

# Feed Management

It is always important to test your water and feed sources. Nutrient content of feedstuffs varies greatly based on season, agronomics and maturity. Additional minerals from livestock water sources can have significant impacts on their health and performance. Lab analysis of both water and feed are critical steps in creating a balanced feed ration. Your nutritionist or local livestock and feed extension specialist are here to help ensure that your feed rations meet the animals' changing requirements.

Alternative Feed	Benefit	Concern	Recommendation
Ammoniated straw	Could increase protein digestibility.	Ammonia pockets could arise with improper application.	Anhydrous ammonia must be applied by a trained individual using safety equipment and specialized application tools.
Annual cereals	Feed value similar to good grass or grass/legume hay.	Potential for high levels of nitrates.	Cut oats at late milk stage. Cut barley, triticale and wheat at soft dough stage. Be aware protein content declines after early heading.
Brassicas (turnips, etc)	Good source of protein and rapid fall growth.	Bloat, sulphur and nitrates.	Introduce livestock gradually over three to five days. Ensure cattle have access to dry hay, straw or a similar roughage.
Canola meal	High protein and energy content.	Low in calcium and high in sulphur.	Ensure mineral program addresses any mineral imbalances.
Canola regrowth (grazing or hay)	At the late bloom, mid-podded stage, it is comparable to grass/alfalfa hay.	Potential for high levels of nitrates and sulphur.	Test the forage for sulphur and nitrate levels.
Canola seeds	High energy content.	High oil content.	Seed should be rolled prior to feeding and limited to 10 per cent or less of ration dry matter.
Cereal straw	Can help to extend your feed. Generally a cheap feed source.	High fibre, low quality and high risk of impaction.	Grinding or shredding can increase intake. Limit to 1.2 per cent of the animal's body weight. Supplement with energy, protein and minerals. Ensure in-crop treatments are compatible for livestock use.
Corn grazing	Great energy source and lower labour demands during feeding.	High phosphorus, acidosis risk and mycotoxins.	Feed test and ensure mineral program addresses any imbalances. Use fence to manage grazing, ideally into three-day allotments. Provide an alternative forage source; introduce them to field on a full rumen. If mature, gradually introduce and limit area to be grazed to ensure they graze the whole plant and avoid grazing of cobs alone.
Field peas	High protein and energy content.	Treated with seed treatments.	If greater than 25 per cent of the ration, the hull needs to be cracked. If treated, ensure to check label for feeding precautions.

For more information, contact the Agriculture Knowledge Centre at 1-866-457-2377.

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Alternative Feed	Benefit	Concern	Recommendation
Flax straw	Cost effective source of high fiber forage.	Impaction and prussic acid.	If possible, wait a couple years prior to feeding to improve palatability. Limit to less than 1.25 per cent of the animal's body weight.
Hailed out annual cereals	Feed value similar to good grass or grass/legume hay.	Nitrates, variable nutrient content and acidosis risk if mature.	Feed test and test for nitrate levels. Ensure mineral program addresses any mineral imbalances. If mature, limit intake and gradually introduce any increases in amounts.
Hay	If good quality, as determined through a feed test, it is often suitable to be the sole feed source.	Varied quality. Heating can reduce protein availability.	Feed test as quality varies widely. If heated, feed test to see how much protein is available.
Kochia	Nutrients could be similar to alfalfa hay if cut before plant is mature.	Oxalates, nitrates, laxative effects, bloat and sulphur.	Cut before flowering. Feed at no more than 25 to 30 per cent without a feed test. Do not graze pure kochia.
Mustard hay and silage	Good source of protein and energy for dry cows and bulls.	Nitrates, sulphur, palatability and high in moisture.	Include at no more than 40 to 50 per cent of the total feed intake. Crimping can decrease drying time.
Pelleted grain screenings	Can get them fortified with minerals and vitamins.	Ergot and weed seeds.	Test for mycotoxins. Compost resulting manure piles.
Treating straw with molasses	May improve palatability of straw.	Digestibility isn't increased. Potential for uneven application. Often need to supplement with additional minerals and vitamins, especially calcium.	Test for quality and supplement with good quality hay or grain and minerals/vitamins. Cattle can still only consume straw at 1.25 per cent of their body weight.
Feed grade urea	Alternative nitrogen source for ruminant animals.	May only be used to provide up to 30 per cent of daily protein requirements. Needs to be mixed thoroughly in complete diet. Not suitable for younger animals.	Amount to be used is dependent upon stage of production, size of animal and energy availability in diet; ranges from 0.05 to 0.25 pounds (25 to 110 grams) of urea per head per day.

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