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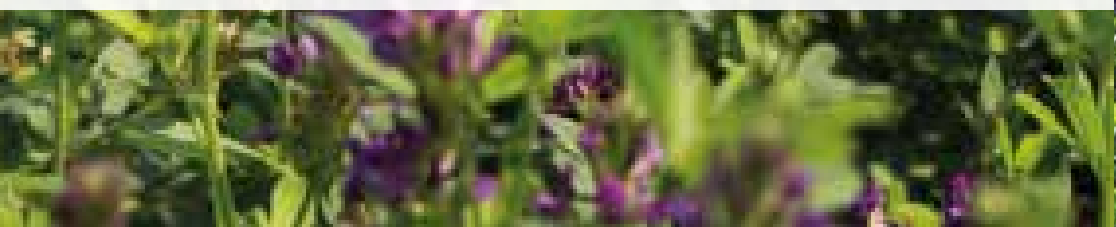
Alfalfa

The queen of feed plants

FELDSAATEN · FREUDENBERGER ·



Alfalfa

The production of protein in your own field!

Alfalfa, the queen of feed plants, is specially known for its' great **high protein content**. It is therefore ideally suited to increase the **protein content in the feed**. Alfalfa also produces very high yields in both green and dry matter.

Protein yield per ha

SOY
up to 1.2 tons
crude protein

ALFALFA
up to 2.5 tons
crude protein

Why Alfalfa? Advantages

As a fodder crop:

- High protein content in the feed (up to 2.5 tons of crude protein per hectare; i.e. equivalent to approx. € 2,000 protein costs from soybean)
- Increased feed intake by:
  a) High palatability
  b) High digestibility
- Effective feed conversion

effect

- **You save on costs of concentrated feed:**
  a) Basic feed intake of the herd increases
  b) Your animals' health improves

For agriculture:

- Loosening of the soil for the next crop
- Nitrogen fixing by rhizobia
- Increase of the humus content in the soil
- Effective aeration of the soil

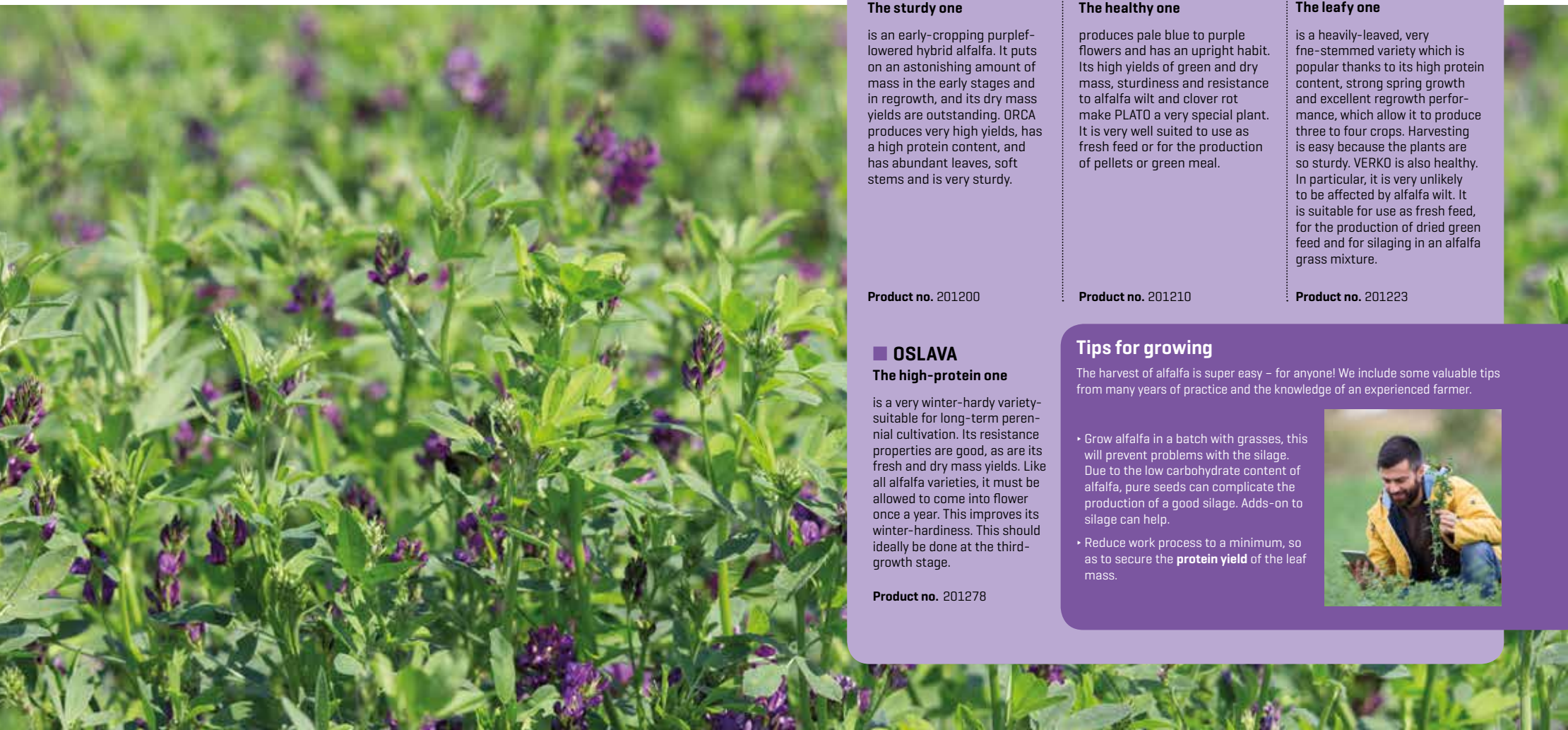
effect

- **You need less N fertilizer**
- **The soil health will be improved**
- **Weeds are suppressed**
- **Long lasting positive effect of up to 3 years years -> the following winter wheat crop will thank you!**

Alfalfa

Medicago sativa (x varia)

The queen of feed plants produces outstanding green mass and dry mass yields and offers excellent feed quality. Alfalfa's astonishing protein content of 20 per cent makes it an ideal choice for protein-rich feed production. Its deep roots make it perfect as a preceding crop, and since it is a legume it fixes nitrogen for the subsequent crop at no cost to the grower. Alfalfa is also an excellent pioneer plant when bringing former mining areas back into cultivation. Alfalfa prefers calcium-rich, deep soils. The best time to harvest alfalfa is between bud and flower stage. The crop should be allowed to get to full flower once in the growing period, as this will enable it to store sufficient reserves in its roots and make it more robust. The robust, winter-hardy varieties in our range can be cropped for 3 years.



Alfalfa - Medicago sativa — 25 kg

Sowing rate: 25-30 kg/ha when sown alone
19-23 kg/ha when undersown in summer cereal, 25 kg/ha in a grass mixture with 6 kg/ha meadow fescue or tall oat grass, or 28 kg/ha in a grass mixture with 3 kg/ha of cocksfoot or timothy grass
Sowing period: March to May when grown alone
Sowing depth: 1–2 cm
Distance between rows: as cereals
Fertiliser: P and K according to the recommendations based on soil survey results

ORCA
The sturdy one

is an early-cropping purple-flowered hybrid alfalfa. It puts on an astonishing amount of mass in the early stages and in regrowth, and its dry mass yields are outstanding. ORCA produces very high yields, has a high protein content, and has abundant leaves, soft stems and is very sturdy.

Product no. 201200

PLATO
The healthy one

produces pale blue to purple flowers and has an upright habit. Its high yields of green and dry mass, sturdiness and resistance to alfalfa wilt and clover rot make PLATO a very special plant. It is very well suited to use as fresh feed or for the production of pellets or green meal.

Product no. 201210

VERKO
The leafy one

is a heavily-leaved, very fne-stemmed variety which is popular thanks to its high protein content, strong spring growth and excellent regrowth performance, which allow it to produce three to four crops. Harvesting is easy because the plants are so sturdy. VERKO is also healthy. In particular, it is very unlikely to be affected by alfalfa wilt. It is suitable for use as fresh feed, for the production of dried green feed and for silaging in an alfalfa grass mixture.

Product no. 201223

OSLAVA
The high-protein one

is a very winter-hardy variety-suitable for long-term perennial cultivation. Its resistance properties are good, as are its fresh and dry mass yields. Like all alfalfa varieties, it must be allowed to come into flower once a year. This improves its winter-hardiness. This should ideally be done at the third-growth stage.

Product no. 201278

Tips for growing

The harvest of alfalfa is super easy – for anyone! We include some valuable tips from many years of practice and the knowledge of an experienced farmer.

- Grow alfalfa in a batch with grasses, this will prevent problems with the silage. Due to the low carbohydrate content of alfalfa, pure seeds can complicate the production of a good silage. Adds-on to silage can help.
- Reduce work process to a minimum, so as to secure the **protein yield** of the leaf mass.

Rhizobia-coated seed

Innovative seed technology!

Alfalfa is also available as coated seed inoculated with noduleforming bacteria (rhizobia).

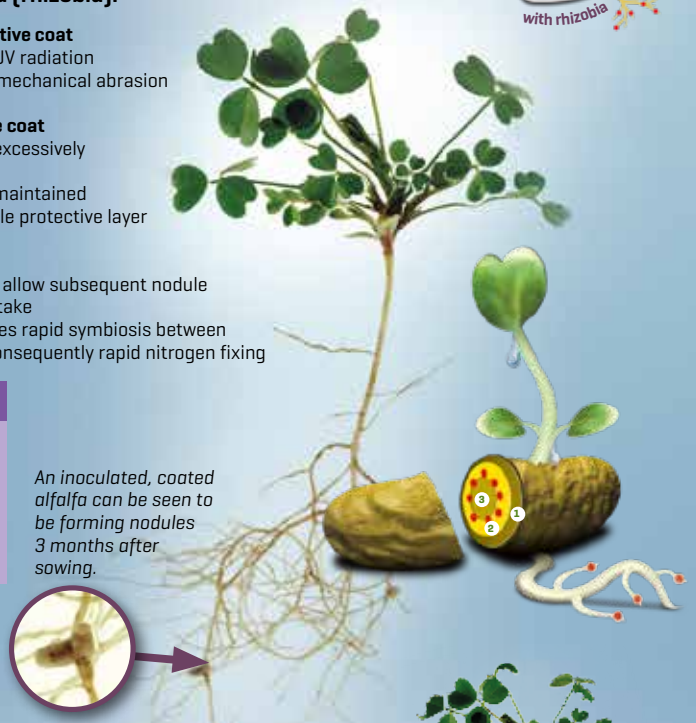
1. External technical protective coat
- Protects bacteria against UV radiation
- Protects the seed against mechanical abrasion

2. Internal sterile protective coat
- Protects bacteria against excessively high temperatures
- The viability of bacteria is maintained for up to a year by the sterile protective layer

3. Seed
- Inoculated with rhizobia to allow subsequent nodule formation and nitrogen uptake
- Rhizobia inoculation ensures rapid symbiosis between plants and bacteria, and consequently rapid nitrogen fixing

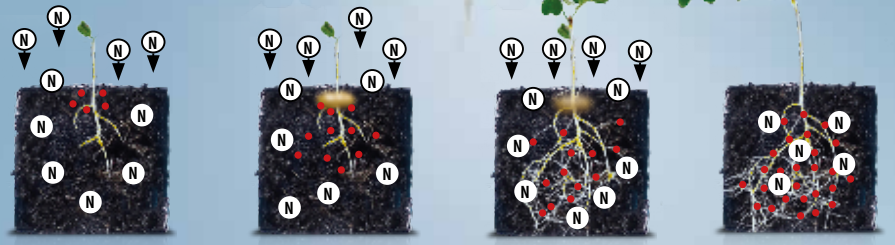
Advantages

- notable higher yields in inoculated alfalfa
- ready-to-sow product with rhizobia
- long-lived, long-storage (12 month)



An inoculated, coated alfalfa can be seen to be forming nodules 3 months after sowing.

But how does the nitrogen end up in the soil?



Rhizobia (●) have been used to inoculate the alfalfa seed, and it has been coated. It is surrounded by nitrogen (N).

The rhizobia bacteria (●) leave the seed once the coat dissolves and enter the space close to the roots.

The rhizobia bacteria (●) colonise the fine root hairs and nodules are formed.

Inside the nodules which have been formed, nitrogen (N) is converted into a form which the plant can use and helps the plant to grow.

RhizoFix®

RF-50 for inoculation of alfalfa seeds

RhizoFix® is a milk-based liquid inoculant for legume seeds - RhizoFix® RF-50 especially for alfalfa. For the last few years, Feldsaaten Freudenberger has been conducting intensive research to develop its own rhizobia strains. The best strains have been selected in many lab and praxis tests. The objective of the selection process to find strains that quickly form a symbiosis with the host plant, while also leading to an optimum yield. RhizoFixR products make it possible to also grow legumes in areas that have no natural rhizobias. Freudenberger provides appropriate rhizobia strains for all common crops. The product is ready to use immediately, without pre-mixing of the individual components. Only careful seed mixing is required to ensure that all seeds come into contact with the inoculant. We recommend performing inoculation directly in the seed drill or in a suitable concrete mixer or similar. A pump sprayer or a field sprayer can be used to distribute the inoculant.

left: alfalfa inoculated with rhizobia bacteria/
right: alfalfa with RhizoFix® inoculation

The inoculation of alfalfa with rhizobia is always required if you are growing alfalfa for the first time. Use alfalfa coated seed Rhizo as a finished product or inoculate it yourself with the liquid inoculant **RhizoFix® RF-50**.

Questions about alfalfa or seed inoculation? Let us advise you.

Timo Blecher
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Advantages of seed inoculation with RhizoFix®

- Higher yields compared to non inoculated crops
- Fastest possible symbiosis between the plants and the rhizobia
- Direct contact with the seed
  ➞ Rapid root settlement
- A specific rhizobia strain for each variety
- Crops can also be grown on surfaces where no natural rhizobia are present
- More robust growth
- The inoculant is easy to handle
- Immediately ready to use

RhizoFix® RF-50

Suitable for:
Alfalfa (Medicago sativa)
Content: 1000 ml
Content sufficient for:
100 kg seeds
Sowing rate: 25 kg/ha
Sufficient for: 4 ha
Product no. 5250

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