

Equine Program

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The horse industry has a total impact on the US Gross Domestic Product of 112 billion. This is ~16% of the gross national product (GNP) of the Agriculture Forestry & Fisheries section of the U.S. economy. In comparison with specific sectors of the manufacturing sector, this industry is 83% of the GNP of the textile mill products sector, and 65% of the lumber & wood products sector. It equals the combined output of the tobacco and leather products industries. Over 70% of the 6.9 million horses in the United States are involved in either competitive showing or recreational use, with the balance in racing. The total employment impact is approximately 1.4 million jobs. The equine program is an integral part of the Animal Science Department. The demographics of Animal Science students will continue to shift toward increasing demand for a quality equine program. The equine program consists of a variety of classes and outreach activities designed to have each student increase their knowledge of the care of horses, have each student increase their knowledge on the management of horses and horse facilities and be competent in these skills, have each student increase their interpersonal skills, have graduates satisfied with their experience within the program, and to educate youth and horse owners in the state.

Instructional Program

Horsemanship & Equitation (ANS 115)

Equitation classes are held off campus at a private stable. Sections consist of beginning, intermediate and advanced. The beginning level accommodates the basics of riding the western and hunter type horse. Topics include type and fit of equipment, proper grooming and riding class protocol in the barn as well as the ring, the fundamentals of position, control on the flat, and important safety procedures. The intermediate course provides further

development of all fundamental through introductory knowledge and riding skills to include development of balanced seat, hands and posture, posting and sitting trot, canter, and basic ring figures. The advanced class continues development of the riding seat. The class is taken for one academic credit on a pass/fail basis and may be repeated up to three times. Each semester 25-35 students take the course.

Equine Science (ANS 216)

Each fall semester 50 students enroll in Equine Science, a lecture/laboratory course designed to increase the student's knowledge of horses and the basics of the horse industry. The primary objectives are (1) to familiarize & expand the students knowledge of the anatomy of the horse (2) to familiarize the student with predicting serviceability of a horse (3) to familiarize the student with the digestive system and feeding programs for horses (4) to become adept in developing health maintenance programs for horses (5) to become familiar with barn design and requirements (6) to understand well-being issues concerning the horse, and (7) to learn terminology used in the equine industry. Examples of student activities include:

Animal Welfare Debate – Students are assigned a team and topic concerning animal welfare issues. Topics include pregnant mare urine collection farms, horse slaughter, rodeos, and wild horses. Teams are assigned to be either for or against the topic. The teams debate the topics during a laboratory session.

Equine Information Forum - In this event students are required to display posters on a variety of topics related to horses. Flexible learning allows the students to choose a topic of interest to them. Topics have included everything from West Niles to Horse Behavior. In conjunction with an open house held at the horse barn, the students display their posters to the public. The public can evaluate the poster and ask the students questions about their topics. In 2003 over 300 people attended the forum.



Figure 1. Bobbi Heimbaugh presenting a poster on Acupuncture at the horse barn open house.

Training the Horse (ANS 316): The class is held in the fall semester. Class size is limited to 16 students. Students learn about modifying the behavior of the horse for performance objectives through biting, longeing, saddling and riding. Each student is assigned a horse to train for the semester. The student needs to problem solve the horse's behavior to train the horse so that it can be ridden by the end of the term. Prior to 2002, most of the horses used in the class were University owned horses. In 2002, client owned horses were recruited for the class. Each client pays a fee to the barn to have students train the horse. Students are required to write professional letters to the owners and keep them updated on the horse's progress. Students also meet with the owners at the end of the class and demonstrate to the owner the progress they made with the horse. The class is a great practical teaching experience for the students. In 2003, at the open house at the horse barn, students had to demonstrate training techniques to the public.



Figure 2. Mason Kolbet demonstrating round-pen training at the horse barn open house.



Figure 3. Jason Dingbaum demonstrating How Horses Learn – Pat Parelli’s Seven Games at the horse barn open house.

Equine Systems Management (ANS 415): The senior course teaches management techniques. Students learn computer-aided management of horse operations, business issues such as liability and insurance, nutritional management of horses including evaluation of rations, and current concepts in reproductive management of horses. On average, 35 students take the class in the spring. Examples of student activities include:

Foaling Project – Students are divided into groups and assigned a mare that is due to foal. The mare is brought

up to the barn ~35 days prior to her due date. For their assigned mare, the groups record general information on the mare - weight before foaling, weight after foaling, body condition score prior to foaling, nutritional status, health and hoof care and a brief reproductive history, record signs of approaching parturition in the mare, predict foaling using a predict-a-foal test, foal watch from 9:00 pm – 7:00 am, record foaling signs, and work with the foal after it is born (dip the umbilical cord, halter train, etc.)



Figure 4. Hey Marthy (Thoroughbred mare) foaling on 3/14/03.



Figure 5. Hilary Dunn with her assigned foal.

Horse Management Project – Students are required to develop a comprehensive plan for an equine facility. Scenarios are given to the students. From the scenario, an annual budget is developed. Also costs for facilities are developed. The goal is to have students evaluate a budget for an equine facility.

Nutrition Evaluation – Feeds and feeding programs are discussed. From discussions, students use a commercial nutrition program to evaluate feeding programs for horses.

Horse Management Marketing Enterprise (ANS 416X): Students gain first-hand experience in management of a horse facility and preparing horses for sale. The enterprise teaches responsibility, allow students to apply principles learned in classes, and provides the forum for more intensive learning in areas of students' interests. Activities for the class include:

- Preparing a horse for sale to include lunging, brushing, clipping, trimming etc.
- The students sell the horse privately or an auction. In 2003, an on-line horse sale auction was held for the first time. The on-line auction was advertised in various magazines around Iowa. Each horse was listed with a minimum bid. The public could bid on-line to purchase the horse. Two horses were sold via the on-line auction. The remaining horses will be sold privately or taken to a public horse auction. Students were involved in preparing the on-line page for their sale horse.
- Students manage the open house at the barn. At the open house, students meet with the public, discuss the horse program and help sell horses.

- Students design and update the web page for the horse barn (www.public.iastate.edu/~horsebarn)

Horse Management Breeding Enterprise (ANS 417x): Students gain first-hand experience in management of a horse facility and breeding horses. Activities for the class include:

- Collecting stallions for use in artificial insemination
- Inseminating mares
- Preparing semen for cooled, shipped transport
- Helping with a Breeding Management Workshop held in February for the public. At the workshop students are assigned a stallion and participant. They help instruct each participant on evaluate stallion semen (motility, concentration and volume).
- Students design and update the web page for the horse barn (www.public.iastate.edu/~horsebarn)
- Student's design and update advertisements for stallions standing at ISU.

Horse Teaching Herd

The teaching herd consists of over 40 Quarter Horses, Paints and Thoroughbreds that are used in the Horse Teaching Program and Out-reach program. Horses for the program are obtained from donations, breeding and raising University owned horses and trades. Clientele owns some stallions where the program stands the stallion to the public for breeding purposes. During the past few years, the department has been donated exceptional mares and stallions for improving the program

Table 1. Horses used in the teaching and outreach program

Type	Purpose of horse
Stallions – Thoroughbred, Quarter Horse and Paint	ANS 332, 415, 417x Breed ISU and privately owned mares. Used for the Breeding Management Workshop.
Bearly Hot – Paint	Donated by Dr. Maurice Wilkerson from Texas. An outstanding prospect that has been in the top 5 at the APHA world shows twice, and has his superior in amateur and open western pleasure.
Bravo Bull – Thoroughbred	Donated by Sandra Rasmussen from Des Moines. An outstanding prospect that has won \$128,000 at the racetrack. His sire, Holy Bull has get with earnings over \$17,000,000 and his dam; Brave Raj was champion 2-yr old filly in U.S. winning \$933,650. She is the dam of 8 winners earning over \$362,000.
Ive Paid My Dues – Quarter Horse	Owned by Becky Merrill. (Marshalltown, IA) A young stallion with an outstanding pedigree. Sire A Sudden Impulse is one of the top leading sires of performance horses. Dam Just Step Aside was 3X World Show top ten-trail horse.
I Inspire – Quarter Horse	Owned by Jason Baxa (Nebraska). AQHA world show top 10 western pleasure. Sire of multiple performance point earners.
Lil Pine Paragun - Paint	Owned by Stephen Rochleau. Superior halter horse. Western pleasure ROM. Sire of champions.
Im Obviously Easy – Quarter Horse	Owned by Joel Olson. At the AQHA world show in November 2003, he took 9 th place in Amateur Aged Stallions. He is the leading open halter stallion in Iowa (2003) and he is 2 nd in amateur halter stallion in Iowa.
Mares – Thoroughbred, Quarter Horse and Paint	ANS 114, 216, 332, 336, 415, 417X Produce foals for sale & for use in classes. Used in breeding management workshop.
Weanlings & Yearlings	ANS 216, 316, 415, 416X Weanlings and yearlings are for sale at all times. Thoroughbred yearlings are sold at the Iowa Thoroughbred and Breeders sale each fall. Quarter Horses and Paints are sold privately, at the on-line sale or at public auction.
Geldings	ANS 114, 216, 313, 316, 415, research

Equine Extension Program

Horse Show Judges' Certification Clinic: Each year the clinic is held in the fall. Attendees include current horse show judges; individuals aspiring to be horse show judges, 4-H leaders and youth. The primary goal of the clinic is to provide high-quality training for judges working with 4-H youth and to provide information to individuals wanting to learn how to judge. Eight (8) to ten (10) classes of horses

are judged. Each participant places the class, and they are giving a score for their placing. Individuals wanting to be on the judges' list also take an open-book written examination. From attendees who pass the practical and written examination, a directory of 4-H horse show judges is developed. The list is used by a variety of individuals hiring judges for horse shows. The list of judges is available to the public – <http://www.public.iastate.edu/~horsebarn/>

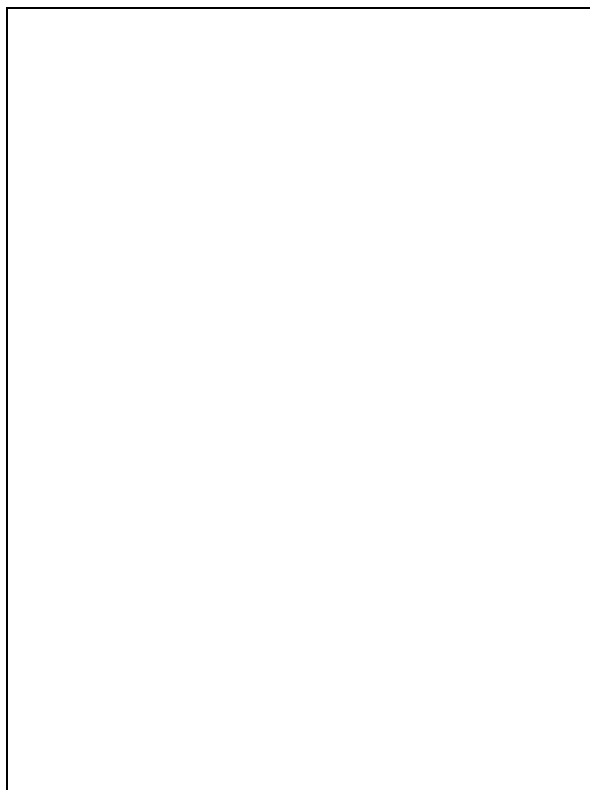


Figure 6. Jocelyn Daly from Clive riding western pleasure at the 2003 judges certification clinic.

Horse Breeding Management Workshop – The first annual workshop was held in February 2003. Class size was limited to 10 individuals to allow them to obtain practical experience. The morning session consisted of presentations about stallion anatomy and physiology, mare anatomy and physiology, foaling, embryo transfer. In the afternoon session, participants were shown how to collect a stallion, evaluate semen, and artificially inseminate a mare.

Horse Owners Conference – The first annual conference was held in March 2003. The program was designed for adults and a session was provided for youth. Sessions were divided into Health Care, Nutrition, Mare & Foal Care, and Business Management. Speakers included veterinarians from the ISU equine clinics, and industry representatives. Approximately 100 people, including youth attended the first year.

4-H Horse Advisory Committee

In 1994, Dr. Miller and the 4-H and Youth Department recruited an Iowa 4-H Equine Advisory committee. The goals for this committee were to recommend and assist with organizing selected activities to support the Iowa Youth and 4-H horse program; help promote and actualize the youth horse program; establish a system for evaluating the program and revise as necessary to better meet the needs of participants; and assist in insuring that youth and adult volunteers and Extension staff that work with the horse

program are trained in the curriculum and use approved methods of instruction, horsemanship and humane treatments of animals. The committee and Dr. Miller-Auwerda have expanded the youth program immensely. Publications revised or written include A 4-H Guide for Equine Shows in Iowa, 4-H Horse and Pony Project Guide, 4-H Horse and Pony Project Worksheet, Horseless Horse Project, Iowa 4-H Horse Lease Agreement, and the Horse & Pony Identification Form. Events added since the inception of this committee include Youth Jamboree at the Iowa Horse Fair (see below) and the 4-H Leader Training Programs held via the ICN (see below).

4-H and Youth Equine Endowment Committee – The committee was designed to raise funds for the 4-H and youth horse program. The endowment currently has over \$30,000 in it. Only the interest is used for expansion of programs. Interest from the endowment has been used for travel funds for the state 4-H winning teams to travel to nationals and equine educational grants for 4-H or youth groups. Grazing News – An on-line newsletter recently added for education of the 4-H horse leader. Members of the committee, the state 4-H office, and professors and outside contributors submit the information to Dr. Miller who designs and edits the newsletter. The newsletter can be found at <http://www.ans.iastate.edu/equine/>

4-H Horse Leaders Training – The leaders training program is administered via the Iowa Communications Network

(ICN). Topics have included youth development, working with 4-H groups, dental care, health care, bits and biting, activities and the horse jamboree held at the Iowa Horse Fair, how to give oral reasons and much more. Seventy-five to 200 people have participated per session.

Youth Jamboree at the Iowa Horse Fair

Approximately 300 youth per year participate in the youth jamboree. Activities include the following:

Showmanship/riding clinics

The clinics provide an excellent opportunity for youth to receive instruction in the areas of Western or English Showmanship, Western Horsemanship, Hunt Seat Equitation, Reining, and/or Trail. Youth bring their horse/pony to participate in the clinic.

Team grooming contest

Fifteen junior and senior teams representing 15 counties will participate in this contest. Each team randomly draws a horse for the contest. While the youth are taking a written examination, a "dirt demon" committee dirties the horses. On signal the youth are allowed 15 minutes to groom/clean the horse. The contest is scored on grooming, teamwork, equipment used, safety practiced around the horse, showmanship and the written examination score.

Horseless Horse Activities at the Youth Jamboree- For the activities listed below, all youth can participate even if they do not own a horse.

Hippology

Hippology is the study of horses. The contest tests youth on their understanding of equine science and management and their ability to apply that knowledge in practical ways. There are four members per team or youth can participate as an individual. Parts of the contest include identification of horse equipment, stations where youth answer questions on colors, breeds, nutrition, health, behavior etc. Senior youth have to take a written examination and senior teams have to answer an oral team problem. The winning senior team represents Iowa at the Western Nationals in Denver.

Horse bowl contest

Horse bowl is an educational experience for both participants and spectators. Each team consists of 4-5 members, four of whom compete at one time. The contest is divided into two parts, with the one-on-one part of the competition making up the first half and open questions making up the second half. All questions are taken from approved sources, all relating to horses or participation in equine related activities. The winning senior team represents Iowa at the Western Nationals in Denver.

Horse demonstration – individual and team

Horse Demonstration encourages youth to teach others how to do something related to horses by the correct use of visuals and equipment. Subject matter must pertain to the horse industry, and judges have the power to disqualify inappropriate topics. This contest may be a demonstration or an illustrated presentation. Creative audio-visual aids are encouraged, as long as the contestants are involved in making or designing them. However, no live animals are to be used. Notes can be used, but excessive use will be penalized

Horse public speaking contest

Horse Public Speaking provides youth with the skills, confidence and poise in speaking to groups. Subject matter must pertain to the horse industry. Inappropriate speeches can be disqualified at the judge's discretion. No visual aids can be used. Notes are allowable; however, excessive use may be penalized.

Horse essay contest

The objectives are to stimulate youths to expand their horse knowledge and learn how to use and interpret resources available on different subjects and to recognize youths that have studied hard and can express their ideas through writing. Essays must be related to horses or the horse industry and are limited to 1,000 words or less.

Horse drawing

The objectives are to encourage youth to broaden his/her horizons and utilize creative talent and to increase awareness of horse's through exhibition of drawing. Only one entry per exhibitor will be permitted. All exhibits are to be original works of the exhibitor.

Horse painting

The objectives are to encourage youth to apply artistic talent, to increase knowledge and skill in equine-related painting, and to learn the value of developing visual exhibits in areas of specific interest. Only one entry per exhibitor will be permitted. All exhibits are to be original works of the exhibitor and relate to horses.

Horse photography

The objectives are to encourage equine-related photography by youth, to help youth gain self-confidence and develop life-time photographic skills and abilities, to increase knowledge of photography in general and specifically as it applies to horses, and to learn the value of organizing and developing visual exhibits in a specific area of interest.

Horse poster

The objectives are to provide a medium for youth to visually show their interest in horses, to enable youth to improve their skills in linking words and visuals into an appealing unit, to enable youth to learn the process of developing good design and experience the need for careful craftsmanship and neatness, and to increase public awareness of the horses through illustrative displays.

Clotheshorse

The objectives are to provide an educational opportunity for youth to exhibit their sewing and/or craft skills pertaining to the horses, and to encourage youth to explore and develop economic alternatives for themselves and their horse.

Horse poetry

The objectives are to encourage youth to gain better contact and use of the English language, to stimulate youths to expand their horse knowledge and learn how to use and interpret resources available on different subjects, and to recognize youths who have studied hard and can express their ideas through writing poetry.

Model horse show

The objectives are to provide an opportunity for youth to exhibit their model horses, to increase knowledge

and skill in equine shows through the use of showing model horses, and to increase awareness of the Horseless Project through exhibition of model horses

Iowa State 4-H Horse Judging Contest – The objectives are to train future leaders for Iowa’s growing horse industry, to provide youth a chance to develop decision-making skills by observing and evaluating horses, to develop communication skills through oral reasons, and to provide youth an opportunity for personal growth and development in an activity beyond the county. The annual judging contest is held in conjunction with the FFA horse-judging contest at Kirkwood Community College. Teams of 3-4 judge live classes of horses and are scored on these classes. In addition, youth are required to give oral reasons on two classes. The winning senior team represents Iowa at the Western Nationals.

Summary

The horse program is designed to educate students, youth and adults interested in horses. A variety of classes instruct students on everything from basic horse care to breeding management. The out-reach program educates both youth and adults. Youth have multiple activities they can perform each year, while the adult program focuses on adults working with youth and educating adults about current horse management techniques.