



RHS Plant Trials and Assessments

Caryopteris

Diana Miller

former Keeper of the RHS Herbarium Wisley

Supplementary to RHS Trials and Awards: Number 2
December 2007

Caryopteris

Caryopteris are very useful, autumn-flowering shrubs especially appropriate for the smaller garden as they rarely exceed a metre in height and spread and are tolerant of most garden soils if grown in a well-drained, sunny position. In colder areas the top growth may be damaged by frosts so pruning in spring will encourage the production of healthy new growth from lower down. They can be used in mixed or shrub borders or even as container plants. Their greyish foliage is attractive throughout the season and the flowers, usually a shade of blue, form in late summer and early autumn when there is little else of this colour in flower. Even the dark or greeny blue, inflated fruiting heads can be a feature long after the flowers are finished. Blue, pink and white-flowered forms of *C. incana* are also grown for the cut flower market, especially in North America and the Netherlands.

The Woody Plant Trials Subcommittee decided in 1996 to conduct a trial of *Caryopteris* because there were a number of new cultivars coming into the market and the confusion concerning the nomenclature of some of the older cultivars.

Objectives:

- To compare old and new cultivars and nominate the most distinctive and outstanding for the RHS Award of Garden Merit
- To establish the hardiness of new introductions
- To confirm correct nomenclature
- To prepare a collection of pressed herbarium specimens and photographic images, together with detailed descriptions, as a permanent record



Entries

Three plants of each of the 41 entries in the trial were submitted by individuals, nurseries and the National Plant Collections ® holder.

Cultivation

The entries were planted in April 1998, 1m apart in light sandy soil with a pH of 6.5 on the Trial Ground in Wisley Village. The plants were irrigated only to aid establishment. All plants established and grew well in the first year.

In March 1999 a pruning regime was undertaken, with one plant of each entry being cut back to two buds, one plant cut half way down and the third plant given a light prune. There were hard frosts on the nights of 13 and 14 April (-3.8°C and -3.3°C consecutively) and by June 1999 it was evident that many of the plants had died. However, no pattern of susceptibility was evident from the different pruning regimes. It was decided to re-propagate or, where necessary, ask for fresh stock. It was noted that *Caryopteris* cuttings root best in a loam mix. The cuttings in 9cm pots were potted on into 1 litre pots in March 2000.

The trial was replanted on 8 June 2000. In August it was noted that the ground at the trials site was dusty and poor, conditions that generally suit these plants. The trial was then seriously affected by flooding in November 2000, which caused the death of the majority of the plants, and a decision was made in 2001 to abandon the trial. Peter Catt, the owner of Liss Forest Nursery, agreed to build up the collection again at his nursery. The Committee, using their notes from the Wisley trial, assessed many of the original entries at Liss Forest Nursery in 2006 and in 2007 and were able to complete the original objectives of the trial.

Summary

It was noted that *Caryopteris* require a sunny site; do best in free-draining soils; are not sensitive to pH and respond well to being lightly pruned after flowering then cut back in March.

Some cultivars were noted for a particular quality e.g. 'Heavenly Baby' for its compact habit; 'Longwood Blue' as a good later flowering cultivar; 'First Choice' for having one of the darkest blue flowers and 'Blue Cascade' for its weeping habit.

Front cover: *C. × clandonensis* HINT OF GOLD ('Lisaura')

Left: *C. × clandonensis* 'Kew Blue'

Right: *C. × clandonensis* 'Heavenly Baby'

Photos: Wendy Wesley



Award of Garden Merit

<i>Caryopteris</i> × <i>clandonensis</i> 'First Choice'	AGM(H3-4)2002 re-confirmed
<i>Caryopteris</i> × <i>clandonensis</i> 'Heavenly Baby'	AGM(H3-4)2007
<i>Caryopteris</i> × <i>clandonensis</i> HINT OF GOLD ('Lisaura')	AGM(H3-4)2007
<i>Caryopteris</i> × <i>clandonensis</i> 'Summer Sorbet'	AGM(H3-4)2007
<i>Caryopteris</i> × <i>clandonensis</i> 'Worcester Gold'	AGM(H3-4)2002 re-confirmed
<i>Caryopteris</i> × <i>clandonensis</i> 'Arthur Simmonds'	AGM (H4) 2002 see note on page 6

RHS hardiness ratings: (H3-4) hardy outside
in most regions

The Award of Garden Merit

The AGM is only awarded to plants that are:

- Excellent for garden decoration
- Available from nurseries
- Reasonably resistant to pests and diseases
- Of good constitution
- Essentially stable in form and colour
- Reasonably easy to grow

Origins of garden *Caryopteris*

The genus *Caryopteris*

Caryopteris is a genus of perennials and shrubs native to Asia and particularly well represented in China, mostly found on dry mountain slopes. *Caryopteris* can be difficult to differentiate from one another, so estimates of the number of species vary. Recent treatments accept 16 species in *Caryopteris*, but few of these are widely grown in gardens and cultivars of the shrubby species are almost all selections of *C. incana* or its hybrid *C. × clandonensis*.

In 1988 when the NCCPG and the RHS Herbarium exhibited a collection of *Caryopteris* there were only 5 named cultivars available in Britain but two decades later the 2007-2008 edition of RHS Plant Finder listed 20 cultivars of shrubby *Caryopteris*. New cultivars are still being developed and as the breeding potential of so many species is yet to be tried there are likely to be many more introductions in the future.

C. incana

This is a very variable species which is found growing wild over a large area of China, Japan, Taiwan and Korea. It was introduced into the UK from Canton in China by Robert Fortune in about 1844, when it was treated as a greenhouse plant. About forty years later Maries collected material from Japan for Veitch's Nursery which proved to be much hardier.

C. incana is a small, bushy, deciduous woody shrub reaching about 1.5m tall with ovate, regularly toothed, leaves, green above and greyer beneath. The tiny flowers are 5-lobed with a larger fringed lower lip and 4 protruding stamens, formed in dense axillary clusters on stalks in the axils of the upper leaves. The calyx becomes inflated after the flowers are pollinated and the seeds develop. The flowers of the first introductions were blue, but plants with pink and white flowers can be found in the wild. White-flowered forms have been named *C. incana* f. *candida* and pink flowered ones *C. incana* f. *superba* both of which are usually considered to be more tender. There are also larger leaved forms most of which are collected from lower altitudes and which are consequently less hardy. These collections from different locations show considerable variation in morphology and hardiness and this variation has given rise to a certain amount of confusion in nomenclature.



C. incana



C. mongholica



C. × clandonensis



C. tangutica

Plants received as *C. tangutica* were grown in the Trial, but the results of a molecular project carried out at Reading University, suggest they were a form of *C. incana*.

C. tangutica are robust plants, apparently quite hardy with a stiff, upright, little-branched habit but in other morphological characteristics similar to normal *C. incana*.

C. mongholica

A native of Mongolia and western China, this species was first introduced into France after Bunge had discovered and named it in 1833 then it was lost. Père David reintroduced it from southern Mongolia in 1866.

It is a smaller plant than *C. incana* reaching about 75cm in height with linear to lanceolate, untoothed grey-green leaves. The darker blue flowers with a fringed 2-lobed lower lip, are formed in a loose branching inflorescence earlier than those of *C. incana*. Arthur Simmonds, a former Secretary to the RHS, noted that it was quite hardy except in one exceptional frost. This species is almost certainly sensitive to the humid winter conditions found in the UK, although it would probably tolerate the cold if kept dry. It is not in general cultivation in the UK and material of the true plant proved exceedingly difficult to obtain, most plants under this name being *C. incana* or the hybrid.

C. × clandonensis

This hybrid was first discovered in the early 1930s by Arthur Simmonds, then Secretary of the RHS, growing as a seedling in his garden at West Clandon, Surrey. We know he considered the plant to include *C. mongholica* in its parentage because of a handwritten addendum to a letter written by Simmonds to W. J. Bean in 1943 in which he states, 'The original plant of *clandonensis* still exists and it was undamaged by the winter which killed its mother – *mongolica* [sic].' The parentage *C. incana* × *C. mongholica* was finally confirmed for *C. × clandonensis* by molecular work sponsored by the RHS and carried out at Reading University (Beharrell & Culham, 2006).

It is a bushy shrub that grows to about 1m in height with dull green, narrow-elliptic, irregularly toothed leaves, paler below. The flowers, in looser clusters than those of *C. incana*, are blue but the various cultivars range in colour from pale to deep blue. The cultivars seed freely and a number of hardy named cultivars have become very popular autumn-flowering plants. However, a profusion of seedlings has resulted in confusion concerning the identity of some of the earlier cultivars and to ensure the continuation of the true cultivars, propagation must be vegetative.

Other species

Caryopteris divaricata is herbaceous

Caryopteris forrestii has greenish yellow flowers

Caryopteris terniflora has pink flowers in spring and is not very hardy (was sent to Trial as *C. odorata*, but did not survive)



A painting of *C. × clandonensis* by Dorothy Martin from the specimen that was shown by A Simmonds Esq. of Harmsworths, West Clandon, Surrey and which received an Award of Merit for exhibition from Floral Committee A on 12 September 1933.

Cultivars of *C. × clandonensis*

C. × clandonensis 'Arthur Simmonds'

A bushy plant with grey-green leaves with a few teeth towards the apex. Flowers mid blue. Blue-tinged green fruiting calyx. This is the name given to the original clone of *C. × clandonensis* raised by Arthur Simmonds of West Clandon, Surrey in about 1930. Probably no longer in cultivation. Plants grown under this name now are similar to 'Heavenly Blue'.



C. × clandonensis 'Dark Knight'

An erect plant with dark reddish stems and grey-green leaves with a few large teeth. Flowers late, dark blue. Fruiting calyx grey-blue. Raised in USA. Very similar to 'Persshore', a plant bought by Persshore College of Horticulture from Holland labelled 'Heavenly Blue' but considered to be quite distinct from that cultivar. Introduced by the College in the early 1990's.



C. × clandonensis 'Blauer Spatz'

An erect but rather short plant with red stems and green, broad-elliptic leaves with many large conspicuous teeth. Flowers deep blue. Dark blue fruiting calyx turning greeny blue. Selected by Dr Pirc, HBLVA für Gartenbau, Wien-Schönbrunn, Austria.

C. × clandonensis 'Ferndown'

A short but erect plant with narrow, dark green, slightly glossy leaves with very few teeth. Flowers, dark blue with a slightly paler lip produced very late in the season. The calyx becomes dark blue but does not inflate in fruit and there are few fertile seeds. Raised by Stewarts Nursery in Ferndown, Dorset before 1958 from a seedling of an unknown form of *C. × clandonensis*. This cultivar appears to tend towards *C. mongholica* in its smaller size and narrow, rarely toothed leaves.



C. × clandonensis 'Blue Mist'

A bushy, fairly upright plant with broad-elliptic, grey-green leaves, toothed towards the apex. Flowers over a long season, pale powder blue. Greeny blue fruiting calyx. Raised and introduced by Wayside Gardens, Ohio in USA in about 1942.

C. × clandonensis 'First Choice'

A compact, erect plant with dark reddish stems and green leaves with a few small teeth in upper half. Flowers a richer, darker blue than other cultivars with a tiny white centre formed in a close flower head. The fruiting calyx is very dark blue. The leaves have a purplish tint in winter. Selected from seedlings raised by Peter Catt and introduced by Liss Forest Nurseries in 1997. Close to 'Kew Blue' but with a slightly longer flowering season, and a denser habit which makes the foliage appear darker.





C. x clandonensis 'Gold Giant'

A strong-growing, spreading plant with large, long, irregularly toothed golden foliage which retains its colour well into the autumn. The mid blue flowers are slightly darker and later than those of 'Worcester Gold'. Fruiting calyx is jade green. Selected from seedlings raised by Peter Catt and introduced by Liss Forest Nurseries in 2007.

C. x clandonensis 'Heavenly Blue'

A bushy to erect plant with reddish stems and rather large, grey-green leaves with a few teeth near the apex. Flowers mid to dark blue. Very large turquoise to pale blue fruiting calyx. Raised in Wayside Gardens, Ohio, USA in 1953. Similar to the original 'Arthur Simmonds'. It was recorded in 1963 that the cultivar has been sold as seed by at least one Canadian Nursery and although many plants are sold under this name in the UK, it is not certain that they are identical to the original raised in the USA.



C. x clandonensis GRAND BLEU ('Inoveris') **

An erect plant with reddish stems and dark green leaves with a few large rounded teeth. The foliage appears rather sombre. Flowers a rich dark blue. Blue fruiting calyx. This cultivar does not set seed. Raised by INRA and introduced by André Briant in France in 1997.

C. x clandonensis HINT OF GOLD ('Lisaura')

An upright growing plant with regularly toothed, large, broad, gold-coloured leaves. The flowers arranged in a tight inflorescence around the stems are a rich mid blue. Fruiting calyx is dark, greeny blue. Although a hybrid, this cultivar is very close to *C. incana* in flower and foliage. Selected from seedlings raised by Peter Catt and introduced by Liss Forest Nurseries in 2007.



C. x clandonensis 'Heavenly Baby' 🌱

A dwarf plant with very small silvery grey leaves and small, sharp teeth. Flowers pale blue. Pale grey-green fruiting calyx. Seedling found by Rachel Thompson in her Surrey garden and introduced by Liss Forest Nurseries in 2001.

C. x clandonensis 'Kew Blue'

An erect, rather short plant with reddish stems and narrow green leaves with a few teeth. Flowers a dark blue. Very dark, almost navy blue fruiting calyx. Selected at Kew Gardens in 1945 as a seedling of 'Arthur Simmonds' for its darker flowers. Closest to 'First Choice' but with a slightly shorter flowering season and possibly slightly less hardy.



Cultivars of *C. × clandonensis*



C. × clandonensis 'Longwood Blue'

A large, vigorous, rather spreading cultivar with silvery, grey-green, narrow leaves that have a few large teeth along the margin. Stems reddish brown. Flowers mid blue and lips with a narrow white fringe when viewed through a lens, produced late in the season. Fruiting calyx blue-tinged. Selected in 1981 as a large, vigorous seedling by Longwood Gardens, USA and distributed by Wayside Gardens, USA in 1987.

C. × clandonensis 'Summer Sorbet' (syn. 'Dyraisey')

A bushy plant with elliptic, few toothed leaves with an irregular yellow margin and dark stems. Flowers pale blue. Pale blue tinged fruiting calyx. Found as a sport and introduced by Peter van Delft of West End Nurseries, Devon in about 2004.



C. × clandonensis 'Louis Cornuz'

A tall plant with reddish stems and a rather lax habit and lanceolate, often untoothed, glossy, green leaves. Large flower heads of mid blue. Blue fruiting calyx. Raised in Switzerland and introduced into the UK in 1999. This cultivar appears to be close to *C. mongholica*. It is reputed to be hardier than many.

C. × clandonensis 'Thetis' (syn. 'Steinthe')

In the trial this cultivar seemed to be almost identical to 'Dark Knight' although the flowers were produced a little earlier and showed a slightly more mauve tint. Raised by Steinegger in Germany in about 2002.



C. × clandonensis 'Moody Blue'

A rather lax plant with pale reddish stems and small, narrow ovate, green leaves, deeply toothed towards the apex with a pale cream margin. Flowers pale blue. Deeply lobed pale blue to green, slightly inflated fruiting calyx. Raised in Ireland by Kieran Dunne and introduced by Liss Forest Nurseries in 2003. The leaves tend to burn if grown in full sun.

C. × clandonensis 'Worcester Gold'

A bushy plant distinguished by its bright yellow foliage in summer which is slightly paler at flowering time. Flowers mid blue with a larger lip than some other cultivars. Fruiting calyx jade green. Selected in St Johns Nurseries in Worcester in the late 1970s. This cultivar needs to be grown in the sun for the best yellow leaf colour.



Cultivars of *C. incana*

C. incana 'Autumn Pink'

A bushy plant with broad ovate, green, toothed leaves. Flowers very late, pale pink, with a green fruiting calyx. Introduced into UK gardens in about 2000. Not very hardy.



C. incana 'Blue Cascade'*

A strong-growing plant with long, cascading branches, often trailing on the ground, with ovate, toothed green leaves. Flowers pale blue in dense, many-flowered clusters with green-blue tinged fruiting calyx. This plant's weeping habit can be displayed to best effect if grown over a wall, on a bank or in a large container. The origin of 'Blue Cascade' is not clear, but it may be derived from an American cultivar named 'Blue Billows' which was collected by the Longwood Gardens (Pennsylvania, USA) expedition to Korea in 1966. It was distributed to Wisley in 1976 under the accession number 69860 and was named in 1977 by Dr D G Huttleston of Longwood Gardens. Images of 'Blue Billows' sent from Longwood suggest the two plants are not the same clone for while 'Blue Billows' shares the same weeping habit as 'Blue Cascade' it appears to have less lobed leaves and a less silvery underside. It is suspected that 'Blue Cascade' may be a descendent of the American introduction.



C. incana 'Jason' (syn. SUNSHINE BLUE)*

An upright bushy plant with small yellow leaves, bright yellow in late spring but a greener yellow by late summer. Flowers pale to mid blue. Greeny blue, small fruiting calyx. Raised by Peter Chapman and introduced by Notcutts Nurseries in about 2002.

Trial in the Netherlands

The Applied Plant Research station at Boskoop in cooperation with the Royal Boskoop Horticultural Society undertook a trial of *Caryopteris* (reported in *Dendroflora* Nr 43 2006).

The results were:

*** Excellent

Caryopteris x clandonensis
'First Choice'

** Very good

Caryopteris x clandonensis
'Heavenly Blue'

Caryopteris x clandonensis
'Inoveris' GRAND BLEU

Caryopteris x clandonensis
'Summer Sorbet'

* Good

C. incana 'Blue Cascade'

C. incana 'Jason' SUNSHINE BLUE



Nomenclatural standard of *Caryopteris incana* (Thunb. ex Houtt.) Miq. 'Blue Cascade'

This is the nomenclatural standard for *Caryopteris incana* 'Blue Cascade' which forms a permanent record of the distinguishing characters of the cultivar 'Blue Cascade', which is deposited in the RHS Herbarium (WSY).

The RHS Herbarium is leading an international initiative to prepare specimens of new cultivars as they are introduced. This will help to reduce the numbers of incorrectly named plants. Many trials conducted by the RHS provide a good source of standard specimens.



From left to right:

- | | | | | |
|------------------|--------------------|------------------|--------------------|--------------------|
| 1 'Gold Charm' | 4 'Worcester Gold' | 7 'Louis Cornuz' | 10 'Blauer Spatz' | 13 'Ferndown' |
| 2 'Gold Giant' | 5 'Dark Knight' | 8 'Persnore' | 11 'Heavenly Baby' | 14 'Summer Sorbet' |
| 3 'Blue Cascade' | 6 'Hint of Gold' | 9 'Kew Blue' | 12 'First Choice' | 15 'Thetis' |



Caryopteris seedlings

Senders of plants to the trial:

Avonbank Nurseries, Pershore & Hindlip College, Pershore, WR10 3JP

www.warkscol.ac.uk/pershore/avonbank/

Bridgemere Nurseries, Nantwich, Cheshire, CW5 7QB
www.bridgemere.co.uk

The Beth Chatto Gardens Ltd, Colchester, CO7 7DB
www.bethchatto.co.uk

Darby Nursery Stock Ltd, Methwold, Thetford, IP26 4PW

Darthuizer Boomkwekerijen BV, 3956 ZR Leersum, Holland
www.darthuizer.nl

Hopleys Plants Ltd, Much Hadham, Hertfordshire, SG10 6BU
www.hopleys.co.uk

Jackdaws' Field Nursery, Maplehurst, West Sussex, RH13 6LL
www.jackdawsfield.co.uk

Liss Forest Nursery Ltd, Greatham, Liss, Hampshire, GU33 6HA

Notcutts Nurseries, Woodbridge, Suffolk IP12 4AF
www.notcutts.co.uk

Perryhill Nurseries, Hartfield, Sussex TN7 4JP
www.perryhillnurseries.co.uk

Pleasant View Nursery, Newton Abbott, TQ12 6DG

National Plant Collections ®

Bristol Zoo Gardens, Clifton, Bristol, Somerset BS8 3HA
(www.bristolzoo.org.uk)

Acknowledgements

The RHS are indebted to Peter Catt, plantsman and nurseryman, owner of Liss Forest Wholesale Nursery Trees and Shrubs, who for the past four years has been growing the *Caryopteris* for the Woody Plant Trials Subcommittee to assess and compare. Peter Catt also has some promising new cultivars from his ongoing *Caryopteris* breeding programme.

Particular thanks are also due to:

- James Armitage (Botanist) for researching the current status of the cultivars mentioned in this bulletin, in particular 'Blue Cascade', and for editing and proof-reading.
- Wendy Wesley for all the photographs in this bulletin, unless otherwise stated;
- Barry Phillips (Herbarium Technician) for collecting and describing entries for the herbarium;
- Susan Grayer (Herbarium Researcher) for creating the standard specimens;
- Chrissie Ferriroli (Trials Recorder) for recording the trial and Wendy Wesley (Trials Officer) for recording the assessment and collating all the information;
- RHS Floral Trials curatorial staff, headed by Jim England (Trials Superintendent) for planting and maintaining the trial;
- Eddie Mole of Bristol Zoo Gardens (NCCPG holder);
- All other senders of plants to the trial without whom the trial could not have taken place

Further reading

Beharrell, N. and Culham, A. (2006) The Origin of *Caryopteris* × *clandonensis* and its cultivars. *The Plantsman* (NS) (5): 192-197.

Hoffman, M.H.A. (2006) *Caryopteris* – sortimentsonerzoek en keuringsrapport. *Dendroflora* 43 : 65-79.

The Royal Horticultural Society

The RHS is the UK's leading gardening charity dedicated to advancing horticulture and promoting good gardening. Its charitable work includes providing expert advice and information, advancing horticulture, training the next generation of gardeners, helping school children learn about plants, and conducting research into plants, pests and environmental issues affecting gardeners. The RHS AGM plant trial scheme is an important part of this work. The RHS receives no government grants and for every pound received from members' subscriptions we need to raise more than twice as much again to fund our charitable work. We also rely on donations and sponsorship to supplement income from our garden operations, flower shows, shops and plant centres.

RHS Plant Trials

With so many different types of gardener and so many different cultivars available to them in each group of plants, it is important that a system of recommendation is in place to help with selection at point of sale. These recommendations must be clear and reliable to ensure that of the thousands of plants available in the UK, a proportion are identified as excellent garden plants. The RHS provides this information through its extensive programme of plant trials held at RHS gardens in the UK. The RHS Award of Garden Merit  indicates which cultivars are best for general garden use.

RHS plant trials serve the professional gardener who wants to know the range of plants available, including the latest breeding and selection programmes, with their distinctive characteristics and provenance. They also serve the amateur who wants to know which plants will grow and perform well in a particular garden situation.

The RHS has an unrivalled resource of knowledge and expertise and is therefore best placed to conduct plant trials for the UK gardening market.

RHS Herbarium (WSY)

The RHS Herbarium is the largest and most active of a small number in the world dedicated to preserving horticultural plants. The collection has c. 70,000 specimens, c. 35,000 photographic images and 3,500 paintings. This is a valuable archive consulted daily by RHS botanists and outside researchers.

RHS Bulletins

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Canna: September 2003
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Geranium (hardy) Stage 1: June 2005
Geranium (hardy) Stage 2: June 2006
Geranium (hardy) Stage 3: June 2007
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Spiraea japonica (with coloured leaves): November 2003

RHS Plant Assessment

online publications, to complement RHS Plant Trials and Awards series

Pittosporum tenuifolium hybrids and cultivars: July 2006

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Trials Office
RHS Garden
Wisley
Woking
Surrey GU23 6QB
e-mail: trials@rhs.org.uk



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