

**NDSU**  
**DICKINSON**  
 Research Extension Center

IOWA STATE UNIVERSITY  
 College of  
 Veterinary Medicine

**A COLLABORATIVE EFFORT  
 PEOPLE, LAND & LIVESTOCK**

SHARING NORTH DAKOTA RESOURCES

JANUARY 30, 2006

**Dickinson Research Extension Center**  
 A Place For Research, Education, Experience

**DREC Beef Cow Inventory**  
 July 2002-June 2003

An Active  
 Beef Cow  
 Operation  
 Implementing  
 The Latest  
 Technology

Integrating Veterinary Care With Livestock Management

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**Dickinson Research Extension Center**  
 Matching Technology and Beef Production

**CHAPS™**  
 Source & Age Verification  
**CalfAID™**  
 Electronic ID  
 Agri-Security  
 Producer Network  
 Practical Veterinary Experience

- Blood Draws
- Ultrasound
- Forage Analysis
- Teamwork Approach
- Equipment Management

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**COW HERD APPRAISAL PERFORMANCE SOFTWARE**  
**CHAPS 2000**

Internationally  
 Recognized Beef Cattle  
 Record Keeping Program

**CalfAID™**  
 A Professional Team  
 With A Fully Mobile  
 Working Chute and Corrals  
 To Help Beef Producers!

USDA  
 PROCESS  
 VERIFIED

Electronic Animal ID  
 Source & Age  
 Verification Through  
 DNA Management  
 Trailback

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## Dickinson Research Extension Center

Professional Research For The Horse Industry

An Active Equine Program

Researching:

- Mares
- Yearlings
- Foals
- Studs
- Draft Horses
- Nutrition
- Reproduction
- Foaling
- Heath Care
- Recreation Riding
- Draft Horses

Maintaining a Coalition With Area Horse Breeders

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## Dickinson Research Extension Center

Keeping Agriculture And Food Production Safe

Agri-security: A Challenge That We Face To Protect Our People, Our Livestock, Our Land

Sharing Resources To Provide A Safe Environment

Integrating Veterinary Care With Livestock Management

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## Dickinson Research Extension Center

An Active Agricultural Production Unit

Land Use	Acres
Cropland	1,164
Alfalfa	250
Agronomy Research	80
Tame Hay	507
Annual pasture	76
Altai Wildrye	59
Crested Wheatgrass Pasture	56
Native Range	2,589
Tree Nursery	6
Oil Well Sites	10
Ranch Farmstead	51
DREC Headquarters	48
Corrals	2
Various	81
<b>TOTAL</b>	<b>4979</b>

(BASED ON CROPPING HISTORY)

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## Dickinson Research Extension Center

Sharing Ideas Through Hands-On Experience & Education

The alliance between North Dakota State University, the Dickinson Research Extension Center and the Iowa State University College of Veterinary Medicine creates many educational opportunities by providing hands-on experience to veterinary student interns. With strong leadership and dedicated faculty and staff providing guidance and support, the alliance can develop a program which provides veterinary student interns practical experience supplementing classroom learning and enhancing their skills.

To provide education and experience, program development must be strong and consistent. Key elements of program development include:

- Communication
- Mentoring
- Teamwork
- Opportunities
- Outcomes
- Schedule

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Summers provide veterinary students with the opportunity to supplement their traditional classroom experiences. The Dickinson Research Extension Center, North Dakota State University and Iowa State University College of Veterinary Medicine alliance can offer unique opportunities to enable veterinary student interns to build on classroom experiences through real-world, hands-on experience. While other summer programs for vet students exist, the alliance, due to its resources and dedicated faculty and staff, has the opportunity to create an outstanding program meeting the needs of veterinary student interns.



Program development must recognize the experiences and expectations of veterinary student interns and communicate what the program can do to meet students' needs. An assessment of students' previous experience, comfort in working with large animals and career goals must be completed in order to tailor the program to each student's expectations and interests. Communication needs to continue once on-site. Interns, mentors and existing staff can join forces to optimize the use of time and resources. This can result in improved learning situations for interns, completion (or ini-

- ### Key Elements
- Clear program goals and expectations
  - Involvement of students, faculty, mentors, administrators, staff
  - Assessment of previous experience and career goals
  - Commitment to communication

tion) of new research projects and data collection that will be reflected in internal, annual and published reports for the DREC.



Success as a veterinarian begins with the development of meaningful relationships with veterinarians and other agricultural professionals to provide a network of resources. The first step in building this network occurs during the internship. These relationships can be the springboard for strengthening the alliance between NDSU, DREC and ISU CVM.

An active mentoring program provides interns with knowledge and experience that they can use in developing their own careers and in serving large animal producers. Mentors serve as models and sounding boards to assist in providing opportunities for course work and/or specialization. Development of a successful mentor/intern relationship involves collaborating to establish a list of interests, goals and desired outcomes. For veterinary students, a veterinarian on staff who could work with veterinary interns is the desired setup. If that is not possible, working with an NDSU veterinarian, ISU veterinarian or a private veterinarian is the next best situation.



- ### Key Elements
- Communication between mentors and interns
  - Networking with fellow professionals
  - Sharing data and ideas regarding data collection and research
  - Development of goals, interests and outcomes for the intern



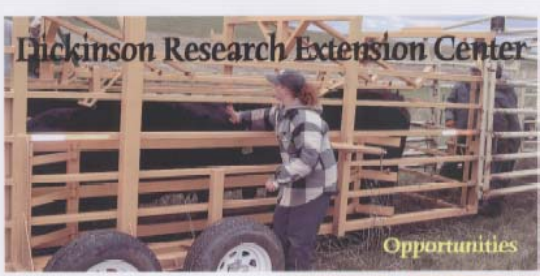
A key element of internship programs is to provide experiences that are not available in traditional classroom settings. For students considering careers in large animal medicine, knowledge of large animal behavior and experience observing and handling large animals are fundamental skills that need to be learned in a rural setting. DREC has the facilities and resources to provide interns with opportunities to gain experience working with large animals including sorting, penning and restraining. Interns also have the opportunity to learn and practice techniques for blood collection, injections, palpation and ultrasound.

Integration of interns into DREC's existing biosecurity and animal identification/source verification teams allows them to play an active role and gives them an understanding of current issues in animal agriculture. Combining hands-on experience with discussions about production practices at DREC and in Southwestern North Dakota provides interns with an insight into the role of management practices in agricultural economies.

The Center's extension and research missions and the College of Veterinary Medicine's commitment to research can provide interns with opportunities to engage in

- ### Key Elements
- Team approach with strong administrative leadership
  - Interns placed in their areas of interest
  - Develop teamwork and networking skills
  - Stipend system and housing for interns

data collection and summarization on a variety of production and animal health issues. An alliance between DREC, NDSU and ISU CVM presents a wide range of possibilities for engaging in research and data analysis and opportunities to report on findings.



Building a team requires leadership to create opportunities. The DREC, NDSU and ISU CVM alliance has the professional talent to make this program succeed.

Placing students on projects in their areas of interest (i.e. horses, sheep, cattle, forage, etc.) is important. Interns work together as a group on projects and as part of larger teams at



DREC. This provides experience working as a team in a variety of settings. Program administration is central to success. The program coordinator must be aware of opportunities as they arise and implement a plan to reap the benefits of the experience for the interns. Offering stipends and housing to interns not only compensates them for their contributions to the program, but also makes it financially possible for them to participate in the program.

# Dickinson Research Extension Center



Outcomes

FEBRUARY						
	1	2	3	4		
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

### FEBRUARY

#### Information packets sent to ISU CVM containing:

- Description of research projects scheduled for the summer and principal investigator contact information
- A list of potential student projects available at the DREC to provide students with an idea of the scope of opportunities available at the Center
- Program dates (starting early June ending mid August)
- Program expectations
- Stipend and housing information
- Application requirements: Transcripts, CV/Resume, letters of reference, statement of purpose

MARCH						
	1	2	3	4		
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

### MARCH

Applications due

APRIL						
			1	2	3	
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

### EARLY APRIL

Notification of acceptance and specific information regarding start dates, housing, etc. Interns complete and return interests and skills assessment form.

### Key Elements

Hands-on experience working with large animals

Understanding the scope of agriculture and integration into the food chain

Use data to determine treatment protocols for large animals

Experience recognizing injury and/or sickness in individual animals or herds

# Dickinson Research Extension Center



Schedule

MAY						
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

### MID MAY

Students arrive at the DREC  
Orientation and introductions



2005 Iowa State University vet interns at the Dickinson Research Extension Center: Amy Kafer, Cheryl Ela, Crystal Magenau

JUNE						
			1	2	3	
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

### JUNE - AUGUST

Internship activities

As a part of the NDSU Extension Service, the Dickinson Research Extension Center conducts research in all areas of agricultural production. DREC manages beef cattle and equine systems and has approximately 5,000 acres of land. Supporting agronomic systems research and nutrient management research is also conducted at the Center.

The DREC works closely with other extension research centers in the region which creates additional educational opportunities for interns.

AUGUST						
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31