

- Testing best selection as rootstock (2003–2005).

RESULTS

- From about 20,000 initial seedlings, only some 50 seedlings remained after the first selection.
- After a first round of propagation, about 30 small clones could be tested a second time (Fig. 2).
- Susceptible clones were discarded, and failure to propagate (either by cuttings or in vitro) resulted in about 10 selections that could be tested on a larger scale in the field.
- Some of the best selections performed very well. In a severely infested field, 60% of the individual seedlings of these selections remained healthy, whereas only 10% of the healthy seedling plants (commonly used as rootstock) survived (Fig. 3).
- The best selections now are being developed into verticillium-resistant clonal rootstocks for Norway maple cultivars will become available to growers within the coming years.
- Results of field test of new rootstocks on heavily infected fields is shown in Fig. 4.

Note: See <www.eu.verticilliumintrees.org> for more information on verticillium wilts in specimen trees.

Cultivar Trials at Applied Plant Research®

Margareth Hop

Applied Plant Research, Nursery Stock Research Unit (PPO-Bomen), P.O. Box 118, 2770 AC Boskoop, The Netherlands

INTRODUCTION

Applied Plant Research in Boskoop (The Netherlands) has several trials of woody plants and herbaceous perennials each year. The aim of these trials is to find out which cultivars are the best for growers and home gardeners. Trials usually run for several years. During this time, the identity of the plant is verified and accurately described, photographed, and documented. Information about differences in cultivation requirements and use is gathered, in many cases in cooperation with researchers in other countries. Besides the ornamental value, we look at ease of propagation, winter hardiness, resistance to pests and diseases, etc. Finally an evaluation committee of nurserymen also judges the plants. The results of the trials and the test committee are published in several Dutch magazines for nurserymen, landscapers, and gardeners.

TOP SCORERS FROM RECENT TRIALS

Helenium. Highest awards in 30 tested cultivars for:

- 'Biedermeier' (unique colouring) (Fig. 1).
- 'Kanaria' (strong and versatile) (Fig. 2).
- 'Rubinzweg' (sturdy, intense colour) (Fig. 3).
- 'Wesergold' (yellow with brown centre, long flowering time).
- 'Goldlackzweg' (red, spotted yellow, sturdy).



Figure 1. *Helenium* 'Biedermeier'.

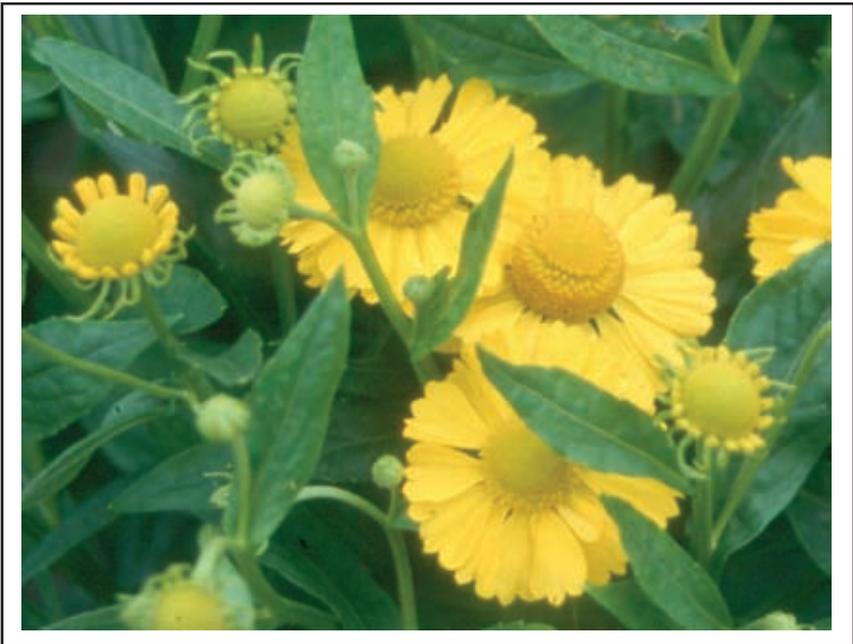


Figure 2. *Helenium* 'Kanaria'.



Figure 3. *Helenium* 'Rubinzweg'.



Figure 4. *Taxus baccata* 'Standishii'.



Figure 5. *Taxus baccata* 'Repandens'.



Figure 6. *Taxus baccata* 'Micro'.

- 'Zimbelstern' (tall but sturdy, intense ochre yellow colour, brown centre).

***Taxus baccata*. The best from 110 cultivars:**

- 'Fastigiata Rubusta' (very slender, dark green).
- 'Standishii' (slender, yellow variegated, slow growing) (Fig. 4).
- 'Overeynderi' (quite slender, green, very dense, good for hedges).
- 'Semperaurea' (upright, yellow variegated, medium dense).
- 'Repandens' (broadly spreading, green, dense, covers soil well) (Fig. 5).



Figure 7. *Hydrangea macrophylla* 'Lanarth White'.



Figure 8. *Hydrangea macrophylla* 'Kardinal'.

- 'Aldenham Gold' (yellow variegated dwarf).
- 'Micro' (dark green dwarf) (Fig. 6).
- 'Dovastonianiana' (large green tree).
- 'Dovastonii Aurea' (yellow-variegated tree).

Taxus × media 'Nidiformis' (shaped like a nest, green, dense).

Hydrangea macrophylla. The best from 200 cultivars:

- 'Madame Emile Mouillère' (hortensia, white).
- 'Mathilde Gütges' (hortensia, light pink/light blue).
- 'Freudenstein' (hortensia, pink/blue).
- 'Grand Chef' (hortensia, pink/blue).
- 'Pia' (hortensia, pink/blue).
- 'Schöne Bautznerin' (hortensia, pink/blue).
- 'Königstein' (hortensia, dark pink/dark blue).
- 'Madame G.J. Bier' (hortensia, red/violet).
- 'Lanarth White' (lacecap, white) (Fig. 7).
- 'Mariesii Lilacina' (lacecap, light pink/light blue).
- 'Taube' (lacecap, pink/blue).
- 'Möwe' (syn. 'Geoffrey Chadbund') (lacecap, dark pink).
- 'Cardinal Red' (syn. 'Kardinal') (lacecap red/violet) (Fig. 8).

In 2005 trials are running on *Buddleja davidii*, *H. paniculata*, *Corylopsis*, *Ceanothus*, *Itea*, *Caryopteris*, and *Weigela*. The results will be available in a few years.

For more information contact: M. (Margareth) Hop, <margareth.hop@wur.nl> or: Applied Plant Research, sector Trees: infobomen.PPO@wur.nl.