

Video Tour of the University of Saskatchewan's Livestock and Forage Centre of Excellence

<https://youtu.be/uPcBVmKKKKI>

VIDEO SUMMARY

Welcome from Lana Haight, the Outreach & Engagement Specialist at the Livestock and Forage Centre of Excellence.

The Livestock and Forage Centre of Excellence is a division of the University of Saskatchewan. The main centre is located a half hour south of the University of Saskatchewan campus in Saskatoon.

LFCE focuses on three main areas of research:

1. Cattle in feedlots

a large system of pens where many cattle are kept together to finish growing before being sent to market for beef

2. Cow-calf operations

A method of raising beef cattle in which a permanent herd of cows is kept by a farmer or rancher to produce calves for later sale

3. Forages

Forage is plant materials eaten by livestock, such as hay, silage, grains or crop residue

The LFCE has about 1,500 head of cattle in the feedlot and about 400 cows and calves in the cow/calf operation.

The LFCE is unusual because it brings together so many different research areas under one roof. Researchers from agriculture & bioresources, engineering, arts, science and veterinary medicine all study different aspects of livestock and forages at this facility.

The Feedlot part of the LFCE looks specifically at improving animal nutrition and studying animal health and wellbeing. Some of the different types of feedlot research currently underway include:

- How cattle (both feedlots and cow/calf operations) impact the water under the ground
- The impact of cattle operations on soil health
- Feed studies which analyze what livestock are eating
- How diseases transfer in feedlots
- Animal behaviour in feedlots

The 'Metabolism Barn' at the LFCE explores how cattle and other livestock process their food.

- *"Metabolism" refers to how food is converted to energy and the elimination of the substances left over from this conversion.*
- *Cattle are "ruminants" along with bison, sheep, goats, deer, elk and giraffes. This means that they have a unique stomach with four compartments. The largest compartment is the rumen and it is able to break down grass and other coarse vegetation that animals with one stomach (including humans, chickens and pigs) are not able to digest.*

Scientists who work in the LFCE Metabolism Barn measure everything that goes into the animal and everything that comes out.

LFCE follows the guidelines of the Canadian Council for Animal Care to ensure that cattle are looked after properly.

The Cow-Calf part of the LFCE studies cows, calves, heifers (*female cows that have not yet borne a calf*) and bred cows (*cows that are pregnant with a calf*).

Cows have their calves in the outdoor pens at the LFCE. If the cow or the calf needs help, they are brought into the indoor pens.

Some of the scientists at LFCE are studying the impact of cattle on the environment and capturing data about emissions. The video shows a scientist taking a soil sample in order to measure levels of materials such as nitrous oxide, methane and carbon dioxide.

Cattle are not the only type of livestock being researched at LFCE. The University of Saskatchewan has two herds of bison at the nearby Goodale Farm that are being studied. Researchers are specifically studying reproduction and disease management in bison.

The LFCE brings together many different types of research so that scientists can learn new things about livestock and forage. Scientists from the University of Saskatchewan and other research institutes (“academia”) are working with representatives from government as well as farmers, companies and others in the industry to find better ways to raise livestock.