FEATURE

Nutrition for Healthy *Winter Herds*

• BY SUZANNE QUIGLEY •

Whether large commercial or small family farms, livestock producers have one main objective – to raise healthy animals.

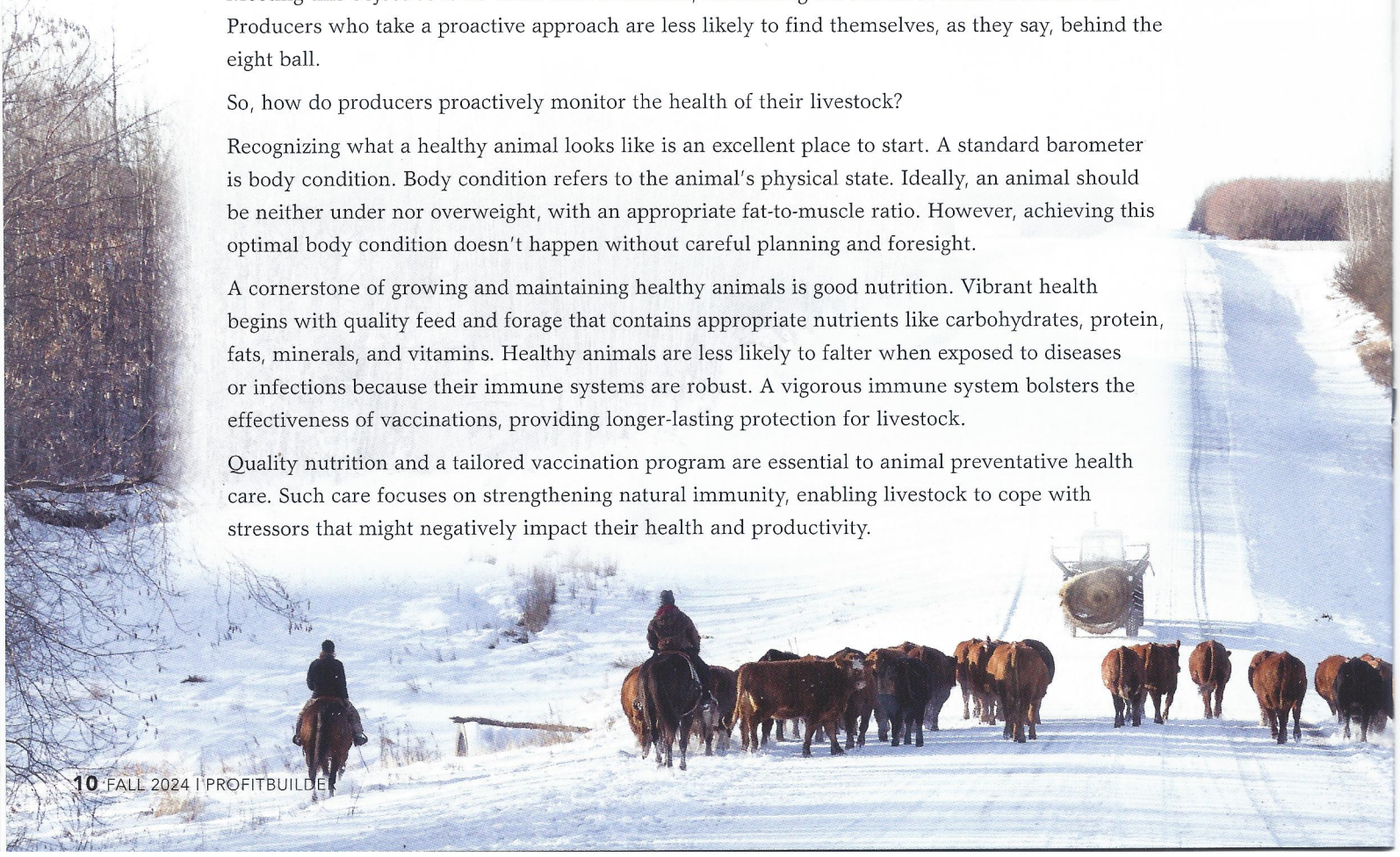
Meeting this objective is no small feat. Therefore, monitoring the health of herds is a must-do. Producers who take a proactive approach are less likely to find themselves, as they say, behind the eight ball.

So, how do producers proactively monitor the health of their livestock?

Recognizing what a healthy animal looks like is an excellent place to start. A standard barometer is body condition. Body condition refers to the animal's physical state. Ideally, an animal should be neither under nor overweight, with an appropriate fat-to-muscle ratio. However, achieving this optimal body condition doesn't happen without careful planning and foresight.

A cornerstone of growing and maintaining healthy animals is good nutrition. Vibrant health begins with quality feed and forage that contains appropriate nutrients like carbohydrates, protein, fats, minerals, and vitamins. Healthy animals are less likely to falter when exposed to diseases or infections because their immune systems are robust. A vigorous immune system bolsters the effectiveness of vaccinations, providing longer-lasting protection for livestock.

Quality nutrition and a tailored vaccination program are essential to animal preventative health care. Such care focuses on strengthening natural immunity, enabling livestock to cope with stressors that might negatively impact their health and productivity.



Basic Nutritional Requirements

The link between good nutrition and a high-functioning immune system can't be overemphasized. That said, a nutrition program that supports a strong immune response should include the following:

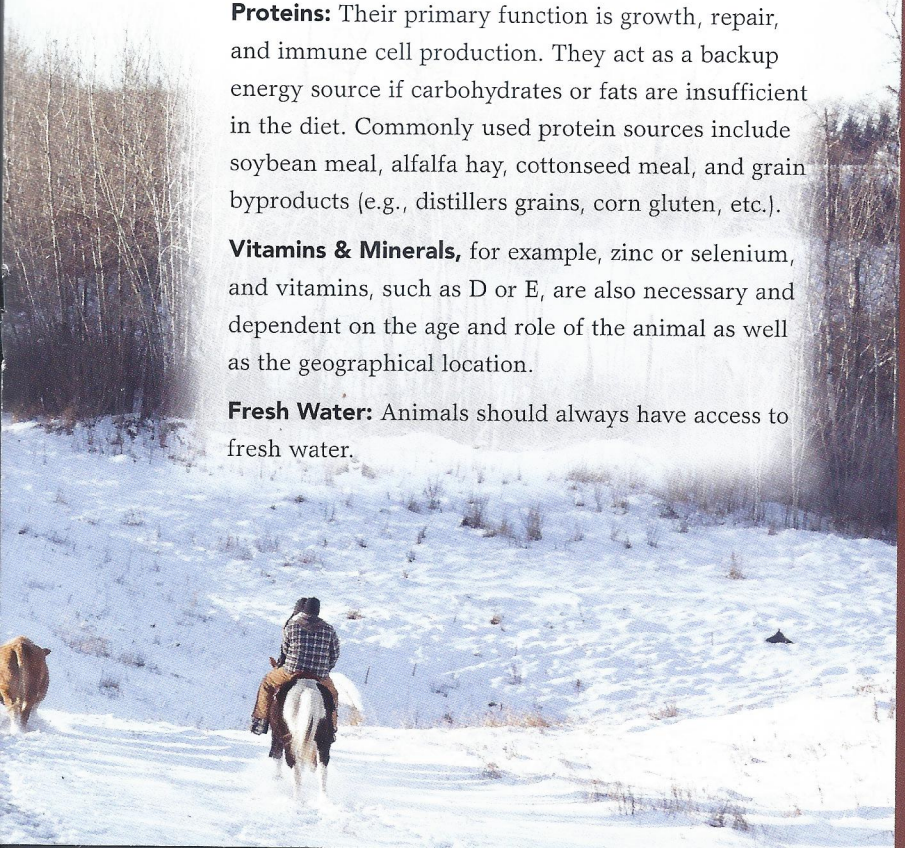
Carbohydrates: A primary source of quick energy, carbs supply glucose, which is essential for rapid immune cell proliferation and function. Familiar sources are grains and forages like grasses and hay.

Fats: This dense energy source is higher in calories and is especially important to animals in colder temperatures. Essential fatty acids like omega-3 and omega-6 help regulate inflammation. Commonly used oils for fat supplementation in livestock diets are vegetable oils, soybean oil, and sunflower oil.

Proteins: Their primary function is growth, repair, and immune cell production. They act as a backup energy source if carbohydrates or fats are insufficient in the diet. Commonly used protein sources include soybean meal, alfalfa hay, cottonseed meal, and grain byproducts (e.g., distillers grains, corn gluten, etc.).

Vitamins & Minerals, for example, zinc or selenium, and vitamins, such as D or E, are also necessary and dependent on the age and role of the animal as well as the geographical location.

Fresh Water: Animals should always have access to fresh water.



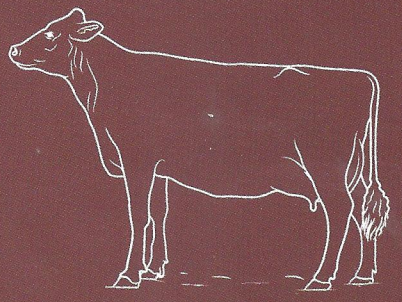
Body Condition Scoring *of cattle*

Body condition scores (BCS) are a tool for evaluating fat reserves in beef cattle. Since producers usually can't weigh their cows, this simple, visual-based scoring method helps to determine the health status of a cow, which aids in decisions concerning nutritional management.

Based on a numeric scoring scale from one to nine, with one being very thin and nine very fat. A score of five is considered average condition.

Visual appraisal, physical examination, or a combination of both can determine the body condition score of a cow. Cattle with thick coats may require physical handling; otherwise, visual inspection is usually sufficient.

BCS is useful as winter approaches to establish the health of the herd. Based on BCS, producers can estimate potential dietary needs and determine the most financially feasible route to meet them. In fact, performing body conditioning scoring periodically throughout the year can help producers economically maintain healthy cows.



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Cold Weather Nutrition Management

Since winter is here, it's vital to mention how seasonal changes necessitate animal diet adjustments. Falling temperatures, wind chills, and snowy, wet weather significantly increase livestock's energy requirements.

All animals have a thermo-neutral zone. Think of this as a "comfort zone" where animals don't experience temperature-related stress, and conditions are ideal for body maintenance, performance, and health. When temps drop into the lower range of the zone, referred to as the lower critical temperature (LCT), herds start to experience temperature stress. Metabolism must increase to provide additional energy to maintain body temperature. Immune function suppression can occur if body temperature drops.

Generally, the LCT for beef cattle is 32 degrees F. Goats are also at 32 degrees F. Freshly shorn sheep have an LCT of 50 degrees F. As a guideline, animals' energy intake must increase by one percent for each degree that temps drop below the LCT. Increasing feed intake should provide enough energy for animals consuming good, nutritious hay to cope if this occurs.

However, suppose the forage is of poor quality. In that case, it will be more challenging to meet the increased energy need, and animals, as a result, may resort to burning off fat reserves. If better quality hay isn't readily available, supplementation with higher-energy feeds, such as grains or fats, may be necessary. Adding vitamins and minerals can also help compensate for deficiencies in winter forage.

Durvet has products that can help cattle and other livestock stay healthy when feed or hay isn't up to snuff or when confronted with stress like cold weather, disease, or other challenges faced by production animals.

DuraFight Capsules for Cow Stress and **DuraFight Pellets for Ruminants** help improve appetite, overcome stress, and boost a weak immune system.

Another option is **Durvite** for all around multi-species support or **Durvet's Vitamins & Electrolytes Concentrate**, premixed for use in either feed or water.

Source: "Winter Weather and Livestock Nutrition" OSU Extension Wayne County, Dec. 14, 2016, https://wayne.osu.edu/news/winter-weather-and-livestock-nutrition