



Cornus kousa 'Satomi'

Plant trials in Europe

RONALD HOUTMAN, Secretary of the Trials Committee of the Royal Boskoop Horticultural Society, writes about the trialling scheme, with particular reference to woody plants, that originated in the Netherlands and has grown into an international cooperation between several European countries.

History

The Koninklijke Vereniging voor Boskoopse Culturen (Royal Boskoop Horticultural Society), RBHS has a long history in assessing plants. When founded in 1861, the main goal of the society was “to put the correct names to the plants grown”. In the first years after founding, the board visited nurseries to check plants themselves. The first recorded trials and awards by the RBHS dates back to 1895 when four plants were awarded an ‘Award of Merit’. Among those were *Sambucus racemosa* ‘Plumosa Aurea’ and *Spiraea japonica* ‘Anthony Waterer’; both are still widely grown and recommended for their ornamental value.

Since 1895 the Trials Committee is an important branch of the RBHS. Other branches of the Society are the Dutch Plant Collections (<http://www.plantencollecties.nl/>), various publications and the Sortimentstuin Harry van de Laar (<http://www.sortimentstuin.nl/>). In co-operation with the Dutch Dendrology Society (NDV), the yearbook *Dendroflora* is published. All trial reports, as well as articles about (mainly) woody plants and their use are published in *Dendroflora* annually. The Trials Committee is formed by about 65 people. These are growers, traders and consumers (both professional and private) from all parts of The Netherlands.

Field trials

In the past 120 years many new plants have been assessed and awarded by



Acer palmatum 'Garnet'



Buddleja davidii 'Pink Delight'

the Trials Committee. These trials were initially started to inform growers, traders and retailers and of course the general public. The basic type of trial conducted by the RBHS is the so-called "Field trial". These always concern one cultivar, new to the market that is planted in the field (in a batch of ten plants). Each plant is trialled according to standard criteria that basically have not changed during the committee's history: ornamental value, suitability as a garden plant or for amenity use, health, winter hardiness and differences to similar cultivars. Apart from these criteria, special criteria for specific plant groups can be added. Each plant is assessed as many times as is needed during the year to come to a final verdict. In the past, the following awards could be given: Award of Recommendation, Award of Merit and First Class Certificate.

Nowadays the awards are given in the form of medals (certificates): Bronze, Silver and Gold. Among the hundreds of awarded plants are many familiar ones: *Acer palmatum* 'Garnet' (First Class Certificate; 1962), *Buddleja davidii* 'Pink Delight' (First Class Certificate; 1985), *Chamaecyparis lawsoniana* 'Stewartii' (First Class Certificate; 1906), *Cornus kousa* 'Satomi' (First Class Certificate; 1986) and *Ilex aquifolium* 'J.C. van Tol' (Award of Merit; 1904), to name but a few.

However, some plants that were highly awarded seem to have disappeared from the trade (and gardens) completely. For example: who grows *Picea pungens* 'Endtz' (First Class Certificate; 1925), *Rhododendron* 'Mlle

N. J. van Noordt' (First Class Certificate; 1907) or *Weigela* 'Ballet' (Award of Merit; 1958)?

In recent years growers have found the traditional Field trials less interesting. They mainly focus on the trials at trade shows. For them, the big advantage is that they get international press coverage when their plant receives an award. With the introduction of a pr-package, the RBHS hopes to make the field trials popular again.

In the past field trials were done in the nurseries of the applicants. Since 2013 the RBHS has an area in the Sortimentstuin Harry van de Laar in Boskoop where all trial plants are planted.

Trade show trials

The RBHS Trials Committee assesses plants at the two main Dutch trade shows. Starting in 1990, new plants were assessed at Plantarium in Boskoop (August). Since 1998 new plants are also assessed at GrootGroen+ in Zundert (October). Contrary to the field trials these trade show trials are basically snapshots. Each plant has to be assessed in a brief moment, the day before the show opens. Although the basic criteria are the same, the trade show trials are a lightweight version of the field trials. Again, plants can be awarded a medal (certificate) in Bronze, Silver or Gold. In addition to these awards a best new plant is chosen at each show. To show the difference in trials, the name of the show is printed on the certificates.



Star trials

Between the two world wars of the twentieth century the Trials Committee started to assess groups of cultivars belonging to one genus or species. The first records date back to the early 1940s when various groups of rhododendron were trialled. This was the start of what is now the most important type of trials by the RBHS: the so-called Star trials.

Before planting a Star trial, as many cultivars of a genus or species are collected. They are then propagated at the same time. The propagated plants are to be planted as Star trial, thus assuring all plants in the trial are of the same age. Depending on the type of plant, three to five plants per cultivar are planted. Apart from the area in the Sortimentstuin Harry van de Laar, Star trials are planted in the nurseries of members of the RBHS. Once planted the Trials Committee starts assessing the plants, again using the same basic criteria that go for the field trials. A very important aspect of the Star trials is that plants are also compared to each other. Usually the plants are divided into colour, size or shape. The goal is to award the best plants in each group, leading to advice to growers, traders, retailers and the general public which plants to choose. Unlike the field trials and trade show trials, the awards are

Star trial of *Symphoricarpos*.*Wisteria floribunda* 'Shiro-noda'

given in "stars": *** = excellent, ** = very good, * = good and o = surpassed by other cultivars with similar ornamental value, but better qualities. Finally an "s" can be awarded, meaning this is a plant for special purposes. In practise the "s" is usually given to a cultivar with a unique feature. For example a pendulous cultivar in a range of upright shrubs.

During nearly 65 years of Star trials the RBHS has assessed thousands of cultivars. Some of the more important Star trials were: *Acer* (Japanese maples), 1969; *Berberis*, 1972; *Clematis* (large-flowered), 1985; *Deutzia*, 1991; *Fraxinus*, 1989; *Hamamelis*, 2002; *Mahonia* (*M. aquifolium*, *M. repens*, *M. xwagneri*), 2004; *Prunus*, 1990; *Viburnum*, 1998; *Weigela*, 2007 and *Wisteria*, 1997.

The RBHS is not unique in performing these kinds of trials. In other European countries plants are assessed in a similar way. In 2002 this resulted in an international co-operation, called Euro-trials.

Euro-trials

In several European countries plants are assessed primarily on ornamental value, suitability as a garden plant or suitability for amenity use, health, winter hardiness etc.

In February 2002, co-operation between The Netherlands and Germany in trialling plants was established and it was agreed that cultivars of *Hydrangea paniculata* would be the first group to be trialled internationally. The German



Judging the Euro-trial of *Hydrangea paniculata*.

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trials committee is formed by the Bund deutscher Baumschulen (BdB) and the Bundessortenamt (German Plant Variety Rights Office). Before collecting and propagating the plants, co-operation was sought with the Royal Horticultural Society (RHS) and the French Agro Campus Ouest (University of Angers).

These four initial parties agreed on the following. Participating organisations must be independent and not directly tied to industry. In this way, the highest levels of objectivity can be and are maintained.

The aims for setting up Euro-trials are simple. It is more meaningful to co-operate and find ways to trial the same plants at the same time under different climatic and cultural circumstances. This has the advantage that anyone who is interested can compare the specific circumstances in their own gardens with the results at a trial site that most closely matches their own garden. Professional growers will also benefit from it. Of course each country has a home market, but pan-European trade in plants is now much greater and it is becoming increasingly important to have information to support this.

Participants agreed to have a maximum of two trial sites per country. Even though the first Euro-trial was planted on only six sites, the aim of Euro-trials was to have as much variation in soil, hardiness zone, rainfall and pH as possible.

Euro-trials as a whole are coordinated by the RBHS. When starting new Euro-trials, other organisations will coordinate these by rotation. In this way the work will be spread evenly over all participating organisations.

Because fashion, trends and local preferences vary between countries, it is quite possible that a cultivar that is rated very highly in one country, will not receive an award in another. All organisations have trial committees that consist of growers, traders and gardeners. These committees will judge the plants at various times through the year. Of course each organisation carries out trials according to their own standards. However, because the data must be exchangeable, a high level of standardisation of documents is maintained. When rating plants, scores on a scale from 0 to 10 are used: 0 is the worst and 10 is excellent. All committee members are free to write comments on their lists and these comments help when discussing the final rating for each cultivar. Apart from judging the plants, another goal of trialling plants is to make sure the assessed cultivars are true to name. To avoid erroneous interpretations, incorrectly labelled cultivars will be regarded “not assessed”.

Photograph © Ronald Huitema



Hydrangea paniculata 'Silver Dollar'

After the trials have ended, all participants are free to write publications according to their own tradition. In The Netherlands, for instance, the RBHS will publish the Dutch report in *Dendroflora*. In addition to the national reports one overall report is published in English. This report contains all the results from all participants so that readers are able to see the results per cultivar in one view.

The Euro-trial of *Hydrangea paniculata* was a good project to set the precedent for future Euro-trials. Plants of 34 cultivars were collected, propagated and planted in four participating countries.

After the successful start to the first Euro-trial, other countries showed interest in participating. In 2006 the Austrian Höhere Bundeslehr- und Forschungsanstalt für Gartenbau, based in Vienna, joined the Euro-trials.

In summer 2006 the second Euro-trial started. 57 cultivars of *Buddleja* were propagated and they were planted in spring 2007. The plants were judged in 2008, 2009 and 2010. This particular trial is coordinated by the BdB and the final results were published in 2012.

A third Euro-trial was coordinated by the RHS: *Weigela*. This trial focused especially on coloured-leaved cultivars. For the third Euro-trial a new



The Euro-trials group in Finland.

participant entered the group: the Irish semi-governmental organisation, Teagasc, the agriculture and food development authority in Ireland.

In 2011 the fourth Euro-trial started. 19 cultivars of *Vinca minor* were planted to be assessed from 2012 until 2015. Meanwhile a seventh participant entered Euro-trials; the Belgian Proefcentrum voor Sierteelt (PCS) joined the group. This national research station already had a history in assessing plants, so it was only a small step to join Euro-trials. In 2013 MTT (the national Finnish research station) in Piikkiö, Finland, joined Euro-trials. In January 2015 this institute was renamed LUKE.

In spring 2012 the most prestigious Euro-trial so far started. The French collected and propagated 65 cultivars of *Hibiscus* (mainly *H. syriacus*). In spring 2014 these were delivered and planted on trial sites in the current eight participating countries.

Since the first international trial ended and several trials are ongoing, the participants are eager to continue the process. Each year the participants hold an annual meeting. During these meetings all possible Euro-trials related topics are discussed, as well as proposed new trial subjects.

In the past years, considerable work has been done to develop Euro-trials into a highly effective co-operation between leading horticultural organisations in Europe. A lot of work still has to be done and all parties will learn from each other during the process. But our mutual goal, to test and publish objective information about the best cultivars for different parts of Europe, is steadily being reached.