The ground offensive for quality

The ALLEEGRO® Growing Soil in a three-year test

Background

Clasen & Co Nursery had already started cultivating avenue and street trees in ALLEEGRO® containers in the 1970s. The ALLEEGRO® growing soil was developed as a result of this experience. Clasen & Co wanted to create optimal growing conditions that would reduce annoying accessory costs because even today up to 15% of new plantings can die off. The European oak bark beetle is a particular problem because freshly planted trees are particularly susceptible to infection.

ALLEEGRO® has convinced

Clasen & Co has been very successful with ALLEEGRO®. Experience has shown that ALLEEGRO® container trees grow better and more stress free than bare-root or root balled trees. The planting season is also longer.

The Test

In the beginning of May 2001, a three-year comparative test of ALLEEGRO® was started with the aim to verify its advantages. The test took place as part of a major road building programme in which trees were planted with a variety of soil substrates.

The Candidates

The ALLEEGRO® test was carried out with English Oak (Quercus robur) which are classed as “problem trees”. Despite the fact that these trees are very tolerate they replant with difficulty, and the first years are very important.

The Experiment

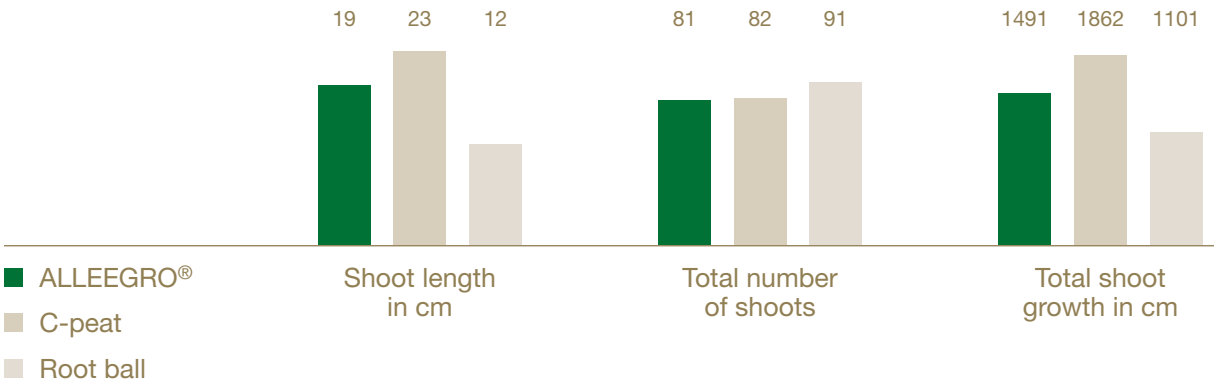
Three different types of English Oak were planted, each with a stem girth measurement of 14–16 cm:

- Trees with the usual root ball (B).
- Trees in a container with ALLEEGRO® growing soil.
- Trees in a container with peat substrate.

In order to compare tree growth the trees all pruned in a similar way. At the end of each growth period shoot length and girth width 1 m above the root were measured and the crown evaluated.

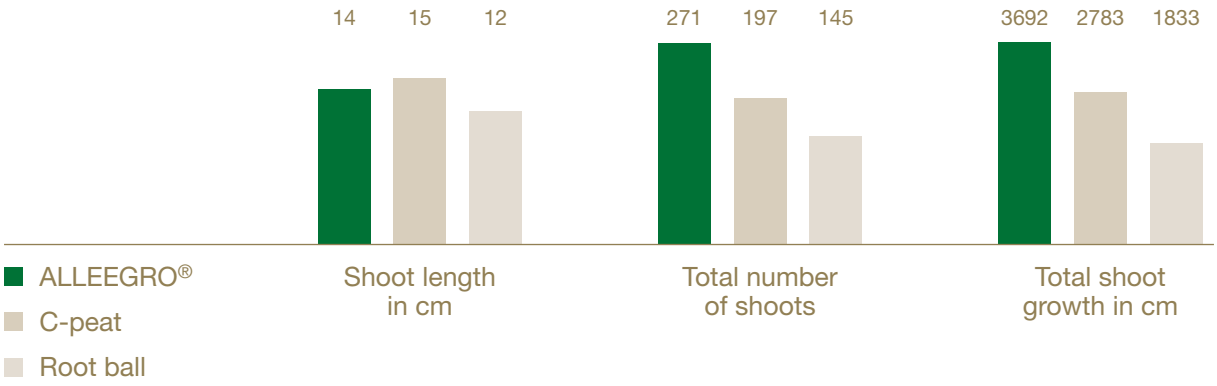
Shoot Growth in Year 1, 2001

A major difference in shoot growth between the container trees and the root balled trees was detectable after the first year. Despite a large number of shoots, the root balled tree had only achieved a very limited total shoot growth. In comparison, both container trees (C-peat and ALLEEGRO®) achieved a greater shoot growth with fewer shoots. The container trees clearly had used up their entire growth potential. The reason is that fine-roots which come with a container tree are the source of this growth advantage. At the time of measurement of shoot growth (October 2001) the different substrates was not a factor in shoot growth.



Shoot Growth in Year 2, 2002

In the second growth period the root balled tree was not able to recover its growth deficit, which had now reached 50% for C-peat and 100% for ALLEEGRO®. As the chart below shows, the ALLEEGRO® container tree had a crown volume twice that of the root balled tree. The decisive factor here is the number of shoots per tree, because the average shoot length for all three trees was similar. What was also noticeable was the major difference between the two container trees. The ALLEEGRO® achieved 30% more shoot growth than the tree with peat substrate (C-peat with 100% organic content). The mineral content of ALLEEGRO® was clearly an important factor.



Shoot Growth in Years 3 and 4, 2003/2004

Due to size of the crowns it was no longer possible to measure shoot growth after the third year. Instead stem girth was measured and a visual assessment of the crown taken and documented as weak and loose to strong and dense.

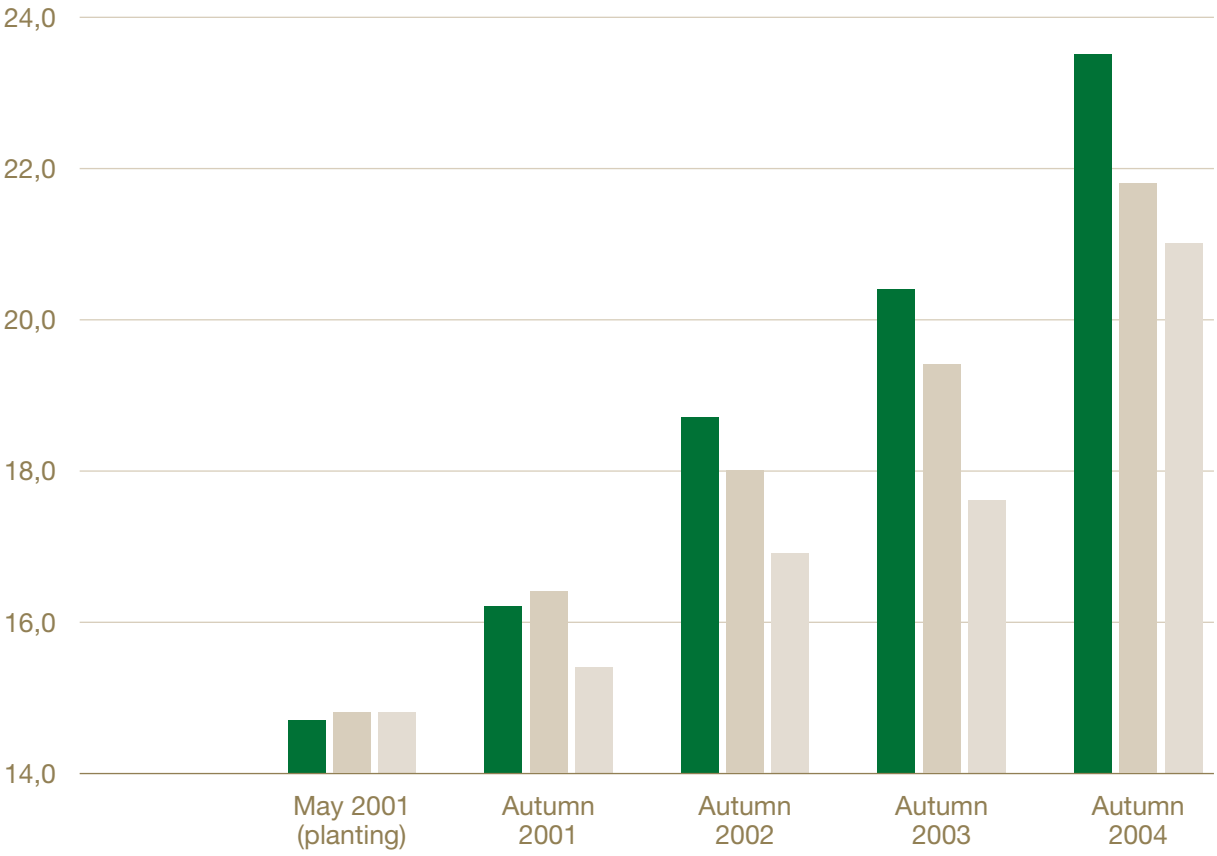
As before, the crown of the root balled tree performed the worst. The crown of the peat-based tree was very diverse, from loose to densely twigged. In contrast, the trees with ALLEEGRO® substrate had on average a homogenous crown. The significant advantage of the ALLEEGRO® was even more pronounced in the fourth year.

Stem Growth from 2001 to 2004

Since the experiment began in autumn 2001, a significant difference in stem growth between the root balled and container trees could be observed.

The chart below makes clear that the growth in girth of an ALLEEGRO® tree was greatly and increasingly more than the other trees. By the end of the fourth year the ALLEEGRO® container tree stem girth was on average 2.5 cm more than the root balled tree and 1.7 cm more than the peat based tree.

Circumference in cm



	May 2001 (planting)	Autumn 2001	Autumn 2002	Autumn 2003	Autumn 2004
ALLEEGRO®	14,7	16,2	18,7	20,4	23,5
C-peat	14,8	16,4	18,0	19,4	21,8
Root ball	14,8	15,4	16,9	18,6	21,0

The Result:

True Beauty Comes from Below

The study shows that trees with an ALLEEGRO® mineral substrate have more potential for branch growth. Full, strong, and optically beautiful crowns are the result. Root balled and container trees with peat base do not produce the same visual effect: an even roadside image.

Summary:

The Fullness of an ALLEEGRO® Crown

ALLEEGRO® Container Trees

- Optimally developed intact root ball with root fibre cultivated in a mineral substrate according to German FLL guidelines for tree substrates.
- pid growth with a visually improved appearance.

Root balled Trees

- Digging out trees causes root injury.
- Impaired crown growth after re-planting.
- Impaired root growth after replanting.
- Thin, and care-intensive crown, and a distorted roadside image.

Peat-substrate Trees

- Impaired root growth into surrounding soil.
- Capillary impairment resulting in water and nutrient supply.
- Impaired root and crown development.
- Peat-based substrate reduces the advantage of container cultivation.

ALLEEGRO®

Peat-substrate

Root balled

Three Good Reasons for ALLEEGRO® Container Trees

Quality Pays

Cheaper root balled trees deceive: ALLEEGRO® are only marginally more expensive but have a greater survival rate and are easier to replant. What you save on purchase cost you pay back in intensive care.

We recommend container trees with mineral substrate!

Flexibility is a Guarantee

A greening project requires careful planning of the planting time. This is a detail that is often forgotten and is a cause of many a delay. One of the major problems is that the trees are then frequently planted too late in the spring or too early in the autumn, thus subjecting them to unnecessary stress from the sun or cold.

ALLEEGRO® container trees are much more flexible: they can be set in the earth at all-year round. Moisture loss particularly in summer is inhibited via the fine-root structure and appropriate watering.

Great Trees, Great Joy

The use of taxpayers money always comes under the microscope: no one wants to see money wasted on roadside trees that remain puny years after planting. That's why ALLEEGRO® trees receive wide acceptance among the population for their dense, and fast growing crowns. They indicate a wise and sustainable investment.

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