

## Good Beef Management Includes Forage Planning

By Kris Ringwall  
Extension Beef Specialist  
NDSU Extension Service



Spring is just around the corner -- officially less than a month away. Those with agronomic tendencies have, are or should be pondering the cropping system for the coming year and future years.

The beef industry tends to focus only on beef some days. Cows and calves are the main points of discussion; however, for anyone actively involved with farming or ranching, the beef industry is a land-based business.

Cows and calves harvest the plants produced by the soil available to the producer. Practices that distract from the soil also distract from plant production and ultimately take away from the beef business. Several years ago, the Dickinson Research Extension Center started to evaluate more integrated approaches to the relationship among soil, plants and animals. Actually, the process began back in 1905, when the center was established.

The central mission of the center has been one of learning to understand how these relationships exist and how producers might extract some form of livelihood from these relationships over time. If one uses current population demographics as an indicator of success, the conclusion would be one of failure. In reality, many who have tried to harvest a lifestyle from these relationships are simply not here anymore and no one has replaced those who have left. Obviously, the inability to muster a living wage ultimately overcame many strong wills intent on a desired lifestyle.

As decades passed, the need for increased dollars has developed into the concept of utilizing the space for the placement of more inputs. As the inputs were increased, so were the associated costs.

The desired return on investment became the driving force. This principle, unfortunately, negatively impacted the relationships of soil, plants and animals. A redirection of effort needs to be the next focus for production agriculture as we take what we know and try again.

As a producer of beef, the management of rangeland is critical, but so is the management of cropland. More recently, the center has approached land as a source of for-

age rather than cash grain crops. This change has meant all crop production is marketed through beef and the cropping systems need to reflect forage-based cropping.

The center has several research/Extension projects going on, but it also implemented managerial programs that focus on a diversified approach, including a four-crop rotation involving corn, oats, peas and sweet clover. Following the fundamental principles of crop rotations, the corn represents a warm-season grass and is grazed in late fall and early winter.

The oats represent a cool-season grass and the peas represent a cool-season legume. Both are rolled up as hay with crop-aftermath grazing. However, both also are potential summer pasture. The sweet clover represents a warm-season legume, underseeded with the oats and harvested as a hay crop, again with the capacity to graze some crop after harvest.

The movement of cattle through perennial grass pastures, both cool- and warm-season, along with the four base crops, requires planning. Experience would say it is not uncommon to have too many cattle one week and not enough cattle a week later.

Pasture systems and calendars are a must, along with some quick adjustments as the season changes and forage becomes more or less available. Knowledge of plant growth, plant production options as well as some of the biological processes and how environment affects these processes is important in putting together the system, making the adjustments needed to meet goals. Forage-based systems have tremendous opportunities in the upper Great Plains. Stay tuned for results.

May you find all your NAIS-approved ear tags.

Your comments are always welcome at [www.Beeftalk.com](http://www.Beeftalk.com). For more information, contact the North Dakota Beef Cattle Improvement Association, 1133 State Avenue, Dickinson, ND 58601 or go to [www.CHAPS2000.com](http://www.CHAPS2000.com) on the Internet. In correspondence about this column, refer to BT0288.

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## Example of a Four Crop Rotation for Beef Production

	Year 1	Year 2	Year 3	Year 4
<b>Field A</b>	Corn	Pea	Oat/ Sweet clover	Sweet clover
<b>Field B</b>	Pea	Oat/ Sweet clover	Sweet clover	Corn
<b>Field C</b>	Oat/ Sweet clover	Sweet clover	Corn	Pea
<b>Field D</b>	Sweet clover	Corn	Pea	Oat/ Sweet clover