Welcome 2005!

by Daniel J Duncan, ARDC Director

It is with great pleasure and anticipation we welcome a new year at the ARDC. During 2004 faculty and employees working at the ARDC made several improvements to facilities, successfully started and completed/continued research projects, and hosted many visitors in educational activities. All in all we had a successful year due to the efforts of nearly 400 faculty, staff and students who worked on the ARDC.

As much as we accomplished in 2004, I am even more excited about what may transpire in 2005.

Completion of the beef feedlot expansion is one of the exciting additions for the New Year. This addition will enable faculty to obtain grants and contracts that were turned down in the past due to space limitations. In conjunction with the feedlot construction, a small center pivot will be erected immediately east of the feedlot holding pen. This will enable easy dispersal of the runoff effluent through the center pivot. The pivot will cover existing row crop and pasture areas. The pasture area under the new pivot will be converted to row crop production, and some of the row crop production immediately south of the feedlot expansion will be converted to pasture as part of the overall plan.

Other major projects that should occur during 2005 include enhanced communication (data and voice) capabilities, installation of a RTK base station and related equipment, and construction of a new shop and office building to replace current activities in the Load Line #2 area.

In the coming months, I will be able to share with you other exciting news and happenings at one of the most unique agricultural research facilities in the nation...the ARDC! Happy New Year!

Woody Florals Applied Research

Jump-Stoppers Produce Enterprises

By Scott Josiah (Assistant Professor) & Christine Meyer (Grad Student), University of Nebraska School of Natural Resources

Producers on small to mid-sized farms in the Midwest today can rarely make a living from conventional agriculture alone. With shrinking profit margins caused by rising costs and declining prices, capital and chemical-intensive conventional crops are marginally profitable on smaller farms. Most small-to-medium size producers require substantial off-farm income to survive economically, creating new stresses on farm enterprises and the families that run them, and forcing many small-to-medium size farmers to abandon agriculture altogether. And many acreage owners are looking for innovative ways to earn some income from just a few acres. New, more sustainable agricultural models are clearly needed that are profitable in the short-term, are family and environmentally friendly, and have low capital inputs.

To directly address these questions, the University of Nebraska installed a 40-acre alley-cropping research/demonstration trial at the ARDC in 1999. This trial is composed of shrubs that produce commercially valuable edible woody crops (primarily woody florals and fruit). These woody plants are planted in widely spaced rows in a working agricultural field, with corn, beans or wheat grown between the rows.

After six growing seasons (and four harvests) woody florals have demonstrated superior income-producing potential. For example, beginning 2 to 3 growing seasons after planting, the no-fertilizer flame (in winter) harvest and sell thousands of dogwood, curly willow and pussy willow stems (3.5’ long) with values ranging from approximately $0.25 to $0.50 per stem (and gross returns ranging from $10 to $24/acre/year, depending on species). Since the project’s inception, a number of growers have installed their own plantings and are now harvesting and selling stems.

The project has worked closely with the Nebraska Florist Society, Nebraska Woody Flower Growers, individual wholesale florists, and Heartland Nuts N’ More, a newly established specialty woody crop producer-owned processing and marketing cooperative.

University of Nebraska Cooperative Extension, in cooperation with other organizations, has offered numerous opportunities to enhance your knowledge or receive training in the next few months. Please mark your calendars and call (402)624-8030 or (800)529-8030 if you have any questions.

* NEBRASKA NO-TILL CONFERENCE
- Monday, January 31 in Holdrege @ 9 a.m.
- Tuesday, February 1 at the ARDC @ 9 a.m.

Learn from top-notch speakers! Pre-registration required - call 402-624-8030 or (800)529-8030 if you have any questions.

* NEBRASKA SOYBEAN AND FEED GRAINS PROFITABILITY PROJECT (NSGFPP) ANNUAL GROWERS CONFERENCE
- Tuesday, March 8 @ the ARDC

Obtain valuable crop production-related information from on-farm research projects conducted on area farms. The program is free to NSGFPP members. There is a $10 fee for non-members.

* 4-H LEADERS TRAINING AND BANQUET
- Saturday, January 15 from 9 a.m. to 2:30 p.m. in Valparaiso, NE.

Heartland Nuts N’ More will conduct a hands-on workshop to teach producers how to process and market the material. By working closely with woody floral growers, key questions were quickly identified, limiting their enterprises and profitability, and designed studies to address these information needs. For example, growers needed to know how woody florals were at their peak color, so they could harvest as early as possible to beat the competition. They also wanted to know how to store stems to maximize color, flexibility and longevity.

Christine Meyer, graduate student at University of Nebraska-Lincoln’s School of Natural Resources, and an employee of the School and of the Nebraska Forest Service, took on the timing and storage questions as part of her research. Field experiments at the ARDC were conducted to determine optimal harvest times for stems of Scarlet Curls willow, “Flame” willow, “Bailey” and “Cardinal” Redosier dogwood, and Yellowtwig dog...
have an advantage over other carbon storage practices in that not only is carbon stored in the
productive than either timber or livestock alone. While not a common practice in eastern
Department, have focused on the production of livestock and timber under a silvopastoral sys-
tous types of bird species.

breaks with eastern redcedar or pine offer little protection to the overwintering insects. This
ous trees such as green ash provide good overwintering habitat in the leaf litter while wind-
tory insects such as lady beetles and the type of windbreak present. Windbreaks with decidu-

wildlife. We have conducted studies on bird use of windbreaks (with Ron Johnson, a wildlife
biologist in the School of Natural Resources) and determined that windbreaks provide signifi-
cants of shelterbelts or windbreaks on crop yield and understanding why yields increase.

In contrast, a positive correlation has been found between the presence of preda-
rance trials and harvested at the beginning of December. The

F

b 40 Decades of Windbreak
Research at the ARDC

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Bruce Bolander (above) and Mike Cieslik

Consider the Natural Resources
For Your College Education!!!

Mike Cieslik, Ag
Research Technician, also assists with
research projects at both the ARDC and the Horning Farm. He assists with equip-
ment, field records, planting, spraying and other various duties. He worked at the ARDC since 1985 and
holds a Bachelor’s Degree in Animal Science from the University of Nebraska-Lincoln. He and his wife, Marsha, live near
Winston and have two sons.

To learn if this experience is for you, hear from some-
one who’s been there. Students can tell you about their
time in the School of Natural Resources and what they
like best. Visit the following website: http://snrs.unl.edu/prospective_students/meet_our_stud
ents.
**NITROGEN MANAGEMENT TRAINING**

- March 15 * 7 pm and March 16 * 9:30 am* ARDC Research & Education Building
- All producers using fertilizer in the LPN-NRD must attend nitrogen certification at least once every four years.
- WINDBREAK RESEARCH - every four years.
  - March 15 * 7 pm and March 16 * 9:30 am* ARDC Research & Education Building

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**Winter Programs Offer Crop Management Education**

University of Nebraska Cooperative Extension begins its annual Crop Management Winter Programs in November and December with two precision agriculture workshops. The training sessions include indepth information from the university’s Institute of Agriculture and Natural Resources faculty and staff. Continuing education credits for the Certified Crop Advisor program are being sought. Fees include lunch, refreshments, workshop materials, and an instruction manual.

For more information or to register, call University of Nebraska Cooperative Extension at (402) 624-8000, e-mail kglewien1@unl.edu. Descriptions of the workshops follow.

- **Soil Fertility - Basics** January 14 * 8:30 am - 4:30 pm.
- **University of Nebraska ARDC**
- **Non-credit (No CCA credits)**
- **Good preparation students taking the CCA exam go the fresher for the experienced professional.**

*Day 1 includes:* corn rootworm fundamentals-biology; corn rootworm fundamentals- effects of weather on corn rootworm biology and performance of rootworm-control products; corn rootworm situation in 2004 in Illinois, Indiana, Iowa, Minnesota, Nebraska, and other states, and results from 2004 corn rootworm control efficacy trials.

*Day 2 includes:* a recap of first workshop; issues associated with corn rootworm management including soil insecticides and seed treatments, YieldGard Rootworm corn, and adult corn rootworm suppression, variant western corn rootworm, extended diapause, and management of corn rootworms in 2005.

- **Integrated Weed Management** February 4 & 11.* University of Nebraska ARDC and University of Nebraska Northeast Research and Extension Center at the Lifelong Learning Center in Norfolk
- **Day 1 includes:** corn rootworm fundamentals-biology; corn rootworm fundamentals-effects of weather on corn rootworm biology and performance of rootworm-control products; corn rootworm situation in 2004 in Illinois, Indiana, Iowa, Minnesota, Nebraska, and other states, and results from 2004 corn rootworm control efficacy trials.

*Day 2 includes:* a recap of first workshop; issues associ- ated with corn rootworm management including soil insecticides and seed treatments, YieldGard Rootworm corn, and adult corn rootworm suppression, variant western corn rootworm, extended diapause, and management of corn rootworms in 2005.

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**Calendar of Events**

**JANUARY**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>5</td>
<td>4-H Council Meeting</td>
</tr>
<tr>
<td>10</td>
<td>NSFGPP Consultation</td>
</tr>
<tr>
<td>12</td>
<td>4-H Leaders Banquet</td>
</tr>
<tr>
<td>14</td>
<td>CMWP Soil Fertility Basics</td>
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<tr>
<td>18</td>
<td>Private Pesticide Applicator Training</td>
</tr>
<tr>
<td>19</td>
<td>Jan. 18 - 1:00-4:00</td>
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<tr>
<td>22</td>
<td>Jan. 22 - 9:00-12:00</td>
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<tr>
<td>24</td>
<td>NSFGPP Consultation</td>
</tr>
<tr>
<td>26</td>
<td>Train the Trainer Quality Assurance</td>
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<tr>
<td>27</td>
<td>NSFGPP Consultation</td>
</tr>
<tr>
<td>28</td>
<td>Commercial Vegetable Program</td>
</tr>
<tr>
<td>29</td>
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Mark Your Calendar for These 4-H Events

- 4-H LEADERS TRAINING AND BANQUET
  If you haven’t registered for the 4-H Leaders’ Training Banquet, do so TODAY!!! It will be held on Wednesday, January 12th, at the Saunders County Extension Office located at the ARDC Research & Education Building. Registration begins at 6:15 p.m. with the meal starting at 6:30 p.m. This is a good time to interact with other leaders and learn new ideas. Leader training is open to any leader, parent or adult interested in helping with and learning more about the 4-H program for the upcoming year. Please sign up by January 10 so that adequate preparations can be made.

- MARKET BEEF WEIGH-IN DATES - JANUARY 22 & MARCH 26
  Weigh-ins for 4-H Market Beef weigh-in will be on January 22 and March 26 at the Wahoo Sale Barn from 1:00 p.m. to 3:00 p.m. Your animals do not need to be broke to lead at this time.

- QUALITY ASSURANCE TRAINING
  Quality Assurance is again required for all 4-Hers showing beef, sheep, swine, goats, dairy, poultry and rabbits. This training is required annually unless a written test is passed.

Get Your Green Thumb Ready!
Please contact Sarah Browning, University of Nebraska Cooperative Extension at (402) 727-2775 or by e-mail at sbrowning2@unl.edu, for information or to register for any of the horticultural programs listed below. You can learn more about these and other horticulture topics at http://hortparadise.unl.edu. For acreage information, please visit http://acrage.unl.edu.

- February 5 - Deciduous & Evergreen Shrubs for Nebraska Landscapes
- February 12 - Pine Pests And Beyond: Insect & Disease Control for Nebraska Trees and Shrubs
- February 19 - Great Annual & Perennial Plants for Nebraska Gardens
- February 26 - A Beautiful Landscape With Less Work: Sustainable Landscape Management Techniques

Commercial Field Vegetable Production Clinic
January 29, 9:00 a.m.-3:30 p.m. * ARDC Research & Education Building
This workshop features Dr. Charles Marr, Kansas State University Extension Horticulturist for Vegetable Crops. Dr. Marr’s focus, through extension programming and research, includes commercial vegetable production, management and handling. Program highlights include what’s new in field tomato production in 2005, integrated pest management, and weed control in melons. There will also be a question and answer session, giving growers a chance to get answers to their individual production problems.

The cost is $30 per person, or $50 per couple (includes lunch and an information packet). Programs coming in late February/March as part of the ‘Creating A Horticulture Paradise’ program series that will be held at the Cuming County Courthouse in West Point and the Dodge Extension office in Fremont include:

- February 22, More Of A Good Thing: Vegetable Plant Propagation
- March 1, Mushrooms: Collecting and Growing
- March 8, Designing and Growing Beautiful Container Plantings
- March 15, Great Perennial Plants for Nebraska Gardens
- March 22, Weed Identification & Control in the Lawn and Landscape

Master Gardener Training
Training for 2005 will be held on Thursdays from March 3 through April 14, 9 a.m. - 4 p.m. at the Dodge County Extension Office 1206 W. 23rd Street in Fremont. Through the Master Gardener training sessions and workshops, you’ll become a more knowledgeable gardener and will have the opportunity to share this knowledge with your community. You will have access to a wealth of information that can make you a better gardener and you will also meet lots of interesting people who share your love of gardening.

Assisting the Community
Each year the employees of the ARDC and Cooperative Extension in Saunders County partner with Saunders County Head Start to locate a family who could use extra assistance during the holidays. This year a family of five was "adopted" and gifts were provided through employee donations. A monetary donation was also made to the VFW Christmas Fund.

National FFA Convention
by Trisha Larson, Mead FFA Student
On the evening of October 26, 2004, seven members of the Mead FFA Chapter departed from Lincoln and headed for the 77th National FFA Convention. Our charter bus traveled 12 hours and put on 740 miles before reaching our destination of Louisville, Kentucky.
Ashley Janacek, Cody Moravec, Josh Sladky, Trisha Larson, Brittany Nelson, Dan Parsons, and Duane Campbell represented the Mead FFA Chapter. We were just a small number of the 48,000 students that made up the "Sea of Blue." There was much to achieve by attending the National Convention, such as - it helped us develop leadership skills, explore career opportunities, and it challenged us to set high goals for our future, just as the theme of the special event suggested: Learn, Lead, Succeed.

We learned much from motivational speakers such as Joe Theissmann, a former pro football player, and Linda Larson who spoke on power, passion, and pizzazz. It was also a special treat to see and hear from National Officer Amy Rasmussen, a graduate of Mead. Adam Rasmussen flew out to be with his sister as she delivered her retirement address. Amy held the national office of Central Region Vice President during the 2003-2004 year.

There was a career show that had exhibits in the hundreds that represented agriculture industry professionals and numerous colleges from across the nation. The FFA band and choir provided entertainment. We also attended two dances.

Our sponsor and escort for the week, advisor Mr. Rutt, lined up a tour of the Louisville Slugger Museum, a haunted morgue, and dinner at Joe’s Crab Shack for our enjoyment.

"Meeting new people form different states was my favorite part about National Convention," replied Josh Sladky. "Everywhere I looked there was a different state represented!"

We took advantage of the experiences and all that the week had to offer. We realized that the National Convention is something we will always remember. It gave us the unique opportunity to appreciate the many aspects of FFA and agriculture.

Record Turnout at 2004 Soybean Day
Soybean growers turned out in record numbers at the 2004 Nebraska Soybean Day and Machinery Expo held at the Saunders County Fairgrounds in Wahoo. Over 400 producer from 28 Nebraska counties and two states attended the event.

Producers also visited with various commercial exhibitors, viewed new farm equipment, and learned about soybean rust at a special exhibit.

Sue Martin of the popular ag marketing show Market to Market was the featured speaker. She discussed the outlook on the corn and soybean futures for the next 6 months. Live demonstrations were presented on grain truck mechanical compliance and traction using a mechanical sled and tractor.

Other presenters included NU researchers and specialists, Nebraska Soybean Board representatives, soybean growers, and the Nebraska State Patrol Carrier Enforcement.

Sue Martin, presented to the large audience on hand, but also took the time to discuss markets with producers during breaks.

This issue of Extended Visions was produced and edited by Deloris Pitman, Marketing & Promotions Manager. Extended Visions is published bimonthly by the University of Nebraska ARDC & NU Cooperative Extension in Saunders County, 1071 County Road G, Room A, Ithaca, Nebraska, 68033-2234.
For more information, call 402-624-8000 or 1-800-529-8300. Check out our web site at http://ardc.unl.edu. E-mail dpitman1@unl.edu. Copyrighted 2004, ARDC. Daniel J. Duncan, Director, UN-ARDC * Keith Gliner, Extension Educator Unit Leader

FORESTRY RESEARCH ARTICLES Provided by Scott Josiah, Christine Meyers and Jim Brandle of the University of Nebraska-Lincoln School of Natural Resources