

Equine

UPDATE

Kansas State University Agricultural Experiment
Station and Cooperative Extension Service

Department of Animal Sciences & Industry

http://www.oznet.ksu.edu/dp_ansi/news.htm

Winter 1997

KSU Horseman's Conference Enters 15th Year

The annual KSU Horseman's Conference will be held on March 7 at the Student Union on the K-State campus in Manhattan. The conference will feature an industry-sponsored trade show and educational sessions.

Program Schedule

7:30 a.m. - Registration Opens

8:00 a.m. - Trade Show Opens

9:45 a.m. - Welcome

10:00 a.m. - Emergency Care: What does the horse owner need to have on hand for emergencies? K-State Department Of Clinical Science

10:45 a.m. - Q & A Panel - Health Care, K-State Department Of Clinical Science

11:00 a.m. - Feeding Fat to Horses, Dr. Rob McCoy, Animal Nutritionist, Manna Pro, St Louis

Noon - Lunch & Trade Show

2:00 p.m. - Massage Therapy: Where does it fit into horse care? Jacqueline Wilt, ESMT, Manhattan

3:00 p.m. - Hauling Horses: What safety concerns should horse owners keep in mind? Terry Champagne, Champagne Trailer Sales, Hoyt

4:00 p.m. - Trade Show

5:00 p.m. - Close

6:30 p.m. - K-State Invitational Horse Sale.

Registration fees are \$8 which includes admission and lunch. For registration information (see form on page 3) contact Monika Walburger at 785-532-1267. Registrations are due February 25th. Trade Show costs this year are \$125 and \$50 for profit and non-profit organizations, respectively. For trade show information, contact Monika Walburger or Mark Arns (785-532-1246, email: marns@oz.oznet.ksu.edu).

K-State Research and Extension Equine Program Information Soon to be Available on the Web

Beginning in 1998, producers and 4-H'ers wanting information regarding K-State programs and resources will be able to access that information through the World Wide Web.

Currently, the Department of Animal Sciences & Industry hosts a home page that contains teaching, research and extension information. Very little information regarding the Equine program has been available in the past.

The site has two main sections: a youth site and an adult site, each of which are accessed through the Welcome Page. The youth site has information on all upcoming competitive and educational events that are sponsored by K-State. Registration information as well as eligibility requirements can be downloaded. In some situations, program registration will be available electronically. The adult site contains information regarding educational programs and resources that are available through K-State Research & Extension. The Equine site can be located through the AS & I Home Page (http://www.oznet.ksu.edu/dp_ansiwelcome.htm). This newsletter, along with all Animal Sciences and Industry newsletters, is available electronically, see above address.

New Computer Programs Currently Being Developed in the Equine Area

In an effort to improve upon the resources that are available to Kansans who have interests in Equine Science and Production Management, K-State Research & Extension has committed to developing software that will benefit and enhance our current program.

Three software programs are currently in the works: "K-Horse," an MS Dos-based ration balancing program; "Horse Judging," an interactive CD-ROM that covers basic horse identification, as well as evaluation criteria for several classes; and "Equine Reproductive Physiology & Management," an interactive CD-ROM that will provide basic information on the reproductive physiology of the mare and stallion, as well as applied management information.

The K-Horse program is available now and can be purchased for \$50 by contacting Monika Walburger (785-532-1267). The Horse Judging CD ROM will be available by mid-summer, and the Reproductive Management CD-ROM by late fall.

In an effort to maximize the efficiency of the initial offerings, we are seeking input from Kansas producers and 4-H families in terms of their current computer capabilities. Please complete the enclosed survey and help us do a better job in serving you.

KSU Reproductive Management Schools Offered Two Times this Spring

K-State Research & Extension, in conjunction with Colby Community College, will offer two, two-day workshops

on Equine Reproductive Management. The workshops include approximately eight hours of lecture and eight hours of hands-on instruction.

The schools are intended for those either actively involved or interested in getting involved with breeding horses. The workshops are centered around artificial insemination practices and include sessions on the use of transported cooled semen.

The schools will be held at Colby on March 14 -15 and March 21 - 22. For further information, contact Dr. Gary Webb at 785-462-3984 (ext. 255) or Dr. Mark Arns at 785-532-1246.

Fooling Mother Nature: Advancing the onset of the Breeding Season

Producers who raise horses are often challenged with restrictions that are imposed by the nature of the mare's reproductive cycle, as well as limitations that are put forth by the breed associations. One of these limitations is the universal birth date of January 1. For those of us located in the Midwest, this forces the breeding season to start prior to when Mother Nature intended.

Under natural conditions, most mares are reproductively active only during seasons of the year when day length is long. This corresponds to about mid-April to mid-October for mares located in Kansas. During the remaining months of the year, most mares have a period of reproductive quiescence (anestrus), a time in which the mare does not exhibit behavioral estrus or release oocytes (egg). This presents a problem for producers who are in the business of raising horses for competition or sale, because even though foals are born in April or May, their birth date is considered January 1. The foals which are born closer to the universal birth date are several months more mature than their May counter parts, which may be advantageous during competition.

Although several university's are working on hormonal manipulations to get the mare to cycle (ovulate) during anestrus, the only effective method available to producers to advance time of reproductive activity in the mare, is to place the mare under lights. The use of an artificial photo period that mimics the photo period of "spring" will fool the mare's endocrine system, and subsequently her reproductive system, into thinking that it is spring.

The traditional program is to place mares under lights such that a total of 15 hours of light per day is provided. Normally mares are placed into stalls or outdoor pens and the additional light is added to the end of the day. If sunrise is at 7:00 a.m., mares will have to be exposed to light until 10:00 p.m. If sunset occurs at 5:00 p.m., lights need to come on at that time, and remain on until 10:00 p.m. Increasing the day length by beginning the day earlier does not elicit the same response as extending the day length. It is also important to realize that some time is needed for the mare's endocrine system (and reproductive system) to respond. Normally, it will take 30 to 60 days before the mare begins to cycle, and another 30 days before she begins to exhibit normal cyclicity. It is when normal cyclicity begins that she is considered fertile.

Thus, producers wishing to breed mares early, need to plan on beginning their lighting program 90 days prior to when

they want to initiate breeding. Mares that are put under lights and then bred must remain under lights until she is confirmed pregnant or until the ambient day length is such that she will not go anestrus when placed outdoors. Mares that are removed from the artificial photo period while day lengths are still "short," will enter anestrus. It is possible in these situations to delay her cyclicity past the normal onset—in effect it is possible to delay cyclicity if the lighting program is disrupted prematurely.

Several years ago, scientists discovered that mares respond to light during a "photosensitive phase" and this can be used to remove the hormonal block (melatonin) to reproductive cyclicity. This receptive phase in the mare exists approximately 9.5 hours after sunset. Although the mechanism is still unclear, a burst of light during this phase will stimulate the mare the same as if she was under the extended day length. The amount of light needed has been shown to be as short as 15 minutes. For applied situations, it is recommended that a 60-minute burst be used. Thus, if sunset is at 5:00 p.m., lights would come on at 2:30 a.m. and remain on until 3:30 a.m. Obviously, producers need to make sure the lights do in fact come on each night and that presents some limitation to the use of "pulsing."

Much to do has been made as to the type and amount of light needed to stimulate mares. The bottom line, in terms of light needed, is that producers need to be able to read newspaper print in the darkest area of the stall or pen. If this can be done, there should be plenty of light to elicit a response from the mares. The light source can be incandescent, fluorescent, or quartz. From a more technical standpoint, the light source should be of at least 12-foot candles. This can be measured on a camera by setting the ASA at 400 and the shutter speed at $\frac{1}{4}$ sec. Place a Styrofoam cup over the lens to diffuse the light and then measure the intensity at the level of the mare's eye. An aperture (f-stop) of 5.6 or higher indicates that lighting is at an intensity which will stimulate the onset of reproductive activity.

The question often arises as to the influence of photo period on the stallion: Is the stallion subject to the same control mechanisms? The short answer is yes: day length does influence reproduction function in the male and in much the same way as in the mare. The hormones involved differ slightly, as does the end response. In the mare, a true quiescent period exists; in the male, reproductive function is "reduced," but the stallion remains reproductively active. Due to decreases in the production of the male hormone, testosterone, the stallion's sexual drive is less during the winter months, as is his sperm production. Stallions do respond to an increased artificial photo period, thus, stallion manager's who need to breed a large number of mares early in the breeding season may wish to place stallions under lights.

Producers need to recognize that the horse's hair coat is also influenced by day length. A common misunderstanding is that hair coat length/thickness is controlled by temperature, when in fact, it is the day length. Thus, mares and stallions located in the Midwest where winters can be harsh, will have to be housed indoors and/or blanketed when temperatures and/or outdoor conditions become too severe.

Order Forms

K-Horse Ration Balancer

Name _____ Date _____

Address _____ Phone _____

Send check (\$50 each) made payable to: K-State Research and Extension Animal Sciences.

Horse Industry Handbook

Name _____ Date _____

Address _____ Phone _____

Send check (\$49.95 each) made payable to: K-State Research and Extension Extension Animal Sciences.

Registration Form

KSU Horseman's Conference—March 7, 1998

Name(s) _____ Date _____

(If necessary, include additional sheet)

Address _____ Phone _____

Send check (\$8 per person) made payable to: K-State Research and Extension Animal Sciences.

Mail all above correspondence to:

Monika Walburger • AS & I, Weber Hall - 218 • Kansas State University • Manhattan, KS 66506



From

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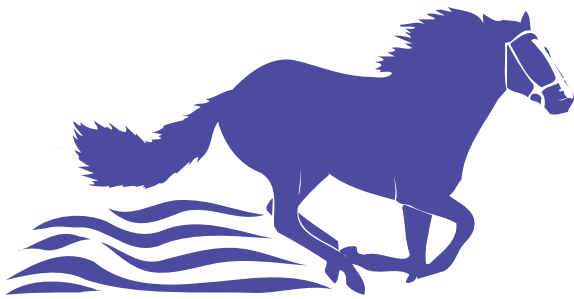
Animal Sciences & Industry Department,

"Have a Safe and Happy Holiday Season!"



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Equine

UPDATE

**Kansas State University
Agricultural Experiment Station
and Cooperative Extension Service**

Equine Update
Kansas State University
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785-532-6131

Mark J. Arns, Ph. D.
Extension Specialist, Horses

K-State, County Extension Councils and U.S. Department of Agriculture Cooperating.
All educational programs and materials available without discrimination on the basis of race, color, religion, national origin, sex, age or disability.

Youth Section

Horse Judging Programs Scheduled for May 9 and for June 9 & 10.

Two judging programs are scheduled for this spring and summer: the K-State Horse Judging Workshop will be held in Weber Hall/Arena on Saturday, May 9. The workshop will consist of lectures, videos and live classes. The classes that will be covered include halter, western pleasure, hunter under saddle and horsemanship. The workshop is free and will begin at 9:00 a.m. Participants will work through lunch and should make arrangements to bring a bag lunch. K-State Horse Judging Manuals will be available for those that pre-request a copy.

The K-State Horse Judging Camp will be conducted by Julie Wolf, K-State Horse Judging Coach, on June 9 & 10. Participants will stay in the K-State dorms. The camp will focus on reasons, therefore only youth with some previous judging experience are encouraged to attend. The camp is limited to 50 participants and will cost \$75 per participant. This fee will cover room, meals, videos and course materials. The classes that will be covered include Stock-Type Halter, Western Pleasure, Hunter Under Saddle, Horsemanship, Reining and Trail.

For further information or registration, contact Julie Wolf (785-532-1271, jwolf@oz.oznet.ksu.edu) or Mark Arns (785-532-1246, marns@oz.oznet.ksu.edu).

Horse Panorama to be Held February 14 & 15 at the Rock Springs 4-H Center

The annual 4-H Horse Panorama will be held February 14 & 15 at the Rock Springs 4-H Center. Some changes have been made to try to reduce the financial burden; first, fees have been lowered from last year's fees. The fees for 1998 are: \$40 full time, overnight; \$16 Saturday & two meals; \$10 Saturday no meals; \$15 Sunday & two meals; and \$5 Sunday no meals.

Secondly, the Hippology contest will be held in its entirety on Saturday, thus those not wishing to attend the awards luncheon on Sunday will be able to return home Saturday evening.

The educational sessions for this year's program include:
Saturday Afternoon:

1. Making Tack (Lead ropes, driving lines, etc.) by Dr. Gary Webb, Director of Equine Sciences, Colby Community College. A hands-on session where participants will learn how to braid snaps into cotton rope to make lunge lines and lead ropes (note: there is a \$15 fee for this session and participants must be pre registered. Participants will make two lunge lines and one lead rope).

2. Developing Youth Teams by Eric Otte, Sedgwick County 4-H Agent, and Sandy Fraser, Harvey County 4-H Leader. This session will focus on providing insight into what it takes to develop and maintain youth teams.

3. Bits & Biting by George Dawson, MS Candidate, K-State Research & Extension. In response to concern from 4-H volunteers, this sessions will review the difference between the basic types of bits and will clarify the process for determining if a bit is legal for Kansas 4-H horse shows.

4. Kansas 4-H Horse Curriculum: A New Approach by Dr. Mark Arns, Extension Specialist, Horses. This session will be held on Saturday evening following dinner. This session will introduce the new levels system which is currently being developed for Kansas. The basic concepts of the new program will be covered as well as presenting the completed levels (I & II).

Sunday Morning:

1. Horse Judging: Introducing K-State's New Interactive CD-ROM by Julie Wolf, MS Candidate and K-State Horse Judging Coach and Dr. Mark Arns. This two-hour session will review the basics of horse identification and visual appraisal of conformation while demonstrating the new software program.

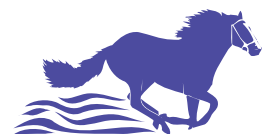
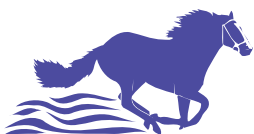
For registration information contact your local county 4-H agent or Ann Domsch 316-431-1530.

Silent Auction and Swap Meet to be Held During Horse Panorama

The North Central District will be coordinating a silent auction and a swap meet during the 4-H Horse Panorama. The proceeds of the silent auction will be used to fund thank-you gifts for the many valuable volunteers that make this event possible. Each district is asked to provide at least one item for the silent auction. Auction items will be displayed throughout the Rock Springs Facility. Suggested items include, but are not limited to: Breyer Models, Tack, Craft Items, Feed, Vet or Grooming Supplies.

Donated items should be brought to the registration area on Saturday morning along with donor information so proper recognition can be made. If you have questions or suggestions regarding the Silent Auction call either Pam Van Horn (785-826-6645) or Dean Ann Zsamba (785 263-4007).

For those interested in acquiring or getting rid of used clothing and tack, the swap meet will be the place to be. Those wishing to bring items should bring the horse-related items with the price and owner information clearly labeled. A 10 percent surcharge will be deducted and will be used for volunteer gifts. For further information please contact Dr. Becky Dillon, 316-241-0310 (ext. 8040).



Long Distance Learning Survey

K-State Research and Extension Equine Program

Mail to: Monika Walburger • AS & I, Weber Hall - 218 • Kansas State University • Manhattan, KS 66506

1. What type of horse operation do you have (check all that apply)?

- A. Farm _____
- B. Ranch _____
- C. Breeding Farm _____
- D. Training Facility _____
- E. Boarding Facility _____
- F. Recreational _____
- G. 4-H _____

2. What are your computer capabilities?

- A. CD-ROM - Yes _____ No _____
- B. Internet Access - Yes _____ No _____
- C. Windows 95 - Yes _____ No _____
- D. IBM _____ MAC _____ Don't own Computer _____
- E. Other _____

3. What computer programs or software do you currently utilize to help run or manage your farm or ranch?

4. Do you currently use computer programs or software in your 4 H program?

5. Would extension material made available through a long distance format (Internet or CD-ROM) be beneficial for use in 4-H activities or programs? Yes _____ No _____ Maybe _____

In your farm/business management? Yes _____ No _____ Maybe _____

6. Of the following subject matter areas, which would you have an interest in seeing delivered in a long distance format?

- A. Nutritional Management _____
- B. Reproductive Management _____
- C. Horse Identification & Judging _____
- D. Youth & Horse Safety Issues _____
- E. Equine Marketing Issues _____
- F. Other (please specify) _____

7. Would you consider marketing your stallions and/or horse for sale on the Internet or by CD-ROM?

8. How many horse do you own?

9. If you stand stallions, how many mares do you breed per year?