LevyinAction 2015

Recommended Spring Grazing Management and Herd Nutrition

Animal & Grassland Research and Innovation Centre
Teagasc,
Moorepark,
Fermoy,
Co Cork.
Phone: 025 42 222
web: http://www.agresearch.teagasc.ie/moorepark/
Email: moorepark_dairy@teagasc.ie

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The Irish Agriculture and Food Development Authority
Stocking rate and Grass Utilisation

- Profitability of Irish dairying is closely linked to grass utilisation (tons DM/ha)
  - Increasing SR only profitable when grass utilisation (tonnes DM/ha) increases

![Graph showing the relationship between grass utilisation and net profit per hectare (€/ha). The graph includes a trend line with an $R^2$ value of 0.42, indicating a moderate correlation. Each additional tonne of DM/ha is worth €161/ha.]

- Optimum Stocking rate for Dairy Farms in 2015

<table>
<thead>
<tr>
<th>t supplement DM/cow</th>
<th>Pasture grown, t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
</tr>
<tr>
<td>0.00</td>
<td>1.5</td>
</tr>
<tr>
<td>0.25</td>
<td>1.7</td>
</tr>
<tr>
<td>0.50</td>
<td>1.8</td>
</tr>
<tr>
<td>0.75</td>
<td>1.9</td>
</tr>
</tbody>
</table>
Spring Grazing Objectives & Guidelines

Why?
Get calved cows out to grass as early as possible

- Increased animal performance - high quality diet with minimal supplements
- Recondition swards for the year ahead – stimulate growth and improve quality
- Maximise spring grass utilisation & minimise sward decay
- Reduce workload on the farm

Each extra day at grass = €2.70/cow/day

How?

- Maintain target Average Farm Cover (AFC) each week during Spring
- Allocate spring grass based on Spring Rotation Plan (SRP)
- Achieve target post-grazing height of 3.5cm
  - maximise utilisation & recondition spring swards
  - enable plants to capture sunlight energy
- Steadily increase total feed allowance from calving into breeding
  - Maximise milk solids production and fertility performance & minimise BCS loss
Spring Grazing Principles

Ryegrass supports 3 actively growing leaves
- maximum average growth rate
- high in sugar and nutritionally balanced

To achieve 2.5 - 3 leaves
- Slow 1st rotation (100 days)
- Rapid 2nd & subsequent rotations (21 days)

High Autumn Covers (>1,200 kg DM/ha) should be grazed before Mid-march

Approximately 25, 35 and 40% of total final yield comes from the 1st, 2nd and 3rd leaf

Herbage mass
- Leaf 1 - 25%
- Leaf 2 - 35%
- Leaf 3 - 40%

Regrowth curve

Time
Early Grazing Effects on Sward Characteristics

Early grazed sward

Late grazed sward
Target Feed Budget & Allowance

- The ideal average farm cover (AFC) of 800 - 900 kg DM/ha on February 1st
- High quality predominantly grass diet from calving
- Extend the 1st rotation from February 1st to early April with minimal supplements
- Feed allowances increasing by 0.75kg DM/cow/wk from calving to breeding

March Grass Growth increased by 3kg DM/day for every 100kg DM/ha increase in AFC

Spring Grass Allowance increased by 1 kg DM/cow/day for every 100kg DM/ha increase in AFC
## Using the Spring Rotation Plan (SRP)

Example SRP for a 40 ha dairy farm with 100 dairy cows

<table>
<thead>
<tr>
<th>Week</th>
<th>Rotation (days)</th>
<th>Daily area (ha/day)</th>
<th>Total area grazed by week end (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1\textsuperscript{st} to 7\textsuperscript{th} Feb</td>
<td>100</td>
<td>0.4</td>
<td>7</td>
</tr>
<tr>
<td>15\textsuperscript{th} to 21\textsuperscript{st} Feb</td>
<td>82</td>
<td>0.49</td>
<td>23</td>
</tr>
<tr>
<td>22\textsuperscript{nd} to 28\textsuperscript{th} Feb</td>
<td>73</td>
<td>0.55</td>
<td>33</td>
</tr>
<tr>
<td>8\textsuperscript{th} to 14\textsuperscript{th} Mar</td>
<td>56</td>
<td>0.72</td>
<td>56</td>
</tr>
<tr>
<td>22\textsuperscript{nd} to 28\textsuperscript{th} Mar</td>
<td>38</td>
<td>1.06</td>
<td>90</td>
</tr>
<tr>
<td>29\textsuperscript{th} Mar to 4\textsuperscript{th} Apr</td>
<td>29</td>
<td>1.38</td>
<td>114</td>
</tr>
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</table>

For the plan to be successful

- Stick to the planned area
- Post-grazing residual 3.5cm
- Use a strip wire on a 12-hour basis.
- Grazing area should be back fenced
- On/Off grazing is essential in wet weather.
Fertiliser Recommendations: February/ March

- Spring Nitrogen (N) application is essential to boost growth on all paddocks

  | Average Grass Growth Response of 10 kg DM per 1 kg N applied per ha in Spring |
  | Efficiency of slurry utilisation increased (x6) during February & March |
  | High risk of N loss to groundwater (x25) during February & March |

- Immediately after the closed period for fertilizer and slurry application
  - Apply 2,500 gals. slurry/ac. to 30% of paddocks (<650 kg DM/ha herbage mass)
  - Apply 23 units urea/ac. to remainder (Urea= 30% cheaper than alternatives/kg N)

- In early March
  - Apply 2,500 gals. slurry/ac. to 30% of paddocks
  - Apply 40 units urea/ac. to remainder

- 70 units N applied by April 1st

- Pay close attention to weather forecasts to avoid heavy rain and waterlogged soils within 48 hours of nutrient application to minimise losses and maximise benefits.
Summary

• Walk the farm and establish grass supply

• Hit 30% area grazed in February to build grass for Rotation 2

• Increase feed allowance by 0.75 kg DM/cow/wk from calving to breeding

• High Autumn Covers (>1,200 kg DM/ha) should be grazed before Mid-march

• Avoid poaching and protect regrowth

• 70 units N applied by April 1st