Field Visit Teagasc Spring Barley K Trial

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Index 1 & 2 site history / details:

- Previous crop: grassland for silage. Soil texture: sandy loam
- Previous crop: maize. Soil texture: sandy loam

Potassium (K) & Cereal Production

Role of K in Cereals

- Nitrogen Efficiency & N Uptake
- Plant water regulation
- Straw strength & quality (reduces brackling)
- Plant disease resistance / tolerance - Esp. Powdery Mildew

K Deficiency & Impact on spring barley grain yield

![Graph showing the effect of soil & fertiliser K on grain yield in Spring Barley (Teagasc, Oak Park, 2015)]

Current P & K advice for Spring Barley & Fertiliser Options

<table>
<thead>
<tr>
<th>Soil Index</th>
<th>P (units/ac)</th>
<th>K (units/ac)</th>
<th>Programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>49 (39)</td>
<td>115 (92)</td>
<td>3.9 bags/ac 10-10-20</td>
</tr>
<tr>
<td>2</td>
<td>39 (31)</td>
<td>100 (80)</td>
<td>3.9 bags/ac 12-8-20</td>
</tr>
<tr>
<td>3</td>
<td>29 (23)</td>
<td>85 (68)</td>
<td>3.25 bags/ac 13-6-20</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0*</td>
</tr>
</tbody>
</table>

*Omit K for 1 yr & revert to Index 3 K advice until next soil test   Mark Plunkett, June 2017.