

# AgrAbility Harvest

*An ingathering of  
helpful information  
on disability in  
agriculture*

2014

Volume 5, Number 1

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**Balance** is essential to the health of any organization, organism, or endeavor. Focusing too closely on one area at the expense of others can lead to imbalances that disrupt the entire system.

AgrAbility also needs a balanced approach to meeting the needs of agricultural workers with disabilities. On one hand, highly intensive, personal, face-to-face interactions are required to understand and meet the needs of our clients. These types of services require a working knowledge of both production agriculture and the rehabilitation process, a unique combination of skills and knowledge that not many people possess. In addition, AgrAbility's direct service providers must also be adept at navigating the social services network. All in all, it's quite a juggling act.

Because of budget constraints, only a limited number of clients can receive these intense services. AgrAbility averages approximately 1,300 direct-service clients across the country per year. You can read success stories about four of them on pages 2-3.

However, thanks to information technology, AgrAbility's reach is extending far beyond those who receive on-farm or ranch services. Avenues such as the National AgrAbility Project's [www.agrability.org](http://www.agrability.org) website are able to provide a wealth of information to consumers and professionals not only across the country but worldwide. During the past year, the NAP website logged more than 73,000 visits with an average of nearly 4000 unique users each month. Besides U.S. viewers, the site is also gaining significant attention in countries like Ukraine, China, Canada, and Japan.

In addition, since 2009, AgrAbility's webinars have provided online education on a wide variety of topics related to disability in agriculture. Total attendance for all webinars, including the two AgrAbility Virtual National Training Workshops, has surpassed 1,100 participants from across the U.S. and several other countries. The sessions are all archived so that many more people can view them at their convenience.

Maintaining balance requires setting priorities and sticking to them. With the new year underway, AgrAbility will continue its core services, and also introduce some new priorities. Among the latter are an expanded outreach to the historically black 1890 land-grant universities and increased focus on assisting veterans with disabilities who are interested in agricultural occupations. You can read more about these initiatives on pages 6 and 7.



 **AgrAbility**

Cultivating Accessible Agriculture



Naomi King and assistant Alexandra Tomaso

# A Closer Look

## SRAP Successes

The ultimate goal of AgrAbility is to increase quality of life for those involved in agriculture who have some type of disability. The State and Regional AgrAbility Projects (SRAPs) are where direct services are delivered. Here are some recent impacts of their work.

**Naomi King** is known as the “business monkey” at Pietree Orchard in Sweden, Maine. Her typical routine at the family-owned enterprise includes a variety of management-related tasks, some of which necessitate outdoor work. However, she thought that perhaps her working days at the orchard were going to end soon after they had started.

Naomi began working at Pietree in 2012 after a rare muscular disorder motivated her to move closer to family. But by 2013, the challenges of the business and her physical condition were becoming overwhelming.

Naomi saw an online reference to AgrAbility and contacted the Maine program’s staff. In response, Project Coordinator Lani Carlson conducted an on-site assessment to help evaluate the situation and

develop recommendations. Ultimately it was decided that Naomi would benefit from having a personal assistant and a heavy-duty outdoor wheelchair. Both have helped significantly and have made it possible for her to continue with her work.

In addition, Maine AgrAbility assisted in improving the overall accessibility of Pietree’s facilities by recommending modifications to restrooms and entrances. The orchard even added technologies to enable wheelchair users to utilize its U-pick fruit operation, including special picking poles and accessible transportation to the areas.

If you know anything about dairy farming, you know that the work is far from easy. Dairy operators face a multitude of challenges, not the least of which are the physical demands of milking, cleaning stalls, and feeding. Such challenges are multiplied exponentially when a disabling injury is involved.

**Larry Dufek** manages a dairy herd of more than 2,000 head in New Franken, Wisconsin. In 2001, a farm-related injury resulted in a below-the-knee amputation. Within just a few months of his injury, Larry was involved with AgrAbility of Wisconsin. Project coordinator Paul Leverenz worked with Larry and Wisconsin Vocational Rehabilitation to acquire important technologies, like extra steps and hand rails on tractors to make mounting/dismounting safer and a utility vehicle to enhance his mobility around the farm. Just as important was the help Leverenz provided Larry in learning how to farm safely and effectively with a prosthesis.

Larry continues to use the encouragement he has received from others, including AgrAbility staff members, to make a positive impact on the lives of newly injured individuals. His hospital visits to those who have sustained amputations help provide hope that life can return to normal and move forward again. Larry himself had received such a hospital visit when he was injured, so he knows that during such an emotionally and physically challenging time, encouraging words from someone who has “been there” can make all the difference.



Larry Dufek





North Carolina Team

It generally takes a team effort to meet the needs of AgrAbility clients, but some teams are bigger than others. Like several AgrAbility projects, North Carolina's is associated with a university agricultural engineering department. Seniors in such departments traditionally complete capstone engineering design projects, and sometimes AgrAbility clients are the beneficiaries.

**Pamela Martin** of Franklin, North Carolina, needed an easier way to water her livestock and her vegetable plots. Hampered by a respiratory impairment that is complicated by diabetes, Martin has difficulty completing farm tasks that require significant physical exertion. She turned to AgrAbility for help.

Michele Proctor, North Carolina AgrAbility project coordinator, teamed with North Carolina State University associate professor Gary Roberson and his team of five senior engineering students to develop a solution. They worked on designs during the 2012-13 school year and finally implemented their completed project on Martin's farm that April.

The heart of their system is a 10-foot tower topped with a 220-gallon water tank. A solar-powered pump draws water from a nearby creek, and multiple lines carry it from the tank to different parts of Martin's farm. She no longer has to carry water long distances.

In addition to providing invaluable help to Martin, the project also made a personal impact on many of the students. Several commented on the importance of seeing their work providing real-life help to someone instead of merely remaining within the confines of their classroom.

In 2005, **Tyler Hunter** was a young rancher and father of two when he fell and sustained a spinal cord injury, leaving him with paralysis in both legs. With a strong upper body and stronger work ethic, he and his wife had already made several modifications to their farming operation when his county extension agent referred him to AgrAbility of Utah. By working with AgrAbility and the Utah State Office of Rehabilitation (USOR), Tyler was able to replace his homemade tractor lift with a safer custom lift, obtain a UTV modified with hand controls and other features, and install custom gate latches, enabling him to better access and manage his cattle and rangeland.

Because the local auction house had no ramp access, Tyler had difficulty going to the auction to purchase livestock or to watch his livestock being sold. Therefore, AgrAbility of Utah and Utah Farm Bureau worked together to help make the auction house accessible, resulting in a tangible impact for not only for Tyler, but for the community.



Tyler Hunter

As his ranch grew – nearly doubling in size and quadrupling the number of cattle worked – Tyler's assistive technology needs also changed. Sixteen-hour workdays put strain on his upper body, and lengthy time seated caused skin breakdown. Through re-engagement with AgrAbility and USOR, Tyler acquired a standing wheelchair, cattle-handling equipment, and a second modified UTV to replace the one he wore out through 8,000 hours of use. The hard work shown by Tyler, his wife, and their (now) four children has positively impacted their farm and ranch community, and illustrates that one doesn't have to give up the life they love due to a disability or injury.

**These are just a few examples of how AgrAbility services impact real people in tangible ways. Such successes benefit not only the clients themselves, but also their families, communities, and society as a whole. They also inspire AgrAbility staff members to keep persevering in their mission to help agriculturalists succeed, no matter their limitations.**

# AT Corner

## A COLLECTION OF ASSISTIVE TECHNOLOGY PRODUCTS IN AGRICULTURE

As the local food movement continues to gain popularity, the interest in **hydroponic and aquaponic production** also grows. Hydroponics involves growing plants, often indoors, without soil. With aquaponics, fish are added to the system: their waste feeds the plants, and the plants clean the water. Hydroponic and aquaponic systems generally require less space than conventional methods, use relatively few production inputs, can be operated year-round, and are often less physically demanding than other production methods.



With Verti-Gro's **Hydroponic Tower System Kits**, which include stackable pots, rotating plates, growing media, fertilizer, and a pump-powered drip irrigation system, one can reportedly grow 2 acres-worth of crops in 1/4 acre of greenhouse space. Visit: [www.endlessfoodsystems.com](http://www.endlessfoodsystems.com).



Easiest Garden provides building plans and instructional DVDs for its three **Small-Scale Hydroponic Garden Systems** that can be set up in space-limited sites. The stackable Lettuce Run is a 4' x 10' constant-flow bed; the Vertical Garden requires only 1 x 4 feet of floor space to grow strawberries; and the Self-Watering Container Garden is a knee-level plot. Visit: [www.easiestgarden.com](http://www.easiestgarden.com).

FarmTek's stackable, modular **Fodder-Pro Hydroponic Forage-Growing Systems** are designed to produce large quantities of livestock forage at low cost per pound. Its Fodder-Pro 2.0 version can reportedly achieve yields of as much as one ton a day by connecting multiple systems of growing channels. Visit: [www.farmtek.com](http://www.farmtek.com).



Farm Tek also has **Commercial Aquaponics Growing Systems** of various sizes, each one consisting of fish-rearing tanks, filters, float beds, and pumps. Used in a year-round greenhouse/shade house setting and depending on size, they are reportedly capable of producing up to 16,000 head of lettuce and 1,800 lbs. of fish annually. Visit: [www.farmtek.com](http://www.farmtek.com).



Endless Food Systems's two **Consumer Aquaponic System Kits** come complete and ready to assemble. Both use a 300-gallon fish tank. The more compact Genesis series kits accommodate one or two 3' x 3' grow beds and have a direct-drive water pump. The larger Sanctuary series kits are expandable up to eight 4' x 4' grow beds. Visit: [www.endlessfoodsystems.com](http://www.endlessfoodsystems.com).



\* The authors assume no liability in connection with any use of the products discussed and make no warranty (express or implied) in that respect. References to products are not intended as endorsements to the exclusion of others that may be similar.

# Resources for Success

## Enhanced support for farmer veterans

The recently passed Farm Bill (the Agriculture Act of 2014) includes new provisions designed to empower veterans in agriculture. For the first time, the Farm Bill defines a “veteran farmer or rancher,” recognizes them as a distinct class, and includes them for services under the Outreach and Assistance Program for Socially Disadvantaged Farmers and Ranchers. It also gives special consideration to veterans under the Conservation Reserve Program’s Transition Incentive Program, the USDA Operating Loan Program, and Value-Added Producer Grants.

The new Farm Bill also adds “agricultural rehabilitation and vocational training for veterans” as a service included in USDA’s Beginning Farmer and Rancher Development Program (BFRDP) funding. It earmarks 5% of total funding for assisting veterans who are farmers or ranchers, and also encourages collaboration with AgrAbility in BFRDP activities.

Additionally, USDA has launched the Returning Veterans to Agriculture Project. Started as a pilot effort in Indiana but now expanding to national scale, the project’s main objective is to “create a USDA roadmap with information about USDA and other programs available to veterans that want to return to rural communities, farming and ranching, or agricultural work.”

The project’s information hub is [www.rv2a.org](http://www.rv2a.org), which contains resource materials and links related to such areas as careers in agriculture, training opportunities, job postings, and organizations like AgrAbility and Farmer Veteran Coalition.

It is critical that those transitioning from active duty to civilian life be aware of their career options. Therefore, USDA has collaborated with the Veterans Administration and the Department of Labor to include information about agricultural careers in both the Transition Assistance Program (TAP) and the Disabled Transition Assistance Program (DTAP).

America’s veterans have sacrificed to protect our lives and liberties. These new initiatives are a significant step in allowing veterans to also help provide our food and fiber.



## A new lift for Sweden

Dr. Bill Field, project director for the NAP, has been collaborating with the Swedish Institute of Agricultural and Environmental Engineering on several farm safety-related projects, including those closely associated with AgrAbility’s mission. His multiple trips to Sweden have borne fruit, including the development of plans for a disability-in-agriculture conference in the region and the production of new lifts for tractor users with mobility impairments. To date, approximately 11 lifts have been fabricated, with more scheduled for production.

Staff members from the Swedish institute, including those involved with the production of the lifts, are scheduled to participate in the AgrAbility NTW in Lexington, KY.

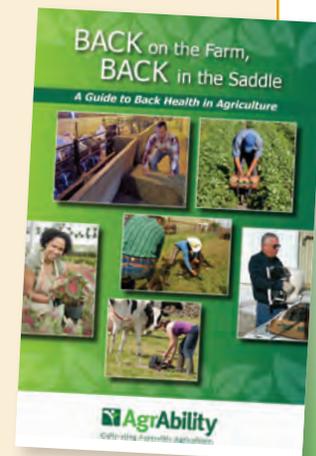
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## New back health resource

By its nature, agricultural work has many occupational risks for incurring or aggravating back problems, including the need to lift or push heavy loads, whole body vibration from operating machinery, awkward working positions, and the potential for slips, trips, and falls. Consequently, back problems are some of the most common health concerns in agriculture, and they are consistently among the most prevalent impairments reported by AgrAbility clients.

To address these needs, the NAP recently published *BACK on the Farm, BACK in the Saddle: A Guide to Back Health in Agriculture*. This 21-page booklet covers such topics as the types, causes, prevention, management, and treatment of back problems. Its format is similar to the popular *Arthritis and Agriculture* booklet, which recently reached 90,000 copies in print.

A PDF version of *BACK on the Farm, BACK in the Saddle* is available at [www.agrability.org/Resources/back](http://www.agrability.org/Resources/back). For printed copies in single or bulk quantities, contact the NAP at 800-825-4264 or [agrability@agrability.org](mailto:agrability@agrability.org).





# Partner Updates

## Farmer Veteran Coalition

The mission of the Farmer Veteran Coalition (FVC) is to mobilize veterans to feed America. Founded in 2008 by Executive Director Michael O’Gorman, a pioneer in the organic produce business, the organization is headquartered in Davis, CA.



FVC uses many avenues to help veterans (from any era or branch of service) begin or continue agricultural careers. For example, it maintains a Farmer Veteran Fellowship Fund to help provide financial resources for ag-related business start-ups or expansions. The staff can also help match veterans with mentors, jobs, and internships/apprenticeships. In addition, they plan to launch a farm equipment donation program in 2014 that will match veterans with equipment donated by individuals or dealerships.

6 The Coalition also offers a variety of educational resources and opportunities. It recently produced *Veteran Careers in Agriculture: A Resource Guide*, which lists many options for training, funding, and technical assistance, including AgrAbility. The staff has also organized two *Empowering Women Veterans* conferences to help female vets expand their expertise and networks.

FVC has been growing rapidly and gaining national recognition. It recently took the *Homegrown by Heroes* brand, which originated in Kentucky, to a national level. Qualifying veterans may use that designation to help market their products.

In addition to many national speaking engagements, Michael O’Gorman was recently a panelist at Secretary of Agriculture Vilsack’s *2014 Agricultural Outlook Forum*.

AgrAbility and FVC maintain a close collaborative relationship. Michael O’Gorman is a member of the National AgrAbility Project’s Advisory Team and has given presentations at the National Training Workshop and Virtual National Training Workshop. NAP project leader Bill Field serves on FVC’s board of directors.

For more information about FVC, visit [www.farmvetco.org](http://www.farmvetco.org).

## 1890 Land-Grant Universities

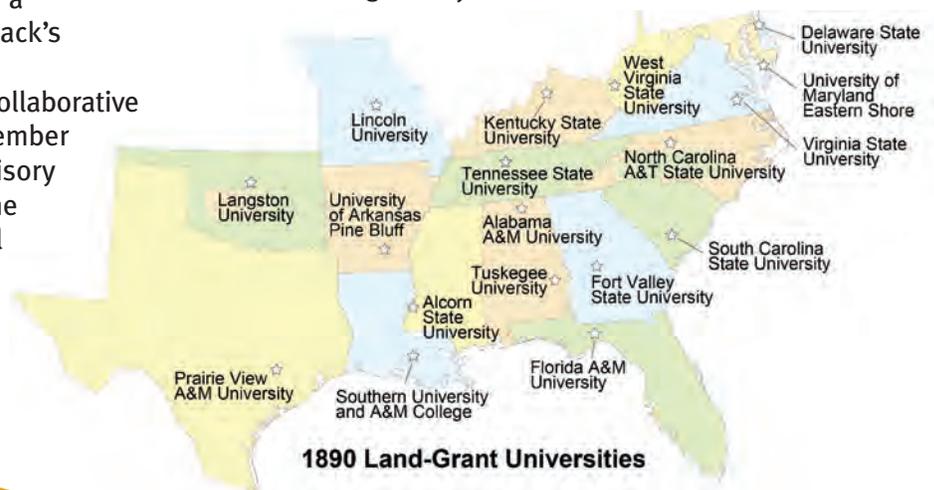
Since its inception, AgrAbility has required partnerships between land-grant universities and non-profit disability services organizations. Through the 1862 Morrill Act, every state was awarded a land-grant university for the purpose of promoting agricultural, mechanical, and military education. In 1890, seventeen additional land-grant universities – the historically black land-grants – were established, primarily in southern states. Additional land-grant universities for Native Americans were started in 1994.

The 1890 land-grants were initially established because some southern states prohibited African Americans from attending the 1862 land-grant universities. These 1890 schools were charged with the same basic mission as their 1862 predecessors: education, research, and outreach/extension.

1890 land-grant universities are eligible to compete for AgrAbility grants, and in 2011, North Carolina A&T University became the first 1890 school to be awarded such a grant.

The USDA’s National Institute of Food and Agriculture (NIFA), the governing entity for AgrAbility, recently provided the National AgrAbility Project (NAP) with special funding to increase awareness of AgrAbility among 1890 universities. The NAP has been contacting each of the schools to discuss their knowledge of AgrAbility, and several have indicated interest in submitting a proposal for an AgrAbility project. The NAP will also be exhibiting at various conferences attended heavily by faculty, staff, and students from 1890 schools. In addition, travel stipends have been made available for 1890 Extension faculty and staff to attend the 2014 AgrAbility National Training Workshop in Lexington, KY, and an 1890 land-grant university panel discussion is planned for the event.

Greater collaboration between AgrAbility and the 1890 land-grant universities has the potential to bring a wealth of resources to all involved – especially the clients that AgrAbility seeks to serve.



### AgrAbility grant competition

The USDA awards all AgrAbility Project grants on a competitive basis. In 2013, five existing projects had grants that were ending, but due to federal funding restrictions, only three new grant opportunities were available. In addition to these five existing projects, the USDA received several proposals from non-funded states.

After the review of proposals, the three states awarded grants were Ohio, Tennessee, and Pennsylvania, the latter of which had not received USDA funding since 2010. The projects that moved from funded status to affiliate status were Georgia, Missouri, Texas, and West Virginia.

This year, 14 funded AgrAbility Projects will see their current grants end. With the anticipation of additional grant proposals from non-funded states, 2014 promises to be a year of intense competition for AgrAbility funds.

### Virtual NTW encore

Approximately 75 individuals participated in AgrAbility's second Virtual National Training Workshop, December 10-12. The online conference consisted of six webinars on topics such as "The Affordable Care Act for Rural Americans," "Alternative Production Systems for Farmers with Disabilities," and "Product Liability in the Farm Equipment Industry."

All the webinars are archived at [www.agrability.org/Online-Training/virtualntw](http://www.agrability.org/Online-Training/virtualntw). The next Virtual NTW is planned for fall 2014.

### CHS Foundation supports AgrAbility

Last September, the National AgrAbility Project was the recipient of a generous contribution of \$250,000 from the CHS Foundation. The gift was part of a larger CHS effort to promote farm safety and health initiatives. Other organizations that also received funding included the Agricultural Health and Safety Council of America, AgriSafe Network, GEAPS Foundation (Grain Elevator and Processing Society), and Propane Education & Research Council.

AgrAbility's funds are earmarked to provide special outreach to underserved audiences, including minority farmers and veterans.

Based in St. Paul, Minnesota, CHS, Inc. is a leading global agribusiness owned by farmers, ranchers, and cooperatives across the United States. The enterprise includes grain merchandising, processing, and transportation, plus the production of fertilizer, animal feed, and energy products.

CHS has also been a long-time sponsor of travel stipends for AgrAbility clients attending the National Training Workshop.



### AgrAbility Regional Training Workshops

To better serve professionals and consumers around the country, the NAP has begun hosting AgrAbility Regional Training Workshops, in addition to the single National Training Workshop. Facilitated by NAP partner Goodwill of the Finger Lakes, the primary purposes of these regional events are to facilitate additional training for AgrAbility staff members, provide other professionals with resources for assisting agricultural workers with disabilities, and broaden awareness of AgrAbility in states without projects.

Two Regional Training Workshops were conducted in 2013: September 30-October 2 in Jacksonville, Florida and December 2-4 in Yuma, Arizona. Both events included presentations on a variety of topics, such as local agriculture, conducting agricultural worksite assessments, and working with veterans. The Jacksonville workshop included a tour of Veterans Farm, a therapeutic agriculture program for veterans, and the Yuma event featured a presentation by Michael O'Gorman of Farmer Veteran Coalition.

Two more Regional Training Workshops are planned for 2014. Check [www.agrability.org](http://www.agrability.org) for dates, places, and registration details.

*Workshop participants visit a vegetable farm in Yuma*



# AgrAbility Harvest

Breaking New Ground Resource Center  
Purdue University  
ABE Building  
225 South University St.  
West Lafayette, IN 47907

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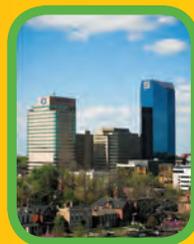
The National AgrAbility Project is a partnership between:



Purdue University is an equal access/equal opportunity institution.

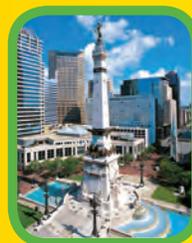
## ON THE HORIZON

### Two great cities – two great conferences.



Lexington

AgrAbility traveled to **Lexington, KY** for its 2014 National Training Workshop on March 31-April 3. The agenda was packed with great presentations and tours. Special speakers included Janet LaBreck, the new commissioner of the Rehabilitation Services Administration, and Josh Bleill, community spokesperson for the Indianapolis Colts and American veteran with a disability.



Indianapolis

RESNA (Rehabilitation Engineering and Assistive Technology Society of North America) brings its annual conference to **Indianapolis** on June 11-15. In addition to many excellent presentations on a wide variety of rehabilitation technologies, AgrAbility will host a pre-conference session on June 12. The schedule includes work-site assessment training plus visits to an agricultural assistive technology manufacturer and to an AgrAbility client.

### 2014

<b>June 4-6</b>	<b>World Pork Expo</b>	Des Moines, IA	<a href="http://www.worldpork.org">www.worldpork.org</a>
<b>June 11-15</b>	<b>RESNA Annual Conference</b>	Indianapolis, IN	<a href="http://www.resna.org">www.resna.org</a>
<b>June 22-26</b>	<b>International Society for Agricultural Safety &amp; Health (ISASH) Annual Conference</b>	Omaha, NE	<a href="http://www.isash.org">www.isash.org</a>
<b>July 13-16</b>	<b>ASABE Annual International Meeting</b>	Montreal, QC	<a href="http://www.asabemeetings.org">www.asabemeetings.org</a>
<b>August 5-7</b>	<b>Empire Farm Days</b>	Seneca Falls, NY	<a href="http://www.empirefarmdays.com">www.empirefarmdays.com</a>
<b>August 9-12</b>	<b>Disabled American Veterans National Convention</b>	Las Vegas, NV	<a href="http://www.dav.org/events">www.dav.org/events</a>
<b>August 26-28</b>	<b>Farm Progress Show</b>	Boone, IA	<a href="http://www.farmprogressshow.com">www.farmprogressshow.com</a>
<b>September 9-11</b>	<b>Husker Harvest Days</b>	Grand Island, NE	<a href="http://www.huskerharvestdays.com">www.huskerharvestdays.com</a>
<b>September 30- October 4</b>	<b>World Dairy Expo</b>	Madison, WI	<a href="http://www.world-dairy-expo.com">www.world-dairy-expo.com</a>
<b>October 14-16</b>	<b>Sunbelt Ag Expo</b>	Moultrie, GA	<a href="http://www.sunbeltexpo.com">www.sunbeltexpo.com</a>
<b>October 18-20</b>	<b>APRIL Annual Conference</b>	Albuquerque, NM	<a href="http://www.april-rural.org">www.april-rural.org</a>
<b>October 19-22</b>	<b>7th International Symposium: Safety &amp; Health in Agricultural &amp; Rural Populations</b>	Saskatoon, SK	<a href="http://www.cchsa-ccssma.usask.ca">www.cchsa-ccssma.usask.ca</a>
<b>October 29- November 1</b>	<b>National FFA Convention</b>	Louisville, KY	<a href="http://www.ffa.org">www.ffa.org</a>