A survey of wheat take-all in Belgium

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\textit{Contenu}

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Survey description

Period: June and July 1999, GS51 until GS85
Field: 268 a plots of wheat in 150 farms
Main cereals areas of Belgium
Situation mainly with high risk but also with lower risk
Sampling

- 50 plants where sampled for each plot
- take-all root-rot assessed visually
- Score of the proportion of rost system with symptoms
- 17 class severity:
  \[ P = 0, 2, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90 \text{ and } 100\% \] of rost system infected
• **Frequency of infestation (FI)**

\[ FI = \frac{\text{number of plants infested}}{\text{total number of plants scored}} \]

• **Take-all index (TAI)**

\[ TAI = \sum Pi \times Ni / N \]

Where: 
- \( Pi \) = Percentage of i class
- \( Ni \) = number of plants in i class
- \( N \) = total number of plants scored
**Wheat monoculture effect**

<table>
<thead>
<tr>
<th>Wheat sequences</th>
<th>n</th>
<th>TAI modified</th>
</tr>
</thead>
<tbody>
<tr>
<td>W / W</td>
<td>108</td>
<td>36</td>
</tr>
<tr>
<td>W / W / W</td>
<td>10</td>
<td>43</td>
</tr>
<tr>
<td>W / W / W / W</td>
<td>4</td>
<td>29</td>
</tr>
<tr>
<td>W / W / W / W / W</td>
<td>1</td>
<td>23</td>
</tr>
<tr>
<td>W / W / W / W / W</td>
<td>1</td>
<td>15</td>
</tr>
</tbody>
</table>