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# **PROTECTED FEEDS**

When nutrients are broken down in the rumen they produce gases which is a necessary, but also inefficient use of valuable nutrients.

As an animals nutrient requirement increases, rumen bacteria alone are unable to cope, therefore by-passing nutrients into the hind gut offers both additional nutrients but also less gas production

Most protein sources such as rapeseed meal, distillers and soya contain both rumen degradable and by-pass protein. The same can also be said for starch, where cereals also contain both rumen degradable and by-pass starch. The key question is for every kilogram of a raw material that's fed, how many grams of by-pass protein supplied.

## Why feed NWF Protected Feeds

- Improved performance UK diets based on grass silages and home grown cereals tend to be higher in rumen degradable nutrients. By-pass energy and protein is then required to supply the nutrients above and beyond what is capable from rumen bacteria. A lack of by-pass nutrients can often be seen in cows not achieving their peak yields.
- 2. **Rumen available nutrients** Oversupplying nutrients to the rumen can create a challenging environment for bacteria, therefore supplying by-pass nutrients is not only more efficient, but essential for rumen health.
- 3. Environmental responsibilities feeding excessive protein can be detrimental to both the cows health and the environment due to higher urea nitrogen levels. Feeding by-pass protein can enable farmers to reach metabolizable protein requirements whilst feeding less overall crude protein.



## **NWF ULTRA PRO-R**

A high-quality vegetable protein which, as a result of precise treatment of rapeseed meal, contains a high level of Digestible Un-degradable Protein.

#### **Nutritional Benefit**

- Cost-effective source of by-pass protein.
- 75% + by-pass protein.

#### Application

NWF Ultra Pro-R can be used to balance the rumen degradable protein and by-pass protein (MPB) content of the ration. It has a valuable role to play in dairy, calf, beef and sheep and goat rations where by-pass protein can be the limiting factor.

#### **Typical Analysis**

• Dry Matter – 87% - 90%	• MBP – 297g/kg
• Crude Protein – 38.8%	• MPE – 310g/kg
• MER – 12 MJ/Kg	• MPN – 326g/kg
• Oil AH – 4.3%	• NDIP – 313g/kg

### **Daily Feed Rates**

Milking Cows	0.3-1.5kg
Dry Cows	Up to 1.5kg for 4-6 weeks prior to calving
Replacement Heifers	Up to 3 kg
Beef	Include as part of ration where extra by- pass protein is required (particularly bulls)
Sheep	Include as part of ration according to level of production required

### RELATED PRODUCTS also see REGLUATED RELEASE MOLASSES page 54

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## **NWF ULTRA SOY**

A high-quality vegetable protein which, as a result of precise treatment of extracted soya bean meal, contains a high level of bypass protein. (MPB).

### **Nutritional Benefit**

- Cost-effective source of by-pass protein.
- 80%+ by-pass protein.

### Application

NWF Ultra Soy can be used to balance the rumen degradable protein and by-pass protein (MPB) content of the ration. Trials have shown that it has a valuable role to play in dairy, calf, beef and sheep and goat rations where by-pass protein can be the limiting factor.

It can be used in grazing diets to balance the high levels of rumen degradable protein in grass, and in winter feeds to reduce overall crude protein levels and increase protein utilisation efficiency. Utilising by-pass protein and reducing overall protein waste can deliver environmental benefits. Available in our blends and as a straight to be fed on farm.

Typical	Analysis
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• Dry Matter – 87% - 90%	• MBP – 451g/kg
• Crude Protein – 54.0%	• MPE – 456g/kg
• MER – 13.4 MJ/Kg	• MPN – 473g/kg
• Oil AH – 2.9%	• NDIP – 260g/kg

### **Daily Feed Rates**

Milking Cows	0.3-1.5kg
Dry Cows	Up to 1kg for 4-6 weeks prior to calving
Replacement Heifers	Up to 3 kg
Beef	Include as part of ration where extra DUP is required (particularly bulls)
Sheep	Include as part of ration according to level of production required

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## **NWF ULTRA STARCH-W**

Quality rolled wheat precisely treated to produce an increased level of by-pass starch.

#### **Nutritional Benefit**

- Gluco-TN value (glucogenic energy) 338g/Kg DM.
- Increased starch levels without upsetting the rumen.
- Increased supply of glucose to the udder.
- Increased milk yield potential.

### Application

Maize products are commonly used to provide by-pass starch, although levels of by-pass starch is higher than in other cereals, they are far more expensive. NWF Ultra Starch-W can be used to increase the level of by-pass starch content of the ration, allowing a higher level of glucogenic energy to be fed whilst reducing the risk of acidosis.

#### **Typical Analysis**

• Dry Matter – 87% - 90%	• Starch – 66%
• Crude Protein – 13.0%	• Glucogenic Energy – 338g/kg
• MER – 13 MJ/Kg	• Dynamic Energy – 8.8MJ/kg
• NDF – 11.7%	

#### **Daily Feed Rates**

Milking Cows	Up to 4kg
Dry Cows	Up to 1.5kg for 4-6 weeks prior to calving
Replacement Heifers	Up to 1 kg
Beef	Include as part of ration where high starch levels are required (particularly finishing bulls)
Sheep	Include as part of ration according to level of production required

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