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Extended Visions, January/February 2006

University of Nebraska Lincoln EXTENDED VISIONS

January/February 2006
Vol. 10, No. 1

A publication of the
University of Nebraska-Lincoln
Agricultural Research &
Development Center and
UNL Extension in Saunders County

ARDC Director's Comments

Thoughts for the New Year

by Daniel J Duncan, ARDC Director & IANR Ag Research Division Assistant Dean and Director

A few years ago, I put the following "Thoughts for New Year's Resolution" in this column. The words below are not mine; I wish I knew who to give credit….

Thoughts for New Year's Resolutions

* Promise yourself to be so strong that nothing can disturb your peace of mind.
* To talk health, happiness and prosperity to every person you meet.
* To make all your friends feel that there is something special in them.
* To look at the sunny side of everything and make your optimism come true.
* To think only of the best, to work only for the best and expect only the best.
* To be just as enthusiastic about the success of others as you are about your own.
* To forget the mistakes of the past and press on to greater achievements of the future.
* To wear a cheerful countenance at all times and give every living creature you meet a smile.
* To give so much time to the improvement of yourself that you have not the time to criticize others.
* To be too large for worry, too noble for anger, too strong for fear and too happy to permit the presence of trouble.

As we start the new year, I would like to thank everyone at the ARDC, throughout the University of Nebraska System and within the local community for an exciting year in 2005. I look forward to this coming year knowing we can turn the challenges we face into opportunities and grow stronger through the process.

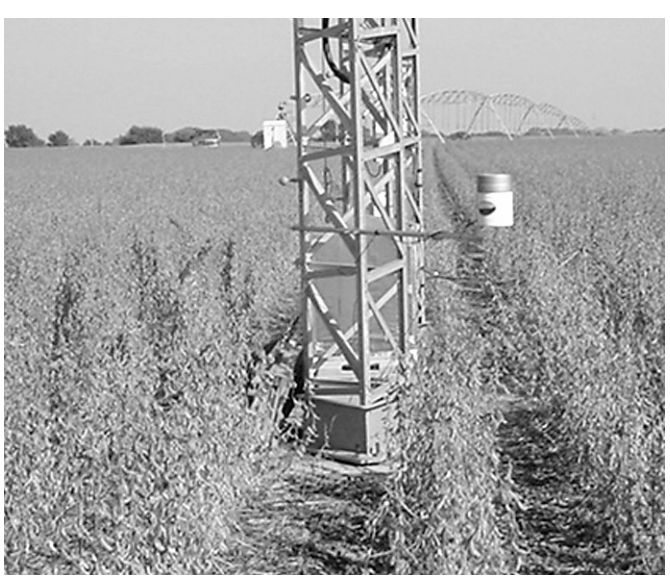
Happy New Year!!! ❑

ARDC Farm Operations play an integral part in the successful outcomes of research, teaching, and extension programs of many university departments. The ultimate mission of Farm Operations is to help facilitate research and education programs the most effective way by sharing resources and expertise.

Research

While ARDC Farm Operations does not conduct research, it provides land, equipment, labor, expertise, and services to departments when the resource is not available within the academic department or is cost prohibitive for the department to do so on its own. This allows the university to efficiently manage ARDC lands and provide large scale agricultural services to assist the research on a least cost basis. The farm provides a working laboratory using modern production practices and equipment sized to today's production agriculture.

Production services relieve the researcher of the burden of managing a crop and instead allowing them to concentrate on research implementation and data collection. Farm Operations manages the crop from planting through harvest and the researcher needs only to concern themselves with specialized applications and other research protocols within the field. Farm Operations works closely with the researcher to plan out every facet of the crop including research treatment layout (using the farm's 20 ft wide equipment), seed requirements (often changing within field by hybrid and rates), tillage (we hope not), pest control management (weed, insect, disease), application timing and rates, irrigation, harvest method (dry grain, high moisture 28-30%, silage, identity preserved segregation). Some practices may be withheld so as not to conflict with the study treatments. For example, not applying an insecticide to control corn rootworm in a corn rootworm efficacy trial.



Note the operator skill necessitated in the above photo. Farm Operations staff planted the crop adjacent to permanently installed research equipment at the Carbon Sequestration Project area. This requires a great deal of planning and precise equipment placement.

In all cases the farm staff

FEATURE UNIT - FARM OPERATIONS - Cont. on P. 2

Training Opportunities For Crop Producers

Now is the time to for those involved in crop production to review their educational needs for the upcoming year. The following provides details on upcoming training opportunities.

* Managing High Priced Nitrogen *

Friday, January 13 * 1 p.m. - 4 p.m. Complimentary lunch at 12:00 Noon at the August N. Christenson Research and Education Building at the ARDC. ***This session also serves as training for the Lower Platte North NRD nitrogen management training requirements.***

With nitrogen prices on the rise, it is important to make cost-effective decisions. Topics include: nitrogen use for 2006, how optimal rates are affected by fertilizer N price, the N credits; discussion of other issues of fertilizer use, e.g. slow release products, manure nutrients; production of anhydrous ammonia - why the limited supply and high cost; are we moving to more dry and liquid nitrogen sources; trends in use of N fertilizer products, including anhydrous ammonia and slow release N fertilizers; Nitrogen needs for dryland and irrigated corn in 2006; how nitrogen rates should be adjusted due to high N fertilizer prices; should you adjust phosphorus recommendations for high yield corn; and Phosphorus, Potassium and Sulfur management for corn.

Presenters include: Richard Ferguson, Extension Soil Fertility Specialist, and Charles Wortmann, Extension Nutrient Management Specialist of UNL's Department of Agronomy and Horticulture and Keith Glewen, UNL Extension Educator.

RSVP REQUESTED - please call or e-mail. Contact UNL Extension at (402)624-8030, (800)529-8030 or e-mail Keith Glewen at kglewen1@unl.edu . ❑

TRAINING OPPORTUNITIES - Cont. on P. 3

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FEATURE UNIT - FARM OPERATIONS - Cont. from P. 1

must be meticulous at implementing and documenting their work in the field. The utmost care is taken to ensure that the work is competed on an accurate and consistent basis which reduces unknown variables in the research. This means getting a project planted on the same day, before a rain comes, or scheduling harvest so that the grain across a field is at the same moisture, or the plot yield is not affected by a delay in harvest.

Record keeping and reporting consumes a considerable amount of staff time. It starts with a written production plan for each field detailing seed, seed rate, fertility, acres, plot plan, and research protocols which must be followed. The plan is discussed with the staff and implemented, recording all aspects of the operations. Typical records available to the researcher include date, operation type, hybrid, variety, seed trait, seed rate, herbicide and adjuvant rates, irrigation dates and amounts, fertilizer treatments, equipment fuel use, harvest yield by weight, moisture, and spatial location (yield map). The data is analyzed, error checked and summarized for use by the researcher.

Services

Income from cropland not intensely used for research is used to purchase all farm equipment, inputs, and labor. The farm supports itself on such income as tax dollars are not used for these purchases. Much of the farm equipment is available for occasional use by all departments at ARDC, which helps keep cost of ownership down. Services such as trucking, haying, fertilizer and pesticide application, and other custom field operations are provided to research units as requested.

The farm maintains a road grader for grading of the gravel roads on the ARDC, provides snow removal on the roads, and does roadside mowing.

The farm works with the animal science units to plan and manage livestock manure applications based on crop nutrient need and soil status.

Hay, grain, and grazing land needs are coordinated to ensure the right feedstuff is delivered at the right time to the animal research units.

Farm Operations staff - front: John Kirchmann, Rod Thorson, and Chad Lanik. Back: Bob Weatherly, Dave Werner, Al Bahm, and Fred Proskovec.

Tools of the Trade Used by Farm Operations

GPS- Global Position System - Used to record yield or hybrid by location in a field every one or two seconds during travel (about every 7-10 feet). Used to locate field and plot boundaries and to calculate the size of any field or plot.

Yield Monitor - Used to determine the harvested bushels and grain moisture while the combine is on the go. Used with GPS and yield mapping software to create a yield map showing yield variation across the field and to document plot yields.

GIS - Geographic Information System - Software which records and displays the information captured with GPS, yield monitors, planters, and sprayers. Used to create field plans showing crop and associated production parameters including seed, soil types, fertility, field boundaries, names, and area size. Keeps record of manure applications. Displays site specific yield, pesticide, and seed applications. Useful for planning plots by creating the plot boundaries on the computer dimensionally prior to application in the field. Shows land use, roads, buried utilities, irrigation system pivot tracks and end-gun coverage areas, wells, aerial photos, or anything you want to tie a location to.

Mark Schroeder and Walker Luedtke provide management for Farm Operations.

The Farm Operations staff use many forms of modern technology, such as this GPS-equipped combine.

Researchers can access much of this information via the internet on the Agricultural Research Division's website vastly improving information sharing within the university community.

GPS Guidance - Light Bars - Aids the tractor operator or sprayer operator in maintaining a uniform application swath width. Using light indicators or arrows, the system tells the operator to steer right or left to stay on track. Very useful for wide swath equipment such as sprayers or dry spreading equipment where the swath width is often 80' or more and is difficult for the operator to gauge or determine where the previous swath was. The system automatically determines the swaths across the field on equally spaced patterns.

AutoSteer - This system steers the tractor automatically without operator input. Using RTK (Real Time Kinetic) GPS, the tractor can steer on its own within one inch accuracy

FEATURE UNIT - FARM OPERATIONS - Cont. on P. 3

Farm Operations *QUICK FACTS...*

Tillable Acres (but all no-till)	3,000
Number of Fields	111
Acres Irrigated	1,325
Yield Difference Between Irrigated and Dryland Corn	71 bu/ac
Yield Difference Between Irrigated and Dryland Soybean	13 bu/ac
Days of Harvest	31 Days
Tandem Truck Loads of Grain Harvested Fall 2005	758
Most Grain Harvested In One Day	26,800 bushel
Bin Storage Capacity	275,000 bushel
Miles Traveled by Combines Harvesting Crop	1,328 miles
Number of GPS Yield Points Recorded	573,600
Pages filled by GPS Yield Points if Printed	15,095
Number of Large Round Bales Made	1,216
Roadside Mowing Tractor Hours	415 Hrs.
Hour Meter Runtime for all Farm Equipment	3,741 Hrs.
Gallons of Fuel Metered from Fuel Station (Farm and other ARDC vehicles)	46,281 Gallons
Miles of road for snow plowing	26 miles
# of Farm Staff	9

About the People

The Farm Operations staff work together to keep things running smoothly year round. While the following provides areas that each employee is primarily responsible for, they assist wherever needed depending on the season.

* Allen Bahm, Ag Tech II, and his wife, Mary, live at Ashland. They have one daughter. Allen handles trucking, swathing hays and drives the bus for tours and other groups as needed. He is an active member of the Ashland Fire and Rescue Unit.

* John Kirchmann, Ag Research Tech II, and his wife Lene live near Yutan. They have two daughters and a son. John focuses on planting and haying operations.

* Fred Proskovec, Ag Research Tech II, lives near Malmo and is fire chief for the volunteer fire department. Fred handles the grain handling and filling.

* Walker Luedtke, Assistant Farm Manager, and his wife Kristin live near Wahoo. They have a son and a daughter. Walker supervises the day to day operations of the Farm Operations staff.

* Mark Schroeder, Associate Director and General Farm Manager, and his wife, Barb live in Lincoln. They have a daughter and a son. Mark is responsible for overall management of farm operations on 3,500-acres at the ARDC, a job that requires much coordination, planning and timing among a variety of individuals. He also serves as the associate director for the ARDC.

* Rod Thorson, Ag Research Tech II and his wife, Shelli, live in Wahoo with their three sons. Rod's main responsibilities are planting and harvesting.

* Dave Werner, Ag Research Tech II and his wife, Jan live near Wahoo. They have three sons and a daughter. Dave does most of the spraying and harvesting for Farm Operations. He and his family enjoy camping, gardening and outdoor activities in their spare time.

* Bob Weatherly, Ag Research Tech III Irrigation Technician, oversees irrigation operations. Bob is a native of Tekamah. He and his wife, Beth, currently call Fremont home. They have three grown children.

* Chad Lanik is serving as a temporary staff member at Farm Operations. He is originally from Wahoo and most recently lived in Sublette, Kansas where he worked as a crop consultant for five years. He currently resides near Wahoo. ❑

Kent Thomsen passed away in 2004. We remember Kent in this issue as he was an AgTech II with Farm Operations for many years providing vehicle maintenance and field services. ❑

TRAINING OPPORTUNITIES - Cont. from P. 1

*** Nebraska No-Till Conference *** **Wednesday, February 8** at the August N. Christenson Research and Education Building at the ARDC. The conference will also be held on February 7 at the Ag Center in Holdrege. Registration begins at 9 a.m. with conference from 9:25 a.m.-4 p.m.

UNL Extension will give corn and soybean producers information on how to be successful with minimum and no-till at the Nebraska No-Till Conference.

Producers will learn the benefits of no-till and how it can work for them. Speakers include no-till farmers, university specialists and industry representatives.

Dr. Jill Clapperton of Alberta, Canada's Agriculture and Agri-Food Canada's Lethbridge Research Centre is the featured speaker at both locations. She will speak on research findings and will discuss how soil biology and ecology interact with cropping and soil management systems to facilitate long-term soil quality and productivity. Clapperton is an internationally respected lecturer.

Other topics/speakers/locations include: no-till - making it work in southwest Iowa - David Dukes, grain and livestock producer, Bedford Iowa (ARDC only); water infiltration study in no-till and tilled Nebraska fields - Paul Hay, UNL Extension Educator (both locations); residue management, - Paul Jasa, UNL Extension Engineer (Holdrege only); payments for sequestering carbon in Nebraska - Randy Pryor, UNL Extension Educator (both locations); ten years experience no-tilling in irrigated crop production, - Mark Watson, grain producer, Alliance, NE (Holdrege only); and the value of no-till education Mike Kucera's, State Resource Conservationist (ARDC) and Dan Gillespie, No-Till Specialist (Holdrege).

Pre-registration is due February 1. For more information or to register at the ARDC location, call (402)624-8030 or (800)529-8030 or e-mail at kglewen1@unl.edu. For more information or to register at the Holdrege location, call (308) 995-4222 or e-mail cburr1@unl.edu. Online registration available at http://ardc.unl.edu/notill.htm.

The free event is sponsored by UNL Extension in the university's Institute of Agriculture and Natural Resources, Nebraska Soybean Board, Sustainable Agriculture and Education (SARE), Lower Platte North Natural Resources District, Tri-Basin Natural Resources District, Central Nebraska Public Power and Irrigation District, USDA Natural Resources Conservation Service, Farm Credit Services of America and John Deere Risk Protection. ❑

*** Private Pesticide Applicator Training *** For private pesticide applicators with expiring certification and those seeking first-time certification. Training will be held at the August N. Christenson Research and Education Building at the ARDC on the following dates and times:

Wednesday, January 18 - 1:00-4:00 pm **Wednesday, January 18 - 6:30-9:30 pm**
Thursday, January 19 - 9:00-Noon **Saturday, January 21 - 9:00-Noon** ❑

*** Marketing Workshops *** Two marketing will be offered at the ARDC in February. **Grain Marketing Basics** with Roy Smith will be held on February 14 and **Winning the Game** will be held on February 15. *Watch for more details!* ❑

*** Nitrogen Management Training *** **Thursday, January 19** at 1 p.m and **Wednesday, February 15** at 6 p.m. at the August N. Christenson Research and Education Building at the ARDC. All producers using fertilizer in the LPN-NRD must attend nitrogen certification at least once every four years. ❑

*** NSFGPP Update *** **You are invited to attend the Nebraska Soybean and Feed Grains Profitability Project (NSFGPP) meeting on Thursday, March 9 at the August N. Christenson Research and Education Building at the ARDC. Obtain valuable crop production-related information from on-farm research projects conducted on area farms.** ❑

*** Crop Management Winter Programs *** Start off the new year by enhancing your knowledge with University of Nebraska-Lincoln Extension Crop Management Winter Programs. Registration for the training sessions begins at 8:30 a.m. followed by the workshops from 9 a.m. to 5 p.m. The workshops offer in-depth information from university specialists and private industry representatives. Continuing education credits for the Certified Crop Advisor program also are available. Fees include lunch, refreshment breaks, and workshop materials. Participants can attend one or both sessions.

Program titles, date, location, cost and topics include: Understanding and Managing Spatial Variability in Soil, Feb. 3 in Grand Island; Soil Biology workshop, Feb. 6 in Norfolk; Herbicide Application Technology, March 7-8 near Mead; Managing Corn for High Yield Using Hybrid-Maize Software: Hands-on Workshop, March 14 in Norfolk; Crop Genetic Engineering March 14-15 in Lincoln, and Managing Corn for High Yield Using Hybrid-Maize Software: Hands-on Workshop, March 17 in Lincoln.

For more information or to register call (402) 624-8000, e-mail kglewen1@unl.edu or visit the web at http://ardc.unl.edu/training.htm. ❑

Calendar of Events

JANUARY

5	NRD MUD Well Field Meeting	7:00-9:00pm
6	Ag Programs Advisory Committee	10:00-2:00
9	NSFGPP Consultations	8:00-5:00
10	NSFGPP Consultations	8:00-5:00
18	Private Pesticide Applicator Training	1:00-4:00
18	Private Pesticide Applicator Training	6:30-9:30pm
19	Private Pesticide Applicator Training	9:00-12:00
19	Nitrogen Management Training	1:00-4:00
21	Private Pesticide Applicator Training	9:00-12:00
23	Beef Satellite Short Course	6:30-9:00pm
25	NSFGPP Consultations	8:00-5:00
26	NSFGPP Consultations	8:00-5:00
30	Beef Satellite Short Course	6:30-9:00pm

FEBRUARY

8	Nebraska No-Till Conference	8:00-5:00
10	NSFGPP Consultations	8:00-5:00
14	Grain Marketing 101	8:00-5:00
15	Winning The Game - Marketing Program	8:00-5:00
15	Nitrogen Management Training	6:00-10:00pm

FEATURE UNIT - FARM OPERATIONS - Cont. from P. 1

of an intended track. Planting can be done without markers and allows the operator to skip passes and return to fill in. This is useful when planting multiple seed hybrids across the field in a repeating pattern. Research statistics require random and multiple placement of treatments across a field. For example, if we want to compare the yield between two hybrids, we cannot just plant one side of the field to one hybrid and the second hybrid on the remaining side. We must plant strips randomly across the field. With a conventional marker system, the seed would have to be changed out each pass before starting the next pass. Now we can keep the same seed in the planter, skip passes and continue planting each of the required strips for the same hybrid across the field. When done with the first hybrid, the next hybrid can now be planted in-between the first hybrid, maintaining uniformly spaced planter passes across the field.

Survey - The same RTK GPS equipment can be used to survey land features at sub inch accuracy. This is useful in laying out and recording plots, utilities, buildings, irrigation systems, soil and plant sampling locations, and field boundaries.

Remote Control Irrigation - Center pivots can be controlled and monitored remotely by using radio and the internet from a home or office computer. This saves many hours and trips to each of our 13 pivots and improves the timeliness of irrigation events. Each pivot reports its position in the field and its operating conditions such as water application rate, pressure, travel speed, direction of travel, and end-gun status. Each irrigation event is recorded to aid with irrigation scheduling and research reporting. ❑

Research Project and Siting Assistance

In this issue of *Extended Visions,* we have taken a closer look at the general duties of the Farm Operations unit and the staff. But to give you a better idea of the types of research projects that Farm Operations is involved with, the following is a list of projects that Farm Operations provided assistance with in 2004.

* Carbon Sequestration Project
* IP Harvest and Segregation of P33B51 for Corn Processing Trial
* Fungicidal Soybean Treatment Plots
* Transgenic Soybean Regulated Production Site
* Impact of Insecticide Treatment Timing on Soybean Leaf Beetle Mosaic Virus Vector
* Comparison of Legume Overseeded and Commercial Nitrogen Pasture
* Insecticide Resistant CRW Larval Migration
* Soybean Rust Treatment Application Method Trials

RESEARCH PROJECT AND SITING ASSISTANCE - Cont. on P. 4

Opportunities to Learn and "Grow"

It's not too soon to start thinking about lawn, garden and acreage plans for next year. Check out these late winter/ early spring horticulture programs!

Creating A Horticulture Paradise' Series

Time: 7-9 p.m. Cost: Free
Location: UNL Extension in Dodge County, 1206 W. 23rd Street, Fremont
Contact: Sarah Browning, (402) 727-2775, sbrowning2@unl.edu

February 21 ***Success With Seeds***
Joan Steffensmeier, West Point Garden Center

February 28 ***Run For The Roses***
Kim Todd, UNL Landscape Horticulture Specialist

March 7 ***Rain Gardens: Putting Rainwater to Work in Your Landscape Beds***
Kelly Feehan, UNL Extension Educator

March 14 ***Pollinating Insects In Your Garden***
Nick Aliano, UNL Department of Entomology

March 21 ***Rethinking Shelterbelts***
Justin Evertson, Nebraska Statewide Arboretum

Master Gardener Training

March 2-30 Time: 9:00 a.m.- 4:00 p.m Cost: $150.00
Location: UNL Extension in Dodge County, 1206 W. 23rd Street, Fremont
Contact: Sarah Browning, (402) 727-2775, sbrowning2@unl.edu

Acreage Insights- Rural Living Clinics

January 14 - ***Wildlife Enhancement***
February 18 - ***Growing Fruit Trees: Culture, Training & Pruning***
March 18 - ***Vegetable Gardening in Nebraska***
April 15 - ***Horse Nutrition and Management***
Time: 9-11 a.m. Cost: preregistration $10.00/ person, at door $15.00/ person
Location: Location: UNL Extension in Dodge County, 1206 W. 23rd Street, Fremont
Contact: Sarah Browning, (402) 727-2775, sbrowning2@unl.edu
Registration form: http://acreage.unl.edu

Selecting the Right Horse for You & Conducting A Profitable Horse-Related Business

Date: February 23 Time: 7-8 p.m. Cost: $30.00/ person
Location: At home presentation, via participants computer. Must have a separate phone and computer line to participate. Registration form: http://cit.webex.com

Commercial Pesticide Applicator Training

Dates: Initial- February 7, categories Ag Plant, O&T, R-O-W, Seed Trt
Recertification training for those who have current licenses will be February 9.
Categories covered include O&T, ROW, Structural, and Wood Destoying Organisms.
Time: 9:00 a.m. Cost: $30.00 Contact: UNL Pesticide Education (402) 472-3574. ❑

RESEARCH PROJECT AND SITING ASSISTANCE - Cont. from P. 3

* Effect of Occasional Tillage of No-Till Systems and Soil Carbon
* Nebraska Soil Fertility Project - Mead Site
* Phytophthora Resistance Screening of Soybean Varieties
* Environmental Impact of Land Application of Beef Feedlot Manure
* Spring Grazing Effects Under Various Crop Tillage Practices
* Compost Yard Effects on Crop Production - Alfalfa
* Grazing on Conventional and Ridge Till Plant Crop Production Systems
* Corn Rootworm Genetic Evaluations Isolation
* Systems Cattle Late Spring Grazing

Other Investigations and Assistance

* AGRO/MSYM/AGEN 431 Site-Specific Crop Management Class Laboratories
* MechSysMgt 452/852 Irrigation Systems Class Laboratory
* Crop Diagnostic Clinic Planning, Site Field Work, Equipment
* Supplemental Fertilizer CSP Corn Production Sites
* Soybean Cyst Resistant Variety Comparison
* Entomology Field Planning and Operations-General Research Area
* Wheat Greenhouse Area
* Sustainable Ag Projects (forage harvest NH3 fertilizing, and equipment storage)
* Compost Treated Fields Harvest Yield Comparisons
* Land Area Transfer Field 1-15
* Beef Feedlot Spring Drylot Field Management
* Beef Lagoon Irrigation Management
* Swine Lagoon Manure Irrigation Management
* Ag Awareness
* Foundation Seed Production (Wheat-Corn-Soybean Harvest, Pest Management, Irrigation, Equipment). ❑

Partnerships Are Priceless

by Kris Spath, Agriculture Education Instructor

M.E.A.D
Making Education in Agriculture Different

Partnerships are priceless when education is involved. This has been proven many times over as Mead High School and the ARDC have provided many unique opportunities for students. Students involved in the Plant and Soil Science course have been involved in research conducted on golf turf grass and the effect compaction has on ball speed. Earlier this fall, students traveled the 3 miles to the turf grass research area once a week to collect data to determine the grass type and its effect on golf ball speed.

The turf grass research area has employed 7 students from Mead over the past 5 years. These students have used their experiences as a resume builder for future careers in agricultural fields.

Animal Science students have taken advantage of several field trip opportunities to the dairy and swine research areas. During the field trip to the dairy, students were able to gain hands-on experience with feed ingredients used in the lactation diet at the research area. Housing and equipment requirements were explained by Dairy Unit Manager, Erin Marotz. Students were also able to view one of the many fistulated cows. Erin explained the reason for permanently installing an opening into the rumen. Fistulated animals allow nutritionists to conduct valuable research on ruminant animals. "I thought the use of cottonseed in the feed was interesting. It is added to increase the fiber in the rumen which causes the stomach to be more efficient," said Robert Hartgrave, a sophomore animal science student.

Another eye-opening experience for the animal science and agricultural technology students was the shower in/shower out swine research facility. Adam Wimer, a sophomore agriculture technology student, was impressed by the barcode eartag system where weight, litter size and date of birth are entered into a computer when the piglets are processed shortly after being born. Daryl Barnhill, an employee of the swine research area, showed students from the animal science and agricultural technology classes how the information on any animal can be viewed at any time by passing an electronic reading devise over the barcode found on the eartag. The swine research unit also uses tags with computer chip technology to gain similar information.

Shown wearing boots and clothing provided by the Swine Unit during their visit are students Adam Wimer, Adam Taylor, Ally Selko, Robert Hartgrave, and Brittany Morin.

The formal partnership between Mead Public Schools and the ARDC was created in 1999 when Mead became an Agricultural Magnet School. The research center is in such close proximity to the high school allows many classes to take advantage of the diverse resources available. Many teachers from various curricular areas at Mead High School are thankful for the priceless resource in their backyard! ❑

This issue of *Extended Visions* was produced and edited by Deloris Pittman, Marketing & Promotions Manager. Extended Visions is published bimonthly by the University of Nebraska ARDC & University of Nebraska Extension in Saunders County, 1071 County Road G, Room A, Ithaca, Nebraska, 68033-2234.
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Daniel J. Duncan, Director, University of Nebraska-ARDC * Keith Glewen, Extension Educator Unit Leader
Farm Operations feature articles and information provided by Mark Schroeder, Associate Director and General Farm Manager, UNL ARDC.