# Conducting Agricultural Worksite Assessments

A USER'S GUIDE FOR PROFESSIONALS ASSISTING FARMERS AND RANCHERS WITH PHYSICAL DISABILITIES











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Breaking New Ground Resource Center Purdue University

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# Preface

# A Word About Professional Liability

As a professional rehabilitation service provider, you have a responsibility to your clients to conduct yourself in such a way as to not cause them harm or expose them to unnecessary risk. Whether you are an occupational therapist, a vocational rehabilitation counselor, a physical therapist, or an assistive technology provider, there is an expectation that you always act in the best interest of your clients.

To ensure that you provide services that are both appropriate and safe, your recommendations should be based upon your training and professional field of expertise. If issues arise that are outside of your area of expertise, you are obligated to inform your clients of your limitations and refer them to appropriate professionals.

Under no circumstances should you recommend that a clearly hazardous technique or technology be used to accommodate a client's individual needs or limitations. A modification or recommended technology that exposes the user to more risk than was originally associated with a technique or device is generally considered by most professionals as inappropriate. Even if the solution was independently developed by the client, your formal affirmation of an unsafe remedy may prove problematic. In fact, you may be held liable for formal and informal recommendations that result in a loss or injury if such recommendations exceeded the scope of your professional expertise.

Again, if you are not sure as to whether the recommendations you and your client are considering are appropriate, cost-effective, or safe, or if these recommendations exceed your scope of expertise, you have a responsibility to consult other qualified professionals.

# A Word About This Manual

The following present and former Breaking New Ground (BNG) Resource Center staff members were involved in the original development and production of this manual and this most current edition: William Field, Paul Jones, Toby Days, Jon Smith, Gail DeBoy, Edward Kirkpatrick, Steve Swain, Denise Heath, Melissa Deason, Lauri Logan Field, Gary Stoops, and Therese Willkomm.

This effort is the result of BNG's 25-plus years of experience in conducting on-site visits and working directly with farmers and ranchers who have physical disabilities to improve accessibility of their worksites. Thus, primary credit for the manual's content goes to these agricultural producers and their families who tolerated our interruptions during their busy days, our sometimes not-so-smart questions, and our modest attempts to provide appropriate solutions relating to accessibility of their agricultural production activities.

A special thanks is also extended to those individuals who allowed portions of their case files to serve as examples of how worksite assessments can be used to assist farmers and ranchers in making work-related decisions and/or implementing needed changes.

### Chapter 1

# Value of Worksite Assessments and the Tool for Making Them

Have you sometimes felt that everyone seems to have solutions but no one really knows what the problems are? Before appropriate solutions can be developed, there needs to be a clear understanding of the problems and a careful assessment of the resources available to address them.

### Value of Worksite Assessments

As a rural rehabilitation professional, your initial objectives in helping determine the vocational needs of a farmer or rancher with a physical disability are: (1) to conduct an assessment of his/her workplace in order to identify potential barriers and resources, (2) to evaluate his/her ability to complete desired workrelated tasks, and (3) to inventory assets that are available to him/her as a basis for developing alternative activities. The likely outcomes of accomplishing these objectives are:

- Better understanding of the size and scope of the farm or ranch operation, the individual's role in it, and the potential for alternative enterprises.
- Identification of significant workplace barriers and functional limitations that prevent completion of desired tasks.
- Opportunity to discuss desired worksite modifications, possible task restructuring, or reassignment of certain hard-to-perform tasks to other family members or employees.
- Opportunity to identify specific goals that will help the client increase independence, productivity, and profitability.

Another proven outcome of an assessment/evaluation process is that it demonstrates to the individual and his/her family that you are genuinely interested in their needs. Your willingness to visit them and become familiar with the situations that they face on a daily basis will go a long way towards opening lines of communication and earning their respect for your ability to make a difference.

It should be noted that not every farmer or rancher with a disability needs a comprehensive worksite assessment. Sometimes the need is simple and the solutions easy to provide. As the severity level of the disability increases, however, the need for a more thorough assessment becomes more important. If you visit with a client who perceives that he/ she has only a very basic or single need, conduct a mental assessment and raise questions about other activities that might eventually require modifications or use of assistive technology. In some cases, the person may be so highly focused on just one issue (e.g., gaining access to equipment) that he/she overlooks other even more critical issues.

Remember, the purpose of the worksite assessment is to not merely collect data but provide the information you need to serve the client and his/her family more effectively. In other words, the assessment tool is not designed as a research instrument, but rather as an "enabling" tool.

# Purpose of an Agricultural Worksite Assessment Tool

The purpose of the Agricultural Worksite Assessment Tool presented here is to assist rural rehabilitation professionals in conducting thorough and accurate disability-related needs assessments of their farmer or rancher clients' work environments. This Assessment Tool provides an extensively tested format for making such assessments on a consistent basis and recording the findings. Professionals not familiar with agricultural worksites will find the Assessment Tool helpful in asking the "right questions" as to potential workplace barriers. Upon completion, the Assessment Tool can become part of the client's personal file. If periodically updated and reviewed, the Assessment Tool will help keep track of his/her progress towards eliminating specific worksite barriers, increasing independence, and achieving personal rehabilitation goals.

Previous users of this Assessment Tool and suggested process would agree that no one approach or form will satisfy every need likely to be encountered. Thus, we encourage you to view the Assessment Tool as a "tested guide" and modify it to apply to each unique situation. The desired outcome is that both the professional and the client be able to use the information gathered as a basis for better decisions that will lead to greater independence for the client and family.

# Intended Users of the Assessment Tool

The Agricultural Worksite Assessment Tool and assessment strategies are designed specifically for professionals involved in the rehabilitation process of farmers, ranchers, or agricultural workers with physical disabilities. It is assumed that these professionals have been trained to provide specialized services to persons with disabilities and/or are working under the supervision of someone who has such training. The unique aspect of the Assessment Tool is that it provides rehabilitation professionals who may not have extensive experience working in an agricultural setting with a guide to conducting an effective assessment.

Not everyone can walk onto a farm or ranch and carry out a useful worksite assessment. The process involves too many issues to be easily addressed by the untrained eye. To do an assessment well takes preparation, experience, and training that is presently not available in a formal instructional package.

One suggestion that might be considered for those with narrow rehabilitation skills is to become certified as an Assistive Technology Practitioner (ATP) through training offered by the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA). This training provides broadbased instruction in basic rehabilitation topics, which will add credibility to one's role as a practitioner. Certification qualifications are based upon educational background, professional experience, percent of time involved providing assistive technology services, and successfully passing an examination. With certification also comes requirements for continuing education units (CEUs) in order to sustain accreditation. Professionals who are generally qualified to be certified include occupational therapists, physical therapists, rural rehabilitation specialists, and rehabilitation engineers.

Another way to learn the assessment process is to conduct assessments with a trained and experienced assessor. With the number of farmers and ranchers decreasing, there are fewer individuals in the rehabilitation and health care services arena familiar with the unique needs and environment of the farm or ranch. Thus, conducting a worksite assessment with a trained, experienced assessor can speed the learning curve toward competence as well as increase the coverage and thoroughness of the assessment and resulting recommendations.

### Contents of this User Guide

Chapter 2 which follows discusses how to prepare for and conduct an on-site assessment. Chapter 3 then introduces the Assessment Tool and how to use it. Chapter 4 explains each of the Tool's information-gathering "questions," with examples of problems and potential solutions related to that particular question. Chapter 5 addresses the types and howtos of client record-keeping (with examples), underscoring their importance and appropriate use. Chapter 6 contains examples of worksite assessments, including completed Assessment Tools, client records, forms, and other documentation. Chapter 7 lists selected resources related to agricultural worksite accessibility and farming/ranching with a disability. The Appendix contains reproducible copies of the Assessment Tool and the supporting records and forms.

### Chapter 2

# Preparing for and Conducting a Worksite Assessment

gricultural worksite assessments are only one A part of a comprehensive program to provide rehabilitation services to farmers, ranchers, and agricultural workers. However, few of these individuals are aware of the benefits that could be derived from having an assessment conducted. Even fewer are likely to request this service unless they have been made aware of how it could lead to greater independence. Thus, it is important that the farmer or rancher perceive the need for and potentials of conducting such an assessment and be willing to participate in the process. Fierce independence on the part of some rural people and the skepticism that they may have towards urban professionals and "government people" can be major obstacles to completing and benefitting from an assessment.

# Identifying Potential Clients

Identifying individuals who would be willing to participate in the assessment process is not an easy task. It will require patience and the willingness to build trust through an investment of time and energy. The following are 11 resources that you should consider utilizing to help identify potential clients for on-site assessments.

1. One of most successful client-identification techniques is a disability-awareness activity at agriculture-related events (e.g., county and state fairs, farm machinery shows, field days, Extension meetings, farm organization meetings). For instance, staffing an attractive display that clearly reflects the abilities of individuals with disabilities or that demonstrates an unusual type of assistive technology (e.g., a tractor equipped with a lift and hand controls) will generate considerable interest and may open the doors for further discussion with potential clients and/or family members. While farmers or ranchers with disabilities are often reluctant to approach an exhibit that focuses on disability awareness, some may follow up later indirectly through another person, a letter, an e-mail, a phone call, or by contact with the local Extension educator or sponsor of the event.

- 2. The rural media can also be an effective means to get the word out concerning the availability of specific services for farm or ranch families. A series of well-designed news releases or articles that feature farmers or ranchers with disabilities can encourage others to initiate a contact for services. (<u>Caution</u>. In using the media, as with all public-awareness activities, care should be exercised to insure that individuals with disabilities are always presented in a positive manner and are not used to sensationalize a story.)
- 3. Nothing speaks louder for a program than the quality of services provided to the customers. For many of the USDAAgrAbility Projects\* across the nation, one of the most important sources of referrals has been the clients themselves. What often develops from this form of referral are geographic "clusters" of clients who knew one another previously or got to know one another through involvement with AgrAbility.
- 4. Rural-based medical and social service professionals are also a potential source of referrals once they're aware of your services and become convinced of your credibility. Therefore, informational mailings to rural hospitals, physicians,

<sup>\*</sup> USDA AgrAbility Projects provides technical assistance and information to farm and ranch families impacted by disability. Projects are currently in operation in 28 states. Check with your local county Extension educator to see if AgrAbility services are available in your state.

occupational and physical therapists, public health nurses, social workers, and vocational rehabilitation counselors can generate a flow of referrals. (<u>Note</u>. Historically, only a small percentage of the clients being served by AgrAbility Projects have been referred by the medical community or vocational rehabilitation agencies.)

- 5. Disability-related organizations (e.g., Easter Seals, Arthritis Foundation) can be important sources of referrals. Many of them have regular newsletters that are widely disseminated and reach both urban and rural populations.
- 6. Rural centers for independent living (CILs) were established to provide services to persons with disabilities who reside in rural settings. To determine if there are centers in your state, go to the following web site: <u>www.april-rural.org</u> and click on "National Directory of Centers for Independent Living."
- 7. The Cooperative Extension Service is one of the most respected sources of credible information in rural communities. Efforts to provide resources and training to local Extension staff about disability awareness often prove extremely fruitful. Their extensive contacts with farm and ranch families through county-wide informal educational activities can greatly multiply your effectiveness in reaching target individuals and their families with information about the availability of services.
- 8. Agricultural science and business teachers are another group with considerable respect in rural communities. Provided with appropriate instructional materials, agriculture teachers can become valuable local resource people as well as referral sources. The FFA, which is a part of secondary school agriculture programs, routinely takes part in special activities to promote disability/diversity awareness. One such effort is the Bridging Horizons FFA Contest in Indiana.
- 9. Agricultural organizations (e.g., Farm Bureau, Grange, commodity groups) maintain statewide networks of farmers and ranchers and hold regular meetings and events that could be tapped to

both disseminate information and identify potential clients. Before reaching out to these groups at the local level, contact the state leadership and explore ways to collaborate in reaching their membership statewide.

- 10. Public libraries should also be on your mailing list. Nearly every rural community has one, which can become a channel to reach rural residents with disabilities. Program brochures sent to these libraries, along with an encouragement to post them on their local services bulletin boards, may result in follow-up contacts.
- 11. Rural churches that have dealt with making their facilities accessible to people with disabilities can also be a valuable source of referrals. Some churches may be willing to utilize a bulletin insert describing services.

# Making Initial Client Contacts

Initial client contacts usually come about in one of three ways—(1) direct contact by an individual seeking assistance with a disability-related problem, (2) referral from a third party who is acting as a "gobetween," or (3) contact that you initiate upon hearing about or meeting a person who could benefit from the services being provided.

A suggested form was developed to use when making initial contacts by phone (see *Chapter 5*). This form provides a means of collecting pertinent information during the initial contact and helps ensure that the potential client doesn't "fall through the cracks."

If a farm or ranch on-site assessment is deemed necessary, a visit should be scheduled as soon as possible. Even though one may think that most farmers and ranchers "work at home" and are always somewhere close by, it is not advisable to just drop in unannounced. Instead, set up the first visit via phone call or e-mail. This allows you to begin establishing rapport as well as obtain background information, such as nature of the disability, size and type of farm or ranch operation, directions to the facility, and extent of assistance already being provided by others (e.g., vocational rehabilitation counselor).

If you have difficulty in reaching the individual by phone or e-mail, consider contacting by surface mail, which might include a cover letter, background on your program, and a description of services provided. Since a request for a written response is sometimes slow in coming, attempt follow-up phone calls after a reasonable amount of time. (<u>Note</u>. A letter typed on agency stationery—no matter how friendly you make it—may be intimidating and set a different "tone" than a personal call.)

# Making Initial On-Site Visits

Having made contact to set a time for your initial visit and to get detailed directions to the farm or ranch, make every effort to be punctual and to have in your mind a clear idea of what you want to accomplish during the visit.

Once you get there, introduce yourself and begin to develop some rapport with the client and any family members who may be present. Talk about other things for a while (e.g., family pet, the weather, your drive there, the farmstead). When these conversations begin to lag, it's time to start discussing their specific concerns about farming or ranching with a disability. At this point, you can either sit down and talk or tour the premises while you converse, whichever the client wants.

Try to let the farmer or rancher lead or take control of the visit. If this doesn't happen, remember that eye contact, listening, and comprehending are much more important than getting everything down on paper; you can always contact him/her after the visit if you need more information. Also be sure the client understands (1) that the purpose for note-taking is to help you remember the details of your visit so appropriate modifications can be suggested and/or services offered, and (2) that all client information will remain confidential and not be shared with anyone outside of your organization. Even though audio-taping farm or ranch visit conversations is becoming more common, you should carefully weigh the pros and cons of doing so. While it makes information-gathering easier, the client may feel much more intimidated and be less willing to disclose personal information.

# Additional On-Site Visit Tips and Cautions

Remember that you are a guest and that certain unwritten rules may exist and should be respected. For example:

- The farm or ranch dog who greets you serves a useful purpose by letting the family know that a stranger has arrived. In fact, it may even keep you "cornered" in the car until a family member approaches. You'll be well served to treat the farm or ranch dog with respect.
- Never comment on odor or the presence of flies. Keep in mind that what may smell bad or is annoying to you directly relates to the family's livelihood.
- Because mud and manure are simply a part of agricultural production, some farm and ranch families leave their shoes or boots on the back porch or in a designated "mud room." Offer to do the same or just follow the family's example.
- Because manure may carry diseases or parasites, many livestock producers are extremely concerned about manure being tracked onto their property. So, to avoid being a transporter, consider carrying with you disposable overshoes or an inexpensive pair of rubber boots than can be rinsed off and sanitized with bleach after each visit if several farm or ranch visits are to be made.
- Certain areas or buildings may be "off limits" to visitors, since the farmer or rancher cannot risk exposing young or breeding livestock to any diseases or parasites that you may unknowingly be transporting. If the sign on the door says "Keep Out" or if your client tells you to stay out, respect his/her wishes.

• Don't overextend your welcome. Several short visits along with telephone contacts are much more effective than a single long one.

Agricultural production is one of the most hazardous occupations in the U.S. Farms and ranches contain numerous hazards to the workers involved, family members, and visitors. To help reduce the potential for injury, carefully review the following precautions:

- Since visitors account for about five percent of agricultural workplace injuries, care should be exercised throughout the on-site visit to avoid an injury. Never "explore" the farm or ranch unless accompanied by the owner or operator.
- Don't be an "extra rider" on agricultural equipment. Most farm machinery is designed for one operator. Extra riders falling off of operating machines account for a significant proportion of serious farm or ranch injuries. (<u>Note</u>. Some newer tractors and combines provide an extra seat for instructional purposes. If such is the case and your client invites you to ride along, this might provide an opportunity to observe operator tasks, including those that should perhaps be altered to better accommodate his/her disability.)
- Don't hesitate to point out (in a diplomatic fashion) any potential workplace hazards you observe. In some cases, the client is aware of the hazards and willingly accepts the risks associated with them. In other instances, he/she may not be aware of the potential for injury. This is especially true with respect to hazards that are increased due to the client's disability.
- In no case should you recommend or affirm that a clearly hazardous technique or device be used to accommodate your client's needs or limitations. A modification that exposes the user to more risk than was originally associated with a technique or device is inappropriate. In fact, you could be held accountable for recommendations that result in a loss or injury if such recommendations exceeded the scope of your expertise.
- If you aren't sure whether a modification might present a hazard to your client, consult a safety professional or engineer.

The book titled "Agricultural Safety Management," published by Deere & Company, is a good reference on the general subject of farm or ranch safety. It can be ordered through your local John Deere implement dealer or from Hobar Publications (see *Chapter 7*). For additional information on the potential health and safety risks associated with agricultural production, contact the Extension safety specialist at your state land-grant university. The local Extension office can provide his/her address and telephone number.

# Need for Repeated Assessments

Many of the tasks performed in farm and ranch operations vary with the season. The work done on a corn-soybean farm in the spring, for example, is quite different from that done in the fall. Therefore, unless you are familiar with the various agricultural enterprises, a comprehensive assessment likely cannot be carried out during just one on-site visit. Seasonal assessments may well be needed to help you and your client establish a set of rehabilitation goals and objectives for each season.

You must also consider the variations in the methods or technologies that your client uses to complete specific tasks. To control weeds, for example, a farmer might apply a herbicide to a crop one year and merely cultivate it the next. Also, a new piece of equipment or implementation of a new production method would likely call for new and/or additional modifications. For instance, the decision to change the haying system from small square bales to large round bales necessitates significant changes in the equipment and the tasks associated with harvesting, transporting, and storing.

Therefore, be sure to ask about changes that are in progress or being planned in order to avoid recommending a modification that will soon require significant change or become obsolete. Again, learning of and taking into account these important changes and/or variations often calls for periodic revisits to the client's workplace.

# Chapter 3

# The Worksite Assessment Tool— What It Contains and How to Use It

Designed to be completed during personal contacts with the client, the Agricultural Worksite Assessment Tool consists of a series of "questions" that cover 14 specific topic areas— Personal Data, General Farm/Ranch Data, Overall Farm/Ranch Accessibility, General Farm/Ranch Maintenance, Equipment and Machinery, Crop Production, Livestock Production, Domestic Farm/ Ranch Animals, Orchards/Woodland/Gardens, Farm Management Activities, Additional Vocational Skills, Establishing Primary Goals, Additional Comments/ Observations, and Farm/Ranch Layout.

This latest version of the Assessment Tool is the most comprehensive to date and takes about 2 hours to complete under most circumstances. Many of the questions require only short responses, while some call for more lengthy responses. Additional space is provided following most of the questions to enable you to include narrative or descriptive information. (<u>Note</u>. Many worksite assessments presently conducted by vocational rehabilitation professionals are entirely in narrative form.)

The Assessment Tool will likely prove more effective if it is completed over several on-site visits and interviews with the client. Although you could collect some of the information during a preliminary phone call, nothing can replace firsthand observations to help you accurately identify problems, determine solutions, and develop goals.

Remember, the Assessment Tool is not intended to identify all potential rehabilitation needs; therefore, it

should be used in conjunction with other rehabilitation assessment instruments that address independent living, health care, transportation, and dietary needs; financial assistance; medical management; and disability adjustment and family counseling needs.

### Becoming Familiar with the Tool

To help familiarize yourself with the Agricultural Worksite Assessment Tool, its series of "questions," and how the "answers"—i.e., collected data—are recorded, examples of completed Assessment Tools are shown beginning on page 32 of *Chapter 6*. The first example of a completed Assessment Tool is based upon a visit to a farmer who had experienced a spinal cord injury. (<u>Note</u>. This example, although fictitious, contains actual data from various assessments conducted by the authors.)

Starting on page 56 of *Chapter 6* are example "answers" from portions of on-site assessments for clients with an arm amputation, a leg amputation, and a back impairment. In the *Appendix* is a copy of the Assessment Tool for you to reproduce and use.

# **Electronic Version**

An electronic version of the Assessment Tool is also available in Microsoft Access format. This product can be used to enter and store data, perform queries, and generate reports concerning clients.

# Chapter 4

# Explanation of the Worksite Assessment Tool 'Questions'

The following is an explanation of and further elaboration on each of the "questions" that comprise the Agricultural Worksite Assessment Tool. (Note. It is suggested that you have before you the example completed Assessment Tool found in *Chapter 6* or the blank copy of the Tool found in the *Appendix* as you go through these explanations.)

# I. Personal Data

#### A. About the Client

*SSN.* Your client's Social Security number will become important if you are assisting farm or ranch families trying to obtain Social Security benefits. This number must be used when making referrals to other agencies. The client, however, is not obligated to provide you with his/her Social Security number. Great care should be taken to ensure that a client's SSN is kept secure to avoid identity theft.

*County.* Knowing the county in which your client resides is also useful when making referrals to other agencies for service. A client may live in a different county than his/her mailing address would indicate.

*Directions.* Locating individuals in rural areas can be difficult. Record a descriptive set of directions to the farm or ranch for future reference.

*Name of spouse.* The spouse is usually the primary support person, and you will probably communicate extensively with and learn many of the needs from the spouse. In most cases, based on prior experience of other rural rehabilitation specialists, the spouse will be a female and will absorb substantial caregiving responsibilities. If you feel the spouse has taken on a considerable load as caregiver, you may wish to provide her a copy of the *To Everything* 

*There is a Season* video (see *Chapter 7*). Also, getting to know both client and spouse on a first-name basis will help improve communication.

*Children.* They are an excellent weather vane for gauging the general health of the family unit. Getting to know them and involving them in the rehabilitation process will usually prove very fruitful.

*Occupation.* It is important to understand what position your client holds with respect to the agricultural operation. If the client is a farm or ranch employee, any potential site modifications or task restructuring must be discussed with the employer. If the client works full-time and receives his/her primary income from the farm or ranch, then you should focus on the alterations necessary to allow the client to continue working full-time. If the client works only part-time on the farm or ranch and holds an off-farm job, the need to complete farm or ranch worksite modifications might not be as urgent as improving access to the off-farm job.

#### **B. About Client's Disability**

Describe the nature of the client's disability as specifically as possible. Be sure to include the less obvious or secondary disabilities, such as a severe respiratory condition, a heart problem, or arthritis.

# II. General Farm/Ranch Data

#### A. Type and Size of Operation

To establish priorities for undertaking necessary modifications, you must first understand what the primary farm or ranch activities are and how much time and resources are committed to each. For example, if a farmer has a 30-sow swine herd, 30 beef cattle, and 600 acres of grain, then the primary activity would involve field work relating to grain production. Other family members could be encouraged to assist with the secondary activities (in this case, handling the livestock) so that the major worksite modifications needed to carry out the field work could be completed first. If client is involved in a farm- or ranch-based agribusiness (e.g., marketing seed corn, roadside vegetable market, repairing agricultural equipment), these activities should be noted. In some cases, it might be possible to expand them to replace other activities that are too costly or impractical to modify.

#### B. Client Responsibilities Prior to Disability

Understanding the work-related activities that your client participated in before becoming disabled can help determine which tasks he/she might still wish to perform, which ones would likely need to be modified, and which could be reassigned to family members or to co-workers. Time and resources do not allow you to identify every task, so focus on the primary ones.

#### C. Family Members and Others Who Assist

To develop a job-restructuring plan (if one is warranted), information is needed on how the farm or ranch operation is currently run and how responsibilities are allocated. Often the client could assume another worker's tasks and allow that worker to take those responsibilities the client can no longer perform. Job restructuring can be very stressful in some circumstances, especially where more than one generation is involved. Anticipate that there will be reluctance to change roles that have become institutionalized by the family, and that lengthy adjustment periods could be needed.

Disabilities have an impact on the entire family, especially younger children. They are often required to take on a more significant role in operating the farm or ranch and completing domestic tasks. Consideration of worksite modifications, job restructuring, and reallocation of responsibilities should include discussion of the potential influence such changes could have on the children. It is realistic to assume that stress on the children will increase. Therefore, efforts should be made to avoid detrimental decisions, such as keeping children home from school to work, requiring them to become responsible for activities that call for mature judgment, or placing them in situations that expose them to significant risk of personal injury.

### III. Overall Farm/Ranch Accessibility

#### A. Type of Terrain

Terrain can vary significantly from one farm or ranch to another. It may be rocky, sandy, flat, hilly, or wooded. Knowing the terrain on which the operation lies can help you to identify potential problems for a client with a mobility or vision impairment and determine those types of adaptive equipment or techniques that will give him/her the greatest freedom of movement around the operation. For example, steep driveways present problems for wheelchair users, especially during transfers into and out of vehicles. Wooded or hilly areas may limit the crop or livestock options and present special hazards when using modified equipment.

#### **B.** Farmyard Surfaces and Drainage

Muddy worksites can present serious problems to clients who must use wheelchairs or lower-limb prostheses.

Paved walkways and work areas provide better walking surfaces and easier maneuvering for a wheelchair. Those surfaces, however, are



expensive to install. In many instances, installing drain tile or relandscaping the farmyard can divert water away from the work area, while applying a layer of finely crushed limestone can greatly improve working surfaces and thus mobility. All-terrain vehicles have also been successfully used to overcome mobility problems in muddy farmyards and fields.

### IV. General Farm/Ranch Maintenance

#### A. The Farm or Ranch Shop

One of the most important buildings on the modern farm or ranch, the shop is where much activity takes place. The office is often located there; and at times, the shop serves as a haven for the farmer or rancher when things are not going well. Improving accessibility of the shop can have a positive "rippling effect" on many aspects of the operation.

**1.** Often the shop is inaccessible because of the overall design or location of the building. Entrance barriers, such as steps and narrow or heavy doors, can be modified by installing ramps and various types of manual or automatic door openers.

**2.** A smooth concrete floor provides a solid work area for large equipment and improves mobility. Where concrete is not financially feasible, alternative materials like crushed limestone or packed clay could be considered.

**3.** Layout of the shop itself might also make accessibility difficult. However, that can usually be modified easily by placing tools and equipment within reach and leaving ample maneuvering space around them. Pegboard, shelves, and electrical outlets can be lowered to allow a wheelchair user easy access. Overhead drop cords for electricity and compressed air hoses will eliminate the tangle of lines on the floor.

**4.** Work benches and stationary tools, such as vises and drill presses, may also have to be lowered. Electrical outlets installed on the front of benches

reduce the need for difficult stretching to reach them. Toolboxes could be retrofitted with wheels, purchased with wheels already mounted, or perhaps even motorized to allow all needed tools to be easily brought to the job site.



**5.** In colder climates, a heated shop provides the client with the opportunity to work year-round in the facility and undertake essential machinery maintenance tasks during the off-season. A heated shop also provides a workplace in which he/she could pursue other income-generating, on-site vocational activities (e.g., small-engine repair, woodworking, small-scale fabrication, welding services).

Though expensive, air conditioning a portion of the farm shop may provide individuals with spinal cord injuries a more comfortable working environment during the hottest times of the year. Large portable fans are also available and provide a less expensive alternative.

If the client uses the shop extensively, consideration should be given to installing accessible toilet and washing facilities. Also, if not already there, phone and/or radio communication to the shop should be high on the list of needed shop modifications.

Good lighting and adequate ventilation improve worker safety and productivity. If the client has a respiratory impairment, dust collection systems can be installed on dust-generating tools, such as table saws and sanders. Special attention should be given to welding areas to ensure that fumes are ventilated to the outside. (See *Chapter 7* for resources on shop planning and design.)

Careful consideration should be given to all potential hazards that are present in the shop and that might

be enhanced due to the client's disability. Availability of fire extinguishers, first-aid kits, and additional exit doors may address some of these issues.

**6.** A paved area outside the shop can greatly improve worker mobility when performing maintenance and repair on equipment. This surface should be slightly graded to allow for adequate drainage.

7. The refueling area needs to be clear of debris and possibly modified to be more readily accessible to the client. All local and National Fire Protection Association codes should be complied with in the design and layout of fuel storage and handling facilities. An appropriate Type-BC fire extinguisher should be readily accessible.

#### **B. Basic Hand Tools**

1. The inability to use basic tools can present numerous obstacles, especially with respect to the maintenance of equipment and buildings. Over the years, many labor-saving tools (e.g., locking pliers; cordless drill, screwdriver, and circular saw; nail or staple gun; one-handed grease gun) have become commercially available (see *Chapter 7* for information on *The Toolbox*). Most were designed for able-bodied users who wish to simplify or make a task less strenuous. With a little ingenuity, almost any tool can be modified to accommodate users with arm amputations, hand injuries, or strength limitations. In many cases, clients can make these modifications using presently owned tools and materials.

Having designated storage locations for all frequently used tools can greatly reduce the time and effort required to locate tools, especially for those with mobility and visual impairments.

#### **C.** Power Tools

1. Many power tools have also been successfully modified for individuals with arm and hand injuries. However, every precaution should be taken to ensure that the modified tool does not present added risk to the user. This is especially true for tools that cut or grind, such as high-speed power saws and grinders. The client should be encouraged to always wear the necessary eye protection when using impact tools like hammers and chisels. In some cases, as when welding, special protective clothing is needed to prevent burns, especially if the client normally has loss of feeling in some areas of the body.

Compressed-air-operated impact tools can take the place of some manual tools that require considerable physical exertion. Air tools have been designed that replace wrenches and saws and that convert hammer and chisel operation into a one-hand activity.

#### **D.** Maintenance Materials and Supplies

1. Various maintenance materials might be difficult to manipulate for a client who has a hand injury or wears a prosthetic device. Magnetic nail and staple holders can be used by some prosthesis wearers. Tool holders are available for individuals with carpel tunnel syndrome. Sandpaper can be mounted to a block of wood affixed with a handle for those who can use only one hand. Jigs, fixtures, and clamps will hold materials in place while performing maintenance activities. The use of spray paint, whether aerosol can or power unit, can reduce the effort of painting as well as minimize the cleanup that accompanies painting with a brush. Grease purchased in

prepackaged cartridges makes lubricating machinery easier and reduces both cleanup time and effort. Compressed-air or electric staple and nailing guns eliminate the need to individually handle nails and other



fasteners. Lightweight, mobile, high-pressure washers can reduce cleanup time and keep equipment free of dirt and grease.

# V. Equipment and Machinery

#### A. Machinery Storage Areas

**1.** Agricultural machinery that is stored indoors or under some type of cover lasts longer, requires fewer repairs, looks better, is easier to maintain, and generally has a higher resale value. A well-designed storage area also doubles as a garage for servicing machinery.

2. The most frequent problem that farmers and ranchers with mobility limitations encounter in accessing machinery sheds is opening and closing large sliding or overhead doors. Automatic door openers can be installed or a less costly pulley system rigged



up to allow the operator to pull on a vertical rope rather than push or pull on a sliding door. Using remote controls to activate power

door openers can reduce the need to mount/dismount equipment when accessing storage areas

**3.** A smooth floor in the machinery storage area can make maintenance on equipment much easier. In most cases, a firmly packed clay or dirt surface is sufficient. However, if finances allow, a floor of crushed limestone provides an ideal surface. Also, hitching and transferring in and out of equipment can be accomplished more easily in a storage area with a smooth floor than in the farmyard.

**4.** For many farmers or ranchers, the cost of providing indoor storage for all of their equipment is prohibitive. Where a choice needs to be made, those pieces of equipment which have the greatest value and are used most frequently should be what is kept under cover.

**5.** Positioning machinery (and implements) in the storage area in an organized fashion can help the farmer or rancher with a mobility impairment access the operator station or perform maintenance tasks more easily.

#### **B.** Primary Self-Propelled Equipment

1. Farmers and ranchers use a wide variety of makes and models of self-propelled equipment. It is not unusual for them to have five or more tractors and/or combines. Also, they spend long hours operating this equipment, which is usually essential to successful continuation of their business. It's important to know which of these machines your client uses most often, because these are the ones on which modifications should be completed first.

Knowing whether or not a particular piece of equipment has a cab can help you decide what modifications may need to be made. A modern pressurized, heated, and air-conditioned cab is very important for individuals with respiratory impairments, spinal cord injuries, or temperature sensitivity. Two-way radios or cell phones are recommended for those with mobility impairments to ensure that they can obtain help if needed. On many larger farm and ranch operations, these devices are no longer considered accessories but have become essential, cost-cutting management tools.

If the client is considering the purchase of a new tractor, this would be an ideal time to explore makes, models, and accessories that would provide greater accommodation. This might include better seating and lighting, wider more accessible doorways, and easier to reach fuel tanks. Avoid investing substantial resources in older equipment when more accessibility might be found on a newer machine.

#### **C.** Accessing Equipment

**1.** During the assessment process, you should gather as much information as possible about the specific problems your client faces in accessing the most frequently used machines. Take photographs

of those pieces of equipment that might be considered for modification. The Breaking New Ground Resource Center at Purdue University and the National AgrAbility Project have publications that can assist in selecting and fabricating the needed modifications (see *Chapter 7*).

For clients with less severe mobility limitations, the modifications might be as simple as additional handholds or steps, steps brought closer together, wider steps, or even alternative climbing methods. Modifications to steps should include non-skid surfaces to



provide sure footing. For individuals with severe walking limitations, platform lifts and chair lifts have been designed that can be mounted to a tractor or combine. See

information in Chapter 7 on sources of equipment modifications. Record the equipment make and model, number and position of cab doors, any sidemounted implements or chemical tanks used, and other characteristics of the machine that you feel might be useful. This will help identify difficulties in mounting and operating the machines so that you can begin to work toward solutions. Including photographs of each piece of equipment in the client's file will be helpful later.

If possible, observe the client as he/she transfers on and off the equipment and operates it. Note potential hazards, and make their correction a priority. *Again, modifications should not increase the risk of injury, even if the client considers the desired modifications essential.* 

#### D. Equipment Seating and Transfer

**1.** Some equipment seating may not be padded enough for farmers or ranchers with spinal cord

injuries. More padding or a wheelchair seat cushion can be added. For clients with back injuries, the seating may not provide adequate shock absorption; therefore, installing a seat with an improved suspension could help. Nearly all new tractors come equipped with ergonomically fitted seats, which should be suitable for most operators. Armrests can reduce pressure on the lower spine. Some seat designs include independent hydraulic or pneumatic suspension, lumbar and height adjustment controls, and adjustable armrests.

#### **E.** Controls

**1.** For tractors and other often-used self-propelled equipment, indicate which controls are difficult for the client to reach or operate, and describe the nature of the difficulty. Photos would be very helpful if control modifications will eventually be needed.

If the client is safely operating an automobile with modified controls, he/she can usually operate a tractor with the appropriate modifications. A wide variety of methods have been used to enable an individual with almost any type of disability to operate farm or ranch equipment. The Breaking New Ground Resource Center and the National AgrAbility Project have published information on control modifications (see *Chapter 7*).

#### F. Hitching/Unhitching Implements

1. Indicate which types of hitches are used most often and will need to be modified if the client desires to continue using them. Various automatic hitching devices for the tractor's drawbar and threepoint hitch are commercially available. Some of these devices allow the operator to hitch and unhitch implements from the tractor seat, with the exception of the PTO driveline and hydraulic connections.

**2.** Equipment operators with disabilities affecting the back can face difficulties during hitching operations and when trying to monitor trailing implements. One solution is the swivel seat, which greatly reduces the amount of twisting required. Additional rearview

mirrors can also be mounted inside and outside the tractor cab. These mirrors also reduce the amount of twisting necessary during the hitching/unhitching and operation of trailing implements. Commercially available remote cameras and monitors might also be considered for implement hitching and monitoring.

**3.** Since few alternatives exist for attaching powertake-off (PTO) drivelines, it might be necessary to have this task performed by a co-worker. Research is currently being conducted on automatic and selfhitching PTO devices, but few such devices are presently commercially available.

**4.** Connecting/disconnecting hydraulic couplings can be difficult for a client with an arm amputation or limited arm strength. Conversion kits and special couplings are available that allow the worker to use only one hand.

#### G. Other Barriers to Equipment Operation

1. Clients with hearing impairments may not be able to distinguish the sounds of malfunctioning equipment and thus may need to rely on alternative techniques. Some of these alternatives include watching the smoke being discharged from the exhaust pipe; installing sensors, warning lights, or loud alarms to indicate a malfunction; conducting more frequent inspections; and performing preventive maintenance to reduce the incidence of equipment malfunction.

2. People who have lost sight in one eye often experience poor depth perception. Specific problem areas for the farmer or rancher with such a visual impairment include backing the tractor and hitching implements, backing and unloading the combine, raising and lowering the headers on the combine, and performing complex repairs on equipment. Additional mirrors, markers, and sensor devices that sound an alert when the equipment comes close to another object may help. Many operators with visual impairments develop their own techniques for completing tasks requiring depth perception. For example, a tennis ball suspended by a string that

bumps against the windshield of the combine can tell the operator when he/she has parked it in the right location to avoid damage to doors and walls.

Various types of sunglasses or tinted window films are available for light-sensitive individuals, and additional lighting can be mounted outside of equipment to accommodate those who suffer from night-vision problems. However, it may be best, in some circumstances, to find an alternative means to accomplish the task to avoid exposing the client to unnecessary risk.

#### H. Equipment Maintenance

1. Indicate which of the maintenance tasks are difficult to perform, and describe the problem. For example, the client may not be able to check the oil and coolant level on his/her combine because these inspection points are located at the rear of the machine, eight feet off the ground, and accessible only by ladder. For individuals with mobility restrictions, additional hand-holds or platforms can be mounted to those areas on equipment where maintenance tasks need to be performed. For those with arm

amputations, various laborsaving devices are available, like onehanded or electrically operated grease guns, locking pliers, and air wrenches. An



oil-changing kit allows one to change the oil without having to crawl under the machine; a pump removes the old oil by inserting a suction hose through the dipstick tube.

The keys to successfully keeping machines operating are regular preventive maintenance and patience. Repairing and servicing equipment is easier and less stressful during the off-season or between crops than in the middle of planting or harvesting. When more time is available, various approaches to maintenance tasks can be tried without the consequences of the loss of valuable time and profits. Again, it might prove less expensive, easier, and safer to have some maintenance tasks completed by others. For example, tire replacement on large equipment is hard physical work without the right tools. Most rural areas have on-farm tire service available from the local tire distributor at reasonable cost. Encourage the client to utilize these services where appropriate.

(<u>Note</u>. Some manufacturers and local implement dealers offer service contracts on their equipment. For an individual who is unable to easily maintain or service certain machines due to their size or complexity, purchasing a service contract might be the best solution. It is unrealistic to assume that everyone will be able to complete all service and maintenance chores on a modern farm or ranch.)

# **VI. Crop Production**

#### A. Forages

1. Conventional square bales, large round or large square bales, hay stacks, and silage are the most common ways in which forage is stored and handled. For farmers or ranchers with almost any type of physical impairment, the conventional 40- to 80-pound square bale is the most difficult to handle. Large round or large square bales would allow use of a tractor with a front- or rear-mounted bale loader to perform the heavy lifting and transport.

2. The most desirable site for storing hay is indoors out of the weather. However, conventional bales stored in a conventional barn can present difficult problems for the farmer or rancher with a disability. Since there is such a variety of hay handling alternatives available, a visit with the local county Extension educator might be helpful in identifying the system most appropriate for your client.

**3.** The least labor-intensive but most expensive forage storing and handling method is keeping silage

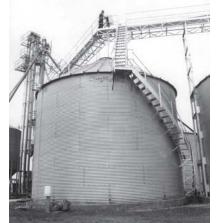
in upright, self-unloading silos. However, vertical silos cannot be made highly accessible to operators with disabilities due to their height and the level of mechanization that has been incorporated into them and accompanying feeding equipment. On the other hand, silage stored in bunk silos or in bags can be generally handled from tractors equipped with loaders, thus requiring no climbing. A growing number of farmers with disabilities have found the use of silage baggers and mixer wagons to be a highly accessible method to feeding livestock.

#### **B.** Grains

1. A farmer or rancher generally handles grain in one of two ways—(1) storing it in bins and other structures on the farm or (2) transporting it to a local elevator to sell or store. Even though economic advantages to on-farm storage are substantial, access to bins, loading/unloading operations, and monitoring the stored grain present significant problems that must be considered. Off-farm storage eliminates most of these problems and the need for on-site modifications; however, it may be necessary to modify the hauling equipment, such as grain trucks and wagons.

2. Numerous types of system modifications are available for on-farm grain handling that are less labor-intensive. These include: use of bucket elevators, center legs, and appropriate bin placement to eliminate the need to move grain augers; use of pneumatic grain-handling systems; installation of

stairs on the side of grain bins to allow access to the roof; remote hatch openers and controls; and permanently installed temperature probes for monitoring of the grain to prevent spoilage. One significant



barrier may be accessibility to the grain storage structure during final clean out. Even the best sweep augers leave a considerable amount of grain that should be cleaned out before new grain is stored. This task may have to be assigned to someone else.

**3.** In some cases, the client might store ear corn to process later for livestock feed. Ear corn is difficult to handle, especially for someone who is mobility impaired or cannot easily handle a shovel. Thus, switching to shelled corn should be given serious consideration.

**4.** Most controls for grain handling equipment can be moved to a central location where they are easily accessible. Switches can be selected or modified to accommodate almost any disability.

#### **C. Other Crops**

1. In addition to forages and grains, farmers and ranchers might also be involved in the production of specialty crops (e.g., cotton, sugar beets, tobacco, mint, potatoes, flowers). Each of these requires specific and often unique agricultural practices and equipment. Some activities will be carried out only once or twice a year but are essential to production of the crop. If a specialty crop is an important income source for your client, the tasks associated with its production should be carefully examined to identify potential barriers and develop appropriate solutions. If the crop is highly labor-intensive (e.g., tobacco), and other sources of labor are not available, an alternative crop should be considered.

#### **D.** Chemical Application

1. Chemicals used on or around the farmstead can be very hazardous. Individuals who apply their own chemicals need to exercise extreme caution and use appropriate handling techniques and proper application equipment. Pumps and bulk containers can be used to eliminate the labor-intensive task of lifting heavy buckets and bags when mixing and loading chemicals. Handling should always be done in a well-ventilated area.

2. The Federal Insecticide, Fungicide, and Rodenticide Act requires that all persons who apply pesticides classified as "restricted use" be either certified or work under supervision of a certified applicator. If an uncertified client is applying restricted pesticides, recommend consultation with a certified, professional pesticide applicator. The task of applying restricted use pesticides should never be assigned to an untrained worker or family member.

**3.** Extreme caution must be taken when working near or handling hazardous chemicals in order to prevent spills and exposure to toxic fumes and materials when maneuvering in the storage area. Also, proper equipment must be used when handling. Existing hoses and pumps should be inspected and repaired or replaced if leaks or defects are detected.

**4.** Recommended personal protective gear should always be worn when handling hazardous chemicals. Determine what items are appropriate for each

chemical, and

ascertain the client's ability to wear and use the protective gear. Modifications, such as the addition of Velcro straps, may be re-



quired for safe handling of chemicals.

**5.** Some individuals with respiratory impairments may be highly sensitive to any exposure to certain agricultural chemicals. It may be necessary to obtain medical advice concerning potential reactions to chemical exposure.

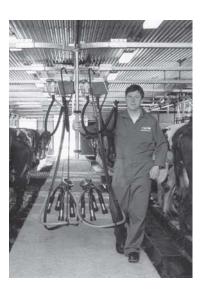
**6.** Professionally certified chemical applicators are available in most areas. They should be identified, and then a determination made regarding their accessibility to your client.

### **VII. Livestock Production**

#### A. Dairy

#### 1. Facilities

(a) The barns on most small diary farms were built with the cow (not the dairy farmer) in mind. Stanchion barns can pose significant problems for those with mobility or back impairments. The gutters and limited space make it difficult to maneuver around the cows to attach/detach the milking equipment and open/close the stanchion. These barns also require moving in front of the cows to feed them and keep the mangers clean. This space is often narrow, and one may need to step over gutters or around sharp corners. Such maneuvering becomes especially difficult if baled hay is fed. With stanchion barns, there is also considerable stooping, bending, and lifting, which can present serious problems for those



with missing limbs or back, hip, or knee problems. The use of a track system to carry milking units can help mitigate some of these problems. Finally, the close contact with the cows increases risk of injury from being kicked, stepped on, or crushed between an animal and a solid object.

(b) Today's milking parlors have revolutionized the milking process. They allow the dairy farmer to milk in a standing position and can be modified to accommodate a wheelchair user. Some milkers can be attached with one hand and automatically removed when milking is completed. Also, feeding can be done automatically and the cows brought in and out without the dairy farmer having to leave the milking

area. Parlors appear to be the best option for improving access to the milking operation.

(c) Older milk houses that have been modified to accommodate bulk tanks may prove inaccessible to dairymen with mobility impairments because of limited walking space, narrow doors, steps, and layout of the milk storage and handling equipment. Newer facilities that have been designed around the bulk tank and pipeline handling systems are generally easier to make accessible. Automatic washing systems have contributed much to reducing the manual labor needed to sanitize milk handling equipment.

(d) Waste removal and building sanitation are essential ingredients of all diary operations. Several types of modified equipment and tools, as well as alternative techniques, can make waste removal easier for a dairy farmer with a disability. One of the simplest approaches to this problem is free-stall housing, which allows for cleaning with a small skidsteer loader. Another is the use of slatted floors and a centralized manure storage facility that needs to be emptied only once or twice a year. However, these systems are expensive, thus most cost-effective when used for large numbers of animals. Depending on the disability, a dairy farmer who raises calves might consider either outdoor hutches or a confinement building that has been made accessible. Highpressure washers also eliminate much of the physical involvement in building sanitation activities.

(e) Moving dairy animals in and out of facilities can be accomplished in several ways. An all-terrain vehicle can be used to herd them from the pasture. Swinging or automatic gates should be considered for sorting activities in holding pens.

#### 2. Feeding

(a) Your client might be using any of a wide variety of feeding systems common to livestock production. These will range from very physically demanding ones, such as feeding conventionally-baled hay along a fence, to highly automated ones that can be operated from one location. (b) Various types of labor-saving devices have been introduced for use in both confinement buildings and feedlots. Self-unloading silos, bunk feeders, pneumatic feed-handling systems, and self-feeders can greatly reduce or, in some cases, practically eliminate the climbing, shoveling, feed handling, and direct contact with the animals that was once required. For example, use of large round bales and tractormounted bale-handling equipment allow the dairy farmer to do much of the forage feeding from the tractor seat. In situations where hand feeding is done, a wide variety of modifications can be made to the feeding tools and equipment. In some cases, the necessary modifications might involve the conversion from hand feeding to an automated system.

(c) Most feeding equipment controls can be moved to a central location where they are easily accessible. Switches can be selected or modified to accommodate almost any disability.

(d) Some manufacturers and local implement dealers offer service contracts on their equipment. For an individual who is unable to easily maintain or service certain feeding machines due to their location or complexity, purchasing a service contract might be the best solution. It is unrealistic to assume that everyone will be able to complete all service and maintenance chores on a modern farm or ranch.

#### **B. Hogs**

#### 1. Facilities

(a) When you visit hog operations, you might see several different types of facilities, ranging from a converted dairy barn to an open pasture to the most sophisticated environmentally controlled confinement building. Outdoor or older facilities are likely to be the most difficult to modify, especially for a wheelchair user or someone with severely limited mobility. Each type of facility poses some problems even for the able-bodied hog producer, but all can be made more accessible. (b) Because of the need to frequently monitor hogs, it is essential that the client have access to all key buildings involved with hog production. This is true even if most of the physical labor is done by others.

(c) Modern confinement buildings offer many advantages to a hog producer with a disability. They generally provide a comfortable environment in

which to work and allow the operator to carry out most of the hog-raising activities within a limited area. In confine-



ment buildings that have narrow aisles, a wheelchair with a smaller seat assembly or a motorized scooter could provide better mobility. In some cases, farrowing pens have been raised to put the baby pigs within reach. Automatic waterers and feeders allow producers to focus attention on health care, breeding, and other management activities.

One drawback to tightly sealed confinement buildings is the quality of the air to which the operator is exposed. The combination of carbon dioxide, ammonia, methane, hydrogen sulfide, and airborne particulates found in nearly all confinement buildings can be dangerous for individuals prone to respiratory ailments. In some cases, the producer's condition can become so severe that he/she is forced to leave the building and return to open-air or well-ventilated facilities. Proper respiratory protection should be worn while working in confinement buildings.

(d) Most modern hog operations use slotted floors, which greatly reduce the work involved in waste removal. Cleanup and sanitation can be accomplished with relatively inexpensive high-pressure washers.

(e) Loading and transporting hogs to market is of key economic importance to the client who runs a

hog operation. Therefore, swinging or automatic gates should be considered for sorting activities in holding pens. The loading dock and livestock trailer unit must also be accessible for clients to transport their animals. Commercial livestock transporters are available if the client is unable to operate a transporting unit. Use of these services may reduce the profitability of the operation.

#### 2. Feeding

(a) Hog production has become highly mechanized, especially with respect to feeding. If only a few hogs are raised, however, it might not be economically feasible to automate the feeding operation.

(b) Where applicable, indicate the difficulties the client has in completing hog feeding activities. (For additional information related to feeding, see *Dairy Feeding* section above.)

(c) Most feeding equipment controls can be moved to a central location where they are easily accessible. Switches can be selected or modified to accommodate almost any disability.

(d) Automatic waterers and water heaters can greatly reduce the labor involved with watering animals and in colder climates, the problem of freezing.

(e) Some manufacturers and local implement dealers offer service contracts on their equipment. For an individual who is unable to easily maintain or service certain machines due to their location or complexity, purchasing a service contract might be the best solution.

#### C. Beef

#### 1. Facilities

(a) As with dairy and hogs, the types of beef raising facilities you might encounter vary considerably. Some operations include outdoor feedlots that cover from a few acres to hundreds of acres; on others, the cattle graze on open prairie or pasture while the

operator supervises them from pickup truck or horseback. Although each type of facility or operation presents several barriers, many farmers and ranchers with severe disabilities are successful in the beef business.

(b) Probably the most accessible type of beef operation is the confined-feeding-area feedlot. This system allows direct supervision of the animals and feeding activities.

(c) Access to the cattle is critical in carrying out branding, tagging, dehorning, castrating, and other physically demanding tasks. Various types of cattle

holding chutes, porttable squeeze chutes, and other restraint devices could make some of these tasks less difficult and safer.



However, in many cases, the tasks would be completed most efficiently by an able-bodied individual.

(d) Most feedlots and confinement operations do not present serious barriers with respect to waste removal; and, of course, grazing operations pose the least problems. The use of utility vehicles in these operations can be very helpful.

(e) Being able to transport livestock is of great economic importance to a beef operation. The client should be able to hitch the livestock trailer to a truck or tractor (see *Hitching Equipment* section). Swinging or automatic gates should be considered for the cattle-loading process. Commercial livestock transporters are also available if the client is unable to operate a transporting unit. Some operators are reluctant to use commercial livestock haulers due to the concern over disease transmission from one farm to another.

#### 2. Feeding

(a) As with all livestock enterprises, recent technological innovations have made many beef operations highly mechanized, enabling large numbers of cattle to be fed with very little physical activity. Most of these systems are similar to those used in dairy operations. However, the costs involved are substantial and often prohibitive to many beef producers. A well-maintained, securely fenced pasture that pro-



vides cattle with ample feed and water could be the best lowcost feeding arrangement for a beef producer with a physical disability. On the other hand, a confined feedlot with central-

ized feeding system can also be modified to reduce the need for high-mobility and manual activities.

Some farmers with mobility impairments have been able to successfully incorporate rotational grazing practices into their operation using lightweight electric fencing and utility vehicles. Check with the local Extension educator for additional information on this practice.

(b) Where applicable, indicate the difficulties the client has in carrying out beef feeding activities. (For additional information on feeding, see *Dairy Feed-ing* section.)

(c) Most controls for feeding equipment can be moved to a central location where they are easily accessible. Switches can be selected or modified to accommodate any disability.

(d) Some manufacturers and local implement dealers offer service contracts on their equipment. For an individual who is unable to easily maintain or service certain machines due to their location or complexity, purchasing a service contract might be the best solution.

#### **D.** Sheep

#### 1. Facilities

(a) A well-maintained, securely fenced pasture that can provide sheep with ample food may prove to be the best low-cost feeding arrangement for the sheep producer with a physical disability.

(b) Because sheep need to be frequently monitored, it is essential that the client have access to all key buildings involved with their production. This is true even if most of the physical labor is done by others.

(c) Automatic waterers and feeders allow the producer to focus attention on health care, breeding, and other management activities. Holding chutes can also be used to secure the animals when administering medication and shearing.

(d) Transporting the sheep is of key economic importance to the client. Since loading docks usually have narrow aisles, a wheelchair with a smaller seat assembly or a motorized scooter could provide better mobility. In addition, the client needs to be able to operate the truck and trailer unit after the animals are loaded (see *Hitching Equipment* section). Commercial livestock transporters are also available if the client is unable to operate a transporting unit.

(e) Waste removal and building sanitation are essential ingredients of all livestock operations. Several types of modified equipment and tools, as well as alternative techniques, can make waste removal easier for a sheep producer with a disability. One of the simplest approaches to this problem is free-stall housing, which allows for cleaning with a small skid-steer loader. Cleanup and sanitation can also be accomplished with relatively inexpensive high-pressure washers. Maximizing the time that the sheep spend on pasture also reduces the amount of manure that has to be handled and transported.

#### 2. Feeding

(a) As with all livestock enterprises, recent technological innovations have made many sheep operations highly mechanized, enabling large numbers of animals to be fed with very little physical activity. Most of these systems are similar to those used in dairy and beef operations. However, the costs involved are substantial and often prohibitive to many sheep producers. Well-maintained, securely fenced pastures that provide sheep with ample feed and water could be the best low-cost feeding arrangement for a producer with a physical disability. On the other hand, a confined feedlot with central feeding system can also be modified to reduce the need for high-mobility and manual activities.

(b) Various types of labor-saving devices have been introduced for use in both confinement buildings and feedlots. Self-unloading silos, bunk feeders, pneumatic feed-handling systems, and self-feeders have greatly reduced or, in some cases, practically eliminated the climbing, shoveling, feed handling, and direct contact with the animals that was once required. For example, use of large round bales and tractor-mounted bale-handling equipment allows the sheep producer to do much of the forage feeding from the tractor seat. In situations where hand feeding is done, a wide variety of modifications can be made to feeding tools and equipment. In some situations, the necessary modifications might involve conversion from hand feeding to an automated system.

#### 3. Shearing/Wool Handling

(a) The shearing of sheep is a very labor-intensive



task. The animals need to be caught and secured before the shearing can begin. Also, holding chutes can be utilized to secure the sheep for both shearing and administering medication.

(**b**) Modifications to the shearing equipment may include the addition of Velcro straps so the shears can be operated with one hand. Pneumatic and electric holding chutes can be used as alternative devices to secure the animals.

(c) Most sheep raising areas have commercial shearers who charge a fee for shearing and often handle the sale of the wool. For some individuals, this may provide a viable alternative.

(d) Use of a well trained sheep dog to round up, control, and move the sheep herd to other locations continues to be a cost effective, efficient management technique.

#### E. Horses

#### 1. Facilities

(a) Well-designed, functional horse facilities are safe, sanitary, and convenient. They provide areas for rest, exercise, and shelter as well as the means to feed and water the animals. A variety of horse-handling facilities exist, ranging from a simple fenced pasture to elaborate box stalls. Facilities should be durable and designed for horses that are large, strong, and sometimes unpredictable. Everyday activities should be designed with efficiency and safety in mind. Water must be located within easy access to the places it is needed.

(b) The most frequent problem farmers and ranchers with mobility limitations encounter in accessing facilities is opening and closing large sliding doors and gates. Automatic door and gate openers can be installed or a pulley system contrived that allows the operator to pull on a vertical rope rather than pushing or pulling a sliding door.

(c) Routine medical treatment and grooming are necessary to maintain a healthy horse stock. Protective corral areas that secure the horse while allowing the client access to both sides of the animal should be considered. An outside tie area provides a good place to clip, groom, or bathe the horse and serves as a training area to teach restraint and patience. The tie area should be strong and tall—preferably a solid wall; a board fence with space between the rails might allow a horse to get its legs caught. Unless the client has unusually large horses, a wooden wall that starts two feet off the ground and goes up to five feet should suffice. The lead rope attachment location in the tie area should be at the level of the withers or higher so that, if a horse does pull back, he will not have good leverage.

(d) Recreation and health care require horse owners to load their animals onto transporting units. Commercial livestock transporters are available if the client is unable to operate the transporting unit.

(e) Waste removal and building sanitation are essential to all livestock operations. Several types of modified equipment and tools, as well as alternative techniques, can make waste removal easier for a horse owner with a disability. One of the simplest approaches to this problem is housing that allows for cleaning with a small skid-steer loader. Cleanup and sanitation can also be accomplished with relatively inexpensive high-pressure washers.

#### 2. Feeding

(a) Your client might be using any of a wide variety of feeding systems common to livestock production, ranging from very physically demanding techniques, such as feeding conventionally baled hay along a fence, to highly automated systems that can be operated from one location.

(b) Various types of labor-saving devices have been introduced for use in horse feeding facilities. Pneumatic feed-handling systems and self-feeders have greatly reduced or, in some cases, practically eliminated the climbing, shoveling, feed handling, and direct contact with animals that was once required. For example, use of large round bales and tractormounted bale-handling equipment allows the farmer or rancher to do much of the hay feeding from the tractor seat. Most horse owners want to hand feed their animals as much as possible because it provides more direct contact with the animals. In situations where hand feeding is done, a wide variety of modifications can be made to feeding and watering equipment.

#### 3. Saddles and Harnesses

(a) Well-balanced English all-purpose saddles and dressage-style saddles are commonly recommended, because they enable the rider to feel and follow the forward movement and facilitate balance; whereas Western saddles limit movement due to the horn and high cantle. There are, however, certain disabilities (e.g., spinal cord injury, muscular dystrophy) that may benefit from the deep seat of a wellbalanced Western saddle.

(b) Special equipment that may be considered to ensure the client's safety includes:

- *Protective helmet*—Needed by all riders; must meet ASTM and SEI safety standards; Lexington style the most common.
- *Hand-hold*—Attached either at "D" rings or billets; helps maintain balance.
- *Safety stirrup/peacock stirrup*—Quick-release stirrup so that foot cannot be caught and client dragged.
- *Bridles*—Usually snaffles and other mild bits are advisable.
- *Seat-saver pads*—Fit over saddles to protect riders with limited sensation.
- *Devonshire boots/covered stirrup*—Foot cannot run through stirrup.

(c) A mounting block that is large enough to accommodate the client and another adult could be used to improve mounting independence onto



the horse. Also, mounting ramps have been shown to be invaluable for mounting non-ambulatory riders, especially adults. (d) Opening and closing gates and mobility over rough terrain to check on pastures are frequent problems in managing horses for an individual with a disability. Automatic gate openers and use of a motorized scooter can assist in the harnessing process.

(e) Many communities across the country operate therapeutic horseback riding programs for people with disabilities. You might explore getting in touch with such programs and seeing if your client could benefit from participating.

(f) One company has developed a powered lift that has been widely used by therapeutic horseback riding programs to assist in gaining access to horses. See resource list in Chapter 7 for contact information.

#### F. Other Livestock

1. Your client may be involved with animals other than dairy cows, hogs, beef cattle, sheep, or horses. If so, complete this section of the Assessment Tool in a similar fashion described under the previous livestock sections. Many of the recommendations and concerns listed there would be applicable to other livestock production activities.

#### G. Completing Livestock Health Care and Production Tasks

1. Attending to health care and production needs of his/her livestock can pose numerous problems for the farmer or rancher with a disability. Livestock are usually mobile, hard to restrain, and can be aggressive. At times, important animal-related tasks will go unattended because they are too difficult. The client needs to consider the consequences of his/her inability to carry out these tasks at the necessary times. It just might prove advantageous to contract with a veterinarian to provide livestock health care services on a regular basis.

The list provided in the Assessment Tool represents some of the most important livestock health care and production tasks. Once the difficulties associated with a task are identified, alternative methods for completing it can be considered. For example: (1) a dairy farmer who performed artificial insemination prior to his or her disability could turn that responsibility over to a local inseminator; (2) techniques have been developed to modify milking equipment to accommodate various prosthetic devices used by those with arm

amputations; (3) restraint devices for livestock and other aids are commercially available for banding, administering medications.



shearing, etc.; and (4) there are even wheelchairusing honey producers who have found ways to deal with the problems of handling a hive of 50,000 bees.

#### H. Accessing Outdoor Livestock Areas

**1.** Gates often cause problems for farmers and ranchers with arm amputations or mobility and visual impairments. Various types of automatic gate openers are available commercially, and some can even be operated from a tractor or pickup truck. In some cases, innovative farmers and ranchers have devised their own easily operated gate latches.

2. Fences can also pose problems. Individuals with visual impairments may opt to use several different types of fences on their farms or ranches; they can determine their location by feeling the various fences. Farmers and ranchers with arm amputations often find it difficult to repair fences. However, some repair equipment can be manipulated with one hand, such as the magnetic staple-holder, which can be held in the grip of a Dorrance hook. Low-maintenance electric fences or high tensile fences are other alternatives to consider.

**3.** Accessing livestock outdoors can be difficult for farmers or ranchers with mobility impairments.

Many of them use all-terrain vehicles or utility vehicles to access livestock in grazing areas. These vehicles can also carry small amounts of feed, fencing, and tools and, if equipped with a trailer, can transport calves during calving season. The Breaking New Ground Resource Center has a publication concerning the use of all-terrain vehicles by farmers/ranchers with physical disabilities (see *Chapter 7*).

### VIII. Domestic Farm and Ranch Animals

#### A. Farm/Ranch Dogs and Cats

1. Dogs provide comfort and companionship, which can help increase emotional well-being, promote healing, and improve the overall quality of life for clients. Cats are often a staple around farmsteads, serving not only as pets, but also as a means of effective pest control.

Being able to care for domestic animals can bring clients much satisfaction. Relocating food, water, and grooming supplies to a central place that's accessible to everyone can assist in the proper care of farm/ranch dogs and cats.

(<u>Warning</u>. Never approach a farm or ranch dog without first consulting the owner. It can be very protective of its territory and may negatively react if it feels threatened.)

# IX. Orchards/Woodlots/Gardens

#### A. Orchards

1. With a little ingenuity, even orchards can be made more accessible to individuals with physical disabilities. If your client has a serious interest in raising fruit or depended upon fruit production prior to the disability, modifications should be considered. An orchard that generates substantial sales can provide an excellent livelihood for a worker with a disability. **2.** Careful analysis of all tasks the client wishes to perform in the orchard identifies the most serious barriers. For example, pesticide application might be needed every 5 to 10 days. Switching from a hand sprayer to a tractor-mounted mist blower might be a workable alternative. Hand-operated pruning shears

can be replaced with powered units. Large orchards even utilize mechanical harvesters. The use of migrant or seasonal farm laborers is another viable option in some areas.



#### **B.** Woodlots

1. Woodlots utilized to produce firewood, pulpwood, timber, or Christmas trees are not easy to make accessible. They are also extremely dangerous places to work, even for the able-bodied. Many general insurance policies do not cover timber harvesting because of the high injury rate. Therefore, careful consideration should be given to the potential risks before modifications are undertaken.

2. Careful analysis of each task that the client wishes to perform in the woodlot would identify the most serious barriers. For example, tree trimming may be required every spring. Gas- or pneumaticpowered saws with extensions may replace handoperated saws and reduce the intense labor required for the trimming process. There are individuals with spinal injuries who have found ways to successfully raise and market Christmas trees.

#### C. Gardens/Farm Markets

**1.** There has been tremendous growth in the production and marketing of fresh fruits and vegetables.

If your client is involved in raising fresh produce and generates a satisfactory income, continuation of this activity should be encouraged. Even if the garden is only for family use, the benefits of gardening are worth the small investments it takes to accommodate most disabilities.

2. There are wide varieties of techniques, tools, and equipment that would make ground fruit and vegetable gardening easier. These include production practices, such as raising tomatoes on wire cages, utilizing raised beds, and laying down plastic mulch to reduce the weed problem. Portable pesticide applicators and low-cost irrigation systems can help



ensure a highquality product. Powered tillers, small tractors with hauling trailers, and vegetable washers can eliminate or minimize many strenuous tasks. An excellent resource would be the county Extension educator.

# X. Farm Management Activities

#### A. Maintenance of Business Records

In most cases, even clients with severe physical impairments can perform this task. Often the client's spouse has been responsible for the business record activity in the past. However, transferring it to the client often proves to make him/her a better and more profitable operator.

#### B. Computerization of Farm/Ranch Records

Various software packages are available to help farmers and ranchers computerize their business

records. These include farm management, livestock management, and crop management records and inventory control programs. Other software packages are available that help in the decision-making process concerning machinery selection and marketing. Many computerized systems can be operated by clients with high-level spinal cord injuries or with visual impairments.

#### C. Sales and Purchases

Most clients with severe physical impairments can still do the buying and selling. Often, the quality of the decisions made in this area improves following a disability because more time and attention can be devoted to them. As one farmer who lost both arms in an accident stated, his situation forced him to farm more with his head than his hands.

#### **D.** Labor Management

The most important resource of any business is people. Poorly managed or trained employees are a serious liability. If the client has several employees, an investment in improving his/her labor management skills should prove highly rewarding, even for the best of businesses.

# XI. Additional Vocational Skills

#### A. Prior and Current Off-Farm Employment and Experiences

Sometimes a client may need to seek off-farm employment to provide supplemental income or gain health care insurance. In extreme cases, his/her disability may be so severe or the resources so limited that an entirely new occupation should be considered. The purpose of this portion of the Tool is to help you obtain additional information about the client's other vocational skills and interests. A vocational evaluation may be needed to gain that information. Your client may wish to explore other income-producing options within agriculture, such as leasing a portion of his/her land to another farmer or rancher, raising smaller animals like rabbits or game birds, or cultivating a small plot of a cash crop like sweet corn. If the client owns the land and has a desire to remain on it, there are a wide range of possible land-based enterprises that might be considered. Many states have new business enterprise teams as part of the state Extension service. Check with the local Extension educator to see if consulting services are available that might include development of a comprehensive business plan for a new business venture.

#### **B.** Military Service

Knowledge of past service in the military can be beneficial when researching possible sources that reimburse for modification costs. Most of the military branches offer assistance with modifications that will improve the quality of life for past service men and women. Military service may also provide experience that can be useful in pursuing alternative employment.

#### C. Leadership Skills

Knowledge of the client's past and/or present leadership roles may spark interest in other occupations that he/she may want to explore. Don't ignore leadership experiences with 4-H, FFA, or local farm organizations.

# D. Vocational Interests Other Than Farming or Ranching

The client may want to explore other occupational areas rather than continue farming or ranching. A vocational evaluation may help in assessing his/her potential vocational interests and aptitudes. Identifying the client's strengths and weaknesses will aid in developing alternative occupational goals. Additional education and training may then be required to meet those goals. Many communities have workforce/employment agencies that are designed to assist individuals in exploring new career paths. These agencies offer services that should be utilized.

#### **E. Education**

Document any prior education that the client has had. Be careful not to imply that a limited education may significantly restrict his or her opportunities. Remember, the client may have been operating a sizeable farm operation prior to his or her disability without a high school education. This may be the appropriate time for the individual to consider completing their high school education, which is often available without cost from many local school districts. Clients who have completed high school might consider college or other post-secondary training.

Identify any prior technical education that the client may have completed. These courses may reflect some special interest areas that should be explored further. Vocational rehabilitation agencies are highly receptive to covering the cost of retraining if it leads to increased employment potential.

# XII. Establishing Primary Goals

#### A. Prioritize Goals

Upon completion of the Agricultural Worksite Assessment, you and the client must work together to determine the goals considered most important if he/ she is to remain in the agricultural operation or is to pursue another vocation.

#### **B.** Long- and Short-Term Objectives

Each goal area should include both long- and shortterm objectives to help the client reach that goal. Take ample time to complete this section. Setting goals and developing strategies to reach them could prove to be the most important outcome of completing the Assessment Tool.

### XIII. Comments and Observations

Space is provided to include additional comments or observations that you determine to be relevant information but were not covered in previous sections.

### XIV. Farm/Ranch Layout

A graph paper page is included to assist in preparing a simple sketch of the farm or ranch layout. This

drawing should include the location of the house, major buildings, roadways, livestock handling areas, and other important features. If an aerial photograph is available, this might be used in place of a sketch.

Also, photographs of serious barriers, frequently used machinery, and hazardous worksite situations should be taken and included in the client's file (see Figure 2 example in *Chapter 6*).

# Client Records—Maintenance, Confidentiality, and Referral

Maintaining a database of complete client records is vital to appropriate and responsible service delivery, as well as an important part of program self-evaluation. This involves accurately compiling information on each individual served. Client records should not only include the demographics and background necessary to properly identify the population served, but also reflect how you are providing assistance. Complete and accurate files are essential case management tools containing the rationale and support for your continued existence as a funded program.

# **Records Content and Updating**

#### **Content of Records**

Since records content is governed by the data needed for program evaluation and for service delivery, most relevant information will be in two broad categories—(1) tracking progress and (2) demographics/case history. Both are addressed in the Assessment Tool.

**Tracking** begins with those sections that describe the client's specific physical limitations and continues with the listing of problems/difficulties in performing certain tasks. It would go beyond the Assessment Tool itself by including a case narrative (dated, signed, and in reverse chronological order) that describes all contacts, information exchanged, plans developed, and goals met (see Figure 3 in *Chapter* 6).

*Demographics/case history* begins with the first contact made and can be recorded in Assessment Tool sections I (Personal Data) and II (General Farm/Ranch Data) and on various types of record

forms. This information should include not only the basic "who" and "where," but also descriptions of the client's disability, medical history, and functional limitations. If written medical evaluations are available and the client grants access, they may also be sought and maintained in the file. In many cases, only the client can provide relevant medical information due to federal restrictions on health care providers from releasing such information.

While the specific format followed is not critical, the records kept should be logically arranged, easily reviewed by an auditor, neat, and, above all, accurate. Since file folders have two interior sides, consider using the left side for the tracking information (e.g., narratives, plans, pictures—anything that happened since your agency became involved) and the right side for demographics/case history information (e.g., your collected data in both handwritten form and converted into a database program, any medical records, and other evaluations used as case history).

#### **Telephone Contact Records**

In an effort to save time and increase accuracy and completeness, the BNG Resource Center has developed a telephone contact form (see Figure 4 in *Chapter 6*). Although by no means the only way of recording contacts, it can serve as a guide for developing other forms that assist you in determining what clients/callers really need or want from your program. It can also go into your client's file as a record of initial contact (but only if your handwriting is legible). Purposely kept short, the form could be used for all contacts with the program, not just those by clients. By combining parts of the follow-up columns, you should be able to cover most needs for professional and media contacts as well. Space has been left at the top and bottom to jot down the date, program, department, and time of call.

It's important that persons taking calls practice active listening and prompt the caller with appropriate questions. If the client calls with an extensive problem and it's the first contact, you as the service provider will most likely want to set an appointment to get vital information directly. If that is not possible, then you'll have to decide whether (a) to get as much information on the form as possible and get back with recommendations based on what you know, or (b) use the Assessment Tool and attempt word-picture association on the telephone. Be aware of who's paying for the call; remember, you are there to assist clients, not phone companies. Sometimes, letters or e-mails are much better for any massive exchange of information.

#### **Updating of Records**

Updating of information is essential in good case management. If you don't know the past, you cannot plan for the future. The case narratives help tell the story of what happened (see Figure 3 in Chapter 6). They should "flow" and be concise, easy to follow, neat, and written in reverse chronological order. Depending on case-load size, you may decide to make entries as they happen or perhaps weekly. (Warning. Do not go any longer than a week to make an entry, even from notes; details and time-lines are easily lost or forgotten even a couple of weeks later.) Be concise; lengthy narratives waste your time and the client's. Shorthand and abbreviations are fine if easily understood by others. Whatever you do, don't get behind in writing narratives.

# Issues Regarding Confidentiality and Litigation

#### Confidentiality

The client-counselor relationship revolves around trust; once that is established, the exchange of

information begins to identify problems and eliminate barriers. Much of the detail you need for an accurate assessment involves intimate personal information. If an outside funding source is desired for accommodations or medical management, then financial information and family resources will have to be examined, if not by you, then certainly by the agencies to which you refer the clients. The degree of detail required depends on client involvement with your program.

In making initial contacts, your clients may know what they want specifically, and a full disclosure of information would be inappropriate or unnecessary. In other situations, a complete assessment might uncover potential problems that could be addressed or eliminated. Either way, it's up to the interviewer to make a judgment call on just how far to go in asking for confidential information; and you must give reassurance (and probably more than once) that none of this information will be reproduced, openly discussed, or otherwise released to non-program personnel without the clients' written permission.

While it's tempting to refer the media to your "star" clients in order to build public awareness and support, that should be up to the clients to decide. Using their ideas, pictures, and even names in newspapers and your own brochures must be approved by client-signed Information Release and Photo/Video Release forms (see Figures 5 and 6 in Chapter 6). However, even signed releases do not grant you legal or ethical permission to tell reporters specific details about those you serve. Good reporters seeking feature stories should be able to find people directly and need you only for general program information. Always be open in your communication with clients but cautious in discussing details with others. Your client's needs and rights are always your first priority.

#### Litigation

It's not uncommon to learn that your clients are involved in some type of litigation (i.e., legal proceedings) to recover for damages suffered through an injury or are seeking compensation or benefits from insurance companies or agencies like Social Security. If at all possible, you and your program should remain detached from these efforts. Taking any position in such proceedings will usually place you (at least in someone's eyes) on the wrong side 50 percent of the time.

Unless ordered by the court, your client records should never be surrendered to anyone, regardless of how formal and authoritative. Under most state laws, these records are considered confidential. If formally requested by the court to appear for testimony (i.e., subpoenaed), the information provided by you or your records should not be such that it could be used against your clients; and they must be assured of that from the outset. It might be a wise policy that no one associated with your program be allowed to participate as a paid consultant in the geographical area served by the program, to avoid conflict-of-interest situations.

# Service Referrals

As in most programs, you will likely be referring some of your clients to outside agencies or facilities for assistance. The type of information these entities seek varies greatly according to the services your clients desire or need. Formal or informal, detailed or specific, informational or service-oriented—these are factors to consider when developing a referral. The Breaking New Ground Resource Center has developed a form designed to help provide the required information to servicing agencies (see Figure 7 in *Chapter 6*). Although generalized, the form covers what most detailed client files already contain. However, your responsibility for client confidentiality (and possibly your own program parameters) may prevent you from disseminating parts or any of the information to outside sources. Again, it's vital that your clients understand and fully accept the transfer of personal data. Just as you need signed release forms for using names, ideas, and photos, etc., in presentations or other materials, you should also have a signed Information Release Form (Figure 5) before you make a service referral.

In some instances, you as a counselor may not be allowed to make a direct referral; in other instances, the desired agency's intake procedure may be so complicated or thorough that having the client make the contact is the most efficient method. For the programs unable or unwilling to deal with direct contacts from the counselor, a letter to the client outlining the procedure they must follow is the only logical recourse. The ethical and legal issues involved with informal exchanges of information between service professionals are potentially destructive to the client-counselor relationship. It cannot be emphasized strongly enough that the clients decide the direction of their cases. So respect their rights, and keep them informed of all your actions, including providing copies of any correspondence you send to others on their behalf.

A number of resources are available to assist farmers, ranchers, and rural rehabilitation professionals in making agricultural worksites more accessible to individuals with physical disabilities. The list in *Chapter 7* includes not only relevant publications and audiovisual presentations, but also suggested local contacts who can help obtain ideas for overcoming specific barriers as well as design and fabricate modifications and adaptive equipment.

# Chapter 6

# Examples of Completed Agricultural Worksite Assessments

# Full Example-Client with Spinal Cord Injury

Pages 32-55 of this chapter contain an example of a fully completed worksite assessment conducted with a client disabled as the result of a spinal cord injury. This example includes these documents:

- Figure 1—Completed worksite assessment tool (pages 32-49)
- Figure 2—Pictures of worksite barriers and modifications made (page 50)
- Figure 3—Case narrative describing all contacts made, information exchanged, plans developed, actions taken, results of those actions, etc. (pages 51-52)
- Figure 4—Telephone contact form (page 53)
- Figure 5—Information release form (page 54)
- Figure 6—Photo/video release form (page 54)
- Figure 7—Service referral form (page 55)

# Abbreviated Examples-Clients with Arm Amputation, Leg Amputation, and Back Injury

- Figure 8—Abbreviated assessment for a client with an arm amputation (pages 56-64)
- Figure 9—Abbreviated assessment for a client with a leg amputation (pages 65-73)
- Figure 10—Abbreviated assessment for a client with a back impairment (pages 74-81)

All four examples are provided to broaden your perspective of the board range of potential challenges that farmers and ranchers with varying disabilities are likely to face.

Completed by: *Tony Knight* Date: *January 15, XXXX* 

# Agricultural Worksite Assessment Tool for Farmers and Ranchers with Physical Disabilities

(Client with a T 1/2 Spinal Cord Injury)

## I. PERSONAL DATA

## A. About the client

Name: Frank D. Farmer (Age 43)	SSN: <i>XXX-XX-XXXX</i>	Sex: <u>M</u>
Address: 4131 North CR 450 West	County:	on
City/State/Zip:_Wallstown, IN 46999	Date of birth:7	<u>/ 13 / XX</u>
Phone: 260-555-1644 Fax: None	E-mail:	net
Directions to farm/ranch: <u>SR 164 north to SR</u>	17. Right on SR 17 about 2 mile.	s to CR
1150. Right on CR 1150 about 1.5 miles to 0	5	
farmstead on left. (Name and number on m		
Marital status: Married Name of a	pouse: Florence	
Marital status: <u>Married</u> Name of s		
Names and ages of children at home: <u>Jeffrey, 1</u>		
Names and ages of children at home: <u>Jeffrey, 1</u>		
Names and ages of children at home: <u>Jeffrey, 1</u> Occupation:		
Names and ages of children at home: <u>Jeffrey, 1</u> Occupation: <u>X</u> Full-time farmer/rancher	18 - Brittany, 15 - Alexis, 13	
Names and ages of children at home: <u>Jeffrey, 1</u> Occupation:	18 - Brittany, 15 - Alexis, 13	
Names and ages of children at home: <u>Jeffrey, 1</u> Occupation: <u>X</u> Full-time farmer/rancher Part-time farmer/rancher with primary income f	18 - Brittany, 15 - Alexis, 13	
Names and ages of children at home: <u>Jeffrey, 1</u> Occupation: <u>X</u> Full-time farmer/rancher Part-time farmer/rancher with primary income f Part-time farmer/rancher with primary income f Farm spouse Dependent of farm/ranch family	18 - Brittany, 15 - Alexis, 13	
Names and ages of children at home: <u>Jeffrey, 1</u> Occupation: <u>X</u> Full-time farmer/rancher Part-time farmer/rancher with primary income f Part-time farmer/rancher with primary income f Farm spouse Dependent of farm/ranch family Farm/ranch employee	18 - Brittany, 15 - Alexis, 13 from farm/ranch from off-farm/ranch job	
Names and ages of children at home: <u>Jeffrey, 1</u> Occupation: <u>X</u> Full-time farmer/rancher Part-time farmer/rancher with primary income f Part-time farmer/rancher with primary income f Farm spouse Dependent of farm/ranch family	18 - Brittany, 15 - Alexis, 13 from farm/ranch from off-farm/ranch job	

# 2. Describe cause of disability: *Diving/swimming accident at private lake*.

3. Functional limitations as described by client and/or referral source. (Include exact measurements if known—e.g., Db of hearing loss; visual acuity; lifting limits; range of motion; specific limitations on standing, sitting, transferring, carrying, walking, bending, stooping, balance, etc.)

Paralyzed from the chest down. Good hand function. Can't endure long exposure to hot and cold weather conditions. Pressure sores have been a problem. Good trunk stability but has lifting limitation. Can transfer to and from bed independently. Uses power wheelchair but also has manual wheelchair. Has a valid driver's license.

## II. GENERAL FARM/RANCH DATA

A. Type and size of operation		(Total acreage: <u>900 acres</u> )
Dairy	head	X Grains (types/acres): Corn/soybean - 800 acres
<u>X</u> Hogs	<u>500</u> head	X Forages (types/acres): Hay/pasture - 60 acres
X_Beef	<u>100</u> head	Specialty crops (types/acres):
Sheep	head	Agri-business (type):
Poultry	flock	Other:

## B. Client farm/ranch responsibilities prior to disability

All aspects of an owner/operator. Fed out 80 feeder cattle. Sold 20 4-H Club calves and 450 feeder pigs. Ground and mixed all feed. Did the field work (e.g., planting, harvesting, haying). Mixed and applied the chemicals and fertilizer. Maintained equipment and buildings. Did the record-keeping, purchasing, and marketing.

## C. Family members and others who assist on farm/ranch

Name	Relationship	Age	Responsibilities
Florence	Wife	37	Household/garden/record-keeping
Jeffrey	Son	18	Feeding/field work
Brittany	Daughter	15	Feeding/household/garden
Alexis	Daughter	13	Household/garden
Chuck/Jerry	Neighbors	<u>52/60</u>	Equipment repair

## III. OVERALL FARM/RANCH ACCESSIBILITY

#### A. General terrain and any mobility-related problems encountered (Describe)

Rocks, mud, tall weeds make a rugged utility vehicle a must for him to be able to access different areas of the farm. House sits about 100 yards at slight grade from pole

barn and other buildings where the machinery is stored. Must travel over grass and

gravel to get to these buildings. Presently no smooth area to work on equipment.

**B. Farmyard surfaces** Are areas around primary buildings surfaced and well-drained? Yes X No Describe type of surface and mobility-related problems encountered: Buildings surrounded by uneven, gravel/crushed-stone aprons. Barn has a cement step going up to main door, making it inaccessible to client (picture 1). All the other buildings can be accessed.

## **IV. GENERAL FARM/RANCH MAINTENANCE**

## A. The farm/ranch shop

1. Can client enter the shop independently? <u>Yes X</u> No

Describe any barriers (e.g., steps, narrow doorway, heavy door) and problems encountered:

Sliding door is heavy and hard to open/close. Shop cluttered with old parts, scrap metal, and tools, making it hard to get around. Shop has air compressor with only one outlet and insufficient number of electrical outlets.

- 2. Type of floor the shop has (e.g., concrete, dirt, crushed stone) and any mobility-related problems encountered: <u>Shop has a partial concrete floor</u>, but it's too cluttered to move around in easily.
- 3. Can client reach stationary power tools and service equipment? Yes  $\chi$  No If no, why not? <u>Drill press and grinder mounted too high for client to access. Only</u> about 30% of the shop tools are accessible to him.

4. Can client perform maintenance tasks on the tool bench? **x** Yes \_\_\_\_No If no, why not? <u>Although client can do minor repairs</u>, an able-bodied person is needed to lift and set the items on the workbench.

- heated for year-round use? X Yes No
  - equipped with toilet facilities? \_\_\_Yes X\_No X Yes No
  - adequately lighted?
  - adequately ventilated?
  - equipped with telephone?
  - equipped with first-aid kit? \_Yes X No

\_\_\_Yes \_<u>X</u> No

Yes X No

- equipped with fire extinguisher? \_\_\_Yes \_X\_No
- 6. Is there a smooth or paved outside work area for large equipment? <u>Yes</u>  $\chi$  No
- 7. Are refueling areas accessible to client? Yes X No

## **B.** Basic hand tools

5. Is the shop:

1. Checkmark which hand tools client has difficulty using, and describe problems each presents:

Hand Tool	Problem
X_Sockets and rachet	Client has access to and can use most of his small hand
X_Wrench	tools. He does have difficulty using certain ones that
Hammer	require substantial leverage, such as breaker bars and
Screwdriver	long-handled socket wrenches.

Pliers (reg./locking)	
Punch and chisel	
File	
Knife	
$\underline{X}$ Hand saw	Has difficulty positioning and holding wood pieces.
X Fence stretcher	Ends difficult to attach and requires considerable effort
X_ Tap and die set	to move over rough ground.
Pry bar	
Hand drill	
Grease gun	
X_Hand air pump	Unit very unstable and requires a "third hand."
Vise and C-clamp	Uses C-clamps to hold items in place.
X Rake and shovel	Very clumsy to use.
X Pruning tools	Has tools but too short to reach anything above chest-high;
Other	extension on handles would be helpful.

## C. Power tools

1. Checkmark the power tools client has difficulty using, and describe problems each presents:

-	
Power Tool	Problem
X Power saw	Even with fairly good hand function, he has a hard time
X_Impact wrench	holding onto and squeezing the trigger of several of the
X Power drill	heavier power tools. In addition, their weight makes them
X_Portable grinder	difficult for him to use for any length of time. Also
X Bench grinder	<u>has difficulty reaching work areas above chest height with</u>
X_Air tool/compressor	power tools.
X_Chain saw	Believes saw would be too dangerous to operate.
X Wood trimmer	
X Electric welder	<u>Is extremely concerned about receiving burns on his legs</u>
Other	that he could not feel. Enjoyed welding before his injury,
	so would like to find a way to continue welding.

## D. Maintenance materials and supplies

1. Checkmark the maintenance items client has difficulty using, and describe problems each presents:

Maintenance ItemProblemX Nuts and boltsCan't reach into bins on hardware rack to find right sizes.

Nails/screws/staples	
Spray solvent	
X Lumber	Hard to grip, lift, and cut.
Glue	
Wire	
Paint and brushes	
Sandpaper	
X Welding rod	Hard to squeeze rod holder to change rods.
X Lubricants	Hard to hold and squeeze gun while trying to reach zerks.
Chains	
X Belts	Can't reach belts on most larger machinery nor fan belts to
Other	check their tension.

## V. EQUIPMENT AND MACHINERY

## A. Machinery storage areas

- 1. Describe primary machinery storage areas (e.g., enclosed, open-shed, outdoors): <u>Most of the</u> <u>machinery is stored in a machinery shed located behind the pole barn. The shed is</u> <u>open on the east side with no doors.</u>
- 2. Can client enter machinery storage areas independently? <u>X</u>Yes <u>No</u> If no, describe the barriers: <u>Since there are no doors, he can get into the storage</u> <u>area; but because it's so full, he has difficulty accessing the equipment.</u>
- 3. Describe types of floors the machinery storage areas have (e.g., concrete, dirt, sand, crushed stone) and any mobility-related problems encountered: <u>The machinery shed floor is compacted</u> <u>dirt. The outside apron is gravel. Mud can be a problem in wet months.</u>
- 4. Do the storage areas provide adequate space for the frequently used equipment? \_\_\_Yes X\_No If no, how and where is the other equipment stored? <u>The less frequently used equipment</u> and implements are stored in the barn.
- 5. Are the storage areas conducive to hitching implements and performing service and maintenance tasks on equipment? \_\_\_Yes <u>X</u>No If no, where are these tasks performed? <u>Because equipment so tightly stacked in the barn</u>, <u>pieces often need to be moved in order to access those pieces stored or parked at</u> <u>the back</u>. Thus, hitching and service/maintenance must be done on the outside apron.

Machine	Make/Model	Cab Heater/AC 2-wa equipped? equipped? equ	y radio 1ipped?
1. Tractor	International 826	X	*
2. Combine	International 1460	X	*
3. Tractor	Case 2090	X	*
4. Skid loader	Bobcat 440B		*
5. Utility vehicle	John Deere Gator		*
6. Riding mower	Craftsman		*

B. Most frequently used self-propelled equipment (e.g., tractor, combine, skid loader, other):

#### C. Accessing equipment

1. For the self-propelled units listed in B, describe any difficulties or potential safety hazard client faces when mounting or dismounting (e.g., maneuvering steps, opening cab door, access to seat), and any modifications that have been made:

Unit	Problems	Modifications
<u>1-4</u>	Mounting/dismounting requires help	No modifications made yet on any of
	and use of a homemade hoist.	these units.
<u>5-6</u>	Can't get up into it. No seat or back	No modifications made yet on either of
	support.	these units.

## D. Equipment seating and transfer

1. Describe any difficulties related to equipment seating and transferring to the seat, and any modifications made to improve seating comfort and safety during operation and transfer.

Unit	Difficulty	Modifications
_1	Tight fit to get in/out. Needs help	Seat has 2-inch low-profile cushion. To
	running hoist and getting in.	improve access, steering wheel comes
		off steering column, doors taken off
		hinges, and torque lever comes off.

## **E.** Equipment controls

- 1. For the self-propelled units the client uses most frequently, indicate which controls are difficult to reach or operate, describe specific problems, and identify any modifications that have been made.
  - a. Make and model: International Tractor and Case Tractor

Control	Difficulties and modifications
X Steering	Steering knob.
<u>X</u> Clutch	<u>Auxiliary hydraulic clutch with hand control. (photo 2)</u>
<u>X</u> Brakes	<u>Doesn't use; drops equipment or throttles down to stop.</u>

\* Has a cell phone.

	Bent and extended lever so it's closer to him. Hard to reach, grip, and turn key and ignition button.
Transmission speed selector	
Power take-off control	
$\underline{X}$ Hydraulic remotes/levers	Bent and extended lever so it's closer to him (photo 3)
	<u>_N/A</u>
Other	
b. Make and model: Internat	ional Combine
Control	Difficulties and Modifications
Steering	
<u>X</u> Clutch	Will require modification for hand operation.
X Brakes	Will require modification for hand operation.
Throttle (hand or foot)	
Ignition/accessory switches	
Power take-off control	
Hydraulic remotes levers	
X Differential lock	Will require modification for hand operation.
Other	· · ·
c. Make and model: <u>Bobcat S</u>	
Control	Difficulties and Modifications
Steering	
<u>X</u> Clutch	Will require modification for hand operation.
X Brakes	Will require modification for hand operation.
Throttle (hand or foot)	<u> </u>
Ignition/accessory switches	
Power take-off control	
Hydraulic remotes/levers	
	Not equipped.
Other	
d. Make and model: Craftsm	an Riding Mower
Control	Difficulties and Modifications
Steering	
Clutch	Has hydrostatic transmission, so no changes needed.
Brakes	Has hvdrostatic transmission, so no changes needed.

Throttle (hand or foot)	Has hydrostatic transmission, so no changes needed.
Ignition/accessory switches	
X Transmission speed selector	Not equipped.
X Power take-off control	Not equipped.
Hydraulic remotes levers	
Differential lock	
Other	

#### F. Hitching and unhitching implements

1. Identify implements client has difficulty hitching/unhitching; and describe modifications, if any:

Implement	Difficulties	Modifications
All	Needs assistance hitching and	
	unhitching all implements.	

2. Can client turn upper torso 90 degrees and head 90 degrees, and operate controls simultaneously while backing up equipment? X Yes No

If no, explain how he/she compensates: <u>Uses rearview mirror to compensate</u>.

- 3. What type rearview mirrors does the equipment have, and where mounted? <u>Mirror is mounted</u> <u>on upper right hand side inside cab</u>.
- 4. Can client connect/disconnect PTO drivelines independently? <u>Yes X</u>No If not, explain how he/she compensates: <u>Can't reach and lift PTO shaft for connecting to</u> <u>tractor</u>. <u>Needs someone else to do this for him</u>.
- 5. Can client connect/disconnect hydraulic couplings independently? <u>Yes X</u>No If not, explain how he/she compensates: <u>Can't reach couplings</u>. <u>Needs someone else to do</u> <u>this for him</u>.

#### G. Other barriers to operating equipment

- 1. Does client have a hearing impairment that would prevent him/her from hearing when equipment is operating or malfunctioning? \_\_\_Yes X\_No
- 2. Does client have a vision loss that results in poor depth perception or difficulty working in bright light or seeing at night? \_\_\_\_Yes \_X\_No

If yes, describe:\_\_\_\_\_

## H. Equipment maintenance

1. Checkmark tasks client has difficulty performing; describe the problems and modifications, if any.

Task	Difficulties	Modifications
<u>X</u> Fueling	Too high to reach.	None at this time. Needs
<u>X</u> Change oil/filters	Can't hold tools.	others to do nearly all
<u>X</u> Lubricate	Can't reach all zerks.	equipment maintenance.
<u>X</u> Make major repairs	Can't grip and lift parts.	
X_Make adjustments	Can't reach and grip parts.	
X_Service/change tires	Can't handle heavy tires.	
X Add/remove weights	Not enough strength to install	
Other	or remove tractor weights.	

## **VI. CROP PRODUCTION**

#### A. Forages

Does Not Apply\_\_\_\_

- 1. If hay is produced, how is it handled (e.g., hay, silage, conventional bales, large round bales)? <u>Uses a conventional square baler, which requires someone to drive the tractor with</u> <u>baler attached and someone to load the wagon.</u>
- 2. Types of hay storage facilities used: <u>Baled hay stored in the pole barn's hay mow, put there</u> <u>using a hay bale elevator.</u>
- 3. Can client access hay storage facilities and hande equipment independently? \_\_\_Yes <u>X</u>No If no, why not? <u>A cement step prevents client from accessing the barn (see photo 1)</u>. <u>Also, he can't lift hay bales</u>.

## **B.** Grains

Does Not Apply\_\_\_\_

- 1. Types of grain storage facilities used (e.g., grain bin, corn crib, commercial elevator): <u>100,000</u> bushels of storage in three separate bins for corn. All soybeans sold at harvest.
- 2. Can client access grain storage facilities independently? <u>Yes</u> <u>X</u>No If no, why not? <u>Has no access to storage bins or grain handling dump area</u>. <u>These oper-</u><u>ations performed by other family members</u>. <u>Has no desire to modify these facilities</u>.
- 3. Types of grain handling equipment used (e.g., auger, dump pit, center leg, pneumatic): <u>*Corn and*</u> <u>beans transferred from combine to gravity wagons to semi-trailers using augers.</u>
- 4. Does client have access to the grain handling equipment? X\_Yes \_\_\_\_No If no, why not? <u>Can get to the wagons and auger but can't position auger to where it's</u> <u>needed. Nor can he easily use a shovel to clean up around auger inlet.</u>

## C. Other crops

## Does Not Apply X

Does not apply X

Does not apply

## **D.** Chemical application

- 1. Does client make the chemical applications? X Yes \_\_\_\_No
- 2. Is client certified to apply restricted-use chemicals?  $\chi$  Yes \_\_\_\_No
- 3. Is client able to access chemical storage area? <u>Yes</u> <u>X</u>No If no, describe the barriers: <u>There is a step to get into the storage building</u>.
- 4. Is client able to use all recommended personal protective gear (e.g., eye protection, respiratory protection) for each chemical he/she plans to use? \_\_\_\_Yes \_X\_No
  If no, why not? \_\_\_\_All chemical applications now made by a custom applicator.

5. Does client have access to local custom chemical applicators? X Yes No

## **VII. LIVESTOCK PRODUCTION**

#### A. Dairy

#### **B. Hogs**

1. Facilities

a. Types of facilities (e.g., confinement building, open-front shelter, farrowing house, pasture): <u>Before injury, raised hogs in an open-front shelter with a pasture. Although</u> <u>they were sold after his injury, all hog buildings and equipment are still in place.</u>

b. Can client enter the facilities independently? <u>Yes</u> <u>X</u>No If no, describe the barriers: <u>Hogs were run on an outside pad that's fenced in</u>. <u>Thus</u>, <u>access would be difficult due to the fence and large amount of mud and manure</u>.

- c. Can client access/handle hogs for medical treatment, weighing, castration, etc.? \_\_\_Yes X\_No If no, describe the barriers: <u>Reaching the hogs to provide treatment would present</u> <u>a major problem; however, he can handle most types of equipment needed to</u> <u>carry out the health-related tasks</u>.
- d. Methods of waste removal and building sanitation used and problems encountered: <u>Used the</u> <u>Bobcat skid loader and a spreader for manure handling. Presently, he can't access</u> <u>the Bobcat without assistance but can operate the tractor and spreader.</u>
- e. Method used to load and transport hogs and problems encountered: <u>Used his van and his</u> <u>livestock trailer to transport hogs</u>. Were he to raise hogs again, he'd need help <u>hooking up the trailer and loading/unloading the hogs</u>.

## 2. Feeding

- a. Type of feeding system used: <u>The grain was augered into a feeder from a small bin lo-</u> <u>cated next to the shelter. System is mostly mechanized and could be modified for</u> <u>for greater accessibility.</u>
- b. Describe any problems client encounters using various tools and equipment for feeding (e.g., shovel, pitchfork, bucket, scoop, grain cart, feed wagon): <u>Can't easily carry a bucket or handle</u> <u>a shovel due to lack of reach and strength. Nor can he move the auger system.</u>
- c. Can client reach and activate feeding equipment controls independently? X Yes No If no, describe the barriers:
- d. Can client carry out routine maintenance on feeding equipment? \_\_\_\_Yes X\_No If no, describe the barriers: <u>Poor mobility makes using some tools difficult, as is</u> <u>bending down to reach equipment.</u>

## C. Beef

Does not apply\_\_\_\_

#### 1. Facilities

- a. Types of facilities (e.g., confinement building, feedlot, fenced pasture): <u>Confinement building</u> <u>feedlot, and fenced pasture all used</u>.
- b. Can client enter the facilities independently? X\_Yes \_\_\_\_No If no, describe the barriers: \_\_\_\_\_
- c. Can client access/handle cattle for medical treatment, dehorning, etc.? <u>Yes</u> <u>X</u>No If no, describe the barriers: <u>Doesn't do any of the beef cattle handling, only hauling</u> <u>of the animals using his livestock trailer</u>.
- d. Methods of waste removal and building sanitation used and problems encountered: <u>Cannot run</u> <u>the Bobcat to load the manure spreader but can run the spreader back and forth</u> <u>from the field.</u>

e. Method used to load and transport cattle and problems encountered: <u>Uses his van to pull the</u> <u>livestock trailer, but needs someone else to hook the trailer up to the van and to</u> <u>load/unload the animals. Van may not be heavy enough to hold up under this type</u> <u>of use over an extended period.</u>

## 2. Feeding

- a. Type of feeding system used: *Grain is augered into the feeder from his feed grinder*. *Feed has to be ground about once per week.*
- b. Describe any problems client encounters using various tools and equipment for feeding (e.g., shovel, pitchfork, bucket, scoop, grain cart, feed wagon): <u>Can't grip shovels or buckets easily</u>. <u>Also, can't reach to top of the feeder to open the door to fill it</u>.
- c. Can client reach and activate feeding equipment controls independently? <u>Yes</u> <u>X</u>No If no, describe the barriers: <u>Can't reach the opening levers or the auger controls on</u> <u>the feed system and grinder</u>.
- d. Can client carry out routine maintenance on feeding equipment? <u>Yes</u> <u>X</u>No If no, describe the barriers: <u>Can't reach into the feeder to clean or do maintenance</u>.

D. Sheep		Does not apply X_
E. Horses		Does not apply $\chi$
F. Other livestock		Does not apply X_
G. Completing livestock health c	are and production tasks	Does not apply
1. Checkmark those tasks client	has difficulty performing, and describe the	problems they present:
Task	Problems	5
X Vaccinating	Used to perform all livestock hea	<u>lth tasks prior to injury.</u>
$\underline{\chi}$ Artificial insemination	Those requiring direct animal c	<u>ontact are now extremely</u>
<u>X</u> Dehorning		us due to the animals' un-
<u>X</u> Drenching	predictibility_Currently_his_s	on and a local veterinar-
_ <b>X</b> Hoof trimming	ian complete the needed tasks i	with the beef herd.
$\underline{X}$ Teeth clipping	·	
X Insecticide spraying		
<u>X</u> Ear tagging		
$\underline{X}$ Castrating		
$\underline{X}$ Loading to transport		
Other		
0 unor		
<u> </u>		

## H. Accessing outdoor livestock areas

Does not apply\_\_\_\_

1. Gates

Type of gate	Type of latch/securing mechanism	Problems
Tube	Chain that hooks on a nail	None (see photo 5)
Electric wire	Insulated handle with hook	Can unhook, but can't hook back up.

- 2. Types of fences used (e.g., electric, woven wire, barbed wires, H.T. wire): <u>Small pasture area</u> <u>fenced in with all electric fencing</u>.
- 3. Can client access outdoor livestock independently? X\_Yes \_\_\_\_No If no, describe the barriers:

4. Does client have access to an ATV or utility vehicle for outdoor mobility? X\_Yes \_\_\_\_No But needs assistance to mount.

## **VIII. DOMESTIC FARM/RANCH ANIMALS**

#### A. Farm/ranch dogs and cats

1. Can client handle the dogs and/or cats for feeding, medical treatment, etc.? X\_Yes \_\_\_\_No If no, describe the barriers: \_\_\_\_\_

## IX. ORCHARDS/WOODLOTS/GARDENS

A. Orchards B. Woodlots

C. Gardens

Does not apply XDoes not apply XDoes not apply X

## X. FARM MANAGEMENT ACTIVITIES

A. Records maintenance Is client responsible for maintaining the business records? X Yes No

- 1. If yes, will he/she be able to continue to do so? <u>Yes</u>  $\chi$  No
- 2. If no, who will do it? <u>Client's wife handles all farm receipts and taxes. Client does all</u> <u>the other farm business record-keeping</u>.

## **B. Records computerization** Are farm/ranch business records computerized? <u>Yes</u> X No

1. If yes, what type of system is being used?

2. If no, is computerization being considered? X Yes \_\_\_\_No

C. Sales/purchases Is client responsible for the business-related sales and purchases? X Yes \_\_\_\_\_No

1. If no, who is responsible?\_\_\_\_\_

**D. Labor management** Is client responsible for hiring, training, supervising workers? X Yes \_\_\_\_\_No

1. If no, who is responsible?\_\_\_\_\_

## **XI. ADDITIONAL VOCATIONAL SKILLS**

A. Prior and current off-farm employment and experiences (and approximate dates)

- 1. Hauls cattle for two local producers, using van and cattle trailer (Currently)
- 2. Line employee, Luden Rubber Company (6 months in XXXX)

3. Computerized lathe operator, Simpson Industries (XXXX-XXXX)

4. <u>Maintenance mechanic for CTS, Inc. (XXXX-XXXX)</u>

5.

**B. Military service, including technical training received** (and approximate dates)

N/A

## C. Leadership skills and experience

- 1. Organization/civic involvements (e.g., agriculture-related organizations, Extension, 4-H, FFA, church, community groups): *Farm Bureau (member): church (Sunday school teacher): 4-H, FFA, Schools (motivational speaker)*
- 2. Leadership positions held: <u>N/A</u>
- **D. Vocational interests other than farming** (Describe)

Motivational speaking: working with organizations that promote all aspects of agriculture: machinery maintenance skills.

## E. Education

- 1. Highest high-school grade level client completed: <u>12</u>
- 2. List any education and/or training client received after high school: <u>Reedersburg Community</u> <u>College (associate degree in general agriculture)</u>

## XII. ESTABLISHING PRIMARY GOALS

- **A. Client-prioritized goal areas concerning worksite accessibility** (1 = highest priority):
  - \_\_\_\_\_Improve overall mobility or accessibility around farmyard, buildings, and fields.
  - \_\_\_\_ Improve livestock handling abilities related to feeding methods, health care needs, waste removal, and building sanitation.
  - <u>1</u> Improve ability to effectively and safely use equipment and machinery, including accessing, operating, and maintaining equipment and hitching implements.
  - \_\_\_\_ Improve ability to perform general maintenance activities around farm/ranch, including effective use of hand tools, power tools, and maintenance materials.
  - <u>2</u> Improve ability to manage farm/ranch operation successfully, including maintenance of business records, sale and purchases, and labor management activities.
  - <u>3</u> Identify an alternative farm enterprise that would better suit personal goals and abilities.
  - \_\_\_\_Obtain part- or full-time off-farm employment.
  - \_\_\_\_ Others \_\_\_\_\_
- **B.** Long- and short-term objectives client wishes to establish for each identified priority area. (*Add* extra pages as necessary.)
  - 1. Goal area ranked No. 1: Improve ability to effectively and safely use farm equipment.

## Long-term objectives

- a. Gain more independence getting in and out of machinery.
- b. Be able to hitch and unhitch implements independently.
- c. Install a manlift on the International tractor.
- d. Modify the riding mower so client can do more of yard work (see photo 4).

## Short-term objectives

- a. Refabricate some of the hand controls currently on the International tractor.
- b. Look at various hand controls made by others to potentially improve client's hand control designs.
- c. <u>Make time in order to do the hand control improvement.</u>
- d. Work on extending the ignition switches on the International tractor so that it is easier to reach.

2. Goal area ranked No. 2: *Improve ability to more successfully manage farm operation.* 

Long-term objectives

a. <u>Make equipment more accessible so that client can be more hands-on with the</u> <u>entire farm operation</u>.

b. <u>Better organize and upgrade the farm business records.</u>

d.\_\_\_\_\_

#### Short-term objectives

a. Lessen the workload on family members, especially the client's wife.

- b. <u>Encourage wife to believe that client is able to take on and do more of the farm</u> <u>activities (with appropriate assistive technology).</u>
- c. Take the time necessary to upgrade and organize the farm business records such that they are all in one location.
- d.\_\_\_\_\_

3. Goal area ranked No. 3: *Explore appropriate alternative enterprises*.

#### Long-term objectives

- b. <u>Talk with others about alternative farming enterprises</u>.

c. <u>Schedule times to make site visits to facilities that operate alternative</u> <u>enterprises of potential interest to client.</u>

d.\_\_\_\_\_

#### Short-term objectives

- b. <u>Read literature provided on alternative farming enterprises for persons with</u> <u>disabilities.</u>

с.\_\_\_\_\_

## XIII. ADDITIONAL COMMENTS AND OBSERVATIONS

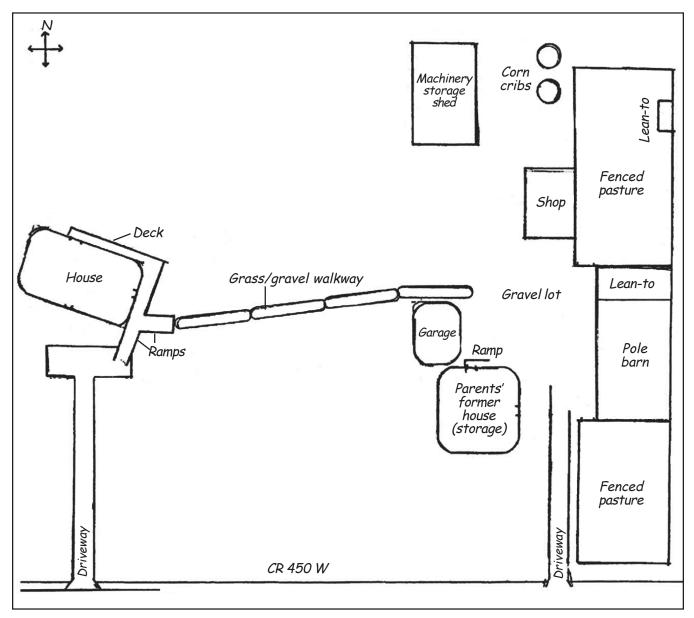
Client has made several successful improvements since the Project staff first made contact with him. He has developed a growing acceptance of his disability and the many challenges he faces. Instead of becoming frustrated and giving up when faced with those challenges, he searches for innovative ways to accomplish the tasks at hand.

Client is determined to stay in a farming-related field. However, without assistance from able-bodied persons, he won't be able to carry out many of the activities that need to be done around the farm. Son Jeffrey currently provides immeasurable assistance in carrying on the farming operation, but he will be going off to college next year. Thus without additional modifications to the farm equipment and hiring a part-time farm hand, I don't believe the client will be able to continue farming his 900 acres. In fact, even with the appropriate modifications and hired help, I don't think his present operation would be profitable enough to justify the likely additional modification and labor expenses. Off-farm employment may be needed to provide adequate income and a means for obtaining health care benefits. However, getting into his tractor and "working the ground" have proven very therapeutic for him.

Client has a vast knowledge of the agricultural industry and would like to remain connected to it. Taking a few management and computing classes would, I believe, assist him in finding possible employment managing a large farming operation or an agricultural supply business.

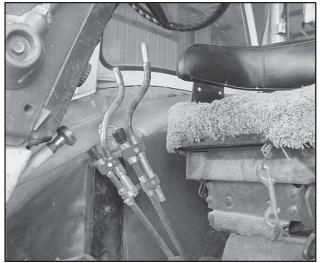
Client does not have insurance and can't afford to lose his Medicaid benefits, which pay for many doctor visits and medication. It is likely there will be future corrective surgeries. Therefore, any employment the client seeks outside needs to provide him with enough income to support himself and his family (plus some of son's college expenses).



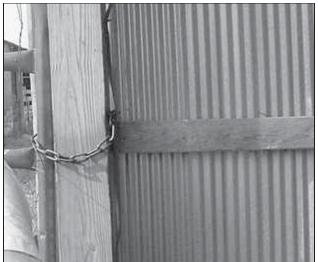




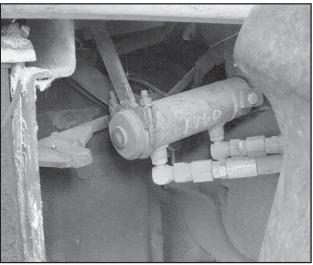
Picture 1. Cement step in pole barn.



Picture 3. Extended and bent control levers.



Picture 5. Tube gate with chain latch.



Picture 2. Auxiliary hydraulic clutch.



Picture 4. Riding mower needs modification.



Picture 6. Electric winch tractor lift.

## Frank D. Farmer Case Narrative

- 2/10. The Project received a referral phone call from a Reedersburg VR counselor. Frank has been released from the rehabilitation hospital, and the VR counselor is hoping to set up a farm visit in the near future. She asked that a Project consultant be at that initial visit.
- 2/20 Project consultant Tony Knight and VR counselor met with Frank, wife, and children at the farm to discuss how VR and the Project can help him regain his independence. He seemed overwhelmed, scared, and depressed about the situation he was in and was hesitant to provide any information on what he wanted to do.
- 2/25. Tony sent Frank a letter, which included information about home modifications, general program information, and "The Toolbox" handbook.
- 3/5. Follow-up phone call. Frank did not want to talk ("too busy"). Tony intends to contact him in 5-6 months.
- 8/25. Follow-up phone call. Although house was partially remodeled, Frank is having big adjustment problems and sounded depressed. So didn't try to schedule a follow-up visit now.
- 8/29. Frank's situation brought up at Project staff meeting to discuss what steps could be taken to help him. Consensus was that no more contact be made for a year to give him opportunity to accept his disability and selfseek ways to continue doing the things he wants to do.
- 7/30. Being in the area, Tony stopped by to see how Frank was progressing. He found Frank had a total turnaround in his outlook on life i.e., didn't seem depressed and was smiling. He was in the process of taking a lift off an old van and installing it on his van. Also expressed interest in returning to farming. VR is helping him with the van lift and hand control expenses, as well as purchase of a powered wheelchair.
- 12/8. Follow-up phone call. Frank says he's doing well but still has trouble getting around. Expressed interest in returning to the work force, but didn't know what type of work he wants to do. Also concerned about losing his benefits due to earnings made. Suggested he contact his local Social Security office to inquire about the issue.

- 12/10. Sent Frank a letter, which included information about alternative enterprises plus an updated version of "The Toolbox" handbook.
- 2/1. Frank called the Project office requesting information on transfers. Said it takes him almost 30 minutes to transfer from van seat to wheelchair. Tony recommended using a transfer sliding board or slipping a plastic trash bag over driver's seat, which would allow him to scoot and slide easier during a transfer.
- 3/1. Follow-up phone call. Frank said the idea of using a trash bag on his van's driver's seat has cut transfer time in half and was very grateful for the idea.
- 3/19. Phone call to the Project from Frank's wife requesting information on van and tractor modifications.
- 3/20. Sent Frank's wife information on modified ag equipment, swivel seats, and Life Essentials, Inc., contact information.
- 5/10. Frank called the Project requesting information on installation of a tractor auxiliary hydraulic clutch, which he saw in "The Toolbox." Frank, son, and neighbor Jerry are working on modifying his IH tractor so that he can operate it and do field work this fall. Information was supplied him about the auxiliary clutch and suggestion made that he contact local machinery dealer for an installation kit.
- 8/4. Follow-up phone call. Frank had a lift built and installed on his tractor. It's made of an electric winch mounted on barn door rollers that slide on a piece of channel iron mounted to the top of the tractor cab. Also had a leather harness made at a local saddle shop that slips around his legs and waist. The winch clips into the harness that he's wearing and raises him up to the height of the tractor seat. Handle extensions also installed so that he can reach all the control levers in the cab.

Frank did find a used auxiliary hydraulic clutch cylinder off an old combine that his neighbor has now installed on the IH tractor, allowing him to operate the tractor's clutch pedal with the push of a button. Although the tractor was not ready in time to do field work this fall, he is excited about being able to get in the field next spring. He says the Project is welcome to stop by to see the tractor modifications he's made.

- 7/13. Tony called Frank to ask if he'd be willing to be part of a Barn Builders publication, which lists individuals, by state, who are willing to talk to others about their disability and the modifications they've made. He agreed to fill out a Barn Builders form that will be included in the latest revision.
- 7/15. Barn Builders form mailed to Frank.
- 9/8. Filled out form received back.
- 9/14. Follow-up phone call. Project staffers Paul and Steve, who never met Frank, want to schedule a farm visit to meet him, look at the modifications he's made, and see if there were any further services the Project could offer. He agreed to Paul's and Steve's visit on 9/26.
- 9/19. Paul phones Frank to confirm the 9/26 farm visit.
- 9/26. Paul and Steve make the farm visit, taking pictures of the modifications made to the IH tractor, the ramp to Frank's house, and other modifications made inside. He demonstrated the tractor lift and standing frame he stands on every day.

Paul and Steve discuss with Frank his emotional state as well as progress made since his rehab in Reedersburg. He seemed to be in good spirits but was concerned about finding an occupation that would allow him to get off public aid—a situation he thinks is impossible. Paul and Steve ask him to consider working for the Project at local farm shows and as a consultant. They also left him the revised Barn Builders publication and the newest "Toolbox" handbook revision.

- 12/15. Tony phoned Frank to see if he'd be interested in helping staff the Project exhibit at the AgraState Farm Show. He agreed to work two days during the show, sharing with inquirers his experiences in returning to farming after a spinal cord injury. He did express his concerns about losing health care benefits if he received payment for working at the show.
- 1/9. Tony worked with Frank at the Farm Show, reporting that he had a great attitude throughout the event and did a good job

explaining how the Project assisted him in returning to farming after his injury. He had no problems answering questions people had about his disability.

- 1/10. Tony again worked the Farm Show with Frank, who continued to exhibit a great attitude and seemed to enjoy meeting people. This time spent at the Show gave him the opportunity to look over the resources that the Project offers and to talk with others about innovative ways those in similar situations do things that make their lives and essential tasks easier. He came out of the Show re-energized and excited to find new ways to access more equipment and participate in more activities around his farm. He had a good time and expressed an interest to do similar consulting work for the Project.
- 2/1. Follow-up phone call. Earlier, Frank had been concerned about losing his health care benefits if he received payment for working at the Farm Show. After talking with the Medicaid office, it was determined that, indeed, he would lose earnings made working at the Show and that those earnings would be deducted from his health care benefits. Thus, he has decided not to receive payments for this work.
- 7/30 Follow-up phone call. Tony asked Frank to work the Project exhibit at the State Fair. He said he didn't think he could take the exposure to the hot, humid weather, since a few days earlier he had gotten sick due to extreme heat while outdoors painting the doors of his barn. He again expressed interest in finding employment somewhere in the field of agriculture. Tony asked to visit with him to conduct work-site assessment of his farm as well as discuss some career option he might want to explore. He agreed to the on-farm assessment; however, he wanted to wait several weeks before scheduling a time. His children would be starting school soon, so he wanted to wait until they were settled in and he had a better grasp of what his schedule would be like.
- 10/7. Follow-up phone call made. Set up time make the farm visit and do the worksite assessment on 10/14.
- 10/14. Made the farm visit and worksite assessment. Will follow up with information to help Frank set and prioritize goals.

Completed by: <u>Tony Knight</u>

Date: February 10, XXXX

# **Telephone Contact Form**

Name: Frank D. Farmer	SSN:X	X-XX-XXXX	Sex: <u>M</u>
Address: 4131 North CR 450	West	County: <u><i>Clinton</i></u>	
City/State/Zip: Wallstown, IN	46999	Date of birth:_	<u>7   13   XX</u>
Phone: 260-555-1644 Fax:	None E-mail:	fdf1092@starb	urst.net
Marital status: Married	Name of spouse: Floren	се	
Names and ages of children at home:	Jeffrey, 18 - Brittany, 15	5 - Alexis, 13	
Type of disability: T-1/2 (spinal	cord injury) Date	of injury/diagnosis:	9/2/XX
Cause of disability:	ning accident		
Description of disability/limitations:	Paralyzed from chest down. H	land function OK.	Can't en-
dure long exposure to hot/cold	d weather. Pressure sores. Tr	unkstability OK b	ut has lifting
_limitation. Can transfer to/fro	om bed independently. Uses p	ower and manual w	heelchair.
No. of program contacts: <u>1</u> Le	arned of program from: <u>Reede</u>	rsburg Voc. Rehab	•
Self referral? $X$ Second-party referral?	eferral (by whom)?		
Primary income source(s): Farming	g and Social Security Disabi	lity	
Recipient of public assistance? X YesNo If yes, type(s): Social Security Disability and			ty and
Medicaid			
Education/professional training (what	t/when): <u>Wallstown High Sch</u>	ool (diploma, XXX,	X)
	ege (associate degree in gene	ral agriculture, XX	(XX)
Follow-up actions/recommendations:		1	
Mail	Visit/assessment	Referral	
General program info.? <u>Yes</u>	Purpose: Switch lift from old	Voc. rehab.:	
Service available? <u>Yes</u>	<u>van to new van. Possible</u>		
Publications (list)? <u>"Plowshares"</u>	tractor manlift.		
on SCI, manlifts, and hand		Facility:	

on left.

<u>on SCI, manlifts, and hand</u> controls. "Barn Builders." Products/modifications: *Tractor* When: <u>2/20/XX</u> manlift, door openers, and Where: SR 164 north to hand controls. SR 17; right on SR 17 2.0 mi. to CR 1150; right on

Health office: CR 1150 1.5 mi. to CR 450; Other: Referred to Ed Jones at Indiana Council for Indeleft on CR 450 to first farm pendent Living.

# **Information Release Form**

I do hereby grant permission to AgrAbility Project , its agents, and others working under its authority, full and free use of the following information about myself: *Client information about working with Voc. Rehab. staff and descriptions of specific* 

modifications made that would benefit other farmers with similar injuries

I understand that this information may be used for (*check all that apply*): \_\_\_\_promotional, \_\_\_\_news, X\_research, X\_educational, \_\_\_\_\_service referral purposes. Further, I hereby release, discharge, and hold harmless the above entity and its agents from any and all claims, demands, or causes of action that I may hereafter have, by reason of anything contained in the information released. Also, I do certify that I am of legal age or possess full legal capacity to execute for foregoing authorization and release.

Subject's Name (print):	Frank D. Farmer	Signature:	
Address: 4131 North	CR 450 West, Wallstown,	IN 46999	Date: <u>12/5/XX</u>

If the subject is a minor, the following is required of the Parent or Guardian—

Name (print):	Signature:
Address (if different from subject's):	

Figure 6. Example of a Completed Photo/Video Release Form

# Photo/Video Release Form

I do hereby grant permission to <u>AgrAbility Project</u> \_\_\_\_\_, its agents, and others working under its authority, full and free use of photographs and/or videotaped footage that contains my image or likeness. I understand that these images may be used for (check all that apply): promotional, news, research, X educational purposes. Further, I hereby release, discharge, and hold harmless the above entity and its agents from any and all claims, demands, or causes of action that I may hereafter have, by reason of anything contained in the information released. Also, I do certify that I am of legal age or possess full legal capacity to execute for foregoing authorization and release.

Subject's Name (print):_	Frank D. Farmer	Signature:
--------------------------	-----------------	------------

Address: 4131 North CR 450 West, Wallstown, IN 46999 Date: 12/5/XX

If the subject is a minor, the following is required of the Parent or Guardian—

Name (*print*):\_\_\_\_\_\_Signature:\_\_\_\_\_

Address (if different from subject's):\_\_\_\_\_

Completed by: <u>Tony Knight</u> Date: <u>March 1. XXXX</u>

# **Service Referral Form**

Name: Frank D. Farmer	SS	SN: <u>XXX-</u>	XX-XXXX	Sex: <u></u>
Address: <u>4131 North CR 450 West</u>			County: <u><i>Clinton</i></u>	
City/State/Zip: Wallstown, IN 46999			Date of birth:	7 <u>  13  XX</u>
Phone: 260-555-1644 Fax: Nor	ne	_ E-mail:	fdf1092@starburs	st.net
Marital status: <u>Married</u> N	ame of spouse:	Florence		
Names and ages of children at home: <u>Je</u>	ffrey. 18 - Bri	ttany 15	- Alexis, 13	
Type of disability: T-1/2 (spinal cord in			of injury/diagnosis:	9/2/XX
Cause of disability: <u>Diving-swimming ac</u>	• •			

Functional limitations as described by client and/or referral source. (Include exact measurements if known—e.g., Db of hearing loss; visual acuity; lifting limits; range of motion; specific limitations on standing, sitting, transferring, carrying, walking, bending, stooping, balance, etc.):

Paralyzed from the chest down. Good hand function. Can't endure long exposure to hot and cold weather conditions. Pressure sores have been a problem. Good trunk stability but has lifting limitation. Can transfer to and from bed independently. Uses power wheelchair but also has manual wheelchair.

Primary income source(s): Farming and Social Security Disability

Recipient of public assistance? X Yes No If yes, type(s): *Social Security Disability and Medicaid* 

Education/professional training (what/when): Wallstown High School (diploma, XXXX)

Reedersburg Community College (associate degree in general agriculture, XXXX)

Work history-Employer name, job title, begin/end dates (List present situation first):

1. Full-time farmer (primary income source)

2. Hauls cattle for two local producers (currently)

3. Line employee, Luden Rubber Co. (6 months in XXXX)

4. <u>Computerized lathe operator</u>, <u>Simpson Industries</u> (XXXX-XXXX)

5. Maintenance mechanic for CTS, Inc. (XXXX-XXXX)

Service(s) requested: *Permission sought from client to provide Life Essentials, Inc. with the* 

above facts concerning his disability so they could design potential equipment modifica-

tions for him to review and consider having fabricated.

# Agricultural Worksite Assessment Tool for Farmers and Ranchers with Physical Disabilities

(Client with Right Arm Amputation Above Elbow)

## I. PERSONAL DATA

## A. About the client

Name: Otto Farmwell (Age 34)	SSN: <u>XXX-XX-XXXX</u> Sex: <u>M</u>
Marital status: <i>Married</i>	Name of spouse: Susan
Names and ages of children at home: _	Joy, 8 — Homer, 6 — Julie, 4 — Carl, 1
Occupation: $X$ Full-time farmer/rancher	
B. About client's disability	
1. Type of disability: <i>Right arm ampo</i>	utation above elbow Date of injury/diagnosis: <u>9 / 19 /XX</u>

- 2. Describe cause of disability: <u>Was unplugging corn header on combine when arm got caught</u> <u>in husking rollers</u>.
- 3. Functional limitations as described by client and/or referral source. (Include exact measurements if known—e.g., Db of hearing loss; visual acuity; lifting limits; range of motion; specific limitations on standing, sitting, transferring, carrying, walking, bending, stooping, balance, etc.)

Loss of dominent (right) hand, thus having to learn to use non-dominent (left) hand.

Difficulty with right hand controls, especially when trying to perform multiple

tasks at one time. Also, difficulty using myoelectric prosthesis, plus the fact it does not respond quickly enough.

4. Type of medical insurance (e.g., Medicare, Medicaid, Medicare supplement, commercial policy): *Commercial insurance.* 

## II. GENERAL FARM/RANCH DATA

A. Type and siz	e of oper	ation	(Total acreage: <u>425 acres</u> )
Dairy		head	X Grains (types/acres): Corn/soybeans (300 acres)
Hogs		head	X Forages (types/acres): Hay/pasture (25 acres)
<u>X</u> Beef	_20	head	X Specialty crops (types/acres): Sweet corn (15 acres)
Sheep		head	Agri-business (type):
Poultry		_flock	X Other: <i>Sells ear corn (100 acres) and hay (12 acres)</i>

#### B. Client farm/ranch responsibilities <u>prior to</u> disability

Sole proprietor of the farm and had all of the responsibilities.

#### C. Family members and others who assist on farm/ranch

Name	Relationship	Age	Responsibilities
Sam	Father	60	Assists where needed after gets off work.
Susan	Wife	32	Helps keep records; markets the sweet corn.
_Client's childrei	n <u>s</u> till too young to	provid	e <u>much assistance.</u>

## III. OVERALL FARM/RANCH ACCESSIBILITY

- A. General terrain and any mobility-related problems encountered (Describe) <u>Gently rolling — no mobility-related problems</u>.
- **B. Farmyard surfaces** Are areas around primary buildings surfaced and well-drained? <u>Yes</u>  $\chi$  No

Describe type of surface and mobility-related problems encountered: <u>Gravel and grass — no</u> <u>mobility-related problems</u>.

## **IV. GENERAL FARM/RANCH MAINTENANCE**

#### A. The farm/ranch shop

- Can client enter the shop independently? <u>X</u> Yes <u>No</u> Describe any barriers (e.g., steps, narrow doorway, heavy door) and problems encountered: <u>Current side overhead door is of folding design and is heavy</u>. Use of an overhead <u>electric door opener would be beneficial</u>.
- 2. Type of floor the shop has (e.g., concrete, dirt, crushed stone) and any mobility-related problems encountered: *Concrete no mobility-related problems*.
- 3. Can client reach stationary power tools and service equipment? X Yes No
- 4. Can client perform maintenance tasks on the tool bench? X Yes No

5. Is the shop:	• heated for year-round use?	<u>X</u> Yes <u>No</u>
	• equipped with toilet facilities?	Yes _X_No
	<ul> <li>adequately lighted?</li> </ul>	<u> </u>
	• adequately ventilated?	<u>X</u> Yes <u>No</u>
	• equipped with telephone?	Yes <u>x</u> _No
	• equipped with first-aid kit?	<u>X</u> Yes <u>No</u>
	• equipped with fire extinguisher?	<u>X</u> Yes <u>No</u>
6. Is there a smooth	n or paved outside work area for large equip	pment? <u>X</u> Yes <u>No</u>

7. Are refueling areas accessible to client? X Yes No

#### **B.** Basic hand tools

1. Checkmark which hand tools client has difficulty using, and describe problems each presents:

Hand Tool	Problem
$\underline{X}$ All hand tools	Adjusting to using non-dominent hand.
X Other Bags ear corn	Needs two hands.
<u>X</u> Picks sweet corn	Uses a basket that is dragged in between the rows.

Problem

#### C. Power tools

1. Checkmark the power tools client has difficulty using, and describe problems each presents:

Power Tool

<u>X</u> All power tools <u>Adjusting to using non-dominent hand</u>.

## D. Maintenance materials and supplies

1. Checkmark the maintenance items client has difficulty using, and describe problems each presents:

Maintenance Item	Problem
X All materials/supplies	Adjusting to using non-dominent hand.

## V. EQUIPMENT AND MACHINERY

#### A. Machinery storage areas

- 1. Describe primary machinery storage areas (e.g., enclosed, open-shed, outdoors): *Open-front shed*
- 2. Can client enter machinery storage areas independently? X Yes No
- 3. Describe types of floors the machinery storage areas have (e.g., concrete, dirt, sand, crushed stone) and any mobility-related problems encountered: *Concrete no mobility-related problems*.
- 4. Do the storage areas provide adequate space for the frequently used equipment? X Yes No
- 5. Are the storage areas conducive to hitching implements and performing service and maintenance tasks on equipment? X Yes No
- B. Most frequently used self-propelled equipment (e.g., tractor, combine, skid loader, other):

Machine	Make/Model	Cab- Heater/AC 2-way radio equipped? equipped?
1. Corn picker	John Deere 6620	XX
2. Combine	John Deere 6600	XX
3 <u>Tractor</u>	John Deere 4020	

## C. Accessing equipment

1. For the self-propelled units listed in B, describe any difficulties or potential safety hazard client faces when mounting or dismounting (e.g., maneuvering steps, opening cab door, access to seat), and any modifications that have been made:

Unit	Problems	Modifications	
All 3 None		N/A	

#### D. Equipment seating and transfer

1. Describe any difficulties related to equipment seating and transferring to the seat, and any modifications made to improve seating comfort and safety during operation and transfer.

Unit	Difficulty	Modifications
<u>All 3 None</u>		N/A

#### **E.** Equipment controls

1. For the self-propelled units the client uses most frequently, indicate which controls are difficult to reach or operate, describe specific problems, and identify any modifications that have been made.

a. Make and model: <u>All thre</u>	e units (i.e., corn picker, combine, tractor)
Control	Difficulties and modifications
X_Steering	Right-hand control — as yet, no modifications
$\underline{X}$ Throttle (hand or foot)	Right-hand control — as yet, no modifications

#### F. Hitching and unhitching implements

1. Identify implements client has difficulty hitching/unhitching; and describe modifications, if any:

Implement	Difficulties	Modifications
Wagon	Loading and unloading	Automatic hitching device

- 2. Can client turn upper torso 90 degrees and head 90 degrees, and operate controls simultaneously while backing up equipment? X\_Yes \_\_\_No
- 3. What type rearview mirrors does the equipment have, and where mounted? <u>Corn picker and</u> <u>tractor—none. Combine—on left side of cab</u>.
- 4. Can client connect/disconnect PTO drivelines independently? X\_Yes \_\_\_\_No If not, explain how he/she compensates: <u>Uses left hand and leg to steady</u>.
- 5. Can client connect/disconnect hydraulic couplings independently? X\_Yes \_\_\_\_No If not, explain how he/she compensates: *Uses quick-attach fitting*.

#### G. Other barriers to operating equipment

- 1. Does client have a hearing impairment that would prevent him/her from hearing when equipment is operating or malfunctioning? \_\_\_\_Yes X\_No
- 2. Does client have a vision loss that results in poor depth perception or difficulty working in bright light or seeing at night? \_\_\_\_Yes X\_No

#### H. Equipment maintenance

1. Checkmark tasks client has difficulty performing; describe the problems and modifications, if any.

Task	Difficulties	Modifications
_X Change oil/filters	May require two hands.	Does one-handed or has wife
$\underline{\chi}$ Lubricate	May require two hands.	or father assist.

Fueling	Usually no problem.	
X_Make adjustments	Often requires two hands.	Has father assist.
<u>X</u> Make major repairs	Usually requires two hands.	Hires repair shop to do.
X_Service/change tires	Cannot handle tires.	Hires tire store to change.
X_Add/remove ballasts	Requires two hands.	Has father assist.
	•	

## **VI. CROP PRODUCTION**

A. Forages	Does Not Apply
	w is it handled (e.g., hay, silage, conventional bales, large round bales)? The bales and large round bales.
2. Types of hay storage f	Facilities used: <u>Tool shed for conventional square bales; outside for</u>
-	storage facilities and handle equipment independently? $X$ YesNo
B. Grains	Does Not Apply
1. Types of grain storage and corn bins.	facilities used (e.g., grain bin, corn crib, commercial elevator): <i>Corn cribs</i>
	n storage facilities independently? <u>X</u> YesNo es arm stub to climb (safety concern?)
3. Types of grain handlin 	g equipment used (e.g., auger, dump pit, center leg, pneumatic): <u>Grain auger</u>
4. Does client have acces	ss to the grain handling equipment? X Yes No
C. Other crops	Does Not Apply
1. List other major crops	produced, and describe any accessibility problems in handling or storing:
Crops	Problems
Ear corn	Packaging for store sales.
Sweet corn	<u>Crop hand-harvesteddifficult to pick and sort one-handed.</u>
D. Chemical application	
1. Does client make the c	chemical applications? X_YesNo
	ply restricted-use chemicals? X_YesNo

- 3. Is client able to access chemical storage area? X\_Yes \_\_\_\_No
- 4. Is client able to use all recommended personal protective gear (e.g., eye protection, respiratory protection) for each chemical he/she plans to use? X Yes No
- 5. Does client have access to local custom chemical applicators? X Yes No

## **VII. LIVESTOCK PRODUCTION**

B. Hogs

#### C. Beef

- 1. Facilities
  - a. Types of facilities (e.g., confinement building, feedlot, fenced pasture): *Fenced pasture*.
  - b. Can client enter the facilities independently? X Yes No
  - c. Can client access/handle cattle for medical treatment, dehorning, etc.? <u>X</u>Yes <u>X</u>No If no, describe the barriers: <u>Barriers are when both hands are needed (e.g., dehorning).</u>
  - d. Methods of waste removal and building sanitation used and problems encountered: <u>None since</u> <u>cattle are on pasture</u>.
  - e. Method used to load and transport cattle and problems encountered: <u>Portable corral and</u> <u>fifth-wheel trailer</u>. Barrier when moving, assembling, and disassembling corral.

#### 2. Feeding

- a. Type of feeding system used: *Pasture and large round bales in portable feeders*.
- b. Describe any problems client encounters using various tools and equipment for feeding (e.g., shovel, pitchfork, bucket, scoop, grain cart, feed wagon): *None*
- c. Can client reach and activate feeding equipment controls independently? X Yes No
- d. Can client carry out routine maintenance on feeding equipment? X Yes No

D. Sheep	Does not apply X_
E. Horses	Does not apply <u>X</u>
F. Other livestock	Does not apply X_

#### G. Completing livestock health care and production tasks

Does not apply

Does not apply X

Does not apply X

Does not apply\_\_\_

1. Checkmark those tasks client has difficulty performing, and describe the problems they present:

Task	Problems
Vaccinating	No apparent problem.
$\underline{X}$ Artificial insemination	Requires two hands.
X Dehorning	Requires two hands.
X Drenching	Requires two hands.
X Hoof trimming	Requires two hands.
X Teeth clipping	Requires two hands.
Insecticide spraying	No apparent problem.
<u>X</u> Ear tagging	Requires two hands.
X Castrating	Requires two hands.
Loading to transport	Can do, but with difficulty.

H. Accessing outdoor livestock areas	Does not apply
1. GatesType of gateType of latch/securing mechanism	Problems
2. Types of fences used (e.g., electric, woven wire, barbout the state of the state	ed wires, H.T. wire): <u>Woven wire and high-</u>
3. Can client access outdoor livestock independently?	<u>X_YesNo</u>
4. Does client have access to an ATV or utility vehicle fo	r outdoor mobility? <u>Yes</u> <u>X</u> No
VIII. DOMESTIC FARM ANIMALS	
A. Farm dogs and cats	
1. Can client handle the dogs and/or cats for feeding, me	dical treatment, etc.? X Yes No
IX. ORCHARDS/WOODLOTS/GARDENS	
A. Orchards	Does not apply X
B. Woodlots	Does not apply
1. Describe layout and the contribution woodlot makes to <u>for cattle. Located on fringe of pasture and</u>	1 ,
2. Describe problems client faces in maintaining woodlot trimming trees, splitting firewood, transporting timbe	
operate chain saw.	
C. Gardens	Does not apply
<ol> <li>Describe layout and the contribution orchard makes to U-pick, commercial production, roadside market):</li> </ol>	1 0
<u>that client enjoys working in. Currently use</u> with one hand for soil preparation and weed	
2. Note problems client encounters in completing garden	

harvesting, processing): <u>Difficult to operate roto-tiller for soil preparation</u>. <u>Cultivating</u> <u>and harvesting done one-handed</u>. <u>Wife does the processing</u>.

# X. FARM MANAGEMENT ACTIVITIES

- A. Records maintenance Is client responsible for maintaining the business records? X Yes \_\_\_\_No 1. If yes, will he/she be able to continue to do so? X Yes \_\_\_\_No
- **B. Records computerization** Are farm/ranch business records computerized? <u>X</u> Yes \_\_\_\_\_No 1. If yes, what type of system is being used? <u>Personalized spread sheets</u>.

- C. Sales/purchases Is client responsible for the business-related sales and purchases? X Yes \_\_\_\_\_No
- **D. Labor management** Is client responsible for hiring, training, supervising workers? X Yes No

## **XI. ADDITIONAL VOCATIONAL SKILLS**

- A. Prior and current off-farm employment and experiences (and approximate dates)
  - 1. Fertilizer sales person (XXXX-XXXX)
  - 2. John Deere equipment parts salesperson (XXXX-XXXX)
- B. Military service, including technical training received (and approximate dates) None

#### C. Leadership skills and experience

- 1. Organization/civic involvements (e.g., agriculture-related organizations, Extension, 4-H, FFA, church, community groups): *Participated in FFA for 4 years: belongs to the local vegetable growers association: is a member of the Lions Club.*
- 2. Leadership positions held: District FFA officer.

## **D. Vocational interests other than farming** (Describe)

<u>A long-time collector of scale-model farm toys. Often participates in farm toy events</u> <u>at which he buys and sells.</u>

#### **E. Education**

- 1. Highest high-school grade level client completed: <u>12</u>
- 2. List any education and/or training client received after high school: <u>Pesticide and herbicide</u> <u>applicator certificates</u>.

## **XII. ESTABLISHING PRIMARY GOALS**

- **A. Client-prioritized goal areas concerning worksite accessibility** (1 = highest priority):
  - <u>1</u> Improve ability to effectively and safely use equipment and machinery, including accessing, operating, and maintaining equipment and hitching implements.
  - <u>2</u> Improve ability to perform general maintenance activities around farm/ranch, including effective use of hand tools, power tools, and maintenance materials.
  - <u>4</u> Improve ability to manage farm/ranch operation successfully, including maintenance of business records, sale and purchases, and labor management activities.
  - <u>3</u> Identify an alternative farm enterprise that would better suit personal goals and abilities.
- **B.** Long- and short-term objectives client wishes to establish in each priority goal area. (*Add extra* pages as necessary.)
  - 1. Goal area ranked No. 1: Improve ability to effectively/safely use equipment/machinery.

#### Long-term objectives

a. Foot control and/or some left-side hand controls on all machines.

b. Acquire more one-handed tools.

#### Short-term objectives

a. Learn easier ways to adjust to using non-dominent hand.

b. Begin installing foot controls on equipment.

2. Goal area ranked No. 2: Improve ability to perform general maintenance activities.

Short-term objectives

a. Acquire more one-handed tools.

b. Learn easier ways to adjust to using non-dominent hand.

3. Goal area ranked No. 3: <u>Alternative farm enterprise — Expand sweet corn operation</u> Long-term objectives

a. <u>Sale of sweet corn at local sites has been profitable</u>. <u>Client would like to expand</u>.

b. <u>Develop a strategy for increased mechanization of the sweet corn operation.</u>

Short-term objectives

a. Expand sweet corn acreage by 1 acre per year.

b. <u>Purchase sweet corn harvester and transport wagons that double as sales platforms</u>

c Increase the number of sweet corn selling sites from two to three.

5. Goal area ranked No. 4: *Improve ability to manage farm operation successfully.* 

Short-term objectives

a. <u>Meet with a business planner and a financial advisor.</u>

b. Ongoing appropriate subject matter workshops and business planning.

## XIII. ADDITIONAL COMMENTS AND OBSERVATIONS

Client generally adjusted well. Has discontinued use of the myoelectric prosthesis around the farm because it "gets in the way" and does not react quickly enough to situations. Besides, he can actually perform most tasks more easily without it.

Client was interviewed and video taped on farm by local TV station for one of its nightly news segments.

Client has kept in touch with others in the community who have disabilities for mutual support and encouragement. As a result, he has a better understanding of others and their struggles with their amputation. He also has taken part in an "expert panel" for a master's degree student's research project.

Client has volunteered to assist the Project at fairs and has become a member of a peer support network. He has been approached about (and is giving consideration to) work-ing part-time for the Project in the off-season.

Client is looking to expand the farming operation and especially contemplating buying additional land for ear corn production.

# Agricultural Worksite Assessment Tool for Farmers and Ranchers with Physical Disabilities

(Client with Right Leg Amputation Below Knee)

## I. PERSONAL DATA

## A. About the client

Name: James Farmington (Age 5	) SSN:_XXX-XX-XXXX Sex:_M
Marital status: <u>Married</u>	Name of spouse: Grace
Names and ages of children at home:	lone
Occupation: XFull-time farmer/rancher	
B. About client's disability	
1. Type of disability: <u>Right leg ampu</u>	tion below knee Date of injury/diagnosis: XX/XX/XX
2. Describe cause of disability: Ampu	tion as a result of diabetes progression.

3. Functional limitations as described by client and/or referral source. (Include exact measurements if known—e.g., Db of hearing loss; visual acuity; lifting limits; range of motion; specific limitations on standing, sitting, transferring, carrying, walking, bending, stooping, balance, etc.) Limitations include: difficulty climbing: lack of balance: low endurance: difficulty walking long distances and on uneven ground, especially if much groundcover. Has had difficulty regulating blood sugar and with pressure sores on leg stump. Wears out

stump socks very quickly, and has problems getting insurance to pay for more socks.

4. Type of medical insurance (e.g., Medicare, Medicaid, Medicare supplement, commercial policy): <u>Commercial insurance</u>

## **II. GENERAL FARM/RANCH DATA**

A. Type and siz	e of operation	(Total acreage: <u>575 acres</u> )
Dairy	head	X Grains (types/acres): Corn/soybeans (500 acres)
<u>X</u> Hogs	<u>100*</u> head	X Forages (types/acres): <u>Hay/pasture (20 acres)</u>
<u>X</u> Beef	<u>15*</u> head	<u>X</u> Specialty crops (types/acres): <u>Pumpkins (2 acres) and corn</u>
Sheep	head	Agri-business (type): maze (10 acres
Poultry	flock	X Other: <u>Alpacas (6 head) *All-natural (pasture-raised)</u>

#### B. Client farm/ranch responsibilities prior to disability

Sole proprietor of the farm and had all of the responsibilities.

#### C. Family members and others who assist on farm/ranch

Name	Relationship	Age	Responsibilities
Grace	Wife	53	Assists where needed (usually mornings)
Robert	Son-in-law	28	Assists where needed (usually evenings)

#### III. OVERALL FARM/RANCH ACCESSIBILITY

#### A. General terrain and any mobility-related problems encountered (Describe)

<u>Up-sloping graded area in between house and combination shop-machinery shed, which</u> is surrounded by trees.

#### **IV. GENERAL FARM/RANCH MAINTENANCE**

#### A. The farm/ranch shop

- Can client enter the shop independently? <u>X</u> Yes <u>No</u> Describe any barriers (e.g., steps, narrow doorway, heavy door) and problems encountered: <u>Difficult to open sliding door to get to equipment. Step at threshold of walk-in</u> door to shop area.
- 2. Type of floor the shop has (e.g., concrete, dirt, crushed stone) and any mobility-related problems encountered: *Concrete in front half of shed; crushed stone in back half.*
- 3. Can client reach stationary power tools and service equipment?  $\chi$  Yes \_\_\_\_No
- 4. Can client perform maintenance tasks on the tool bench? <u>X</u>Yes <u>No</u> If no, why not? <u>Can for short periods until prosthesis irritates leg stump</u>.
- 5. Is the shop: heated for year-rou
  - heated for year-round use?
  - equipped with toilet facilities?
  - adequately lighted?
  - adequately ventilated?
  - equipped with telephone? \_\_\_\_Yes \_X\_No
  - equipped with first-aid kit? \_X\_Yes \_\_\_No

\_\_\_Yes <u>x</u>No

\_\_\_Yes <u>X\_</u>No \_<u>X</u>Yes \_\_\_No

<u>\_x</u>Yes \_\_\_No

- equipped with fire extinguisher? X Yes \_\_\_\_No
- 6. Is there a smooth or paved outside work area for large equipment? <u>Yes</u> X No

7. Are refueling areas accessible to client?  $\chi$  Yes No

- **B.** Basic hand tools No problems in using any basic hand tools.
- C. Power tools No problems in using any power tools.
- **D.** Maintenance materials and supplies No problem in using any maintenance items.

#### **V. EQUIPMENT AND MACHINERY**

#### A. Machinery storage areas

- 1. Describe primary machinery storage areas (e.g., enclosed, open-shed, outdoors): <u>Enclosed</u> <u>combination shop-machinery shed</u>.
- 2. Can client enter machinery storage areas independently? <u>X</u> Yes <u>No</u> (but with difficulty) If no, describe the barriers: <u>Large sliding doors and incline at the walk-in door</u>.
- 3. Describe types of floors the machinery storage areas have (e.g., concrete, dirt, sand, crushed stone) and any mobility-related problems encountered: <u>Concrete in front half of shed; crushed</u> <u>crushed stone in back half.</u>
- 4. Do the storage areas provide adequate space for the frequently used equipment? X Yes No
- 5. Are the storage areas conducive to hitching implements and performing service and maintenance tasks on equipment? X Yes No

#### B. Most frequently used self-propelled equipment (e.g., tractor, combine, skid loader, other):

Machine	Make/Model	Cab- equipped?	Heater/AC 2 equipped?	-way radio equipped?
1. Tractor	_John Deere 4430		. <u> </u>	
2. Tractor	Case 2594			
3. <u>Tractor</u>	International 585			
4. <u>Combine</u>	International 1480	X	X	
5. Utility vehicle	John Deere Gator			

#### C. Accessing equipment

1. For the units listed in B, describe any difficulties or potential safety hazard client faces when mounting or dismounting, and any modifications that have been made:

Unit	Problems	Modifications
<u>1-4</u>	<u>Steps to cab narrow and steep:</u>	Added steps and handrail to cab;
	accessing fuel tank.	added steps to fuel tank.
5	None	

#### D. Equipment seating and transfer

1. Describe any difficulties related to equipment seating or transferring to the seat, and any modifications made to improve seating comfort and safety during operation and transfer. *No difficulties*.

#### **E.** Equipment controls

1. For the self-propelled units the client uses most frequently, indicate which controls are difficult to reach or operate, describe specific problems, and identify any modifications that have been made.

a. Make and model:_	All five self-	propelled units

Control	Difficulties and modifications
<u>X</u> Clutch	Activating — hand controls installed. (No other
	equipment control-related problems.)

#### F. Hitching and unhitching implements

1. Identify implements client has difficulty hitching/unhitching; and describe modifications, if any:

Implement	Difficulties	Modifications
Wagons	Hitching	Automatic hitching device
Others	(All other implements fit on ar	m o <u>f tractors)</u>

- 2. Can client turn upper torso 90 degrees and head 90 degrees, and operate controls simultaneously while backing up equipment? X\_Yes \_\_\_No
- 3. What type rearview mirrors does the equipment have, and where mounted? <u>*Tractors—no mirrors</u>* <u>*Combine—one on each side of cab.*</u></u>
- 4. Can client connect/disconnect PTO drivelines independently? X\_Yes \_\_\_\_No
- 5. Can client connect/disconnect hydraulic couplings independently? X Yes No

#### G. Other barriers to operating equipment

- 1. Does client have a hearing impairment that would prevent him/her from hearing when equipment is operating or malfunctioning? \_\_\_\_Yes X\_\_No
- 2. Does client have a vision loss that results in poor depth perception or difficulty working in bright light or seeing at night? \_\_\_\_Yes X\_No

#### H. Equipment maintenance

1. Checkmark tasks client has difficulty performing; describe the problems and modifications, if any.

Task	Difficulties	Modifications
X Fueling	Getting to tanks (all units)	Added steps and handrails
<u>X</u> Make major repairs	Moving parts	Takes to a mechanic

#### **VI. CROP PRODUCTION**

#### A. Forages

Does Not Apply\_\_\_\_

1. If hay is produced, how is it handled (e.g., hay, silage, conventional bales, large round bales)? <u>Large round bales</u>

2. Types of hay storage facilities used: *Stored outside* 

3. Can client access hay storage facilities and handling equipment independently? X Yes No

#### **B.** Grains

- 1. Types of grain storage facilities used (e.g., grain bin, corn crib, commercial elevator): Grain bins
- 2. Can client access grain storage facilities independently? <u>Yes</u> <u>X</u>No If no, why not? <u>Not able to safely climb ladder on side of bins</u>.
- 3. Types of grain handling equipment used (e.g., auger, dump pit, center leg, pneumatic): *Grain auger*
- 4. Does client have access to the grain handling equipment? X Yes No

#### C. Other crops

1. List other major crops produced, and describe any accessibility problems in handling or storing:

Crops		Problems	
Corn	Accessing storage		
Soybeans	Accessing storage		
Pumpkins	Harvesting		

#### **D.** Chemical application

- 1. Does client make the chemical applications? X Yes No
- 2. Is client certified to apply restricted-use chemicals? X Yes No
- 3. Is client able to access chemical storage area?  $\chi$  Yes \_\_\_\_No
- 4. Is client able to use all recommended personal protective gear (e.g., eye protection, respiratory protection) for each chemical he/she plans to use? X Yes No
- 5. Does client have access to local custom chemical applicators?  $\chi$  Yes \_\_\_\_No

#### **VII. LIVESTOCK PRODUCTION**

#### A. Dairy

#### B. Hogs

- 1. Facilities
  - a. Types of facilities (e.g., confinement building, open-front shelter, farrowing house, pasture): *Pasture*
  - b. Can client enter the facilities independently?  $\chi$  Yes \_\_\_\_No
  - c. Can client access/handle hogs for medical treatment, weighing, castration, etc.? \_\_Yes XNo If no, describe the barriers: <u>Is not able to move quickly enough to perform medical</u> <u>treatment unless hog is extremely sick and not moving.</u>
  - d. Methods of waste removal and building sanitation used and problems encountered: Pasture

#### Does not apply X

Does Not Apply\_\_\_

Does Not Apply

### Does not apply\_\_\_\_

- e. Method used to load and transport hogs and problems encountered: <u>Portable corral and</u> <u>fifth-wheel trailer. (Hires neighbor to transport finished hogs.)</u>
- 2. Feeding
  - a. Type of feeding system used: *Round feeders and winterized outside water fountains*.
  - b. Describe any problems client encounters using various tools and equipment for feeding (e.g., shovel, pitchfork, bucket, scoop, grain cart, feed wagon): <u>None</u>
  - c. Can client reach and activate feeding equipment controls independently? X Yes No
  - d. Can client carry out routine maintenance on feeding equipment?  $\chi$  Yes No

#### C. Beef

Does not apply\_\_\_\_

- 1. Facilities
  - a. Types of facilities (e.g., confinement building, feedlot, fenced pasture): *Fenced pasture*
  - b. Can client enter the facilities independently? X Yes No
  - c. Can client access/handle cattle for medical treatment, dehorning, etc.? X\_Yes \_\_\_\_No If no, describe the barriers: <u>Also hires veterinarian to assist</u>.
  - d. Methods of waste removal and building sanitation used and problems encountered: <u>Spread by</u> <u>the animals on pasture</u>.
  - e. Method used to load and transport cattle and problems encountered: <u>Corral and fifth-wheel</u> <u>livestock trailer</u>.
- 2. Feeding
  - a. Type of feeding system used: *Pasture, bailed hay, and self feeders*.
  - b. Describe any problems client encounters using various tools and equipment for feeding (e.g., shovel, pitchfork, bucket, scoop, grain cart, feed wagon): <u>Getting on and off tractor: using</u>

<u>brakes on tractor to move the hay. (Feed is delivered by local elevator.)</u>

- c. Can client reach and activate feeding equipment controls independently?  $\__Yes \__No N/A$
- d. Can client carry out routine maintenance on feeding equipment? X Yes No

H. Accessing outdoo	or livestock areas	Does not apply
	Type of latch/securing mechanism	Problems None
	used (e.g., electric, woven wire, barbed	wires, H.T. wire): <u>Woven wire and high-</u>
3. Can client acces	s outdoor livestock independently? X	_YesNo
4. Does client have	e access to an ATV or utility vehicle for o	outdoor mobility? X Yes No
VIII. DOMESTIC FAR	MANIMALS	
A. Farm dogs and ca	its	
1. Can client handl	e the dogs and/or cats for feeding, medi	ical treatment, etc.? X_YesNo
IX. ORCHARDS/WO	ODLOTS/GARDENS	
A. Orchards		Does not apply X
<b>B.</b> Woodlots		Does not apply
-	and the contribution woodlot makes to a the hogs, beef cattle, and alpacas	overall farm/ranch: <u>Serves as portion of</u> 5.
	6	nd harvesting timber (e.g., planting trees, trim- fficult to clear out fallen limbs.
C. Gardens		Does not apply
2		verall farm/ranch operation (e.g., family use, mily garden plus 2 acres of pumpkin.
		sks (e.g., soil preparation, spraying, cultivating er pumpkins and carry them very far
<u>to the wagor</u>	1.	
X. FARM MANAGEN	IENT ACTIVITIES	
A. Records maintena	ance Is client responsible for maintain	ing the business records? $\chi$ YesNo
	The be able to continue to do so? $\underline{X}$ Ye	e ···
B. Records compute	rization Are farm/ranch business reco	ords computerized? X YesNo
1. If yes, what type	e of system is being used? <u>Customize</u>	ed spread sheet.

- C. Sales/purchases Is client responsible for the business-related sales and purchases?  $\chi$  Yes \_\_\_\_No
- **D. Labor management** Is client responsible for hiring, training, supervising workers?  $\chi$ \_Yes \_\_\_No

#### **XI. ADDITIONAL VOCATIONAL SKILLS**

- A. Prior and current off-farm employment and experiences (and approximate dates)
  - 1. None
- **B. Military service, including technical training received** (and approximate dates)

None

#### C. Leadership skills and experience

- 1. Organization/civic involvements (e.g., agriculture-related organizations, Extension, 4-H, FFA, church, community groups): *Farm Bureau member*
- 2. Leadership positions held: Local F.B. policy committee member

#### D. Vocational interests other than farming (Describe)

None

#### **E. Education**

- 1. Highest high-school grade level client completed: 12
- 2. List any education and/or training client received after high school: <u>Pesticide/herbicide</u> <u>applicator certificate</u>

#### **XII. ESTABLISHING PRIMARY GOALS**

#### **A. Client-prioritized goal areas concerning worksite accessibility** (1 = highest priority):

- <u>1</u> Improve livestock handling abilities related to feeding methods, health-care needs, waste removal, and building sanitation.
- <u>2</u> Improve ability to effectively and safely use equipment and machinery, including accessing, operating, and maintaining equipment and hitching implements.
- <u>3</u> Improve ability to manage farm/ranch operation successfully, including maintenance of business records, sale and purchases, and labor management activities.
- <u>4</u> Identify an alternative farm enterprise that would better suit personal goals and abilities.

#### B. Long- and short-term objectives client wishes to establish in each priority goal area.

1. Goal area ranked No. 1: *Improve ability to safely/effectively use equipment/machinery*.

Long-term objectives

a. <u>Continue farming</u>

Short-term objectives

- a. *Continue farming*
- 2. Goal area ranked No. 2: *Improve ability to perform general maintenance activities*.

Long-term objectives

a. Continue farming

Short-term objectives

- a. Continue farming
- 3. Goal area ranked No. 3: Improve ability to manage farm operation successfully.

Long-term objectives

a. None

Short-term objectivesone

- a. Consult with a business counselor
- b. Attend workshops and seminars on the subject.
- 4. Goal area ranked No. 4: *Identify an alternative farm enterprise*

Long-term objectives

a. Increase diversification

Short-term objectives

a. Examine returns from present supplementary enterprises (i.e., maze and alpacas)

#### XIII. ADDITIONAL COMMENTS AND OBSERVATIONS

- 9/15 The Project conducted a VR assessment, recommending added steps and handrails for the tractors, hand controls for the brakes on all self-propelled machines, acquisition of a utility vehicle.
- 11/20 VR accepted the recommendation in the Project's report. Client should have the modifications made and utility vehicle acquired by Christmas.
- 3/22 Client shows a strong desire to remain in farming and is willing to explore unique alternative enterprises. He does thorough research before investing. His strength lies in production, not in marketing; thus, he relies on his wife for carrying out the marketing of the farm's products (i.e., all-natural beef and pork, corn maize, alpacas).
- 2/25 Client having additional health problems, along with his wife's health problems. He is contemplating renting the farm to a neighbor. He is also concerned with losing his health benefits and SSDI. Was referred to a Social Security benefits planner to see what his options are.
- 7/14 Client has decided to rent corn and soybean acreage to his neighbor but continue to operate the "specialty products" portion of his operation—i.e, corn maize, alpacas, all-natural (pasture-raised) beef and pork. He is essentially now working for his wife in order to protect his health and SSDI benefits.

## Agricultural Worksite Assessment Tool for Farmers and Ranchers with Physical Disabilities

(Client with Back Impairment)

#### I. PERSONAL DATA

#### A. About the client

B

Name: <i>Phillip Farmsted</i>	SSN: <u>XXX-XX-XXXX</u>	Sex: <u>M</u>
Marital status: <i>Divorced</i>	Name of spouse:	
Names and ages of children at home:	avid — 18	
Occupation: 		
. About client's disability		
1. Type of disability: Back impairment	t Date of injury/diagnos	is: <u>9/25/XX</u>
2. Describe cause of disability: <i>Fell off</i>	semi-trailer while loading corn. Had in	jured back
previously when feeding beef c	cattle and in preparing to show them at a	area fairs.
3. Functional limitations as described by c	client and/or referral source. (Include exact meas	surements if

3. Functional limitations as described by client and/or referral source. (Include exact measurements if known—e.g., Db of hearing loss; visual acuity; lifting limits; range of motion; specific limitations on standing, sitting, transferring, carrying, walking, bending, stooping, balance, etc.)

Restricted to lifting no more than 10 pounds.

4. Type of medical insurance (e.g., Medicare, Medicaid, Medicare supplement, commercial policy): <u>Med-Works (Medicaid insurance for workers with disabilities)</u>.

#### II. GENERAL FARM/RANCH DATA

A. Type and siz	e of operation	(Total acreage: 25 acres	_)
Dairy	head	Grains (types/acres):	
Hogs	head	<u>X</u> Forages (types/acres):	Pasture/hay (10 acres)
_X_Beef	<u>12*</u> head	X Specialty crops (types/ac	res): <i>Organic fruits/vegetables (10</i>
Sheep	head	Agri-business (type):	acres)
Poultry	flock	Other: <u>* Beef animals</u>	raised primarily for showing

#### B. Client farm/ranch responsibilities prior to disability

Manager of a large grain-livestock farm. (Responsibilities included: maintain machinery: sales/marketing: purchase inputs: plant/cultivate/harvest row crops: cut/bale/ store hay, and purchase/feed/process/show/sell beef cattle.)

#### C. Family members and others who assist on farm/ranch

Name	Relationship	Age	Responsibilities
David	Son	<u>18</u>	General farm labor

#### III. OVERALL FARM/RANCH ACCESSIBILITY

#### A. General terrain and any mobility-related problems encountered (Describe) <u>Rolling hills covered with grass</u>.

**B. Farmyard surfaces** Is areas around primary buildings surfaced and well-drained? \_\_\_\_Yes X\_No

Describe type of surface and mobility-related problems encountered: <u>Gravel lane to house</u>. <u>Grass</u> <u>in other areas</u>. <u>Sod drive to greenhouses</u>, which have dirt paths inside.

#### **IV. GENERAL FARM/RANCH MAINTENANCE**

#### A. The farm/ranch shop

- Can client enter the shop independently? X\_Yes \_\_\_\_No
   Describe any barriers (e.g., steps, narrow doorway, heavy door) and problems encountered:
   <u>Difficulty opening heavy door to shop area at rear of open-front shed</u>.
- 2. Type of floor the shop has (e.g., concrete, dirt, crushed stone) and any mobility-related problems encountered: *Crushed stone*.

3. Can client reach stationary power tools and service equipment? X Yes No

4. Can client perform maintenance tasks on the tool bench? X Yes No

- 5. Is the shop:
- heated for year-round use? \_\_\_\_Yes X\_No
- equipped with toilet facilities?
- adequately lighted?
  - adequately ventilated?
- equipped with telephone? \_\_\_\_Yes  $\underline{X}$ No
- equipped with first-aid kit? <u>X</u>Yes <u>No</u>

Yes X No

<u>X</u>Yes <u>No</u> <u>X</u>Yes <u>No</u>

• equipped with fire extinguisher? <u>X</u>Yes <u>No</u>

6. Is there a smooth or paved outside work area for large equipment? <u>Yes</u> X No

7. Are refueling areas accessible to client? X Yes No

#### **B.** Basic hand tools

1. Checkmark which hand tools client has difficulty using, and describe problems each presents:

Hand Tool	Problem
X Fence stretcher	Exerting enough force to get fence tight.
$\underline{X}$ Rake and shovel	Difficult bending over too long and picking up too much
X Pruning tools	material

#### C. Power tools

1. Checkmark the power tools client has difficulty using, and describe problems each presents:

Power Tool	Problem
X Power saw	Vibration activates back pain.
X Impact wrench	Vibration activates back pain.
X Portable grinder	Vibration activates back pain.
<u>X</u> Air tool/compressor	Vibration activates back pain.
X Chain saw	Too heavy to use.

#### D. Maintenance materials and supplies

1. Checkmark the maintenance items client has difficulty using, and describe problems each presents:

Maintenance Item	Problem
<u>X</u> Lumber	Lifting and carrying activates back pain.

#### **V. EQUIPMENT AND MACHINERY**

#### A. Machinery storage areas

- 1. Describe primary machinery storage areas (e.g., enclosed, open-shed, outdoors): <u>Machinery</u> <u>stored outside</u>
- 2. Can client enter machinery storage areas independently? X Yes No
- 3. Describe types of floors the machinery storage areas have (e.g., concrete, dirt, sand, crushed stone) and any mobility-related problems encountered: *Grass and dirt*.
- 4. Do the storage areas provide adequate space for the frequently used equipment?  $\chi$  Yes \_\_\_\_No
- 5. Are the storage areas conducive to hitching implements and performing service and maintenance tasks on equipment? \_\_\_\_Yes X\_No

If no, where are these tasks performed? <u>Because machinery stored outside, no repair or</u> maintenance performed when weather is inclement.

#### B. Most frequently used self-propelled equipment (e.g., tractor, combine, skid loader, other):

Machine	Make/Model	Cab- Heater/AC 2-way radio equipped? equipped?
1. Utility tractor	Kabota (35 hp)	
2. Roto-tiller	Troy-Bilt	

#### **C.** Accessing equipment

1. For the self-propelled units listed in B, describe any difficulties or potential safety hazard client faces when mounting or dismounting (e.g., maneuvering steps, opening cab door, access to seat), and any modifications that have been made:

Unit	Problems	Modifications
<u>Both</u>	No difficulties	

#### D. Equipment seating and transfer

1. Describe any difficulties related to equipment seating and transferring to the seat, and any modifications made to improve seating comfort and safety during operation and transfer.

Unit	Difficulty	Modifications
Both	No difficulties	

#### **E.** Equipment controls

1. For the self-propelled units the client uses most frequently, indicate which controls are difficult to reach or operate, describe specific problems, and identify any modifications that have been made.

a. Make and model: <u>Utility tractor/roto-tiller – no difficulties regarding controls.</u>

#### F. Hitching and unhitching implements

1. Identify implements client has difficulty hitching/unhitching; and describe modifications, if any:

Implement	Difficulties	Modifications
No implements		

- 2. Can client turn upper torso 90 degrees and head 90 degrees, and operate controls simultaneously while back up equipment? X Yes No
- 3. What type rearview mirrors does the equipment have, and where mounted? <u>None</u>
- 4. Can client connect/disconnect PTO drivelines independently? X\_Yes \_\_\_\_No
- 5. Can client connect/disconnect hydraulic couplings independently?  $\chi$  Yes No

#### G. Other barriers to operating equipment

- 1. Does client have a hearing impairment that would prevent him/her from hearing when equipment is operating or malfunctioning? X\_Yes \_\_\_No
- 2. Does client have a vision loss that results in poor depth perception or difficulty working in bright light or seeing at night? \_\_\_\_Yes X\_No

#### H. Equipment maintenance

1. Checkmark tasks client has difficulty performing; describe the problems and modifications, if any.

Task	Difficulties	Modifications
X_Make major repairs	Lifting heavy parts.	Hires repairs to be done.
X_Service/change tires	Lifting tires.	Hires tire servicing.
X_Other_Using hoist	Weight limit to lifting hoist	Has son do it.

#### **VI. CROP PRODUCTION**

#### A. Forages

Does Not Apply\_\_\_\_

1. If forage is produced, how is it handled (e.g., hay, silage, conventional bales, large round bales)? <u>Hay grown on 5 acres for cattle — Hires neighbor to cut and bale (conventional).</u>

- 2. Types of hay storage facilities used: Portion of open-front shed.
- 3. Can client access hay storage facilities and handle equipment independently? X Yes No

#### **B.** Grains

#### C. Other crops

1. List other major crops produced, and describe any accessibility problems in handling or storing:

Crops	Problems
Sweet corn	Endurance, bending, and lifting/carrying picked corn.
<u>Other vegetables</u>	Endurance and bending.
Strawberries	Endurance and bending.
Raspberries	Endurance and bending.

Does Not Apply X

Does Not Apply

#### **D.** Chemical application

1. Does client make the chemical applications? <u>Yes</u>  $X_{NO}$  *Produce organically grown* 

2. Is client certified to apply restricted-use chemicals? <u>Yes</u> X No

- 3. Is client able to access chemical storage area? \_\_\_\_Yes \_\_\_\_No N/A
- 4. Is client able to use all recommended personal protective gear (e.g., eye protection, respiratory protection) for each chemical he/she plans to use? <u>Yes</u> No *N/A*
- 5. Does client have access to local custom chemical applicators? \_\_\_\_Yes \_\_\_\_No \_\_\_N/A

#### **VII. LIVESTOCK PRODUCTION**

A. Dairy	Does not apply $X$
B. Hogs	Does not apply X_
C. Beef	Does not apply

- 1. Facilities
  - a. Types of facilities (e.g., confinement building, feedlot, fenced pasture): *Fenced pasture and* <u>open-front shed</u>.
  - b. Can client enter the facilities independently?  $\chi$  Yes \_\_\_\_No
  - c. Can client access/handle cattle for medical treatment, dehorning, etc.? X Yes No
  - d. Methods of waste removal and building sanitation used and problems encountered: <u>Spread by</u> <u>the animals on the pasture</u>.

e. Method used to load and transport cattle and problems encountered: Hires the hauling done.

2. Feeding

a. Type of feeding system used: *Pasture. In winter, hay delivered with tractor and frontend loader.* 

• •	roblems client encounters using vari ket, scoop, grain cart, feed wagon):	1 1	0 0
	h and activate feeding equipment co		
d. Can client carr	y out routine maintenance on feedin	ng equipment? X_Yes _	No
D. Sheep			Does not apply X
E. Horses			Does not apply <u>X</u>
F. Other livestock (Ide	ntify:	)	Does not apply <u>X</u>
G. Completing livesto	ck health care and production tas	sks	Does not apply
Task	tasks client has difficulty performing	Problems	
All tasks	<u>No difficulty in pe</u>	erforming any of the	se tasks.
H. Accessing outdoor	livestock areas		Does not apply
	Type of latch/securing mechanism <i>Chain</i>	Problem <u>Lifting to open</u>	
	sed (e.g., electric, woven wire, barb	<b>-</b> .	
3. Can client access	outdoor livestock independently?	X Yes No	_
4. Does client have a	access to an ATV or utility vehicle for	or outdoor mobility? X	YesNo
VIII. DOMESTIC FARM	IANIMALS		
A. Farm dogs and cats	š		
1. Can client handle	the dogs and/or cats for feeding, me	edical treatment, etc.? X	Yes <u>No</u>
IX. ORCHARDS/WOO	DLOTS/GARDENS		
A. Orchards			Does not apply $\underline{X}$
<b>B.</b> Woodlots			Does not apply <u>X</u>
C. Gardens			Does not apply
	nd the contribution orchard makes to cial production, roadside market): <u>L</u>	-	
table crops is	client's primary income sourc	<u>e. (Hires labor as ne</u>	eded.)
-	ent encounters in completing garden essing): Limited endurance, and al.		

#### X. FARM MANAGEMENT ACTIVITIES

- A. Records maintenance Is client responsible for maintaining the business records? X Yes \_\_\_\_No 1. If yes, will he/she be able to continue to do so? X Yes \_\_\_\_No
- **B. Records computerization** Are farm/ranch business records computerized? <u>X</u> Yes <u>No</u> 1. If yes, what type of system is being used? <u>Personalized spread sheets</u>
- C. Sales/purchases Is client responsible for the business-related sales and purchases? X Yes \_\_\_\_\_No
- **D. Labor management** Is client responsible for hiring, training, supervising workers? <u>X</u> Yes <u>No</u>

#### **XI. ADDITIONAL VOCATIONAL SKILLS**

A. Prior and current off-farm employment and experiences (and approximate dates)

1. Employed by Independent Living Center (XXXX-XXXX)

- B. Military service, including technical training received (and approximate dates)
  <u>None</u>
- C. Leadership skills and experience
  - 1. Organization/civic involvements (e.g., agriculture-related organizations, Extension, 4-H, FFA, church, community groups): *Church, county 4-H Club program*
  - 2. Leadership positions held: <u>Church deacon, 4-H Club adult leader</u>
- D. Vocational interests other than farming (Describe)
  - None

#### **E. Education**

- 1. Highest high-school grade level client completed: <u>12</u>
- 2. List any education and/or training client received after high school: <u>Basic computer training</u> <u>course at nearby community college</u>.

#### **XII. ESTABLISHING PRIMARY GOALS**

#### A. Client-prioritized goal areas concerning worksite accessibility (1 = highest priority)

- <u>2</u> Improve ability to effectively and safely use equipment and machinery, including accessing, operating, and maintaining equipment and hitching implements.
- <u>1</u> Improve ability to perform general maintenance activities around farm/ranch, including effective use of hand tools, power tools, and maintenance materials.
- <u>3</u> Improve ability to manage farm/ranch operation successfully, including maintenance of business records, sale and purchases, and labor management activities.

- **B.** Long- and short-term objectives client wishes to establish in each priority goal area. (*Add extra* pages as necessary.)
  - 1. Goal area ranked No. 1: Improve ability to perform general maintenance activities.

Long-term objectives

a. <u>Hire labor to perform expanded maintenance activities</u>

b. Spend majority of time managing the business.

Short-term objectives

a. Pace work better.

b. Acquire and use stress-reducing tools.

2. Goal area ranked No. 2: *Improve ability to safely/effectively use equipment/machinery*.

#### Long-term objectives

a. *Hire labor to operate additional acquired equipment/machinery.* 

b. <u>Spend majority of time managing the business.</u>

Short-term objectives

a. Acquire and use stress-reducing equipment.

3. Goal area ranked No. 3: *Improve ability to manage operation successfully.* 

Short-term objectives

a. Acquire business-management training.

#### XIII. ADDITIONAL COMMENTS AND OBSERVATIONS

- 2/25 Client contacts the Project and Independent Living Center for information concerning employment options and information on health insurance.
- 3/1 Project staff meets with client to explore his want and desires and his abilities.
- 4/1 Client signs on as employee of Independent Living Center with emphasis on farmers.
- 2/14 Client approaches the Project with intent to start an organic produce business. The Project works with him to develop a business plan.
- 6/10 Project staff meets with client and a friend to map potential markets for his business.
- 8/29 Client meets with VR to open case and start small business enterprise program.

10/15 Client submits initial draft of business plan.

2/5 Client re-submits revised business plan.

5/5 VR approves client's business plan for funding.

6/15 Client launches his organic produce business.

Note: Client is planning for business to grow to the point where most of his time will be spent managing the operation and the hired labor as well as marketing his products.

# Chapter 7 Related Resources

#### Resources Related to Farm/Ranch Accessibility from the Breaking New Ground Resource Center

Agricultural and Biological Engineering Dept. Purdue University, 225 South University Street West Lafayette, IN 47907 Phone: 800-825-4264 E-mail: <u>bng@ecn.purdue.org</u> Web: www.breakingnewground.info

#### The Toolbox

This is the third print edition of *Agricultural Tools*, *Equipment, Machinery, and Buildings for Farmers and Ranchers with Physical Disabilities*. More than 600 products and ideas to assist agricultural workers with disabilities are included. Each contains a description, the method of operation, a source to contact, and a photo (when available). Also includes revised worksite assessment tool, case studies, and resource lists.

#### The Toolbox CD

Based on the print version of *The Toolbox*, this CD contains updated product descriptions, photos, and contact information, plus video clips, new product fact sheets, the Barn Builders peer support network directory, and other valuable resources. Fact sheets are linked for easy navigation.

#### Arthritis and Agriculture

Developed in conjunction with The Arthritis Foundation, Indiana Chapter, this publication discusses such topics as the common types of arthritis, managing arthritis, unproven arthritis remedies, and sources of assistance.

#### Modified Agricultural Equipment

This 322-page manual contains summaries and evaluations of 27 modified self-propelled agricultural

machines equipped with manlifts. Each summary includes a description of the construction, operation, control modifications, accessories, estimated costs, and adaptability of modifications, plus service and maintenance requirements.

#### **Enterprising Ideas**

This manual contains 31 case histories of rural residents with disabilities who have developed alternative, farm-based enterprises (income-producing ventures). Each case discusses the enterprise, the resources and skills required for the venture and the assistive technology used by the farmer. "Enterprising Ideas" is appropriate for rural rehabilitation professionals as well as farmers considering a change in enterprise.

#### **Plowshares Special Technical Reports**

The following Plowshares Technical Reports relate to farming/ranching with a physical limitation.

- #2—"Hand Controls for Agricultural Equipment"
- #3—"Prosthetic and Worksite Modifications for Farmers with Upper Extremity Amputation"
- #4—"Purdue-Designed Chairlift Attachments for Farmers with Restricted Mobility"
- #5—"Selection and Operation of All-Terrain Vehicles by Physically Impaired Farmers"
- #6—"Farming Following a Spinal Cord Injury"
- #8—"New Concepts in Manlift Attachments for Tractors and Combines"
- #9—"Improving Worksite Mobility for Farmers with Physical Disabilities"
- #10—"Alternative Farm Enterprises for Farmers with Disabilities"
- #11—"Guidelines for Construction of Ramps Used in Rural Settings"
- #13—"Farming with a Visual Impairment"
- #16—"Assistive Communication Devices for Farmers/Ranchers with Physical Disabilities"
- #17—"Farming/Ranching with Cerebral Palsy"

#### (Plowshares Special Technical Reports continued)

- #19--- "Making Your Farmhouse Accessible"
- #20--- "Farming with a Respiratory Impairment"
- #23—"Farming with a Hearing Impairment"
- #24—"Farming with a Lower Extremity Amputation or Impairment"
- #26—"Farming with a Back Impairment"
- #27—"Potential Health and Safety Risks of Farming/Ranching with a Disability"

# Farming With An Upper Extremity Amputation (Video)

This video features ideas and encouragement from farmers with arm amputations who have continued to successfully farm after their injury. It also contains useful advice and techniques from family members and health professionals familiar with prosthetics and the severe conditions associated with farm work. Farm machinery and tool modifications which can assist a farmer with an amputation are also addressed.

#### Improving Farmstead Accessibility

This guide provides help to rehabilitation service providers in identifying accessibility concerns around the home and the farmstead. The resource can help in developing solutions for farmstead layout, home accessibility, accessibility for gardens and orchards, farm shop accessibility, and general accessibility and safety.

#### Making Career Decisions Following a Disability —A Guide for Farmers & Ranchers

The purpose of this resource is to provide rural professionals with practical materials (over 20 handouts, worksheets, sample cover letters, and resumes) for helping farmers and ranchers make career decisions. The chapters address the agricultural lifestyle, prevalence of disabilities, the role of the professional, identifying resources, self-assessment, tools for the job search, the ADA, and assistive technology for employers and employees. Pages of additional resources are also included.

# Additional Resources Related to Farming with a Disability

National AgrAbility Project Phone: 866-259-6280 Web: <u>www.agrabilityproject.org</u>

The National AgrAbility Project web site contains a variety of materials concerning disability in agriculture. Included are fact sheets, newsletters, and an online database of assistive technology products.

#### Resources Related to Farm/Ranch Planning and Safety

#### MidWest Plan Service Publications

MidWest Plan Service Iowa State University, 122 Davidson Hall Ames, Iowa 50011-3080 Phone: 800-562-3618 or 515-294-4337 Fax: 515-294-9589 E-mail: <u>mwps@iastate.edu</u> Web: <u>www.mwpshq.org</u>

While not directly addressing worksite accessibility for those with physical disabilities, these publications provide numerous ideas that have proven to make life easier, more comfortable, and more profitable for farm and ranch families.

#### The House Handbook

Farmstead Planning Handbook CD Home & Yard Improvement Handbook Swine Housing & Equipment Handbook Beef Housing & Equipment Handbook Dairy Housing & Equipment Systems Farm Shop Plans Book

#### Farm and Ranch Safety Management

Deere & Company—Contact your local John Deere dealer. Also available from Hobar Publications at 800-846-7027.

A comprehensive treatment on safety in the agricultural workplace, these materials cover such topics as the human factors, recognizing potential hazards, understanding the causes of accidents, and preventive measures.

#### Key Resource People in Rural Communities

Every rural community has persons who can make significant contributions to improving the accessibility of an agricultural worksite. Utilizing their knowledge and talents in the rehabilitation process has numerous benefits in addition to being cost effective. Among these resource people are the following:

- County Extension educator
- Agriculture education teacher
- Farm implement dealer
- Local welder or machine shop owner
- Agriculture department staff of local community college or area vocational center
- Local representatives of farm organizations

# Appendix

## Reproducible Forms

Agricultural Worksite Assessment Tool	A-1
Telephone Contact Form	A-25
Information Release Form	A-27
Photo/Video Release Form	A-27
Service Referral Form	A-29

## Other

Supplier Listing of Products Pictured in this Resource A-31
Farm Assistance Hotlines A-33

Completed by:	

Date:\_\_\_\_\_

## Agricultural Worksite Assessment Tool for Farmers and Ranchers with Physical Disabilities

#### I. PERSONAL DATA

		SSN:		Sex
Address:			County:	
City/State/Zip:			Date of birth:/_	/
Phone:	Cell Phone:		Fax:	
E-mail:				
Directions to farm/ranc	ch:			
Marital status:	Name of spor	use:		
	dren at home:			
Part-time farmer/r	ancher with primary income from ancher with primary income from f farm/ranch familyAdu byeeSea	n off-farm/rand ilt dependent of isonal Worker	farm/ranch family	
Agricultural busin				
Agricultural busin				
Agricultural busin Other: About client's disabilit				

Type of medical	insurance (e.g.	, Medicare, Medicaid, Medicare supplement, commercial policy):
		, medicale, medicala, medicale supprement, commercial poney).
ERAL FARM	RANCH DA	ΓΑ
pe and size of	operation (T	Total acreage:   )
-	-	Total acreage:      )        Grains (types/acres):      )
_Dairy	head	Grains (types/acres):
_Dairy _Hogs	headheadheadhead	Grains (types/acres): Forages (types/acres):
_Dairy _Hogs _Beef	headheadheadheadheadheadhead	Grains (types/acres): Forages (types/acres): Specialty crops (types/acres):
_Dairy _Hogs _Beef _Sheep	headheadheadheadheadheadhead	Grains (types/acres): Forages (types/acres):
_Dairy _Hogs _Beef _Sheep _Poultry	headheadheadheadheadheadheadheadheadheadflock	Grains (types/acres): Forages (types/acres): Specialty crops (types/acres): Agri-business (type): Other:
_Dairy _Hogs _Beef _Sheep _Poultry	headheadheadheadheadheadheadheadheadheadflock	Grains (types/acres): Forages (types/acres): Specialty crops (types/acres): Agri-business (type):

#### C. Family members and others who assist on farm/ranch

Name	Relationship	Age	Responsibilities

#### III. OVERALL FARM/RANCH ACCESSIBILITY

A. General terrain (e.g. hilly, flat, rocky, woody)and any mobility-related problems encountered

П.

<b>B.</b> Farmyard surfaces	Are areas around primary buildings sur	rfaced and well-drained?Yes
Describe type of sur	face and mobility-related problems encour	ntered:
GENERAL FARM/	RANCH MAINTENANCE	
A. The farm/ranch sho	qq	
1. Can client enter th	ne shop independently?YesNo	
Describe any bar	riers (e.g., steps, narrow doorway, heavy d	oor) and problems encountered:
	hop has (e.g., concrete, dirt, crushed stone	
	tationary power tools and service equipme	
-	n maintenance tasks on the tool bench? _	
5. Is the shop:	• heated for year-round use?	YesNo
-	• equipped with toilet facilities?	YesNo
	<ul> <li>adequately lighted?</li> </ul>	YesNo
	• adequately ventilated?	YesNo
	• equipped with telephone?	YesNo
	<ul><li>equipped with first-aid kit?</li><li>equipped with fire extinguisher?</li></ul>	YesNo YesNo
6. Is there a smooth	or paved outside work area for large equi	
	is accessible to client?YesNo	
B. Basic hand tools		
1. Checkmark which	hand tools client has difficulty using, and c	lescribe problems each presents:
Hand Tool		Problem
Sockets and	rachet	
Wrench		
Hammer		
I IaiiiiiiCi		

Pliers (reg./locking)	
Punch and chisel	
File	
Knife	
Hand saw	
Fence stretcher	
Tap and die set	
Pry bar	
Hand drill	
Grease gun	
Hand air pump	
Vise and C-clamp	
Rake and shovel	
Pruning tools	
Other	

#### C. Power tools

1. Checkmark the power tools client has difficulty using, and describe problems each presents:

Power Tool	Problem
Power saw	
Impact wrench	
Power drill	
Portable grinder	
Bench grinder	
Air tool/compressor	
Chain saw	
Wood trimmer	
Electric welder	
Other	

#### D. Maintenance materials and supplies

1. Checkmark the maintenance items client has difficulty using, and describe problems each presents:

Maintenance Item	Problem
Nuts and bolts	

Nails/screws/staples	
Spray solvent	
Lumber	
Glue	
Wire	
Paint and brushes	
Sandpaper	
Welding rod	
Lubricants	
Chains	
Belts	
Other	

### V. EQUIPMENT AND MACHINERY

#### A. Machinery storage areas

1. Describe primary machinery storage areas (e.g., enclosed, open-shed, outdoors):

2. Can client enter machinery storage areas independently? \_\_\_\_Yes \_\_\_\_No If no, describe the barriers: \_\_\_\_\_

3. Describe types of floors the machinery storage areas have (e.g., concrete, dirt, sand, crushed stone) and any mobility-related problems encountered:

4. Do the storage areas provide adequate space for the frequently used equipment? \_\_\_\_Yes \_\_\_\_No \_\_\_\_\_Yes \_\_\_\_\_No \_\_\_\_NO \_\_\_NO \_\_\_NO \_\_\_\_NO \_\_\_\_NO \_\_\_\_NO \_\_\_\_NO \_\_\_NO \_\_\_NO \_\_\_\_NO \_\_\_\_NO \_\_\_NO \_\_NO \_\_\_NO \_\_\_NO \_\_\_NO \_\_\_NO \_\_\_NO \_\_NO \_

5. Are the storage areas conducive to hitching implements and performing service and maintenance tasks on equipment? \_\_\_\_Yes \_\_\_\_No If no, where are these tasks performed? \_\_\_\_\_

B. Most frequently used self-pro	pelled equipment (	e.g., tractor, combine	, skid loader, other):
----------------------------------	--------------------	------------------------	------------------------

Machine	Make/Model	Cab equipped?	Heater/AC equipped?	2-way radio equipped?
1				
2				
3				
4.				
5.				

#### C. Accessing equipment

1. For the self-propelled units listed in B, describe any difficulties or potential safety hazard client faces when mounting or dismounting (e.g., maneuvering steps, opening cab door, access to seat), and any modifications that have been made:

Unit	Problems	Modifications
1		
2		
3		
4		
5		

#### D. Equipment seating and transfer

1. Describe any difficulties related to equipment seating and transferring to the seat, and any modifications made to improve seating comfort and safety during operation and transfer.

Unit	Difficulty	Modifications
1		
2		
3.		
4.		
5.		

#### **E.** Equipment controls

1. For the self-propelled units the client uses most frequently, indicate which controls are difficult to reach or operate, describe specific problems, and identify any modifications that have been made.

a. Make and model:	
Control	Difficulties and modifications
Steering	
Clutch	
Brakes	

Throttle (hand or foot)	
Ignition/accessory switches	
Hydraulic remotes/levers	
Differential lock	
Other	
b. Make and model:	
Control	Difficulties and Modifications
Steering	
Clutch	
Brakes	
_	
Power-take-off control	
Differential lock	
Other	
c. Make and model:	
Control	Difficulties and Modifications
Steering	
Clutch	
Brakes	
Throttle (hand or foot)	
Ignition/accessory switches	
Transmission speed selector	
Power-take-off control	
Hydraulic remotes/levers	
Differential lock	
Other	
Control	Difficulties and Modifications
Steering	
Clutch	
Brakes	

Throttle (hand o	r foot)	
Ignition/accesso	ory switches	
Transmission sp	eed selector	
Power-take-off	control	
Hydraulic remo	400 100000	
Differential lock		
Other		
F. Hitching and unhitchin	g implements	
1. Identify implements cl	ient has difficulty hitching/unhitchin	g and describe modifications, if any:
Implement	Difficulties	Modifications

2. Can client turn upper torso 90 degrees and head 90 degrees, and operate controls simultaneously while backing up equipment? \_\_\_\_Yes \_\_\_\_No

\_\_\_\_\_

\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If no, explain how he/she compensates: \_\_\_\_\_

3. What type rearview mirrors does the equipment have, and where mounted?

\_\_\_\_\_

- 4. Can client connect/disconnect PTO drivelines independently? \_\_\_\_Yes \_\_\_\_No If not, explain how he/she compensates: \_\_\_\_\_\_
- 5. Can client connect/disconnect hydraulic couplings independently? \_\_\_Yes \_\_\_No If not, explain how he/she compensates:\_\_\_\_\_

#### G. Other barriers to operating equipment

- 1. Does client have a hearing impairment that would prevent him/her from hearing when equipment is operating or malfunctioning? \_\_\_\_Yes \_\_\_\_No
- 2. Does client have a vision loss that results in poor depth perception or difficulty working in bright light or seeing at night? \_\_\_\_Yes \_\_\_\_No \_\_\_\_YES \_\_\_\_\_NO \_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_NO \_\_\_\_\_YES \_\_\_\_\_NO \_\_\_\_\_YES \_\_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_YES \_\_\_\_YES \_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_YES \_\_\_\_YES \_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES \_\_\_\_YES \_\_\_\_YES \_\_\_\_YES \_\_\_\_YES \_\_\_\_YES \_\_\_\_YES \_\_\_\_YES \_\_\_\_\_YES \_\_\_\_YES \_\_\_\_\_YES \_\_\_\_YES \_\_\_\_YES \_\_\_\_\_YES \_\_\_\_\_YES

#### H. Equipment maintenance

1. Checkmark tasks client has difficulty performing; describe the problems and modifications, if any.

Task	Difficulties	Modifications
Fueling		
Change oil/filters		
Lubricate		
Make major repairs		
Make adjustments		
Service/change tires		
Other		

#### **VI. CROP PRODUCTION**

#### A. Forages

Does not apply

1. If hay is produced, how is it handled (e.g., hay, silage, conventional bales, large round bales)?

- 2. Types of hay storage facilities used:
- 3. Can client access hay storage facilities and hande equipment independently? \_\_\_Yes \_\_\_No If no, why not? \_\_\_\_\_

#### **B.** Grains

Does not apply\_\_\_\_

1. Types of grain storage facilities used (e.g., grain bin, corn crib, commercial elevator):\_\_\_\_\_

2. Can client access grain storage facilities independently? \_\_\_Yes \_\_\_No If no, why not? \_\_\_\_\_

3. Types of grain handling equipment used (e.g., auger, dump pit, center leg, pneumatic):

4. Does client have access to the grain handling equipment? \_\_\_\_Yes \_\_\_\_No If no, why not? \_\_\_\_\_

Crops	produced, and describe any accessibility problems in handling or storing: <b>Problems</b>
Chemical application	<i>Does not apply</i> hemical applications?YesNo
	ply restricted-use chemicals?YesNo
3. Is client able to access	chemical storage area?YesNo rtiers:
tion) for each chemic	recommended personal protective gear (e.g., eye protection, respiratory pro al he/she plans to use?YesNo
	ss to local custom chemical applicators?YesNo
LIVESTOCK PRODU	CTION
LIVESTOCK PRODU . Dairy	
LIVESTOCK PRODU . Dairy 1. Facilities	CTION
LIVESTOCK PRODU . Dairy 1. Facilities a. Type of dairy housin	CTION Does not appl
LIVESTOCK PRODU . Dairy 1. Facilities a. Type of dairy housin b. Type of milking fac c. Can client enter bar	CTION Does not apply ng (e.g., free-stall, stanchion, tie-stall):

Method used to herd or move cows into milking facility:
eding Type of feeding system used:
Describe any problems client encounters using various tools and equipment for feeding (e.g., shov pitchfork, bucket, scoop, grain cart, feed wagon):
Can client reach and activate feeding equipment controls independently?YesNo If no, describe the barriers:
Can client carry out routine maintenance on feeding equipment?YesNo If no, describe the barriers:
Does not apply_
cilities
Types of facilities (e.g., confinement building, open-front shelter, farrowing house, pasture):
Can client enter the facilities independently?YesNo If no, describe the barriers:
Can client access/handle hogs for medical treatment, weighing, castration, etc.?YesNo If no, describe the barriers:

e. Method used to load	and transport hogs and	problems encountered:

2	Feed	lino
4.	1 000	шs

a. Type of feeding system used:

b. Describe any problems client encounters using various tools and equipment for feeding (e.g., shovel, pitchfork, bucket, scoop, grain cart, feed wagon): \_\_\_\_\_\_

- d. Can client carry out routine maintenance on feeding equipment? \_\_\_\_Yes \_\_\_\_No If no, describe the barriers: \_\_\_\_\_

#### C. Beef

Does not apply\_\_\_\_

#### 1. Facilities

- a. Types of facilities (e.g., confinement building, feedlot, fenced pasture):\_\_\_\_\_
- b. Can client enter the facilities independently? \_\_\_Yes \_\_\_No If no, describe the barriers: \_\_\_\_\_

c. Can client access/handle cattle for medical treatment, dehorning, etc.? \_\_\_\_Yes \_\_\_\_No If no, describe the barriers:

d. Methods of waste removal and building sanitation used and problems encountered:\_\_\_\_\_

e. Method used to load and transp	port cattle and problems of	encountered:
-----------------------------------	-----------------------------	--------------

	eding . Type of feeding system used:
b.	. Describe any problems client encounters using various tools and equipment for feeding (e.g., sh pitchfork, bucket, scoop, grain cart, feed wagon):
c.	. Can client reach and activate feeding equipment controls independently?YesNo If no, describe the barriers:
d.	. Can client carry out routine maintenance on feeding equipment?YesNo If no, describe the barriers:
Shee	
	cilities . Types of handling facilities (e.g., fenced pasture, shed, sheep yards):
b.	. Can client enter and operate within the facilities independently?YesNo If no, describe the barriers:
c.	. Can client handle sheep for medical treatment, drenching, etc.?YesNo If no, describe the barriers:
1	. Can client load and unload sheep for transport?YesNo

e. Methods of waste removal and building sanitation used and problems encountered:\_\_\_\_\_

a.	Type of feeding system used and problems encountered:
b.	Describe any problems client encounters using various tools and equipment for feeding (e.g., shov pitchfork, bucket, scoop, grain cart, feed wagon):
3. Sh	earing
a.	Describe any problems client encounters shearing, such as mustering and penning:
h	Can client use shearing and handling equipment?YesNo
0.	If no, describe the barriers:
	Does client use a trained sheep dog?YesNo
Hors	Doog not annly
1 Fa	11 9-
	cilities Types of handling facilities used (e.g., fenced pasture, corrals, box stalls, exercise yard):
a.	cilities
a. b.	cilities Types of handling facilities used (e.g., fenced pasture, corrals, box stalls, exercise yard): Can client operate within the facilities independently?YesNo
a. b. c.	<pre>river and the set of the set</pre>

#### 2. Feeding

a. Type of feeding system used and problems encountered:

	pitchfork, bucket, scoop, grain cart, feed wagon):
. Sa	ddles and harnesses
a.	Describe problems client encounters saddling his/her horse:
b.	Can client independently mount his/her horse?YesNo If no, describe the barriers:
c.	Can client independently harness horse to use with trailing implement/vehicle?YesNo If no, describe the barriers:
.Fa	r livestock (Identify:) Does not apply cilities Types of facilities used:
a.	
b.	Can client enter and work in the facilities independently?YesNo If no, describe the barriers:
c.	Can client access and handle the animals independently?YesNo If no, describe the barriers:

2.	Feeding
----	---------

a. Type of feeding system used: \_\_\_\_\_

b. Describe any problems client encounters using vario	ous tools and equipment for feeding (e.g., shovel,
pitchfork, bucket, scoop, grain cart, feed wagon):	

# G. Completing livestock health care and production tasks

Does not apply\_\_\_\_

1. Check those tasks client has difficulty performing, and describe the problems they present:

Task Veccinating		Problems		
Vaccinating Artificial insem				
Dehorning				
Drenching				
Hoof trimming	Ţ			
Teeth clipping				
Insecticide spr				
Ear tagging				
Castrating				
Loading to tra	nsport			
Other				
ccessing outdoor l			Does not apply_	
. Gates		Problems	Does not apply_	
. Gates	ivestock areas			
. Gates Type of gate	ivestock areas Type of latch/securing mechanism			
. Gates Type of gate	ivestock areas Type of latch/securing mechanism	ires, H.T. wire):		
. Can client access or	ivestock areas Type of latch/securing mechanism	ires, H.T. wire): /esNo		

# 4. Does client have access to an ATV or utility vehicle for outdoor mobility? \_\_\_\_Yes \_\_\_\_No

# **VIII. DOMESTIC FARM ANIMALS**

### A. Farm dogs and cats

1. Can client handle the dogs and/or cats for feeding, medical treatment, etc.?	Yes _	No
If no, describe the barriers:		

# IX. ORCHARDS/WOODLOTS/GARDENS

### A. Orchards

- 1. Describe the layout and the contribution orchard makes to overall farm/ranch operation (e.g., family use, U-pick, commercial production, roadside market): \_\_\_\_\_
- 2. Describe problems client faces in completing orchard maintenance and fruit harvesting (e.g., spraying, pruning, harvesting, processing, transporting):

### **B. Woodlots**

- 1. Describe layout and the contribution woodlot makes to overall farm/ranch:
- 2. Describe problems client faces in maintaining woodlot and harvesting timber (e.g., planting trees, trimming trees, splitting firewood, transporting timber):

# C. Gardens

### Does not apply\_\_\_\_

1. Describe layout and the contribution garden makes to overall farm/ranch operation (e.g., family use, U-pick, commercial production, roadside market):

Does not apply\_\_\_\_

Does not apply\_\_\_\_

2. Note problems client encounters in completing garden tasks (e.g., soil preparation, spraying, cultivating harvesting, processing):
X. FARM MANAGEMENT ACTIVITIES
A. Records maintenance Is client responsible for maintaining the business records?YesNo
1. If yes, will he/she be able to continue to do so?YesNo
2. If no, who will do it?
<b>B. Records computerization</b> Are farm/ranch business records computerized?YesNo 1. If yes, what type of system is being used?
2. If no, is computerization being considered?YesNo
C. Sales/purchases Is client responsible for the business-related sales and purchases?YesNo 1. If no, who is responsible?
<b>D. Labor management</b> Is client responsible for hiring, training, supervising workers?YesNo 1. If no, who is responsible?
XI. ADDITIONAL VOCATIONAL SKILLS

## A. Prior and current off-farm employment and experiences (and approximate dates)

1	 		
2			
3.			
4.			
5.			
0		 	

B. Military service, including technical training received (and approximate dates)

# C. Leadership skills and experience

1. Organization/civic involvements (e.g., agriculture-related organizations, Extension, 4-H, FFA, church, community groups):\_\_\_\_\_

2. Leadership positions hel	d:
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D.	Vocational	interests	other	than	farm	ing (	Describe	e)
	vocutional		ound	unun	14111		Deserio	~,

#### **E. Education**

- 1. Highest high-school grade level client completed:
- 2. List any education and/or training client received after high school:

# **XII. ESTABLISHING PRIMARY GOALS**

A.	Goal areas	s concerning w	orksite ad	cessibility p	rioritized l	ov client (	1 = highest	priority):

- \_\_\_\_ Improve overall mobility or accessibility around farmyard, buildings, and fields.
- \_\_\_\_ Improve livestock handling abilities related to feeding methods, health-care needs, waste removal, and building sanitation.
- \_\_\_\_ Improve ability to effectively and safely use equipment and machinery, including accessing, operating, and maintaining equipment and hitching implements.
- \_\_\_\_ Improve ability to perform general maintenance activities around farm/ranch, including effective use of hand tools, power tools, and maintenance materials.
- \_\_\_\_ Improve ability to manage farm/ranch operation successfully, including maintenance of business records, sales and purchases, and labor management activities.
- \_\_\_\_\_ Identify an alternative farm enterprise that would better suit personal goals and abilities.
- \_\_\_\_Obtain part- or full-time off-farm employment.
- \_\_\_\_ Others \_\_\_\_\_

# **B.** Long- and short-term objectives client wishes to establish in each priority goal area. (*Add extra* pages as necessary.)

1. Goal area ranked No. 1:\_\_\_\_\_

Long-term objectives

a.\_\_\_\_

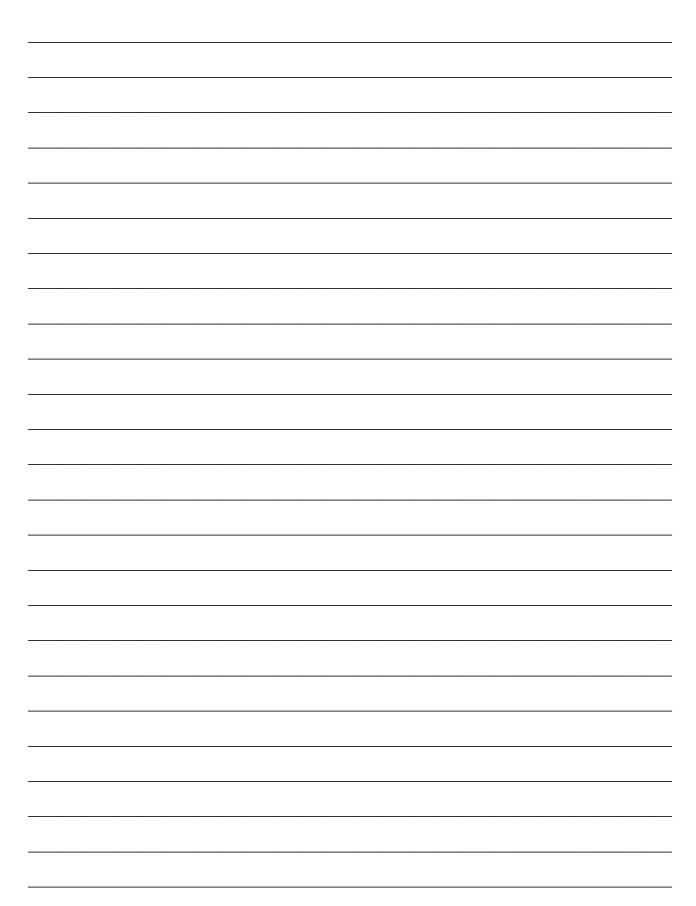
b		
c		
d.		
u		
а	Short-term objectives	
b		
C		
2. Goal area ranked N	o. 2:	
	Long-term objectives	
a		
b		
u		
	Short-term objectives	
a	Short-term objectives	
<u> </u>	·	
b		
b c		

3. Goal area ranked	io. 3:	
	Long-term objectives	
b		
C		
d		
	Short-term objectives	
c		
d		
	To. 4: Long-term objectives	
c		
u		
	Short-term objectives	
a		
b.		
c		
d		

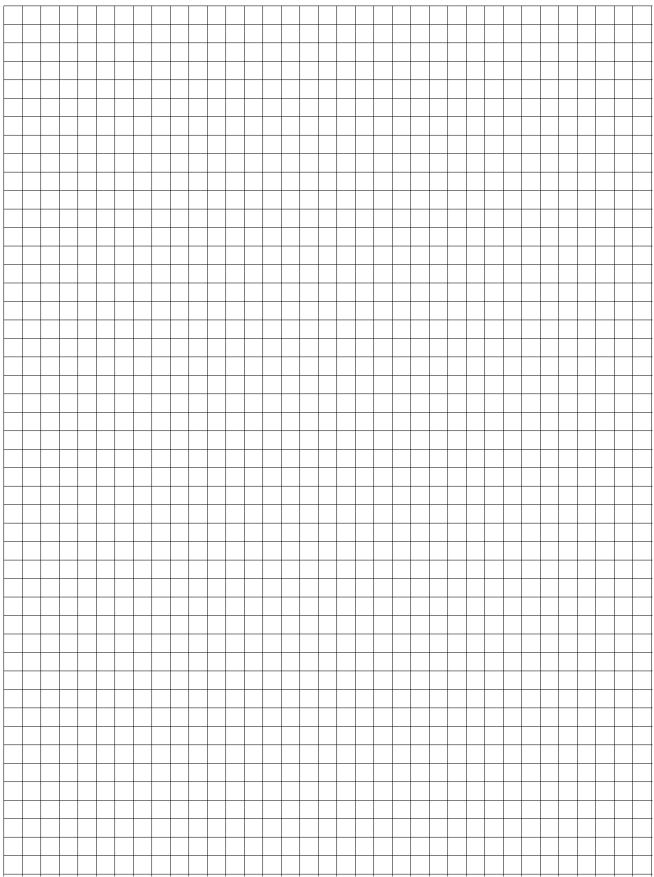
5. Goal area rank	xed No. 5:
	Long-term objectives
a	
b	
c	
d	
	Short-term objectives
a	
b	
c	
d	

# XIII. ADDITIONAL COMMENTS AND OBSERVATIONS

A-22



# XIV. FARMSTEAD LAYOUT



Completed by:_	Comp	oleted	by:
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Date:\_\_\_\_\_

# **Telephone Contact Form**

Name:	SSN:	Sex:
Address:		County:
City/State/Zip:		Date of birth://
Phone:	Fax: E-r	nail:
Marital status:	Name of spouse:	
Names and ages of children a	t home:	
Type of disability:		Date of injury/diagnosis:
Cause of disability:		
Description of disability/limit	ations:	
Self referral? Second- Primary income source(s):	-party referral (by whom)?	
Education/professional trainin	ng (what/when):	
Follow-up actions/recommend	lations:	
Mail	Visit/assessment	Referral
	Purpose:	
Publications (list)?		
		Facility:
Products/modifications:	When:	
	Where:	Health office:
		Other:
	I	

# **Information Release Form**

I do hereby grant permission to	, its agents,
and others working under its authority, full and	l free use of the following information about myself:
	·
	ed for ( <i>check all that apply</i> ):promotional,news, erral purposes . Further, I hereby release, discharge, and hold
	any and all claims, demands, or causes of action that I may
, e	ed in the information released. Also, I do certify that I am of
legal age or possess full legal capacity to exec	
Subject's Name (print):	Signature:
Address:	Date:
If the subject is a minor, the following is	required of the Parent or Guardian—
Name (print):	Signature:
Address (if different from subject's):	

# **Photo/Video Release Form**

\_\_\_\_\_\_

I do hereby grant permission to	, its agents,
and others working under its authority, full and free use of	f photographs and/or videotaped footage that
contains my image or likeness. I understand that these in	mages may be used for (check all that apply):
promotional,news,research,educational	
and hold harmless the above entity and its agents from any	
I may hereafter have, by reason of anything contained in t	
am of legal age or possess full legal capacity to execute for	r foregoing authorization and release.
Subject's Name (print):	_Signature:
Address:	Date:
If the subject is a minor, the following is required of	f the Parent or Guardian—
Name (print):	Signature:
Address (if different from subject's):	

Completed I	by:
-------------	-----

Date:

# **Service Referral Form**

Name:	SSN:	Sex:
Address:	County:	
City/State/Zip:	Date of birth:	//
	E-mail:	
Marital status:	Name of spouse:	
Names and ages of children at home:_		
Type of disability:	Date of injury/diagnosis:	
Cause of disability:		
•	client and/or referral source. (Include exact measurement fting limits; range of motion; specific limitations on standin oping, balance, etc.):	
Primary income source(s):		
Recipient of public assistance?Ye	esNo If yes, type(s):	
Education/professional training (what/	/when):	
Work history—Employer name, job titl	le, begin/end dates (List present situation first):	
2		
3		
4		
5.		
Service(s) requested:		
· · · · · · · · · · · · · · · · · · ·		

# **Supplier Listing of Products Pictured in this Resource**

These and other assistive technology products are featured in *The Toolbox* and *The Toolbox CD*, produced by the Breaking New Ground Resource Center. See page 82 for more information.

#### Page 9

Journeyman Scooter Life Essentials 8796 South US Highway 231 Brookston, IN 47923 Ph.: 765-742-6707 E-mail: <u>info@life-essentials.net</u> Web: <u>www.life-essentials.net</u>

#### Page 10

Tool Caddy Idea from John Wyrill III Kirwin, KS 67644 Ph.: 785-543-6665

#### Page 11

Hayden-Preston Prosthetic Hand Tool System Texas Assistive Devices, LLC 9483 County Road 628 Brazoria, TX 77422 Ph.: 800-532-6840 or 979-798-1185 E-mail: <u>hps@mail.n-abler.org</u> Web: www.n-abler.org

#### Page12

Hydroswing Overhead Door Cottonwood Welding & Manufacturing, Incorporated Box 15 Cottonwood, MN 56229 Ph.: 507-423-6666 E-mail: <u>cascot@starpoint.net</u> Web: <u>www.hydroswing.com</u>

#### Page 13

Pilot Lift Life Essentials 8796 South US Highway 231 Brookston, IN 47923 Ph.: 765-742-6707 E-mail: <u>info@life-essentials.net</u> Web: <u>www.life-essentials.net</u>

#### Page 14

Nutcracker Lug Wrench Spectrum Manufacturing, Inc. 5505 Highway 169 North Plymouth, MN 55442 Ph.: 612-553-9493

#### Page 15

Grain Bin Steps and Manwalks Greene Welding & Hardware, Inc. P.O. Box 191 (41774 Main Street) East Lynn, IL 60932 Ph.: 217-375-4244

#### Page 16

Personal Protective Equipment Gemplers, Incorporated P.O. Box 270 (100 Countryside Dr.) Belleville, WI 53508 Ph.: 800-382-8473 or 608-424-1544 E-mail: <u>customerservice@gemplers.com</u> Web: <u>www.gemplers.com</u>

#### Page 17

EasyLine Milker Unit DeLaval USA 11100 North Congress Avenue Kansas City, MO 64153 Ph.: 816-891-7700 Web: <u>www.delaval.com</u>

#### Page 18

Wheelchair-Accessible Farrowing House Idea from Randy Brown R.R. #5 Osceola, IA 50213

#### Page 19

Portable Calf Restraint Easy B-Z Manufacturing Company Route 1, Box 119 Plainview, MN 55964 Ph.: 507-534-2487 (Cont.)

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## Page 20

Super Bale Slicer Harper Industries, Inc. 151 East Highway 160 Harper, KS 67058 Ph.: 800-835-1042 or 620-896-7381 E-mail: <u>info@deweze.com</u> Web: <u>www.deweze.com</u>

## Page 21

Deck Chair Premier 1 Supplies 2031 300th Street Washington, IA 52353 Ph.: 800-282-6631 or 319-653-7622 Fax: 800-346-7992 or 319-653-6204 E-mail: <u>info@premier1supplies.com</u> Web: <u>www.premier1supplies.com</u>

## Page 22

Mount Ramp Freedom Rider P.O. Box 4187 Manchester, NH 03108 Ph.: 888-253-8811 or 603-645-1811 E-mail: <u>info@freedomrider.com</u> Web: <u>www.freedomrider.com</u>

## Page 23

Slap Shot Slap Shot Company R.R. 4, Box 280 McCook, NE 69001 Ph.: 308-345-2520

## Page 24

Swingtrim Tree Trimmer Alamo Industrial Incorporated 1502 East Walnut Street Seguin, TX 78155 Ph.: 800-882-5762 or 830-372-9529 Web: <u>www.alamo-industrial.com</u>

# Page 25

Garden Scoot Master Manufacturing Company P.O. Box 3806 (119 Main Street) Sioux City, IA 51103 Ph.: 712-258-0108

# **Farm Assistance Hotlines**

- Alabama Agricultural Mediation Program: 334-240-7249
- Arkansas Farm/Creditor Mediation Program: 501-682-5895
- Arizona Rural and Finance Training Program: 480-727-1470
- California Department of Food and Agriculture: 916-654-1245
- Colorado Department of Agriculture: 303-480-9236
- Florida Agricultural Mediation Service: 352-392-0412
- Illinois Farm Resource Center: 800-851-4719
- University of Illinois Extension's Rural Route 2: 800-468-1834
- Iowa Concern Hotline: 800-447-1985
- Iowa Mediation Service: 515-331-8081
- Indiana Agricultural Mediation Program: 219-299-9648
- Indiana Breaking New Ground: 800-825-4264
- Kansas Ag Mediation Services: 800-321-3276
- Maryland Agricultural Mediation Program: 410-841-5770
- Massachusetts FarmNet of the Pioneer Valley: 800-327-6002 (Information and referral). Out of state contact: Community Involved in Sustaining Agriculture: 413-559-5338
- Massachusetts Office of Dispute Resolution: 617-727-2224
- Michigan Agricultural Mediation: 517-373-4839
- Minnesota Farm Advocate Program: 651-296-1484 (one-to-one liaison between farmers and creditors)
- University of Minnesota Extension Service: 612-625-1782
- Missouri Rural Crisis Center: 573-449-1336
- Nebraska Farm Hotline: 800-464-0258
- Nebraska Ag Mediation Service: 800-446-4071
- Nebraska Rural Response Hotline: 800-464-0258
- Nevada Agricultural Mediation Program: 775-684-5333
- New Jersey Agricultural Mediation Program: 609-984-2504
- New Mexico Cooperative Extension Service: 505-646-2433
- NY FarmNet: 800-547-3276 (information, referral, and consulting)
- New York State Ag Mediation Program: 518-238-2699, Ext. 234
- North Dakota Agricultural Mediation Services: 800-642-4752 or 701-328-4158
- Mental Health Association in North Dakota: 800-472-2911
- Oklahoma Ag Mediation Center: 800-248-5465
- South Dakota Ag Finance Counseling: 800-228-5254 (in-state)
- South Dakota Farm Crisis Hotline: 800-691-4336
- Wisconsin Farm Center: 800-942-2474