Fertilising
Grassland
with FertilizerpluS products
Guidelines for balancing your nutrient strategy with FertilizerpluS

FertilizerpluS is a range of high quality granular fertilisers produced by ICL. All products are Polysulphate® based.

ICL has done extensive research on grazing and silage grassland areas. In our trials we have found that an application of sulphur improves the uptake of nitrogen and also improves the dry matter content, while magnesium reduces grass staggers. Calcium and magnesium can increase root mass and improve establishment of newly planted areas.

For good uptake of nitrogen from the soil, potassium and sulphur are both needed. However, most soils within the UK and the rest of Europe are now deficient for sulphur because of the Clean Air Act and the subsequent reduction in depositions from atmospheric pollution.

FertilizerpluS recommendations

- **Grazing land**
  Polysulphate can be applied (with nitrogen) in early spring at 100 kg/ha and, reapplied (with nitrogen) mid-season at 100 kg/ha.*

- **Organic grazing land**
  Polysulphate can be used as a source of potassium or sulphur in organic production.

- **Silage production**
  Polysulphate can be used at the beginning of the season with nitrogen. After every cut, we recommend application of ICL PotashpluS to replace the potassium and sulphur that has been removed.

- **Organic silage production**
  Polysulphate can be applied at the beginning of the season and then reapplied after every cut to replace the potassium and sulphur that has been removed.

*Remember to consider the extra potassium from Polysulphate in your fertiliser calculations*
Estimated nutrient offtakes (removal) by grass

<table>
<thead>
<tr>
<th>Offtake kg/t</th>
<th>15-20% DM</th>
<th>25% DM</th>
<th>30% DM</th>
<th>86% DM</th>
<th>45% DM</th>
<th>10t/ha</th>
<th>25% DM</th>
<th>30% DM</th>
<th>7t/ha</th>
<th>4t/ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh Grass</td>
<td>1.4</td>
<td>1.7</td>
<td>2.1</td>
<td>5.9</td>
<td>3.2</td>
<td>14</td>
<td>34</td>
<td>42</td>
<td>41.3</td>
<td>12.8</td>
</tr>
<tr>
<td>Silage</td>
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<td>Hayley</td>
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<td>Fresh Grass</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Offtake kg/ha</th>
<th>20t</th>
<th>Hay</th>
<th>Hayley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silage 20t</td>
<td>25% DM</td>
<td>30% DM</td>
<td>7t/ha</td>
</tr>
<tr>
<td>Hay</td>
<td>48</td>
<td>120</td>
<td>144</td>
</tr>
<tr>
<td>Hayley</td>
<td>**</td>
<td></td>
<td>40kg SO₃ for every cut</td>
</tr>
</tbody>
</table>

**20-30kg/ha for every 100kg N/ha

Fertilizerplus product analysis

- Polysulphate (14% K₂O, 6% MgO, 17% CaO, 48% SO₃)
- Potashplus (37% K₂O, 23% SO₃, 2.8% MgO, 8% CaO)

Expected benefits of balanced crop nutrition with Fertilizerplus products

- Improved dry matter yields
- Increase in digestibility
- All round quality improvements for the grass and the animal
- Increased nitrogen use efficiency (NUE)
Potassium - secures yield and quality, transport of sugars and stomatal control. It reduces susceptibility to diseases and impact of drought and is essential for good nitrogen use efficiency.

Magnesium - fundamental for photosynthesis as it is integral to chlorophyll. It is also important in the development of healthy root systems. Having adequate levels of magnesium in the swards can reduce the occurrence of hypomagnesaemia (grass staggers).

Sulphur - an essential constituent of proteins and oil production also critical for building dry matter. Essential for nitrogen use efficiency.

Calcium - for strong and healthy crops. It is a major building block in cell walls and reduces susceptibility to diseases. Along with phosphate, calcium is very important in the development of the root system.

Mined in the UK, ICL is the first – and only – producer in the world to mine polyhalite, marketed as Polysulphate.