









Participation in the Naktuinbouw Elite® system is a well considered choice for companies. After signing a 'preagreement' with Naktuinbouw and paying the admission fee, the company will receive the Naktuinbouw Elite® Ornamental Crops manual, describing the exact requirements of the quality management system and the product. The company then sets up its own, company-specific quality management system based on this manual.

When an audit on process level and an assessment on product level both show that the company's own quality management system is functioning well and the propagating material meets the certification requirements, Naktuinbouw will accredit the company. After signing the final agreement, the company becomes a full participant in the Naktuinbouw Elite[®] system and is entitled to communicate this externally and to provide its products with a Naktuinbouw Elite[®] certificate or the use of the trademark. Naktuinbouw will then carry out annual audits and certification inspections for quality and health assurance.

Naktuinbouw is the owner of the Naktuinbouw Elite® system, and has developed, set up, and manages it. However the protocols are drawn up in collaboration with the participants. These protocols are also based on the recommendations of the European Plant Protection Organization (EPPO). Organizational and financial subjects are discussed during the annual participants' meeting. At least once a year – or earlier if necessary – the protocols will be brought into line with current requirements.







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Elite[®]-certified ornamental crops

Propagation material of more than 200 different crops can be certified, including Alstroemeria, Anthurium, Chrysanthemum, Dianthus, Pelargonium, Petunia, Rosa, Verbena and many bedding plants and perennials. Examples of relevant pathogens which are tested for are Agrobacterium tumefaciens, Ralstonia, tobacco mosaic virus, tomato mosaic virus, potyvirus, Arabis mosaic virus, tomato spotted wilt virus, Impatiens necrotic spot virus, Xanthomonas, Fusarium, et cetera.

Protected trademark

Propagating material produced and certified according to the Naktuinbouw Elite® system is designated as Naktuinbouw Elite®. This collective quality mark is a protected trademark worldwide. This means that only participants have been authorized by Naktuinbouw to trade propagating material under this trademark. Certified propagating material will always be accompanied by a Naktuinbouw Elite® certificate or a reference on the suppliers document.

More information?

If you would like more information about Naktuinbouw Elite® please contact the Naktuinbouw Inspections Floricultural Crops Team; e-mail: <u>floriculture@naktuinbouw.nl</u> We will be glad to answer all your questions. You can find a current listing of the Naktuinbouw Elite® participants on our website: <u>www.naktuinbouw.com</u>

Naktuinbouw does more...

Naktuinbouw has three business units, offering the horticultural industry a wide range of services. The **Inspections** unit implements the Dutch Plant & Seed Act and European legislation relating to the quality of propagation material in the floricultural, arboricultural and vegetable sectors. In addition, the Inspections business unit carries out phytosanitary inspections. The work of **Varieties & Trials** concerns the identity of plant varieties. Naktuinbouw is the only organization in the Netherlands which is authorized to assess varieties of ornamentals, vegetables and agricultural crops according to the criteria for Distinctness, Uniformity and Stability (DUS testing) for registration and/or granting of Plant Breeders' Rights. **Laboratories** offers a series of testing methods to assess the health and quality status of propagating material.







The certainty of a good start!





VIRUSVRIJE KAS (SEE) VIRUS FREE STOCK (SEE)

Elke plant getoetst op 6 virussen Each plant tested for 6 viruses

Naktuinbouw Elite® Ornamental Crops

Growers of ornamental crops are placing progressively higher demands on the identity, health and quality of propagating material. Plant propagators want to exclude all risks of diseases spreading – sometimes without being noticed – specifically now that cuttings are increasingly produced on different continents. That is why Naktuinbouw has developed an international quality and certification system enabling disease free propagating material to be produced and identified by means of a certificate: *Naktuinbouw Elite*[®].



The participating companies produce high-quality and healthy propagating material. This propagating material originates in a direct line from individually tested candidate plants which have been found to be absolutely free from relevant diseases. They are preserved under controlled conditions and form the top of the Naktuinbouw



Good start

By choosing Naktuinbouw Elite[®] both propagators and growers of ornamental crops choose for a good start:

- it protects propagators and growers against damage caused by viral and other, still invisible, diseases;
- it provides a maximum insight into the quality and health levels of the propagating material;
- it offers certainty about the health, origin, trueness to type and trueness to variety of propagating material;
- it offers added value by ensuring a healthy start and, as a rule, better growth;
- and it offers better export possibilities worldwide.









Elite[®] system, which is sometimes also referred to as a 'pyramid' system. Four other multiplication phases follow, resulting in a traceable flow of clean propagating material.

The Elite[®] phases 'From a candidate plant to certified mother plants and young plants class E' are shown in the pyramid below.



Candidate plant, C

- Placement in an aphid proof compartment with a double door entrance
- Full identity check (true to variety and 100% pure)
- Full testing for the absence of pathogens (viruses, bacteria, nematodes, fungi, etc.)
- Cultivation without soil contact in separate containers/pots

Nuclear stock (Pre-basic), SEE 1 / SEE 2

- Material derived from candidate plants or SEE plants
- Placement in an aphid proof compartment with a double door entrance or in vitro
 Periodic full identity check
 - Full testing for the absence of pathogens (viruses, bacteria, nematodes, fungi, etc.)
 - Cultivation without soil contact in separate containers/pots
 - Testing irrigation water for relevant pathogens

Propagation stock (basic), **EE**

- Material derived from SEE plants
- Cultivation in an aphid proof compartment with a double door entrance
 Random identity checks
 - Random testing for the absence of pathogens
 - (viruses, bacteria, nematodes, fungi, etc.)
 - Cultivation without soil contact in separate containers/pots
 - Testing irrigation water for relevant pathogens

Certified mother plants, E

- Material derived from EE plants
- Random identity checks
- Random testing for the absence of pathogens (viruses, bacteria, nematodes, fungi, etc.)
- Testing irrigation water for relevant pathogens

Process and product

Propagating material produced and certified according to the Naktuinbouw Elite® system can be relied upon to be disease free. To achieve this result, strict requirements and conditions have to be complied with at two levels:

Process level

The production process must be fully documented and must be carried out in a controlled manner. That is why Naktuinbouw Elite® requires propagators to have their own quality management systems (comparable to ISO) in combination with production facilities equipped for the safe production of high-quality material.

Product level

The product has to comply with all the applicable certification regulations. These are regulations relating to plant sampling, testing samples in Naktuinbouw-approved laboratories and regular visual inspections of the crop.