



Asparagus after asparagus... after asparagus...

The availability of fresh plots of land suitable for asparagus growing is continuing to shrink in Europe. This situation makes replantation unavoidable, the accelerated "decline" or dying off of plants in the fields is placing pressure on the profits made from growing asparagus. The main culprit of this problem is the *Fusarium oxysporum* (crown rot) mould, that is present to a lesser or greater degree in the soil. The amount of infestation by *Fusarium oxysporum* determines the extent to which replantation is affected by accelerated "decline". Active ways of controlling this mould are not yet available, but the initial experiences with biological soil fumigation

are hopeful. When choosing a variety, it's always possible to use a cultivar that either gives a high yield in the early years of cultivation or one with a certain stress tolerance. Backlim and Horlim are both known to have a certain degree of stress tolerance, so that despite infestation by *Fusarium* they will still remaining producing at a profitable level. Our experience with Herkolim is also promising in this respect. Even under less than optimal growing conditions, Herkolim still appears to be able to achieve good production levels. Combined with its other characteristics; high uniformity, thick spears and good quality traits for rust, hollowness and flavour, Herkolim is a very attractive alternative for use in replantation.

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**Green asparagus in
the Netherlands and
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**New planting,
new start**

**Cold feet, warm head;
a recipe for hollow
spears**

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Green asparagus in the Netherlands and England

Green asparagus is enjoying more attention in the Netherlands. The current big expansion in the growing area as a result of increasing exports to England also appears to be having a knock-on effect on Dutch interest for green asparagus. In England around 1200 hectares of land is devoted to growing green asparagus. A figure that is quickly rising and planted with 100% green plants. In the Netherlands, and in Germany too, the growing area of green asparagus is less than 5% of the total number of hectares planted with asparagus. Growers in England have a lot of experience and knowledge with the green varieties and are backed up by increasing domestic demand. The most commonly cultivated variety in England is Gijnlim, followed at a good distance by Backlim and other varieties. Gijnlim is much valued for its high production, which it also shows in the second part of its productive life.

Gijnlim destined to be picked green can be planted at a density of approximately 25% higher than customary for white cultivation. In practical terms, this translates to approximately 24,000 plants per hectare. The planting depth is partly influenced by the amount of soil used to create the small, low beds. A widely used planting depth is 16 – 20 cm. Planting the crowns in shallower beds will give an earlier crop, but less soil over the crowns also encourages thinner spears. The yield of green asparagus in kilos is less than that of white asparagus, as well as the price achieved per kilo, taking into account the lower labour costs related to harvesting green varieties. The main quality aspect with green asparagus is well-closed tips. Obtaining a firmly closed tip is greatly influenced by factors such as temperature and the chosen variety. This means that many varieties used to grow white asparagus are not always as suitable for green crops.


New planting, new start

Planting asparagus for commercial growing involves great care and accuracy. It represents a high investment, one that you will hopefully be profiting from for many years to come. Mistakes made in the early stages of planting are a costly matter and may affect your annual profits to the tune of hundreds of euros in losses per hectare.

One of the first steps in this process is deciding where to plant the crop. Whether you intend to grow white or green asparagus, good drainage is essential as well as being able to irrigate the crop if required. Being confronted by too much or too little water shouldn't jeopardise your valuable investment. Before you decide which plot of land to use, take soil samples. These should be taken at a depth that is suitable for rooting, or can be made suitable for this purpose. Apply fertilizer based on the results of the sample, and pay special attention to the acidity of the soil. Asparagus appreciates a high pH. Clearly agree the number of plants, variety and grade with the supplier of the plants. Discussing A and B plants is not enough, preferably discuss the number

of plants per 10 kg or an average plant weight with a lower limit.

Inspect the plants on arrival at your company. Don't just check the number of plants delivered, but also closely examine the quality of the plants. Make sure the buds on the plants are firm and that the roots are free of mould and not too dehydrated. Report any irregularities to your supplier immediately. It's unrealistic to expect to be able to lodge a complaint with the supplier once the plants have been planted out and are already growing! The crowns don't necessarily have to be planted in the soil at once, as long as they are stored in a cool, dry place out of any direct wind influence. They can easily keep in this way for about a week. If weather conditions force planting to be delayed, then it's best to store the plants in cold storage at a temperature between 2 and 5 degrees Celsius. This will prevent the plants sweating and the roots starting to produce shoots. If the plants are stored for any length of time in cold storage (several weeks) dehydration can be a threat. Regularly spraying the floor of the cold store with water can alleviate



the problem. However, always immerse the crowns in water before planting and add an agent that will prevent infection with Fusarium. This preventive treatment is, in fact, always a good idea. Do not force planting in unsuitable soil conditions, wait patiently for the right soil and weather conditions to occur naturally. If the crowns have been stored correctly, the damage will never be as much as when development is retarded because the plants were put into soil that was far too wet, for example.

Cold feet, warm head; a recipe for hollow spears

Hollow spears are caused by large temperature differences in the wide zone above and below the head of the plant. The greater this temperature difference is, the higher the percentage of hollow spears. We have noticed that there are generally more problems with hollowness in continental climates, where the transition from winter to spring is more extreme and often involves wide varying temperatures in a very short space of time. This means that the temperature differences in the soil are equally large. This can be a very difficult problem to solve. Heat conductivity can be improved if the soil is damp enough, so irrigation could

be considered as an option. However, this is complicated to achieve in practice, and the effectiveness of this measure is not clear either. Looking at the causes of hollowness can lead to the conclusion that deep planting is not such a good idea, neither is the use of thermal plastic mulches, but practical experience hasn't yet confirmed this theory.

The current range of cultivars includes varieties that show more or less sensitivity to hollowness. Avalim is highly resistant to hollowness, as are Herkolim and Backlim. Preventing hollowness is and remains a major selection criterion in the search for new quality varieties.

Company information

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Information about varieties developed by us (Avalim, Backlim, Gijnlim, Grolim, Herkolim, Horlim and Thielim) can be obtained from our variety specialists. They can be reached using the telephone and fax number or email address stated above.

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