



March 2021

Got Manure? Need Manure? – There’s an App for that!



Leslie Johnson - Animal Manure Management Project Coordinator

The UNL manure team has been working on building an app to connect the public to the manure people they need, and maybe learn a little bit about manure along the way. Our goal with the app is to enable folks to find a manure applicator, broker, advisor, or resource person in their area. We’ve been testing and updating, and we think it’s ready for its full debut! The app is available for both Android and Apple devices.

The app has 5 main tabs: Home, News, Events, Our Team, and Contacts. Access the app at <https://nemanure.glideapp.io>

Home

The home screen introduces you to the app, gives you a chance to sign-up for manure news in your inbox and tells you a little about each of the other tabs.

News

On the news tab, you'll see the recent articles that have been published at manure.unl.edu. The manure.unl.edu webpage is a repository of Extension and applied research information to answer your questions related to manure and livestock mortalities, including land application, state and national regulations, and mortality management, among other resources.

Events

Events related to manure, livestock, or water can be found in this tab.

Our Team

The Our Team tab connects you to the UNL Manure team that can help you with needs relative to environmental issues associated with animal production, including planning of new and expanding operations, managing nutrients, odor, and pathogens, land application of manure for fertility and soil health benefits, and managing mortalities.

Contacts

The contacts tab is perhaps the most important part of the Manure.unl.edu app. It connects you with “manure people” you need. It includes custom applicators and haulers, manure brokers and consultants, as well as representatives from the Nebraska Department of Environment and Energy and Natural Resource Conservation Service (NRCS).

In an effort to keep contact information up-to-date, contacts included in the list can manage their own information. Additionally, if you wish to be added as a manure contact, you can do so using the “+” button in the upper right corner. *The listing of contacts does not imply endorsement by the University.*

Accessing the App

The app is available for both Apple and Android devices, but is not currently listed on the Apple App Store or the Google Play Store. In addition, the app can be utilized right in your web browser. To access the app, visit <https://nemanure.glideapp.io>. You will need to enter your email address, where you will receive a pin number to verify a correct address. This makes sure only real people are adding to the contacts list. If you have problems, reach out to Leslie Johnson by email leslie.johnson@unl.edu or phone at 402-584-3818.

<https://water.unl.edu/article/animal-manure-management/got-manure-need-manure-%E2%80%93-there%E2%80%99s-app>

HAL Family Field Day Set - June 30

The Haskell Ag Lab Family Field Day committee has set a date of **Wednesday, June 30** for their Family Field Day.

Demonstrations, vendors,
Educational trailers and more.

MARK YOUR
CALENDAR!

Care of Newborn Calves

All baby calves are born with some degree of respiratory acidosis. Respiratory acidosis is the buildup of by-products of carbon dioxide and a deficiency of oxygen. As the calf passes through the birth canal, it undergoes this buildup of carbon dioxide and its metabolites, and a deficiency of oxygen. When any baby calf is first born, it will gasp for air and pant for a few minutes in an effort to correct the carbon dioxide/oxygen unbalance in the circulatory system.

Therefore, when a calf is completely delivered, primary attention is directed toward establishing respiration. Mucus and fetal fluids should be removed from the nose and mouth by cleaning these air pathways with your fingers and thumbs. These actions are important for any calf that is assisted during the calving process, but they are critical for those calves that come backwards. The common practice of suspending the calf for an extended time by its hindlegs to "clear the lungs", must be questioned. Most of the fluids that drain from the mouth of these calves probably come from the stomach, and the weight of the intestines on the diaphragm makes expansion of the lungs difficult, if not impossible.

Respiration is stimulated by many factors, but only ventilation of the lungs, allow us to render help immediately. The phrenic nerve can be stimulated with a sharp tap on the chest slightly above and behind where the heartbeat can be felt. Brisk rubbing of the skin (if the calf has not had frost bite) can be helpful in stimulating circulation and breathing activity. Perhaps the most effective and simple approach to stimulating the first breathing activity is by tickling inside of the nostril with a stiff piece of straw. The vigorous tickling stimulation of the nostrils will cause the diaphragm of the calf to have a noticeable reflex. As the calf snorts and coughs in reaction to the straw stimulation, the lungs expand and air is taken in.

Always know your own limitations. If you find a calving situation that you cannot solve yourself in a short time, contact a large animal veterinarian as soon as possible.

Dr. Glenn Selk, Professor-Animal Reproduction Specialist
Animal Science - Oklahoma State University, Stillwater, OK
<https://beef.unl.edu/cattleproduction/carenewborn2010>

Colostrum Helps Newborn Calves

Colostrum, or first milk produced by the mother after birth, is high in nutrients and antibodies. A newborn calf lacks disease protection because antibodies do not pass across the cow's placenta to the fetus' circulatory system. Antibodies in colostrum provide calves with their initial protection.

Calves need about two quarts of colostrum (or at least five percent of the calf's body weight) within four hours of birth – ideally within 30 minutes – and one gallon within 12 hours.

Time is important because a newborn calf's digestive tract allows antibodies to pass directly into the blood. After 24 hours, the calf's intestines cannot absorb antibodies intact. The absorbed antibodies protect against systemic invasion by pathogens while antibodies that are not absorbed play an important role in protection against intestinal disease.

Allowing the calf to suckle the dam is the most efficient method of feeding colostrum. However, sometimes this is not possible due to problems with the dam or calf.



In cases such as these the calf will need to be fed colostrum. Acquire colostrum by milking the dam as soon as possible after calving or using colostrum that you have previously acquired. Acquired colostrum should be from healthy cows to minimize disease transmission. Cows in at least their third lactation generally provide higher-quality colostrum than heifers. A yellow color and a thick, creamy consistency are good indications of quality.

Colostrum can be stored by freezing in milk cartons or plastic containers. The containers can be easily thawed and mixed with warm water for feeding. Studies have shown rapid defrosting using boiling temperatures destroys a portion of the antibodies. A warm water bath will ensure that antibodies are intact.

You may also want to consider purchasing a commercially available colostrum supplement or replacer if you don't have ready access to fresh colostrum. Due to the importance of colostrum to the newborn calf it is always a good idea to have some alternative sources of colostrum on hand "just in case" during the calving season.

Troy Walz, Extension Educator, Nebraska Extension

Science with Sarah

As we gear up for summer, we have an exciting early childhood resource to share with you this year around animals and their habitats. We are happy to introduce our new and improved STEM Imagination Guides! Included are eight guides highlighting habitats such as the tundra, rainforest, desert, pond, farm, home, forest, and ocean. Each guide features:

- ◆ Familiar storybook
- ◆ Conversation starters
- ◆ STEM connection experiment
- ◆ Sensory explorations
- ◆ Music & movement activity
- ◆ Creative arts investigations &
- ◆ Related readings



Additionally, this year's STEM Imagination Guides include a collection of parent guides to accompany each habitat to encourage nature play and exploration at home. All of these resources are free to the public and available for download and print at <https://go.unl.edu/imagination>. This website also houses the previous year's resources focusing on fairy tales which can be utilized at no cost. Feel free to reach out to me if you have any questions at sarah.roberts@unl.edu.