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Welcome at Naktuinbouw

Naam presentator
Functie/team presentator



History Naktuinbouw (1)

- Initiatives in the 1930s
- 1941 Establishment NAKG
- 1943 Establishment NAKB
- 1947 Establishment NAKS
- 1994 NAKS/NAKB merge to NAKB
- 2000 NAKB/NAKG merge to Naktuinbouw

Logos for NAKG (top right), NAKB (middle right), and NAKS (bottom right).

History Naktuinbouw (2)


- 1 June 1993, introduction Plant Passport inspections
- 1 January 2006, take over of Plant Breeders' Rights testing from WUR / CGN
- 1 September 2007, take over of phytosanitary import and export inspections from the NVWA
- 1 januari 2008, integration Board for plant varieties at Naktuinbouw
- 1 March 2013, Export (third countries) inspections back to NVWA

Inspection Services in the Netherlands

- Netherlands Inspection Service for Bulbous crops
- Netherlands Inspection Service for Agriculture
- Netherlands Inspection Service for Horticulture
- Quality Control Bureau
- Skal (organic inspection service)
- National Plant Protection Organisation (NPPO) (Netherlands Food and Consumer Product Safety Authority)

Vision Naktuinbouw

Vision:
 Every professional grower/trader in horticulture, wherever in the world, must be able to have access to healthy, reliable propagating material of suitable varieties.




Profile Naktuinbouw

- Non-profit organisation, 'only public duties'
- Regulated by the Ministry of Economic Affairs
- Independent chairman appointed by the Ministry of Economic Affairs
- Charged with activities based on the Dutch Seeds and Planting Materials Act (ZPW) and the Plant Diseases Act (PZW)
- Activities 100% funded by the business community
- Board comprises representatives from the sector

Supervised by third parties

- Responsible to government:
 - EU
 - Ministry of Economic Affairs
 - Plant Protection Service of the Netherlands (NVWA)

Naktuinbouw is certified for NEN-EN-ISO 9001



Accreditations

- Import inspections: ISO/IEC 17020 : 1998 (reg.no. I131, type A)
- Variety Testing: ISO-IEC 17020 : 1998 (reg.no. I131, type A)
- Variety Testing: Community Plant Variety Office (CPVO) Entrustment
- Health Testing laboratory: NEN-EN-ISO/IEC 17025 : 2005 (reg.no L549)
- Seed Analysis: International Seed Testing Association (ISTA) accredited laboratory


Field of activities

Horticultural chain:

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    graph TD
      A[Breeder / seed producer] --> B[Propagator]
      B --> C[Grower of products]
      C --> D[Whole sale]
      D --> E[Consumer]
    
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Head Office Naktuinbouw



Film [Naktuinbouw](#)

Locations

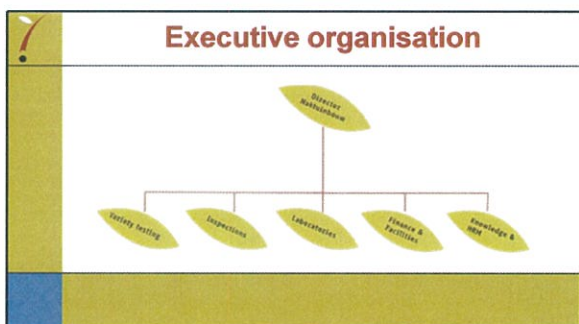
Horst

Wageningen

Trial fields

Tollebeek

Roelofarendsveen



Staff

Per 1 January 2017: 291 employees (260 fte)

- Inspections: 84 (83 fte)
- Laboratories: 78 (70 fte)
- Variety Testing: 66 (60 fte)
- Support: 63 (47 fte)

Number of registered nurseries and traders

• Floricultural crops	268	
• Arboricultural crops	2.442	
• Vegetable crops	320	
• Total (January 2017)	3.030	

Activities Naktuinbouw

1. Inspections
2. Laboratories
3. Variety testing

1. Inspections




Film Inspections

Legislation


- EU marketing directives:
 - Basic inspection on quality
- EU directive 2000/29/EC
 - Phytosanitary inspections (Plant Passport / import)
- National regulations
 - Dutch Seeds and Planting Materials Act
 - Plant Disease Act
- Inspection Regulations Naktuinbouw (quality)

Guideline for the basic inspections

- Varietal purity
- Varietal trueness
- External quality
- Health



Supplier's document



Phytosanitary inspections

Mandated by our Ministry


Plant Passport inspection (at companies)

- For marketing within EU
- Q-organisms EU Directive 2000/29
- Visual assessment, sampling

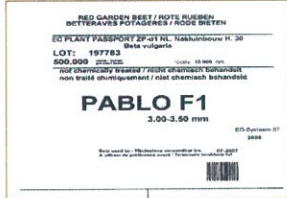
Inspection of shipments (border inspections)

- Import third countries
- Import according EU Directive 2000/29


Surveillance program incl. post-entry inspections (assignment by NVWA)



Example plant passport Beta vulgaris



Phytosanitary import certificate




Quality-plus systems

- Voluntary inspections
- Participants and Naktuinbouw determine standard
- System according to Naktuinbouw regulations
- Financed by participants

Quality-plus systems

- Naktuinbouw Elite:
 - Cultivation in stage system
- Naktuinbouw Select Plant:
 - Extra high health standard
- Certification of arboricultural crops:
 - Strict requirements
- Good seed and plant practices:
 - Accreditation of production systems tomato seeds/young plants based on specific conditions




Naktuinbouw Elite

More than 267 species ornamental crops:

- *Petunia, Verbena, Lobelia, Dahlia, Osteospermum, Impatiens*
- Perennial plants (*Astilbe, Hosta, Heuchera*)
- *Dianthus* (anjer)
- *Anthurium*
- *Begonia*
- *Chrysanthemum*
- *Pelargonium*
- *Rosa*


Vegetable crops:

- Soft Fruit



Naktuinbouw Select Plant

- Floricultural crops
 - *Bouvardia, Alstroemia, Freesia, Rosa*
- Vegetable crops
 - *Asparagus, onion sets*
- Arboricultural crops:
 - *Hosta*
 - *Select Plant Avenue & Ornamental trees*




Guidelines for the voluntary inspections

Added-value systems

- Varietal purity
- Varietal trueness
- Health
- External quality

Management

- Free of viruses
- Equipment, machinery, facilities, etc.



2. Laboratories




Film Laboratories

Activities Laboratories

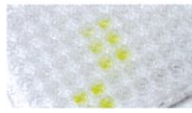
Activities for Inspections Department and companies

- Seed analysis
- Health tests
- Nematode tests
- Identification
- Diagnostics
- Virus free material
- Pre-basic material




Types of laboratory health tests

- Preventive test
- Confirmation test
- Diagnostics



Routine tests


- Fungi
- Bacteria
- Viruses
- Viroids
- Nematodes



Seed testing

- Germinating capacity
- Purity
- Tetrazolium test
- Moisture content determination
- Usable Plant Test

ISTA certificates




Research & Development

- Translating science into practical application
- Research projects for third parties
- Reacting to calamities (for example *Clavibacter*)
- Improving tests
- Validation of test protocols
- Diagnostics

Test Center Horst

- Making material virus free (woody crops / strawberry plants)
- Maintenance (mother plants / strawberry plants)



Variety Testing



Film Variety Testing English, Spanish, Chinese

Activities Variety Testing


Activities for Dept. of Inspections, CPVO, Dutch Board for Plant Varieties and companies

- Registration and admission testing
- Plant Breeders' Rights testing
- Inspection testing
- Variety testing on request of companies
- Testing for listing of vegetable and agricultural varieties

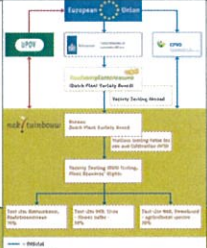


Other services Variety Testing

- Denomination testing
- Light germination testing
- Issuing EU Common Catalogue of vegetable varieties
- Bio-database (www.biodatabase.nl)



Variety Registration in the Netherlands




DUS criteria for varieties

- Distinctness
- Uniformity
- Stability



Applications Plant Breeders' Rights

2016	
Ornamentals:	
Dutch Plant Breeders' Rights	813
EU Plant Breeders' Rights	232
Vegetable crops:	
National listing	1,273
Dutch Plant Breeders' Rights	676
EU Plant Breeders' Rights	486
Agricultural crops:	
National listing	341
Dutch Plant Breeders' Rights	251
EU Plant Breeders' Rights	82
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Variety identification

- Molecular testing combined with morphological testing
- AFLP (Keygene)

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Variety Tracer
• naktuinbouw






Training Courses

- Seed Analyst
- Company Hygiene
- Seed Sampling
- Sampling of Plants
- Plant Variety Protection Course
- Plant Breeder's Rights

Accreditations

- NAL:** Naktuinbouw Accredited Laboratories
Accreditation of private laboratories based on NAL-conditions
- ASLN:** Accreditation of laboratories that take and test samples

Quality in Horticulture