



Prime stock pencils

General feeding beef cattle

Growing rations should be high in both structural fibre e.g. straw and digestive fibre e.g. sugar beet pulp. They should be high in protein and have a good level of energy to promote growth. Grower rations will be mainly forage-based. These will need to be supplemented with concentrates to add energy and protein. Suckler calves can be introduced to primestock pencils as creep to achieve target growth rates. Feeding should start at least 4 weeks before weaning.

Finishing cattle require rapid liveweight gain. High starch levels can promote fast gain and efficient feed conversion. When fed concentrates, animals will have more efficient feed conversion when they have access to forage to promote rumination and healthy gut health. However, dairy bulls would be better finished at lower protein levels than the primestock pencils as they tend to put on frame instead of finish.

General feeding lambs

Complementary concentrates can be introduced as forage quality declines and before lamb growth is checked. Finishing lambs require high levels of weight gain. When finishing lambs on high grain diets, acidosis, and urinary calculi can be potential problems. Acidosis can be prevented by including free access forage in the diet, and by avoiding sudden changes in the type or amount of ration fed. Minerals are balanced with the aim of preventing urinary calculi. Providing good access to clean water will also help to prevent urinary calculi.

Feeding rates & guides

These versatile feeds can be fed to a range of stock at different stages of production, including both cattle and sheep. Energy levels are high at 13 MJ/kg and protein levels are 16%. Although mineralized, copper is not present making it suitable for feeding to sheep. High quality ingredients are included and a high level of cereals ensures fast growth rates and maximum feed conversion efficiency.

Key components and reasons for inclusion

Only high quality ingredients are included, such as wheat, rapeseed meal, barley, sugar beet pulp and molasses. Poorer quality ingredients such as bakery waste etc are not included; this is also indicated by the overall fibre level of the concentrate which is approximately 7.5%.

Prime stock pencils contain a crude protein level at 16% and metabolizable energy is high at 13.0 MJ/kg DM resulting in high growth rates in both cattle and sheep.

Disclaimer

Rations should be carefully balanced in terms of nutrient content. They should contain sufficient forage to maintain rumen function and be fortified with an appropriate vitamin and mineral supplement on farms where this is needed. Animals must have constant access to clean water. Suggested feeding rates are produced as a guide only and many other factors may have an overriding effect on animal response; no performance guarantee can be given. Ingredients are generally as in the table above, but are subject to change.





Ingredients

Typical Ingredients	Metabolizable Energy	Crude protein	Benefits / Reason for use
Wheat	13.8	13.0	High in energy, good energy source for live weight gain. High in starch of which 10% is digested after the rumen.
Barley	13.2	12.3	High in energy, good energy source for live weight gain. High in starch of which 10% is digested after the rumen.
Malt residuals	11.2	21.0	High digestible fibre and lower starch content. Allows high levels to be fed safely.
Wheatfeed	11.7	18.0	Useful source of starch. Balanced supply of readily digestible fibre, protein and starch.
Rapeseed meal	12.1	38.5	A good source of high quality protein includes both rumen by-pass and rumen degraded protein.
Palm kernal	12.5	17.0	Very high oil. A rich source of digestible fibre. Good supply of non-starch digestible fibre energy. Allows energy intakes to be maximized without increasing the risk of acidosis associated with cereal feeding.
Molasses	11.3	5.4	High in sugar making it very palatable. Used to bind the blend or pencil together.
Maize	13.8	10.3	High in energy, good energy source for live weight gain.
Rape -Ex			A good source of high quality protein includes both rumen by-pass and rumen degraded protein.
Calcium carbonate			A major source of supplementary calcium
Sugarbeet	12.5	11.0	Can stimulate intakes of less palatable feeds, increasing intake and growth rate. Provides the building blocks for lean tissue growth. Allows energy intakes to be increased without increasing the risk of acidosis associated with cereal feeding. Assists in maintaining an optimum rumen pH, kind to the rumen.
Salt			Salt is included to promote saliva production which helps buffer acid in the rumen.
Fat spray			A good source of energy
Vitamins & minerals			Well balanced mineral supplement, but also suitable for sheep.
Element			Reason for inclusion
Vitamin A	Essential for eye function and beneficial to reproduction / fertility in cattle.		
Vitamin D ₃	Essential for bone formation and hence growth, involved with calcium and phosphorous absorption.		
Vitamin E	Antioxidant working closely with Selenium in preventing formation of peroxides. Peroxides damage cells. Essential for fertility and for pregnant animals to pass onto young calves.		
Selenium	An antioxidant plays a vital role in immunity. Benefits reproduction and growth. Protects muscles from degeneration. Helps to prevent retained placentas.		
Magnesium	Essential for growth, repair of body tissue, bone development and milk yield. Needed for enzymes, muscle and nerve function.		
Phosphorous	One of the most important elements being involved with energy production, bone and teeth formation, milk production, appetite and reproduction.		



