



## Sector of Plant reproductive materials



# Working together to help resolve global challenges

*The seed and young plant sector comprises over 250 Dutch companies, all of which contribute to improving crops in agriculture and horticulture. They produce seeds, tubers, bulbs, cuttings and young plants in response to ever-changing requirements – not only for growers, the processing industry and consumers, but also in response to important societal developments.*

*World population growth is creating a rising demand for healthy, plant-based food, and from a climate change perspective it is increasingly important to produce that food sustainably. The Dutch breeding and propagation companies are indispensable partners in helping to tackle these and other global challenges. As a result, it is a very appealing industry to work in: socially relevant, innovative and international.*

New, improved plant varieties offer solutions for all kinds of societal issues, including:

### Population growth

By 2050 the world population will have reached nine billion. Productive varieties can help to ensure that all those mouths can be fed. Extending the shelf life of fresh products is another way to contribute to both food security and less waste.

### Climate change

Climate zones are shifting and the weather is becoming increasingly unpredictable. Varieties need resistances to new diseases and pests and must be able to cope with bigger extremes, such as droughts, heavy rains and extremely high temperatures.

### Salinization

Approximately 1.5 million hectares of high-quality agricultural land are lost to accumulation of salt in the soil each year. Salt-tolerant varieties can enable some of this land to still be used productively.

### Health and well-being

Many people have an unhealthy diet. Appealing fruit and vegetables and highly nutritious crops can help to turn the tide. Furthermore, flowers and plants improve the general sense of well-being and the air quality, both indoors and in urban areas.

### Urbanisation

The harvested produce must have a good shelf life in order to provide people in urban environments with a reliable supply of high-quality food. An alternative solution for towns and cities is urban end even vertical farming. Such production methods require varieties that have been specially adapted to such growing conditions. Green spaces and natural-grass sports fields are becoming increasingly important to improve the quality of the urban environment.

### Sustainable production

Crop protection chemicals are still involved in many crop production systems, but natural resistances to diseases and pests can help to limit this usage. Besides that, seed treatments can optimise performance, substantially reducing the use of crop protection chemicals in field or greenhouse.

### 'Greening' industries

The manufacturing industry can sometimes have a severe negative impact on the environment. Plant-based raw materials (such as natural colourings for the paint industry or tyres made of rubber extracted from dandelions) can reduce this environmental burden.

## Diversity and choice

Product diversity is extremely important in the fresh produce sector, and Dutch companies have played a significant role in increasing the range of choice for consumers, for example in the tomato category. Today, the range includes aromatic vine tomatoes, red, yellow and orange cherry tomatoes and special varieties for the processing industry that are ideally suitable for the production of sauces and soups. The growing product diversity among fruit, vegetables and ornamental plants not only offers customers a wider choice, but also paves the way for new applications such as greater processing efficiency.

## Interesting career

Knowledge sharing is essential in order to tackle large, international challenges, which is why Dutch companies also collaborate intensively with a large number of knowledge institutions at home and abroad. Many Dutch companies also have offices overseas; Dutch breeding and propagation companies have a local presence in more than a hundred countries. Besides the international aspect, the sector is also renowned for its innovative strength. The companies invest an average of 15% of their turnover in research and development.

This sector currently employs more than 12,000 people in the Netherlands. Professionals who work with seeds and young plants face interesting and exciting challenges on a daily basis, and that is unlikely to change. In fact, the sector will become even more internationally active in the future, and society's problems will be in increasingly urgent need of solutions.

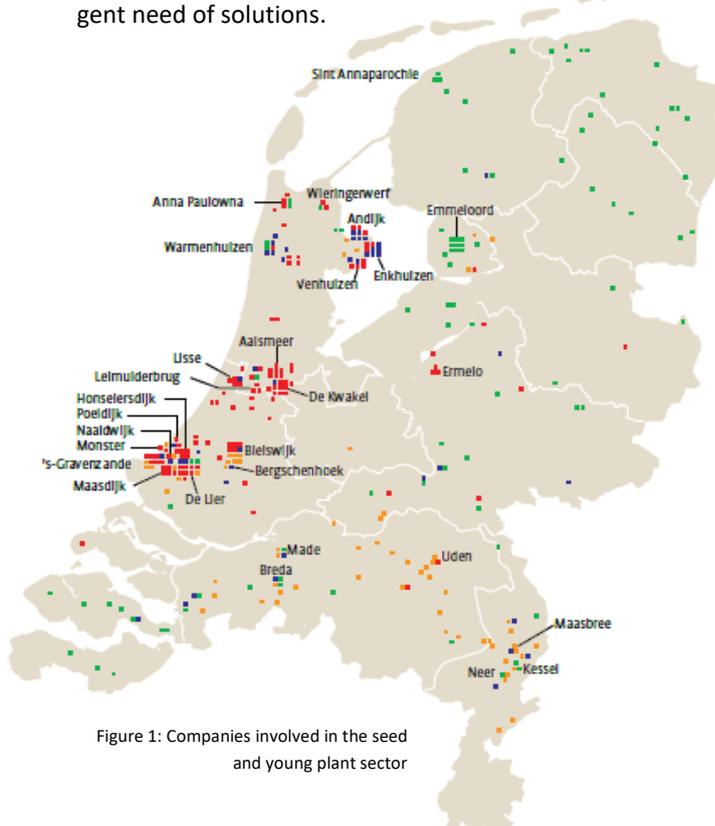


Figure 1: Companies involved in the seed and young plant sector