

## **Feeding Barley Grain to Dairy Cattle: Starting Out**

### **How should I start feeding barley to my cattle?**

Cattle that haven't been fed any other sources of starch (grains, cereal silage) in recent days need to be gradually adapted to barley. The rumen takes around 10 to 14 days to develop the right types of microbes to digest starch. Rates should typically start at no more than 1.0 kg of barley per cow per day and increase by a further 0.5 kg per cow per day every three days to allow plenty of rumen-adaptation time. The actual rate of step-up to your final daily feeding rate does depend on what else is in the diet and pasture quality.

If you stop feeding barley to cattle for more than 72 hours, the rumen loses its ability to digest starch. When you start back onto barley feeding you should re-start the rumen adaptation process again, especially if you were feeding more than 2 kg of grain per cow per day.

For dairy cattle, it's good to feed the springer cows 1 to 1.5 kg of barley, the colostrums 2 to 2.5 kg and the milkers the final rate of e.g. 3 to 4 kg per cow per day. This allows time to adjust to grain as cows calve.

### **How much barley should I feed to my cattle?**

There are no minimum amounts but for lactating cattle benefits start to be noticed at more than 2.0 kg per cow per day. Lesser amounts can be useful to encourage cow flow through the dairy.

The upper limits of feeding does depend on what other feeds are offered. If there is only high quality pasture in the diet, typical upper limits of barley may be only 4 kg per cow per day fed as 2 kg twice daily. If the diet also contains silage, hay and / or cereal straw, more than 4 kg of barley per cow per day is possible. High rates of barley sometimes increase risk of rumen acidosis in cattle.

### **Do I need to process barley for feeding to cattle?**

Yes, cattle will lose a high proportion of grain in the dung if grain is not cracked. Whole grain is often fed to sheep because sheep chew grain better than cattle.

### **Can I feed out barley in open troughs to cattle?**

No, dominant cattle are likely to over consume on barley and may get rumen acidosis (grain poisoning). Barley should be fed in in-shed feeding systems or mixed with silage, or fed out on top of silage over a reasonable distance so that all cattle can access the barley at the same time.

### **Will feeding barley to my cattle make them protein deficient?**

Provided the barley is balanced with a high proportion of pasture and / or good quality lucerne or pasture silage, your cattle are unlikely to become protein deficient when fed barley.

### **What additives should I feed with my barley?**

Barley contains low levels of calcium, sodium and magnesium. Lime (calcium), salt or sodium bicarbonate (sodium) and magnesium oxide (magnesium) are often needed to balance the diet. Talk to your nutritionist or vet for actual rates suited for your cattle. Don't add calcium or sodium to grain for springer dairy cows.

Other additives including Rumensin, sodium bicarbonate and magnesium oxide can sometimes help reduce the risk of rumen acidosis when cattle are fed barley.

### **Can I feed barley to my calves?**

Yes, but while barley is a good base for a home-made meal for calves still on milk, barley alone does not deliver enough protein, fibre, sodium or calcium. Post-weaned calves can sometimes be fed barley to supplement their high quality pasture, but barley should be blended with limeflour and salt as minimum additives for this purpose.