

RESPONSIBLY UTILIZING

NO. 2

IS OUR NUMBER 1

PRIORITY.



EVERYTHING YOU EVER NEEDED [OR WANTED] TO KNOW ABOUT LIVESTOCK MANURE

WASTE NOT, WANT NOT

Nebraska's livestock farmers and ranchers depend on the land and water, so protecting both is just as important to them as it is to you.

It's not just their place of business, it's their home, and the spaces that surround it are their communities. That means that caring for both is an investment they can't afford NOT to make.

So, here's the lay of the land: Nebraska has lots of fields that produce lots of corn and soybeans that then get fed to lots of livestock. The result is lots of meat, milk and eggs, but in between that there's a lot of "output." You might call it waste, but to farmers and ranchers, livestock manure is a precious resource.

LIVESTOCK INDUSTRY

WASTE = MANURE



MANURE

= FERTILIZER FOR CROPS

RESPONSIBLE. TRUSTED NEIGHBORS.

Being "environmentally and regulatory compliant" is just a fancy way of saying we're responsible and we care.

NATURE'S NUTRIENT

Manure contains the 13 essential nutrients needed for a plant to grow. Most of them come from the feed that livestock eat and then ... well, you know what happens next.

The three main nutrients found in manure are nitrogen (N), phosphorus (P) in the form of phosphate (P_2O_5) and potassium (K) in the form of potash (K_2O). These nutrients are also the main components of commercial fertilizer products.

However, most commercial fertilizers are imported. In fact, 50 percent of nitrogen (urea) and 85 percent of potash used in the U.S. is imported.¹ Nature's fertilizer — manure — is readily available and the supply is located just down the road. It's pretty valuable stuff, too!

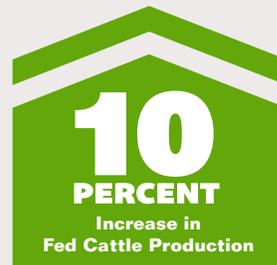
Annual revenue value of manure generated by livestock expansion scenarios in Nebraska²



\$6,180,000



\$1,200,000



\$8,400,000



\$4,560,000

APPLICATION OF A RESOURCE

Before manure is applied, farmers and ranchers determine how much is needed.

First, the manure is analyzed for the amount of N, P and K. Next, the soil is tested for available N, P and K.

This usually varies by field, soil type and previous crop. After these tests, farmers and ranchers can calculate the right amount of manure to apply to the field.

With the use of manure, farmers and ranchers can reduce or even eliminate the need to purchase commercial fertilizers. [They can't clip coupons!]

NATURE'S CYCLE

On the farm or ranch, manure is stored in a safe place [so that we don't lose it]. Once the manure is ready to use and the farmer or rancher knows how much



to apply, the manure is incorporated into the soil. This is called knifing [injecting or chiseling] because the equipment cuts into the soil, applies the manure and then covers it up. This helps keep the manure where it needs to be — in the fields.

We apply just the right amount because:

1. It's better for our bottom line.

Over-application means the nutrients will not be absorbed by the plants, which is a real waste.

2. It's better for the environment.

Over-application can lead to runoff, which isn't good for our soils or our water.

3. We're leaving this land to the next generation, so we want healthy land today — and tomorrow.

THREE THINGS YOU MIGHT HEAR ABOUT MANURE



It stinks!³

WE AGREE! But here's what we're doing to help:

- Planting windbreaks and shelterbelts (trees and shrubs)
- Covering outside storage structures
- Aerating liquid storage structures
- Implementing new feed management strategies
- Avoiding applying manure to fields on weekends and holidays if possible

It might be a bit stinky, but it's part of the ecosystem cycle.



Manure is washing into streams, ponds and lakes, causing algae to grow and fish to die.

WE CAN'T AFFORD NOT TO INVEST IN OUR LAND AND OUR WATER because with healthy soil and clean water we are more productive.

We keep our manure where it's needed and away from places it isn't:⁴

- Four feet of separation from high seasonal groundwater
- 35-foot buffer strips and setbacks from streams or tile lines
- Where there is substantial threat to the state's surface waters
- In any part of a watershed that feeds directly or indirectly into a cold water class A stream



It's seeping into the water we drink!

THIS IS NOT JUST OUR PLACE OF BUSINESS, THIS IS OUR COMMUNITY AND OUR HOME. We drink the water too. And, that's why we avoid applying and storing manure too close to our water supply.

When selecting a construction site, farmers and ranchers work with environmental consultants and follow local, state and federal setbacks. Farmers and ranchers build structures and apply manure at least:⁴

- 1,000 feet from public wells
- 100 feet from private wells



Following best management practices allows farmers and ranchers to handle, store and apply manure optimally, reducing nitrogen loss and maximizing the benefits to the soil to grow more. And, at the end of the day, that's what it's all about.

RULES AND REGULATIONS

Livestock producers who raise more than a specified number of animals in one facility are required to follow a plan for managing manure.** It's required by regulation, but it's also one way producers are investing in their land.

**For example, a "large concentrated animal feeding operation" or "large animal feeding operation" houses, at a minimum, 10,000 swine, each weighing less than 55 pounds, or 2,500 swine, each weighing 55 pounds or more as set by the Department of Environmental Quality (DEQ). Specifications may vary by county ordinance.

WHO REGULATES WHAT?

LOCAL GOVERNMENT REGULATES
WHERE BARNs ARE BUILT

STATE AND FEDERAL GOVERNMENT
REGULATE HOW BARNs ARE MANAGED

Nebraska's livestock farmers and ranchers are a part of the community fabric, caring for the land and animals that feed their families, and yours.

As community leaders and economic contributors, Nebraska's livestock farm and ranch families are responsible neighbors invested in their heritage, their future and the health of the community.

Learn more about Nebraska's livestock farmers and ranchers at
www.farmersandranchersdeliver.com



This brochure is reprinted with Indiana Soybean Alliance permission by the Nebraska soybean checkoff, supporting our number one customer — Nebraska livestock and poultry farmers and ranchers.

¹USDA. Economic Research Service. 2013. "Fertilizer Use and Markets." Accessed November 2015.
Retrieved from: <http://www.ers.usda.gov/topics/farm-practices-management/chemical-inputs/fertilizer-use-markets.aspx>

²Giri, A., B. Johnson, T. Kabata and E. Thompson. 2014.
"Nebraska's Animal Agriculture: Economic Impacts of Cattle, Hog, Dairy and Poultry Industry Changes." University of Nebraska-Lincoln.

³Heber, A., D. Jones and A. Sutton. "Methods and Practices to Reduce Odor from Swine Facilities. Accessed November 2015.
Retrieved from: <https://www.extension.purdue.edu/extmedia/AE/AQ-2/AQ-2.html>

⁴Nebraska Department of Environmental Quality. "Title 130: Livestock Waste Control Regulations. Amended October 4, 2011." Nebraska Administrative Code.