be pulled out to work on and then folded to regain the aisle space (Fig. 10). The vent controls are also in the process of being lowered so that he can reach them easily from the scooter. Furthermore, an enclosed concrete floor passageway connecting the greenhouses has been erected, allowing David to supervise employees in the other greenhouses regardless of the weather (Fig. 11).

A platform lift and a small ramp allow David to independently access his parent's home, which is next



Figure 10. Water lines are easy to access from David Wolff's scooter.



Figure 11. The greenhouses are connected by an enclosed, concrete-surfaced passageway, allowing David to more easily supervise employees.

to his operation. He also has installed a ramp at his home enabling him to access the deck from his yard with the scooter.

Cory Frederick (Monroe County, WI)

Cory, 24, participates in the operation of his family's 180-acre dairy farm. The operation consists of a herd of 55 Holsteins and approximately 50 head of young stock. It is run primarily by his father, mother, and two uncles.

Cory is regularly involved in the daily care of livestock, assists with the basic maintenance of the operation's equipment, and helps with heavy repairs as much as he is able. He is capable of doing any field tasks that the operation requires.

Cory was diagnosed with *spastic diplegia* at about one and a half years of age. He walks independently without the aid of any assistive devices, but has some limitation of movement in both hips and knees. He is lacking approximately 20% of the movement normally present in his ankles. Maintaining balance is difficult for him in some situations especially on narrow, slippery, or unstable surfaces.

Because of the muscle tightness in his legs and compromised balance, Cory has difficulty standing

quickly from a squatting position to prevent injury should a cow kick during attachment of milking machines (Fig. 12). When working with a cow known to be excitable, he restrains her with commercially available halters and anti-kick devices ahead of time (Fig. 13). His father or uncle complete tasks that he does not feel safe attempting.

When Cory is on his feet for extended periods without sitting down, his feet become painful. Converting the dairy operation to allow feed to be handled in bulk quantities with power equipment has significantly reduced the amount of walking and stress on his feet. The installation of auto-take-off milkers has also eliminated some of the stressful squatting involved in milking in the family's stanchion barn. Furthermore, he has found that sitting down to work and wearing "track shoes" part of the day instead of work boots also helps prevent foot pain.

Cory uses two homemade modifications of note. The first is a hand-operated fulcrum that compensates for his inability to reach the floor and raise a lever to lock the brakes on one of the tractors. The other is a bale ejector for the bale conveyor in the hay loft. This allows the bales to be dropped directly into the hay mow. Cory used to struggle to



Figure 12. When milking, Cory Frederick leans his head into the cow for added stability and balance and maintains a "higher" squatting position in case he needs to move out of the way quickly when the cow kicks.

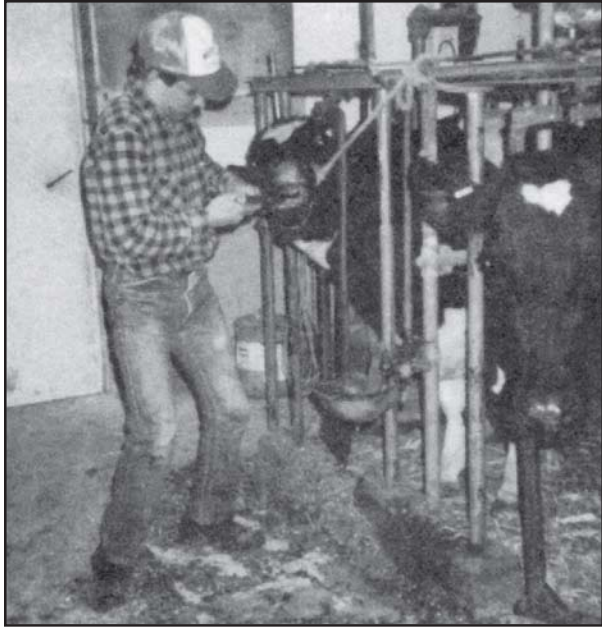


Figure 13. To compensate for poor balance and slow reaction time, Cory makes sure livestock are well restrained before tending to health care tasks.

keep his balance and carry hay bales while walking on piled bales. Having a hay loft large enough to dump a full year's crop in greatly reduces the need to handle bales.

Many things he finds helpful are commercially available, including additional steps for tractors, telescoping wagon tongues, running boards, bale throwers, garden tractor trailers, self-locking cattle stanchions, power feed-carts, gutter grates, gravity flow bins, and add-on augers that allow a gravity box with fertilizer to fill corn planter fertilizer boxes.

Common Strategies Used by Farmers/Ranchers with CP

1. Use good judgment and caution. All of the farmers interviewed indicated that they were generally more cautious when working than their counterparts. This is the best way to compensate for inadequate balance and slower reaction time. A farmer with CP must be well aware of his/her abilities and limitations. He/she must use good judgment to decide which tasks can safely be done alone or with others, or which ones should be assigned to others.

2. Keep work areas neat and organized. Cluttered work areas increase the potential for falls and the energy needed to maneuver from one location to another. Wall racks for tools and hangers for ropes, extension cords, and baler twine keep these items off the floor (Fig. 14).

3. Utilize communication aids. Good communications can help make any farm or ranch more efficient and productive. Access to telephones, C.B.'s, and F.M. radios can save unnecessary trips and be used in the event of an emergency. All major pieces of equipment and each primary building should be tied together by either telephone or radio.

4. Delegate animal health care and equipment repair tasks that cannot be done easily or safely to others. As discussed, it is difficult for farmers with CP to move quickly to avoid injury. Most of the farmers interviewed delegated some or all of these tasks to others involved in the opera-

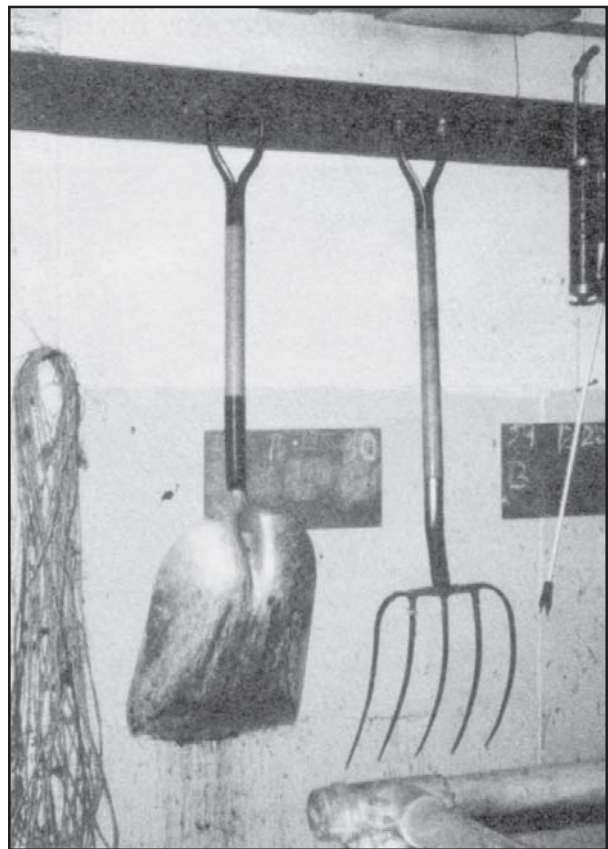


Figure 14. Utilizing a row of nails or pegs helps keep clutter off the floor and out of the way.



Figure 15. Carrying heavy items close to your body helps keep the weight close to your center of gravity, thus keeping you balanced.

tion. Otherwise, contracts were set up with service providers for these tasks.

5. Eliminate “hard-to-work-with” animals from the herd through selective breeding and outright removal. All livestock are unpredictable, but through careful management and breeding, livestock handling problems can be reduced to a minimum. Maintaining more docile animals will help increase the safety of working with livestock especially in operations where help is not always available.

6. Use proper body mechanics. Stability during lifting can be improved by: keeping feet shoulder width apart, bending at the knees and hips while keeping the back straight, and carrying the weight as close to the body as possible (*Fig. 15*).

7. Spread barn lime, salt, sand, or ashes on slippery surfaces. Farmers with CP are more likely to fall because of inadequate balance especially on

surfaces coated with ice or manure. Wood ashes, if available, are great for immediate traction on ice. Barn lime or sand also work, but not as well. Commercially available ice grippers such as those used for ice fishing may also be helpful.

8. Install additional steps and hand holds. Often, a few inches are all that prevent easy access to trucks, tractors, and self-propelled implements (*Fig. 16*). On newer models, multiple steps and hand holds often come with the equipment. On older models, these features often need to be fabricated. Hand railings are also helpful when dealing with stairs anywhere around the farm especially under poor lighting or weather conditions.

9. Use extensions on controls to compensate for limited ability to move or control movement. The operator station of most farm equipment does not easily accommodate a person with limited range of movement. Also, some controls are small and operate in ways that make them difficult to manipu-



Figure 16. A couple of added steps can make a big difference toward being able to get up into a tractor.

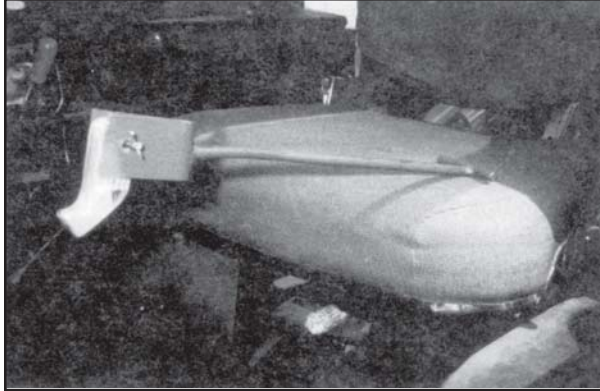


Figure 17. The extension for this control reduces the operator's need to reach and bend forward.

late for persons who have difficulty grasping. Thus, spinner knobs, lever extensions, enlarged handles or a complete set of hand controls may be needed to enable safe equipment operation (Fig. 17).

10. Automate feeding, manure handling, and milking operations. Automation helps conserve energy and prevents joint stress by reducing the carrying, walking, and lifting involved in farming.

11. Decrease involuntary movements by constructing arm supports near control panels and wearing seat belts. Fabrication of a forearm support that allows the operator to slide his or her arm on a supporting surface between controls may help some who have this difficulty. Others may be helped by wearing wrap-around wrist weights of one pound or less. This can reduce the overshooting and tremors of hands and arms. By wearing seat belts, a farmer with CP can prevent some involuntary reflexes that could restrict his or her ability to safely operate equipment.

12. Modify the operation to allow feed and fertilizer delivery in bulk. This eliminates the need to handle heavy bags. Locate feed storage bins close to the mixing area to reduce the need to push heavy feed carts.

13. Use a lawn mower, tractor, or ATV to ease travel around the farm or ranch. These machines can be used to carry one or more items between buildings in one trip, which eliminates the problem of having to maintain balance while carrying feed

sacks and other bulky items between buildings. They can be also used to travel to other areas that would otherwise be difficult for someone with CP.

14. Minimize manual bale piling. Walking on the unstable and uneven surface of piled bales can challenge the balance of a farmer with CP making the task more fatiguing than it would be otherwise. A baler with a thrower or large balers and associated large bale handling equipment can be used to reduce or eliminate manually handling bales.

15. Install shift lever extensions on ATV's or purchase models that do not require manual shifting. It is common for people with CP to have limited movement in their ankles, making it difficult



Figure 18. Hand controls can be utilized to safely shift foot-controlled gears on an ATV.

or impossible to raise the standard foot-operated shifter on ATV's with the toe. Several of the farmers reported reaching down with their hands to shift the vehicles. Although this may work, it would be safer to fabricate a shifter extension, allowing the operator to shift these gears while he or she remains upright (Fig. 18).

16. Sit down to work whenever possible. Some farmers with CP experience foot, leg and/or back

pain due to their abnormal walking patterns combined with prolonged standing, walking, or carrying. These activities create pressure on bones, muscles, and joints and result in pain and fatigue. Sitting occasionally throughout the day can reduce or prevent the pain. This can be done by: (1) alternating tractor work and labor-intensive tasks throughout the day; (2) setting up a shop area with work benches low enough to allow yourself to work from a stool. (*Note: A stool on casters is very handy if one has a concrete floor.*); and (3) wearing commercially available jogging shoes with steel toes that offer greater comfort while protecting the farmer's feet.

17. Mount additional mirrors on tractors to enable easier monitoring of implements being towed. This may be particularly helpful for those with muscle tightness that prevents them from turning their heads and backs (*Fig. 19*).

Safety

A number of issues should be dealt with before an individual with CP assumes a task on a farm or ranch. One should ask himself or herself: Will I be able to maintain my balance during the task? Will I be able to access required areas without falling? If I fall, is significant bodily injury likely to occur? Will I be able to react in time to safely do the task without



Figure 19. Large rearview mirrors with wide fields of vision are available which reduce the operator's need to turn around.

causing injury to either myself or others or causing property damage? Will I be able to easily view all necessary areas? Will I be able to fulfill the communication requirements of the task? If I have a history of seizures, are they currently under control with medication? If the answer to any of the above is “no,” the task should be adapted to allow for safe performance, or be delegated to others.

Conclusion

Cerebral Palsy is primarily a permanent, non-progressive movement disorder with associated cognitive (mental) and sensory (hearing, vision, touch) deficits in some cases. It develops due to brain trauma suffered during the period of growth and development. Because of the great range in types and degrees of disability, CP does not lend itself to a “prescription” on how to farm with CP. This article has discussed the impact of the most common physical limitations experienced by farmers and ranchers with the diagnosis, and it has explored some possible solutions for overcoming them.

Many of the people discussed in this article were, at one time, farm kids who wanted to make a contribution to their operations. Some met opposition to this idea from adults due in part to fear, ignorance, or both. Rural families finding themselves in this situation can do a great deal for their child's self esteem by allowing them to contribute to the operation by doing tasks **within their abilities**. This can be done by working together to see how much they really can do!

Under most circumstances, the child will indicate verbally or nonverbally if you are asking too much or too little. Even those with significant physical, mental, or perceptual impairments can do simple routine chores with supervision. Individuals with CP **can** participate safely in agricultural production if given the opportunity to do so.

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