Lucerne, easy
For a guaranteed optimal yield of protein

Apart from choosing Yellow Jacket Nitrogenator, the right soil type, optimal fertilising and correct harvesting methods will contribute to a high roughage yield.

Soil type
Lucerne thrives on well-drained soil with the correct acidity. Sandy soil must have pH value higher than 6.5, and clay soil at least 5.5. Lucerne must not have been grown for one (in wet areas) to three (in dry areas) years. Good soil structure is advisable.

Fertilising and crop protection
Lucerne is a nitrogen-fixing crop. If the soil contains enough nitrogen at the time of sowing, there is no need to add extra nitrogen. Over time the crop itself will ensure nitrogen fixation from the air. Phosphate, sodium and potassium must be added based on soil analysis.

Leave the crop alone
Because lucerne is susceptible to damage from traffic, it is important to leave the crop as undisturbed as possible. When a lucerne plant dies, it will leave an open spot where weeds can get a chance. Barenbrug lucerne seed is free from noxious weeds and scores well for nematode resistance. Disease and pest control can often be done with available resources.

Cutting
Lucerne is mostly cut for making silage. Depending on the local climate, two to five or more cuts are possible. In case of springtime sowing one less cutting may be taken into account. The best time for cutting is when five to ten per cent of the plants are flowering. The best cutting height is seven to ten centimeters. Lucerne is a broad-leaved crop, which means the choice of cutting machine is important. When handling is too intensive, too much leafy material is lost, at the expense of forage yield and quality.

The complementary nutritional value of lucerne and maize

<table>
<thead>
<tr>
<th></th>
<th>Lucerne</th>
<th>Maize stage</th>
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<tbody>
<tr>
<td>Sugar (g/kg)</td>
<td>5</td>
<td>0.5</td>
</tr>
<tr>
<td>Starch (g/kg)</td>
<td>10</td>
<td>300</td>
</tr>
<tr>
<td>NDF (g/kg)</td>
<td>475</td>
<td>380</td>
</tr>
<tr>
<td>NDF - digestibility (%)</td>
<td>58</td>
<td>53</td>
</tr>
<tr>
<td>Crude protein (g/kg)</td>
<td>190</td>
<td>70</td>
</tr>
<tr>
<td>Energy for milk (MJ NEL)</td>
<td>5.2</td>
<td>6.7</td>
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</tbody>
</table>

The values may vary according to circumstances. Source: CVB.

In the first year, the potential dry matter yield of lucerne is six to nine tonnes per hectare. For the second and following years, the dry matter yield is twelve to seventeen tonnes per hectare. These figures vary very per lucerne variety and regions.

Silage quality
Lucerne is a great protein source and provides a high effective fibre content (NDF) to the feed ration. The complementary nutritional value of lucerne and maize is:

| Sugar (g/kg) | 5 | 0.5 |
| Starch (g/kg) | 10 | 300 |
| NDF (g/kg)  | 475 | 380 |
| NDF - digestibility (%) | 58 | 53 |
| Crude protein (g/kg) | 190 | 70 |
| Energy for milk (MJ NEL) | 5.2 | 7.7 |

Forage yield
In the first year, the potential dry matter yield of lucerne is six to nine tonnes per hectare. For the second and following years, the dry matter yield is twelve to seventeen tonnes per hectare. These figures vary very per lucerne variety and region.
Rhizobium, indispensable

- Aided by nitrogen-fixing Rhizobium, lucerne captures nitrogen from the air and root nodules. The bacteria also ensure improved crop establishment, resulting in higher protein and dry matter yield.

- Barenbrug has developed the technology for the enhancement of lucerne nitrogen fixing, ensuring a good start for the crop and a rich harvest for your dairy cows. The Yellow Jacket Nitrogenerator seed enhancement makes high-protein rations for your dairy cattle. The Yellow Jacket Nitrogenerator seed enhancement makes high-protein rations for your dairy cattle.

- The 7 proven benefits of Yellow Jacket Nitrogenerator
  1. Higher bactericide activity in soil
  2. Faster and more extensive rhizobial activity is visible in the soil
  3. Rhizobium bacteria may occur naturally in soil and exist when the soil temperature is favorable for the Rhizobium bactericide. Hence, the nutrients are transported to the plants.
  4. Long shelf life, which ensures that the rhizobial activity is maintained for a long time in the seed.
  5. Improved plant establishment
  6. Faster and more extensive rhizobial activity is visible in the soil
  7. Higher yield during many years

- Yellow Jacket Nitrogenerator contains essential nutrients and trace elements that feed the seedlings and enhance the effect of the Rhizobium bactericide. Some goCO2 from the bacteria increases the pH value around the roots.

- Barenbrug has a widely extended lucerne breeding program. Our program is running in Northern France (Flemish types), Southern France (Rhododendron types), Flanders (continent types) and Australia (non-dormant types). The main goal of Barenbrug lucerne breeding is to achieve the maximum farm benefits from lucerne.

- Quality seed by Barenbrug
  - Drought and cold hardness
  - High-quality seed by Barenbrug
  - High-quality seed by Barenbrug

- Overview of Barenbrug lucerne varieties and dormancy classification in Europe

- Yellow Jacket Nitrogenerator contains essential nutrients and trace elements that feed the seedlings and enhance the effect of the Rhizobium bactericide. Some goCO2 from the bacteria increases the pH value around the roots.

- Yellow Jacket Nitrogenerator is an excellent choice for this policy, some countries are offering subsidy opportunities for farmers growing lucerne making an even more attractive choice for dairy farmers.

- Buying a lucerne is always for farmers with experience, as the lucerne-rooted plants require a substance that contains protein for its growth.

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