



## RHS Plant Trials and Awards

### *Spiraea japonica* with coloured leaves

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Bulletin Number 4

November 2003

# Spiraea japonica with coloured leaves

*Spiraea japonica* cultivars with coloured leaves are useful shrubs for the small or larger garden, for a mixed border, shrub border or as ground cover. In recent years a number of new cultivars have been introduced to the horticultural market and the Woody Plant Trials Subcommittee decided to hold a trial to discover whether or not the new cultivars superseded the existing ones.

## Objectives of the *Spiraea* trial

The aims of the trial included:

- the identification of the best and most distinctive cultivars for the RHS Award of Garden Merit
- the establishment of the correct nomenclature
- the collection of representative herbarium and photographic records together with detailed descriptions, as a permanent record.
- the assessment of their hardiness, the degree, if any, of reversion, resistance to disease and scorching

## Members of Woody Plant Trials Sub-committee

<b>Chairman:</b>	Peter Catt	
<b>Vice Chairman:</b>	John Hillier	
<b>Members:</b>	Chris Brickell	David Clark
	Maurice Foster	John Gallagher
	Michael Hickson	John Humphris
	Roy Lancaster	Chris Lane
	Chris Sanders	Archie Skinner

## Visits

The RHS Woody Plant Trials Subcommittee met several times at different seasons over a period of four years and individual members visited at other times of the year. Each entry was assessed for the habit of the plant and the attractiveness of the foliage through the season in spring, summer and autumn.

## Records

Records were made throughout the trial of the foliage, the degree of reversion (if any) and of any disease or frost damage. More detailed descriptions of foliage colour through the season, habit and other characteristics were made as the plants were photographed and material collected for the herbarium.



## Cultivation in the trial

Sixteen nurseries, individuals and gardens submitted three plants of each of the 30 entries of 18 different cultivars. All were planted 1.2 m apart in a prepared site on the trial ground in Wisley Village, in April 1998 except for 4 new cultivars which were added a year later. The soil is free draining, light and sandy with a pH 6.5. The plants were irrigated after planting to aid establishment but not in subsequent years. They were not sprayed against pest or disease, nor fertilised except for a top dressing at planting. The frost-damaged dead shoots caused by a severe late frost in the spring of 1999 were removed avoiding any reverted shoots. Later in the year, the flowers of one plant of each entry were removed in early August 1999, and in June in 2000, 2001 and 2002. In the autumn of 2000 and early spring 2001, the ground was very wet, but none of the plants appeared to be unduly affected.

## Origins of spiraeas with coloured leaves

The genus *Spiraea* contains about 70 species of deciduous shrubs which are found growing wild in the temperate regions of the Old and New World.

The majority of those with coloured foliage are derived from the variable species, *S. japonica* which was introduced into cultivation from China by Robert Fortune in about 1850. This species forms a small shrub to about 1.5 m high with a lax habit. The flat terminal panicles to 15 cm across, of tiny pink or deep pink flowers each about 5 mm in diameter are produced at the ends of the current seasons growth. They appear first in early summer and continue sporadically until early autumn. Generally these are valuable trouble-free plants grown for their flowers. One old cultivar is 'Anthony Waterer' selected in about 1890 ago for its narrow, deep green leaves sometime splashed with cream and pink. The more recent 'Little Princess', is a small-leaved compact plant suitable for ground cover (neither were eligible for trial). *S. japonica* var. *albiflora* is distinguished by its white flowers.

'Goldflame' was probably the first cultivar selected with coloured instead of variegated foliage which is thought to have arisen as a branch sport of 'Anthony Waterer'. It has continued to prove popular since its introduction over 30 years ago. It is a bushy plant with bronze-yellow foliage. Since this time several more cultivars have been raised with foliage of bronze, gold or yellow, many of which are as a



FAR LEFT: Woody Plant Trials Subcommittee

LEFT: *Spiraea* Trial in early summer

FRONT COVER: *Spiraea japonica* MAGIC CARPET 'Walbuma'

result of seedling selections from 'Goldflame'. Seedlings tend to be less liable to reversion than sports. Other cultivars have a mounded shape which may be derived from 'Little Princess' whereas the low-growing spreading cultivars with tiny leaves almost certainly owe their origin to 'Nana', a plant which has been known for many years. The cultivars in the trial are grown for their foliage which usually changes through the season from the first emerging young growth to the autumn colours. The flowers range from pale to dark purplish pink but many people consider that they detract from the overall foliage effect.

A recent new colour break is seen in 'White Gold' with yellow foliage but white flowers derived from var. *albiflora*.

Related cultivars with variegated rather than coloured foliage include *S. thunbergii* 'Mount Fuji' with very narrow white margined leaves and *S. × vanhouttei* 'Pink Ice' with leaves mottled with white (and sometimes) pink.

### Cultivation

The coloured-leaved spiraeas will grow in any well drained, but moisture retentive soil. Most will grow in full sun, although the leaves of a few cultivars tend to scorch in full sun and a less sunny position may be preferable. They may be propagated by softwood or semi-ripe cuttings. Removing the flower heads encourages new coloured growth but the autumn colour may be lost if this trimming is carried out too late. If the shrubs become too large, they may be pruned in winter or early spring which will encourage the new, young, coloured foliage.

Reverted shoots with green foliage are more vigorous and should be removed before they overpower those with coloured foliage.

### Trial results

All entries in the trial were found to be correctly named. The well known, older cultivars 'Goldflame' and 'Gold Mound' continue to perform well in gardens but in the trial 'Goldflame' showed a slightly greater tendency to revert in comparison with some of the more recently selected cultivars. While the foliage of 'Gold Mound' was more prone to scorching. As well as providing an opportunity for assessing plants for the AGM, the trial indicated that regular but light pruning to maintain a neat habit and to avoid straggly woody plants was important and that if this was carried out immediately after flowering, the foliage colour was prolonged into the autumn. However, it was noted that severe pruning of 'Mount Fuji' and 'Pink Ice' might increase the possibility of reversion. As with many plants, the weather conditions will affect the colour of the foliage. Powdery mildew affected the plants especially in hot and dry conditions but the AGM winners were the least affected.

An unexpected observation was the effect of a very late, but severe spring frost which although not causing lasting damage, did burn the foliage of a large percentage of the plants.



*Spiraea japonica*  
'White Gold'  
in early  
summer



*S. × vanhouttei*  
'Pink Ice' in  
late spring



*S. thunbergii*  
'Mount Fuji'  
in summer

### Award of Garden Merit 🏆 criteria

The Award of Garden Merit requires a plant:

- to be excellent for garden decoration
- to be available from nurseries
- to be of good constitution
- not to require specialist care
- not to be susceptible to pest or disease
- not to be subject to reversion

H4 indicates that the plants are hardy throughout the UK.

The following three cultivars which received the Award of Garden Merit, are recognised as fulfilling these criteria and have a good habit and attractive foliage throughout the season.

# Award of Garden Merit descriptions

**S. japonica**  
**'Candlelight'**

AGM (H4) 2002

Submitted by Liss Forest Nursery and Beeches Nursery

A bushy shrub to 50-60 cm tall by 90-100 cm wide after 5 years with orange brown stems. Leaves bright butter yellow 151C-B-A in spring remaining gold yellow to green 10A flushed green in summer to greenish yellow 145A often becoming fiery red in autumn. Leaves

ovate to elliptic, 4-8 x 2-4 cm, serrate, petiole c. 3 mm Flowers in a panicle to 10 cm across, mid purplish pink 64D fading to 65D; 5 mm in diameter; sepals green, anthers purplish pink.

The plants appeared mildew resistant in the trial with little

reversion and good long lasting yellow coloured foliage through the season.

*Raised at Liss Forest Nursery as a selected seedling from 'Goldflame' and introduced into cultivation in 1993.*



In flower in early summer



In early autumn

**S. japonica**  
**Golden Princess**  
**'Lisp'**

AGM (H4) 2002

Submitted by Liss Forest Nursery & Darby Nursery Stock Ltd.

A mounded plant to over 60 cm in 5 years with greenish bronze shoots. Foliage reddish bronze on emerging in spring, yellow 151B-C, remaining bright golden yellow 10A through the summer and turning more orange in autumn. Leaves ovate to elliptic serrate, to 6 x 2 cm, petiole c. 2 mm. Flowers in panicle to 15 cm or more across, purplish pink 64C fading to 65C, 5-6 mm in diameter, sepals green tinged pink at margins, anthers pink to grey-blue.

A striking and consistent plant with good golden foliage in spring and summer with a neat compact habit. Resistant to both mildew and reversion and lower growing than 'Goldflame'.

*Found as a seedling by Peter Welch and assumed to be a cross between 'Gold Flame' and 'Little Princess' and introduced by Liss Forest Nursery in 1985.*



In early summer

**S. japonica**  
**Magic Carpet**  
**'Walbura'**

AGM (H4) 2002

Submitted by Walberton Nursery

A very colourful mounded plant with a dense compact habit to 70 cm tall by 100 cm wide after 5 years, with green stems. Young leaves emerging bright red 173A to 185C turning to yellow green 144A-B, becoming gold to lemon green 151A-B to 153A as they mature and turning red and orange in autumn. Leaves ovate, 3-4 x 2-2.5 cm, serrate, petiole c. 2-3mm.

Flowers in a panicle to 15 cm across, purplish pink 67A fading to 68D, 6 mm in diameter, sepals green tinged purplish at tips, anthers pink. The plant remains low growing for the first years but later becomes similar in habit to GOLDEN PRINCESS 'Lisp' Not dissimilar to 'Sparkling Carpet' but much more vigorous and produces darker pink flowers followed by seed follicles

more freely. The plants showed little reversion and mildew during the trial.

*Raised by David Tristram of Walberton Nursery, as a result of the repeated selection from about 1985 of 3 generations of seedlings, originally from 'Gold Flame'. Introduced into cultivation 1994.*



In spring



In summer



In autumn

# Spiraea japonica selection guide

## coloured-leaved cultivars

Cultivar	Spring foliage	Summer foliage	Autumn foliage	Stem colour	Other
Small, low-growing cultivars under 50 cm tall and over twice as wide as high; leaves small, the largest under 5 cm long					
'Alpine Gold'	Greenish yellow	Greenish yellow	Golden yellow	Green	Very small leaves
'Gold Rush'	Greenish yellow with red young tips	Greenish yellow	Yellow to brown	Green tinged red	Largest of the group
'Golden Carpet'	Yellow to bronze	Yellowish green	Golden yellow	Greenish yellow	Few flowers
'Green Carpet'	Green	Green	Reddish orange	Green	Few flowers
'Sparkling Carpet'	Greenish yellow with red young tips	Yellowish green	Red to orange to yellow	Green tinged red	Few flowers
Mound-forming cultivars to 70 cm tall, mounded 1.5-2 times as wide as tall; leaves medium, the largest not over 7 cm long					
'Candlelight'	Bright butter yellow	Golden yellow	Golden yellow	Orange brown	🏆
'Glenroy Goldbun'	Golden yellow	Bright yellow tinged green	Golden yellow	Reddish brown	Smallest of group
'Golden Dome'	Yellow to gold	Yellowish green	Yellow	Green red	
'Gold Mound'	Yellow to gold	Greenish yellow	Yellow	Yellowish brown	
GOLDEN PRINCESS 'Lisp'	Gold bronze	Greenish yellow tinged bronze	Orange to gold	Greenish brown	🏆 Largest of group
MAGIC CARPET 'Walbuna'	Greenish yellow with bright red young tips	Red and green	Red to orange	Green	🏆 Initially very flat
'White Gold'	Clear greenish yellow	Yellow to lime green	Orange to yellow	Greenish brown	White flowers
'Wyndbrook Gold'	Gold to bronze	Yellow green	Orange brown	Pale orange to brown	Leaves small
Large bushy cultivars over 80 cm tall, bushy less than 1.5 times as wide as tall; leaves large, the largest over 7 cm long					
'Firelight'	Red to bronze	Reddish green	Purplish red and bronze	Orange	Very red-bronze foliage
'Goldflame'	Golden bronze	Green to bronze with redder young leaves	Yellow to orange	Orange to brown	Largest plant
'Blenheim'	Green variegated cream and pink	Green with fading variegation	Bronze	Yellowish green	Large leaf with jagged margin
Variegated cultivars of other species					
<i>S. thunbergii</i> 'Mount Fuji'	Leaves linear, green edged cream through the season; plant with upright habit; stems orange/brown				
<i>S. × vanhouttei</i> 'Pink Ice'	Leaves green speckled white and sometimes tinged pink; plant with upright habit; stems brown/pink				

### Low-growing group

Leaves Largest under 5 cm

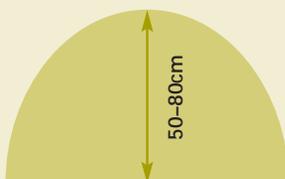
Habit Width at least twice height



### Mound-forming group

Largest 5-7 cm

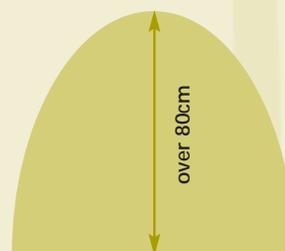
Width 1.5 to 2 times height



### Large bushy group

Largest over 7 cm

Width less than 1.5 times as height



## Other cultivars of *S. japonica*

**Notes:** The heights given are after 5 years growth in the Trial, unless specified. The sizes are relative and dependent on growing conditions. Foliage colours can be affected by weather especially heat and drought.

### 'Alpine Gold'

A very small, compact plant to 40 cm tall with tiny leaves and with good, bright gold foliage in spring but becoming duller during the summer. Flowers pale pink.

*Its origin is uncertain.*

### 'Blenheim'

A large bushy shrub to 90 cm tall with deeply double serrate leaves variegated with cream, pink and green turning to bronze in the autumn. Flowers deep pink. This cultivar appeared unstable and subject to reversion.

### 'Firelight'

A mound-forming plant to 80 cm with rich red-orange young foliage turning golden yellow in summer and deep orange to purplish red in autumn. Flowers deep pink.

*A seedling of 'Goldflame' selected by Liss Forest Nursery in 1993.*

### 'Glenroy Goldbun'

A compact mounded plant to 60 cm tall with golden spring foliage becoming yellow tinged with green in summer but more golden again in autumn. Flowers bright pink.

*A selected seedling of 'Glenroy Gold' (no longer grown but itself a seedling of 'Goldflame') in 1998 by Cliff Dadd of Ballalmeannah Gardens, Isle of Man.*

### 'Golden Carpet'

A very small low-growing compact plant to 15 cm tall after 4 years with tiny leaves which are golden yellow throughout the season. Sparse pale pink flowers with a darker margin do not produce follicles.

*The result of a breeding programme in Canada using 'Goldflame' and 'Nana' which also produced 'Green Carpet' to 20 cm tall after 4 years. This is a green leaved cultivar with reddish orange autumn foliage and is slightly larger and more vigorous.*

### 'Golden Dome'

A low-growing mounded plant to about 70 cm tall with light golden foliage becoming greener in summer. Flowers pinkish red fading to pale pink. Very similar to 'Gold Mound' but with greener stems.

*Raised by Jackdaws Nursery.*

### 'Goldflame'

A very hardy large bushy shrub to 100 cm tall with leaves emerging rich orange red gradually turning to yellowish green in summer becoming orange to red again in autumn. Flowers deep rose red. The AGM of 1993 was rescinded because the plant showed more reversion in the trial than newer cultivars and was more affected by mildew in hot dry conditions. Probably the first coloured foliated cultivar to be introduced into cultivation in about 1970.

### 'Gold Mound'

A very hardy compact mounded plant to 55 cm tall with small leaves golden yellow throughout the season but slightly greener in summer. Flowers few, pale pink. The

AGM of 1993 was rescinded as the plants in the trial showed a lot of reversion and the foliage tended to burn in hot dry conditions.

*It is thought to have originated in Canada about 15 years ago.*

### 'Gold Rush'

A dwarf low-growing plant to 40 cm tall with tiny rusty-red leaves turning to butter yellow. Flowers rose pink.

*Raised by Rushfields Nursery in 1982 as a sport of 'Nana', and introduced in 1987.*

### 'Sparkling Carpet'

A very small low-growing compact plant to 15 cm tall after 4 years, with tiny leaves which are reddish as they unfold turning light green edged with red. Sparse light pink flowers with a darker margin and centre do not produce follicles.

*The result of a breeding programme in Canada using 'Goldflame' and 'Nana'.*

### 'White Gold'

A bushy plant to 60 cm tall after 4 years which retains its yellow foliage through the season but exceptionally has white flowers. The foliage has a tendency to scorch so probably does better in a less sunny position

*The result of deliberate crosses between *S. japonica* var. albiflora and 'Candlelight' at Liss Forest Nursery produced a plant with white rather than pink flowers which was introduced into cultivation in 2001.*

### 'Wyndbrook Gold'

A small neat mounding plant to about 60 cm tall with gold to bronze spring foliage becoming more yellow in summer turning orange yellow in autumn. Flowers deep pink.

*This chance seedling between 'Nana' and 'Goldflame' was raised by Chris Pattison of Pendock, Glos; more compact than Goldflame.*

Other spiraeas with variegated leaves

### *S.* × *vanhouttei* 'Pink Ice'

An upright bushy plant to 140 cm tall with broad toothed leaves speckled with cream, pink and green becoming greener in summer. Young shoots pink and flowers white. Shoot tips damaged in severe winters and very subject to reversion especially after hard pruning.

*Originally imported as *S. cantoniensis* 'Variegata' from Japan but subsequently named *S.* × *vanhouttei* and introduced by Liss Forest Nursery as 'Pink Ice' in 1990. It may be found under the synonym 'Catpan'.*

### *S. thunbergii* 'Mount Fuji'

A lax upright shrub to 120 cm tall with narrow leaves edged white and sometimes flecked pink becoming greener in summer. Young shoots pink and flowers white. Foliage was subject to reversion, especially if hard pruned and was affected by late spring frosts and sun scorch.

*Raised Dr Yokoi of Chiba University, Japan.*

## RHS Trials

The trials of the Royal Horticultural Society have been an intrinsic part of the Society since its foundation. Today there are 13 committees made up of members with expertise from all aspects of the horticultural world. About 3,000 entries in 60 trials of different groups of herbaceous plants, vegetables, fruits, annuals, bulbs and woody plants, are held each year. They combine, as no other organisation could, the best of British horticultural experts (the committee members) with the expertise of the RHS staff in the garden and science departments. The best plants within each group receive the Award of Garden Merit. This award (AGM) indicates that the plant is recommended by the RHS for garden decoration. The plants are also the subject of scrutiny for their correct names, and are described in detail, photographed and specimens prepared for storage in the RHS Herbarium.

## Senders of plants to the *Spiraea* trial

**Ballalheannagh Gardens**, Glen Roy, Lonan, Isle of Man IM4 7QB

**Beeches Nursery**, Ashdon, Essex CB10 2HB

**Blooms of Bressingham Ltd**, Diss, Norfolk IP22 2AB

**Bridgemere Nurseries**, Nantwich, Cheshire CW5 7QB

**Cooling's Nursery Ltd**, Rushmore Hill, Knockholt, Kent TN147NN

**Darby Nursery Stock Ltd**, Methwold, Norfolk IP26 4PW

**Fairhaven Nursery**, Clapworthy Cross, Chittlehampton, Devon EX37 9QT

**Goscote Nurseries Ltd**, Cossington, Leicester LE7 4UZ

**Holden Clough Nursery**, Holden, Lancs BB7 4PF

**Liss Forest Nursery Ltd**, Greatham, Hants GU33 6HA

**Marwood Hill Gardens**, Barnstaple, Devon EX31 4EB

**Miles Nurseries**, Hoby, Leicestershire LE14 3EA

**Noresco**, 2914 Boulevard Curé-Labelle, Laval (Quebec), Canada H7P 5RS

**Notcutts Nurseries**, Woodbridge, Suffolk IP12 4AF

**Rumsey Gardens**, Clanfield, Hants PO8 OPD

**Walberton Nursery** (Farplants), Walberton, Sussex BN18 OAS

## Acknowledgements

Herbarium specimens by Barry Phillips and Susan Grayer. Photographs by Tim Sandall, Graham Titchmarsh and Barry Phillips. Copyright Royal Horticultural Society

## RHS Herbarium

The herbarium of the RHS is at Wisley where, like the Library, it is used continually as an essential reference tool by the botanists and others working for the Society. This herbarium is one of a small number in the world dedicated to horticultural plants but few are actively expanding. At present the collection contains about 80,000 herbarium specimens, 30,000 photographic images and 4000 paintings of plants together with additional material such as seeds and cones. Material is collected from the gardens, shows and special collections and well prepared and carefully curated, dried, pressed specimens from RHS trials are an important addition.

The Herbarium is leading an international initiative to prepare specimens of all new cultivars as they are introduced which will help to reduce the numbers of incorrectly named plants in the future. Many of these Standards come from RHS trials. Further information about Standards may be viewed on the RHS website ([www.rhs.org.uk](http://www.rhs.org.uk)). The RHS herbarium is an invaluable repository of preserved specimens, illustrations and historical data concerning ornamental plants for today and for the future.



Standard specimen of *Spiraea japonica* 'Candlelight'

**RHS BULLETINS**

**Canna:** September 2003

**Lavender** (hardy): July 2003

**Potentilla** (shrubby): July 2002

We welcome comments on any aspect of this report.



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Reg charity no. 222879

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ISSN: 1477-9153 (print)

ISSN: 1447-9161 (online)