Weed control in the Netherlands

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- Chemical weed control
- Mechanical weed control
- Top growers – average growers (SUSY project 2006-2007, Hanse 2011)
- Weed control in the future

Chemical weed control

**Pre-drilling:**
- 8% of the fields
- control of winter surviving weeds
- Glyfosate

Chemical weed control

**Pre-emergence:**
- 12% of the fields
- control of ‘problem weeds’
- metamitron, chloridazon/quinmerac, clomazone
Chemical weed control

Post-emergence:
- Low Dosage System (LDS): average 4 applications
- Broadcast application
- 2% of the fields row application
- metamitron, chloridazon (/quinmerac), fenmedifam, desmedifam, ethofumesate, clopyralid, tri-allaat, triflusulfuron-methyl, di-methenamid-P, S-metolachloor

Gramicicides:
- usually added to LDS
- 33% of the fields
- quizalofop-p-ethyl, fluazifop-p-buthyl, cycloxydim, tetraloxydim, di-methenamid-P, S-metolachloor
Chemical weed control

Year

Active ingredient kg/ha

Mechanical weed control

- 20% of the clay fields: hoeing
  40% of the sandy/reclaimed peat fields: hoeing + ridging
- average Netherlands: 26% of the fields

Mechanical weed control

Year

% of the field

Mechanical weed control
**SUSY project 2006-2007 (Hanse2011)**

Comparison top growers and average growers

<table>
<thead>
<tr>
<th></th>
<th>Average growers</th>
<th>Top growers</th>
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</thead>
<tbody>
<tr>
<td>Number of applications</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Interval (days; post emergence)</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Active ingredient (kg/ha)</td>
<td>4.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Mechanical weed control (hours/ha)</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Manual weed control (hours/ha)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Weed control September (10 = excellent)</td>
<td>8.3</td>
<td>9.4</td>
</tr>
<tr>
<td>Sugar yield (t/ha)</td>
<td>11.4</td>
<td>13.4</td>
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</tbody>
</table>

Top growers: similar application, better weed control → quality farmer!

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**Weed control in future**

- maintain a wide range of herbicides
- decrease use of herbicides
  - application: in time, right dosages, right circumstances
  - place specific application
  - in row hoeing (sensors, camera's)
  - row application-hoeing (GPS)
  - new adjuvants?

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Thank you for your attention!