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BeefTalk: Grain Truck or Cattle Truck: Which One Should I Load?

Producers can add pounds of calf through the conversion of forage to beef.

By Kris Ringwall, Beef Specialist

NDSU Extension Service

The increase in beef cows requires utilization of cropland.

Land use is embedded in long-term thinking and the individual desires of those involved in farming and ranching. Agricultural production systems incorporate land eco-types, along with associated capital purchases and investment in equipment. Once these systems are implemented, change is difficult to initiate.

In addition, financial partners prefer the well-

Images



Grain Truck or Cattle Truck: Which One Should I Load?

Grain Truck or Cattle Truck: Which One Should I Load?

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use of releases

The news media and others may use these news releases in their entirety. If the

trodden path in contrast to newer, unknown paths that have greater risk. Data from the 2012 U.S. agricultural census

(<https://www.agcensus.usda.gov>) tell us that within North Dakota, 69.1 percent (27,147,240 acres) was in cropland, 26.1 percent (10,247,184 acres) was in permanent pasture or rangeland, 4.1 percent was in farmsteads and .7 percent was in woodlands.

The 2012 North Dakota inventory of cows and heifers that calved was 899,558 head. With 10,247,184 acres as pasture, that is 11.4 acres per cow-calf pair. However, in southwestern North Dakota, if a producer stocks early spring, cool-season pasture for one month at one acre per cow, summer pasture at 2.5 acres per month per cow for five months and winter forage at three acres per cow, the producer needs 16.5 acres to support the cow.

With 899,558 cow-calf pairs, a land base at 16.5 acres per cow would require 14,842,707 acres, which means 4,595,523 acres of the total cropland must be utilized for beef cows. The 2012 census reported 2,172,738 acres were used for forage production, meaning 2,422,785 cropland acres were utilized indirectly to feed the cows, perhaps as fall aftermath grazing.

The 2016 North Dakota agricultural statistics report 920,000 cows and heifers, an increase since the 2012 census. Because the 2012 census data

would indicate most acres already are in use, little room seems to be available for more expansion unless land use changes.

Could that happen? Well, maybe. Soil health and incorporation of livestock into management protocols can be a magical union.

Research at the Dickinson Research Extension Center (DREC), coordinated by visiting scholar Songul Senturklu and animal scientist Douglas Landblom, explored the concept of enhancing soil productivity using a multicrop rotation, along with integrating beef cattle for grazing. Data collected show those acres currently utilized for crop production could be integrated across North Dakota and similar areas by adding cattle for grazing.

Of course, this means a significant shift in the crop rotation systems within the agronomic industry. So, “what if?” What if agricultural producers implemented crop rotation systems to improve soil health, lower input costs, and significantly diversify and integrate crop and livestock systems?

The center has implemented a five-year crop rotational system that utilizes each crop each year by allocating 20 percent of available acreage to each crop. The cropping sequence used is as follows:

- Field A is planted to spring-seeded sunflowers, the flowers are harvested as a cash crop and

cows graze the fall residue.

- Field B is planted to fall-seeded hard red spring wheat, harvested the following summer as a cash crop and then fall seeded with winter triticale-hairy vetch.
- Field C is planted to fall-seeded triticale-hairy vetch and harvested as hay in early summer, followed by being seeded in June with a seven-species cover crop (sunflowers, everleaf oats, flex winter peas, hairy vetch, Winfred forage rapeseed, Ethiopian cabbage and hunter leaf turnips). The cover crop is harvested (grazed) by yearling steers.
- Field D is spring seeded with an 85-day corn variety and is harvested (grazed) by yearling steers.
- Field E is spring seeded with a field pea and barley intercrop (Arvika peas and Stockford barley) and also is harvested (grazed) by the yearling steers.

Now Fields A and B remain as 40 percent of the farm acreage, and every fifth year, they produce a cash crop of wheat or sunflowers. Fields C, D and E make up 60 percent of the farm acreage, and every fifth year, each field is harvested by grazing yearling steers.

Extended discussion associated with the implementation of an aggressive integrated crop and livestock system is needed and possible. The

proposed system can improve soil health; add more diversity per acre; establish crop rotations, including cover crops for more pounds of forage per acre; and produce more biomass, grain, grass and hay. It also can add more pounds of beef per acre, extend conventional marketing of beef from calves to yearlings and, in the end, add more dollars per acre.

At the DREC, such a land change has added 708 pounds as a yearling steer to the previously marketed 567-pound fall steer calf. Think about it. Yes, we can add pounds of calf through the conversion of forage to beef.

Ultimately, we have a choice: grain truck or cattle truck. Which one should I load?

May you find all your ear tags.

For more information, contact your local NDSU Extension Service agent (<https://www.ag.ndsu.edu/extension/directory>) or Ringwall at the Dickinson Research Extension Center, 1041 State Ave., Dickinson, ND 58601; 701-456-1103; or [✉kris.ringwall@ndsu.edu](mailto:kris.ringwall@ndsu.edu).

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Attachments



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