What is Efficie-N-t 28

It is a liquid foliar nitrogen fertiliser based on urea polymers of variable lengths. The longer the chains, the slower they breakdown, resulting in a phased release of nitrogen over a total of 6 to 8 weeks.

The polymer chains break down to release nitrogen as amide(NH₂), groups which are the building blocks of proteins, a process that is much more energy efficient than converting nitrate(NO₃) groups into protein.

Efficie-N-t 28’s novel chemistry delays the nitrogen availability to the crop to give a natural physiological response, avoiding the ‘flush’ growth, seen with nitrate based fertilisers. Nitrates draw in water, weakening the cell walls, making the crop more prone to lodging and attack by diseases.

Environmental Benefits
- Not prone to leaching
- Not prone to volatilisation
- Nearly 100% uptake
- Accurate application
- Helps stay within N max
- Minimises environmental impact

Agronomic Benefits of Efficie-N-t 28
- Reduction in nutrient losses that occur between application and uptake by the crop
- Reduced chance of scorch
- Phased release over 6 to 8 weeks
- Optimises nitrogen efficiency
- Improved yields and improved quality
- "Sticky" technology and miscible with fungicides

Growing Oil Seed Rape with Efficie-N-t 28

Canopy management in oil seed rape aims to achieve optimum canopy size, to intercept the maximum amount of sunlight, through the rate and timing of nitrogen fertiliser.

Foliar nitrogen applied around the end of flowering in oil seed rape has been shown to increase yield over and above what can be achieved from optimal applications of soil applied nitrogen.

Efficie-N-t 28 can be used pre and post flowering to ensure N nutrient supply to maintain canopy green area and to boost pod fill.
Winter wheat trials

Independent, fully replicated trials, have been conducted in winter wheat, over two seasons in the Netherlands. The control plots received a total of 209 kg Nitrogen / hectare, split into three applications, in the form of calcium ammonium nitrate (CAN).

In the treatment plots 40kg of Nitrogen, from calcium ammonium nitrate at flag leaf was replaced with 7kg of Nitrogen from **Efficie-N-t 28**

RESULTS: showed an improvement in
- Yield
- Grain Quality
- Protein
- 1000 grain weight
- Hagberg levels

Maize Trials with **Efficie-N-t 28**

Maize needs some 50% of its total Nitrogen requirement from the 8 leaf stage to tassling, with a further 35% needed for cob fill during August to September.

Potential losses of seed bed applied nitrogen may leave the crop short of essential nitrogen during these later stages of growth.

To address this issue field trials of 25kg applications of Efficient 28 at the 8 leaf stage were carried out at three sites in Cheshire, Somerset and Devon.

RESULTS:
Treated plots yielded an additional 3.4, 4 & 5 tonnes per acre fresh weight over untreated controls, demonstrating the benefit of Efficient 28 in meeting the crops nitrogen requirement at key growth stages.
**Unique features of Efficie-N-t 28**

- Crystal clear solution
- Excellent stability
- Tank mixes with most fungicides
- Sticker and anti-drift benefits
- No additional field operation required
- Nearly 100% uptake
- Accurate application
- Minimises environmental impact

<table>
<thead>
<tr>
<th>Crop</th>
<th>Ltrs/Ha</th>
<th>Kg/ha</th>
<th>Dilute in water/Ltr</th>
<th>Timing of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>20</td>
<td>25</td>
<td>100-300</td>
<td>Flag leaf / early leaf emergence</td>
</tr>
<tr>
<td>Maize</td>
<td>20</td>
<td>25</td>
<td>100-300</td>
<td>8 -12 leaf stage</td>
</tr>
<tr>
<td>Oil seed rape</td>
<td>20</td>
<td>25</td>
<td>100-300</td>
<td>Late green bud and end of flowering</td>
</tr>
<tr>
<td>Beet</td>
<td>20</td>
<td>25</td>
<td>100-300</td>
<td>Late July</td>
</tr>
<tr>
<td>Potatoes</td>
<td>20</td>
<td>25</td>
<td>100-300</td>
<td>After flowering</td>
</tr>
<tr>
<td>Onions</td>
<td>20</td>
<td>25</td>
<td>100-300</td>
<td>June</td>
</tr>
<tr>
<td>Carrots, Peas, Brassica’s Beans</td>
<td>10-20</td>
<td>12-25</td>
<td>100-300</td>
<td>Full leaf cover</td>
</tr>
<tr>
<td>Grassland</td>
<td>20</td>
<td>25</td>
<td>200</td>
<td>5 weeks before cutting (reduce fertiliser by 50% !)</td>
</tr>
<tr>
<td>Amenity grassland</td>
<td>20</td>
<td>25</td>
<td>60</td>
<td>during growing season</td>
</tr>
<tr>
<td>Horticulture container plants</td>
<td>20</td>
<td>25</td>
<td>200</td>
<td>During growing season</td>
</tr>
<tr>
<td>Trees / Shrubs</td>
<td>20</td>
<td>25</td>
<td>200</td>
<td>Spring &amp; Summer</td>
</tr>
</tbody>
</table>
Agro-vital UK is a company that focuses on the integrated cultivation of agricultural and horticultural crops.

**Efficie-N-t 28**

A slow release **Foliar Nitrogen** for enhanced efficiency in various crops.