Optimum stocking rate & calving date

**Stocking rate (SR; cows/ha)**
- Main driver of productivity in grazing systems
- Align feed supply with herd demand
- Influenced by soil type, grass growth, supplement fed

**Calving date (CD)**
- Compact spring calving fed on grazed grass diet
- Affects supplement requirement & milk production
- Delaying calving affects spring grazing targets

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**Grass growth and demand profiles for SR and calving date combinations**

<table>
<thead>
<tr>
<th>Grass grown (t DM/ha)</th>
<th>10</th>
<th>12</th>
<th>14</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Optimum SR if feeding 0.5 t DM supplement/cow</strong></td>
<td>1.8</td>
<td>2.2</td>
<td>2.5</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Optimum SR if feeding 1.0 t DM supplement/cow</strong></td>
<td>2.0</td>
<td>2.4</td>
<td>2.9</td>
<td>3.2</td>
</tr>
</tbody>
</table>

**Mean calving date**
- 15th February
- 2nd March

**Concentrate (kg DM/cow)**
- 425
- 376

**Silage fed (kg DM/cow)**
- 200
- 137

**Milk yield (kg/cow per day)**
- 18.7
- 19.9

**Milk yield (kg/cow)**
- 5,452
- 5,514

**Milk solids (kg/cow)**
- 430
- 431

**Lactation length**
- 291
- 277

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**Take home messages**
- Match SR to growth capability and supplement brought onto farm
- Target mean calving date; range 15th February – 2nd March (50-60 days before magic day)
- Decision rules key to managing systems