Silver scurf or Black dot?

Identifying silver scurf by its silvery sheen is not reliable. At 10x magnification, with a hand lens, seeing short black thread-like structures definitely is. However, they do wash off very easily.

At the same magnification black dot appears as small, dispersed, black dots, sometimes as small as a skin cell. They are never dislodged by washing.

Common or Powdery scab?

Common scab shapes vary widely and can both protrude from or crater the surface. They frequently coalesce into giant scabs. Angular edges and star-like cracking can sometimes be seen.

Powdery scab lesions are more uniform in shape and are generally small, round eruptions through the skin, which mostly remain discrete. A shallow depression can form in the flesh.

Surface area

To assess blemishing it is useful to visualise what 10 per cent of a tuber’s surface area looks like. Take a marker pen and draw three opposing equators on a potato, dividing it into eight equal triangles. A large circle drawn inside a triangle is about 10 per cent.

Sampling

To choose an appropriate sample size it is useful to set a threshold incidence, above which a load would be rejected. In the table, the minimum number of tubers required to detect an unacceptable tuber (95 per cent of the time) is shown for a range of thresholds. Accurate estimation of the level of disease or defect requires sampling three times as many tubers at the chosen threshold. Samples must be representative of the whole crop.

<table>
<thead>
<tr>
<th>Maximum permitted defect threshold</th>
<th>Minimum sample to detect defect</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>15 tubers</td>
</tr>
<tr>
<td>10</td>
<td>30 tubers</td>
</tr>
<tr>
<td>5</td>
<td>60 tubers</td>
</tr>
<tr>
<td>2</td>
<td>150 tubers</td>
</tr>
<tr>
<td>1</td>
<td>300 tubers</td>
</tr>
</tbody>
</table>

Adapted from EC Directive 2002/63/EC using 95% confidence interval

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Silver scurf
Black dot
Skin spot
Common scab
Powdery scab
Black scurf and Rhizoctonia distortion
Violet root rot
PYY®
Pink rot
Pythium
Bacterial soft rot (right, rinsed)
Dry rot
Gangrene
Late blight
Pink rot
Bacterial soft rot (right, rinsed)
Gangrene
Late blight
Pink rot