



## Heifer grower pencils

### General feeding dairy heifers

A total of nearly 50% of heifers fail to reach either their first or second lactation, with poor fertility or milk yield the most likely reasons for culling heifers post-calving. For heifers to calve at 2 years, they must achieve growth rates of more than 0.75 kg/day with improved early growth is linked to reduced mortality and lower age at first calving. In addition, increased first lactation milk yield has also been attributed to improved growth rates in the pre weaned calf. After weaning, rapid growth should continue to be the target, provided the heifers are not getting fat, this can be achieved by maintaining the protein level of the ration. Heifers should be fed concentrates throughout the grazing season to keep growth rate constant and avoid checks due to poor grazing conditions.

Energy intake should be increased before service and around six weeks after to improve fertility. Excess condition is far more likely to occur in older heifers, which can result in an increase in calving problems; reduce feed intake after calving; increase fatty liver and ketosis; and reduced subsequent fertility.

### Feeding rates & guides

Heifer grower pencils are suitable for feeding with forage from around 12 weeks of age. .Supplementation at pasture will need to be around 2 kg per head per day.

### Key components and reasons for inclusion

Our heifer grower pencils contain high energy levels and high protein to promote lean tissue growth. Energy is supplied from a mix of digestible fibre, starch and fat, ensuring efficient rumen function allowing fast growth. Only high quality ingredients are included, such as wheatfeed, malt residuals, rapeseed meal and sugarbeet pulp. Poorer quality ingredients such as oat feed, sunflower etc are not included; as calves are not able to utilize these materials as efficiently.

Heifer grower pencils contain specific levels of vitamin A and D and is also fortified with vitamin E which is particularly important for the immune system of the young heifer. Selenium is also needed for optimal functioning of the immune system and our heifer grower pencils contain good levels of selenium.

Both crude protein (18%) and metabolizable energy (12.8 MJ/kg DM) are high, providing the heifer with the best opportunity for successful lifetime production.

### Disclaimer

Rations should be carefully balanced in terms of nutrient content. They should contain sufficient forage to develop rumen function. 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, but are subject to change.





## Ingredients

Typical Ingredients	Metabolizable Energy	Crude protein	Benefits / Reason for use
Wheatfeed	11.7	18.0	Good source of starch for heifer growth. Starch, fibre and protein provide the building blocks for liveweight gain.
Malt residuals	11.6	24.5	A good source of fibre, whilst maintaining reasonable levels of energy and high protein.
Rapeseed meal	12.1	38.5	A good source of high quality protein includes both rumen by-pass and high levels of rumen degraded protein.
Palm kernal	12.5	17.0	Good supply of non-starch digestible fibre energy. Allows energy intakes to be maximized without increasing the risk of acidosis associated with cereal feeding. Good levels of protein.
Sugarbeet	12.5	11.0	Can stimulate intakes of less palatable feeds. Assists in maintaining an optimum rumen pH, kind to the developing rumen.
Molasses	11.3	20.0	High in sugar making it very palatable.
Wheat	13.8	13.0	High in energy, stimulating efficient growth.
EU distillers	13.8	34.0	Intakes of other feeds can be stimulated. Good sources of energy and protein. Can stimulate rumen activity, encourages fibre digestion and feed efficiency. Allows energy intakes to be increased without increasing the risk of acidosis associated with high starch feeds.
Calcined magnesite			A good supply of supplemental magnesium.
Calcium carbonate			A major source of supplementary calcium
Fat spray			A good source of energy
Dairy minerals			Well balanced mineral supplement
Element	Reason for inclusion		
Vitamin A	Essential for eye function and beneficial to reproduction / fertility in cattle.		
Vitamin D <sub>3</sub>	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.		
Copper	Essential for bone formation, cardiac function, immunity, reproduction and fertility.		
Magnesium	Essential for growth, repair of body tissue & bone development. Needed for enzymes, muscle and nerve function.		
Phosphorous	One of the most important elements being involved with energy production, bone and teeth formation, appetite and reproduction.		

