



Figure 1. *Calycanthus* 'Venus' PPAF flower.

parents with large, maroon, wine-red flowers that open widely with a subtle fragrance. Once established, plants can be very floriferous and extremely showy.

Encouraged and inspired by the success of 'Hartlage Wine', we have been working on further developing new hybrids of *Calycanthus*. We have successfully developed additional hybrids between *C. chinensis* and *C. floridus* and new hybrids between *C. chinensis* and *C. occidentalis*. Although most of these hybrids are extremely infertile, we have been able to produce a limited number of advanced generation hybrids that include all three taxa. Many of these hybrids are just now blooming for the first time and the range of characteristics and the potential for new nursery crops is outstanding. We have just released an exceptional new hybrid named *Calycanthus* 'Venus' PPAF. 'Venus' is a complex hybrid, developed at North Carolina State University that includes *C. chinensis*, *C. floridus*, and *C. occidentalis* in its pedigree. The result is exceptional (Fig. 1). This medium-sized shrub produces large, ivory-yellow buds that transform into large, magnolia-like, white flowers with yellow and purple infusions in the center. The flowers have an enticing fragrance with aromas of strawberries and melons. Flowering is primarily in the spring, though additional flowers are produced throughout the growing season.

LITERATURE CITED

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A New World of Groundcovers[®]

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This presentation was a slide show on groundcovers with many of the groundcovers shown in Table 1 below described.

THE NEW SWEETSHRUBS

As reported by Lasseigne et al. (2001), Richard Hartlage, then an undergraduate student in Horticultural Science at North Carolina State University, performed reciprocal crosses between *Calycanthus* (*Sinocalycanthus*) *chinensis* and *C. floridus* in 1991. Four seedlings resulted, one of which appeared to be a hybrid and bloomed 5 years later. This hybrid was later named \times *Sinocalycalycanthus raulstonii* Lasseigne and Fantz 'Hartlage Wine'. In many regards, this hybrid combines the best qualities of both

Table 1. Groundcovers listing their hardiness, light requirements, tolerance of foot traffic, flowering period and color, and height.

Description	Zone	Light	Foot traffic	Bloom period	Bloom color	Height (inches)
<i>Acaena saccaticupula</i> (syn. <i>anserinifolia</i>) 'Blue Haze'	6	Part sun/part shade	Light	Summer	Cream	1
<i>Acaena inermis</i> 'Purpurea'	6	Part sun/part shade	Light	Summer	Cream	3
<i>Acinos alpinus</i>	5	Sun	Light	Summer	Lilac, deep	4-6
<i>Ajuga reptans</i> 'Valfredda' (syn. 'Chocolate Chip')	3	Part sun/part shade	Moderate	Spring & autumn	Blue	1-2
<i>Anacyclus pyrethrum</i> var. <i>depressus</i> 'Silberkissen'	3	Sun/part sun	Moderate	Spring	White	3
<i>Antennaria carpatica</i>	2	Sun	Moderate	Summer	Cream	2
<i>Anthemis carpatica</i> 'Karpatenschnee'	6	Sun	Light	Summer (E) ^x	White	6
<i>Arabis ferdinandi-coburgii</i> 'Old Gold'	5	Sun	Light	Spring	White	2-4
<i>Arabis sturii</i>	4	Sun/part sun	Moderate	Spring	White	3
<i>Armeria maritima</i>	4	Part sun/part shade	Light	Spring (L)	Pink, deep	6-8
<i>Armeria maritima</i> 'Victor Reiter'	3	Part sun/part shade	Light	Spring (L)	Pink, light	2-3
<i>Artemisia</i> "Tiny Green"	3	Part sun/part shade	Light	Spring (L)	Cream	2-3
<i>Carex sibirgrenii</i>	6	Part sun/part shade	Moderate	Summer (E)	Silver	1-2
<i>Carex speciosa</i> 'Velebit Humilis'	4	Part sun/part shade	Light	Spring (L)	Cream	4-6
<i>Ceratostium alpinum</i> var. <i>lanatum</i>	3	Sun	Light	Summer	White	2-4
<i>Ceratostium tomentosum</i>	3	Sun/part sun	Moderate	Summer	White	3
<i>Chamaemelum nobile</i>	5	Sun/part sun	Moderate	Spring	Yellow	2-6
<i>Cymbalaria muralis</i>	3	Part shade/shade	Light	All season	Lavender	3
<i>Dianthus</i> 'Sternkissen'	3	Sun	Light	Spring (L)	Pink/purple	3

Description	Zone	Light	Foot traffic	Bloom period	Bloom color	Height (inches)
<i>Dianthus gratianopolitanus</i> 'Tiny Rubies'	3	Sun/part sun	Light	Spring	Pink, hot	3
<i>Eleocharis radicans</i>	7	Part shade/shade	Moderate	Summer	None	1-2
<i>Eleocharis scopulinus</i>	4	Sun/part sun	Moderate	Spring (L)	White	0.5
<i>Erigeron compositus</i> var. <i>discoideus</i> (syn. <i>E. trifidus</i>)	5	Sun/part sun	Light	Summer (E)	Lavender	2
<i>Erinus alpinus</i>	6	Sun	Moderate	Spring (L)	Violet	6
<i>Erysimum kotschyanaum</i> (Yellow)	4	Sun/part sun	Light	Spring (E)	Yellow	1-3
<i>Erysimum</i> 'Orange Flame'	4	Sun/part sun	Light	Spring	Orange	1-3
<i>Euonymus fortunei</i> 'Kewensis'	5	Sun/part sun	Moderate	None	None	2-6
<i>Glechoma hederacea</i> 'Variegata'	5	Part sun/part shade	Light	Summer	Purple	3-6
<i>Gypsophila cerasioides</i>	5	Sun/part sun	Light	Spring (L)	White	3
<i>Hedera helix</i> 'Spatchley'	5	Part sun/part shade	Moderate	None	None	1
<i>Hernaria glabra</i>	5	Sun/part sun	Heavy	Summer	White	1-2
<i>Houstonia caerulea</i>	4	Part sun/part shade	Light	Summer	Blue	3
<i>Hydrocotyle sibthorpioides</i>	6	Part shade/shade	Moderate	Spring	White	1
<i>Isotoma fluviatilis</i>	8	Sun/part sun	Heavy	All season	Blue	2-3
<i>Leontopodium souliei</i>	5	Sun/part sun	Light	Spring (L)	Cream	4
<i>Leptinella potentillina</i>	6	Part sun/part shade	Moderate	Spring	Yellow	1-2
<i>Leptinella purpurea</i>	5	Part shade/shade	Moderate	Spring	Yellow	2
<i>Leptinella squallida</i>	5	Part shade/shade	Moderate	Spring	Yellow	1-2
<i>Leptinella squallida</i> Plat's Black'	5	Part shade/shade	Moderate	Spring	Yellow	2
<i>Linaria lobata</i>	6	Part shade/shade	Light	Summer	White	1-2
<i>Lotus corniculatus</i> 'Plenus'	4	Sun/part sun	Heavy	Summer	Yellow	3-4

Description	Zone	Light	Foot traffic	Bloom period	Bloom color	Height (inches)
<i>Lysimachia japonica</i> var. <i>minutissima</i>	6	Part sun/part shade	Heavy	Summer	Yellow	1
<i>Lysimachia nummularia</i>	4	Part shade/shade	Moderate	Summer	Yellow	2-6
<i>Lysimachia nummularia</i> 'Aurea'	4	Part shade/shade	Moderate	Summer	Yellow	2-6
<i>Mazus reptans</i> 'Alba'	4	Sun/part sun	Moderate	Summer	White	2
<i>Mazus reptans</i> 'Purple'	4	Sun/part sun	Moderate	Summer	Purple	2
<i>Mentha requienii</i>	6	Part shade/shade	Moderate	Summer	Lavender	1-3
<i>Muehlenbeckia axillaris</i>	6	Sun/part sun	Heavy	Summer	White fruit	2-4
<i>Petrorhagia saxifraga</i>	6	Sun/part sun	Light	Summer	Pink, light	6-8
<i>Potentilla crantzii</i> 'Pygmaea'	3	Sun/part sun	Light	Spring	Yellow	2-4
<i>Potentilla nemmanniana</i> (syn. <i>P. verna</i>)	5	Sun/part sun	Heavy	Spring	Yellow	2-6
<i>Potentilla reptans</i> 'Pleniflora'	4	Sun/part sun	Moderate	Summer	Yellow	4-6
<i>Pratia pedunculata</i> County Park'	7	Sun/part sun	Heavy	All season	Violet, deep	2-4
<i>Pritzelago alpina</i> (syn. <i>Huchinsia alpina</i>)	3	Sun/part sun	Moderate	Spring	White	3
<i>Raoulia australis</i>	7	Sun/part sun	Heavy	Summer	Yellow	1
<i>Sagina subulata</i> var. <i>glabra</i> 'Aurea'	4	Part sun/part shade	Heavy	Spring	White	1-4
<i>Sagina subulata</i> 'Verna'	4	Part sun/part shade	Heavy	Spring	White	1-4
<i>Scutellaria pontica</i>	6	Sun	Moderate	Summer	Red, bright	6-8
<i>Sedum acre</i>	4	Sun/part sun	Moderate	Summer	Yellow	1-2
<i>Sedum album</i> 'Chloroticum'	4	Sun/part sun	Light	Summer	White	2
<i>Sedum album</i> 'Coral Carpet'	6	Sun	Light	Summer	White	4
<i>Sedum hispanicum</i> var. <i>minus</i> purple form	5	Sun/part sun	Light	Summer (L)	Pink	0.5-1

Description	Zone	Light	Foot traffic	Bloom period	Bloom color	Height (inches)
<i>Sedum humifusum</i>	4	Sun/part sun	Moderate	Summer	Yellow	1
<i>Sedum hydium</i>	4	Sun/part sun	Light	Summer	White	1-3
<i>Sedum pachyclados</i>	5	Sun/part sun	Moderate	Summer	White	2
<i>Sedum requienii</i>	4	Sun/part sun	Heavy	Summer	Yellow	0.25
<i>Sedum spurium 'John Creech'</i>	4	Sun/part sun	Moderate	Spring	Pink	2-4
<i>Spargularia rubra</i>	6	Sun/part sun	Moderate	Spring (L)	Pink, hot	4-6
<i>Stachys monieri</i> (syn. <i>densiflora</i>) ‘Alba’	4	Sun/part sun	Moderate	Summer	White	2-4
<i>Thymus pulegioides</i> ‘Archer’s Gold’	5	Sun	Moderate	Summer (L)	Lavender, light	2
<i>Thymus doerfleri</i> ‘Bressingham’	4	Sun/part sun	Moderate	Spring (L)	Pink, hot	2-4
<i>Thymus serpyllum</i> ‘Pink Chintz’	4	Sun/part sun	Moderate	Summer	Pink, salmon	1-2
<i>Thymus</i> ‘Hartington Silver’ (syn. Highland Cream)	5	Sun/part sun	Moderate	Spring (L)	Pink, soft	2-4
<i>Thymus pseudolanuginosus</i>	6	Sun/part sun	Heavy	Summer	Pink	3
<i>Thymus serpyllum</i> var. <i>albus</i>	4	Sun/part sun	Moderate	Summer	White	2
<i>Thymus Coccineus</i> Group	4	Sun/part sun	Moderate	Summer	Rose, light	2
<i>Thymus serpyllum</i> ‘Elfin’	4	Sun/part sun	Heavy	Summer	Pink, light	1-2
<i>Thymus serpyllum</i> ‘Magic Carpet’	5	Sun/part sun	Moderate	Spring (L)	Pink, carmine	3
<i>Thymus</i> ‘Spice Orange’	5	Sun/part sun	Moderate	Summer	Pink, light	4
<i>Thymus</i> ‘Doone Valley’	5	Sun/part sun	Moderate	Summer	Lilac	4
<i>Trifolium repens</i> ‘Atropurpureum’	4	Part sun/part shade	Moderate	Summer	White	6
<i>Veronica altonii</i>	4	Sun/part sun	Moderate	Summer (E)	Blue, light	4
<i>Veronica liwanensis</i>	3	Sun/part sun	Light	Summer	Blue, cobalt	2
<i>Veronica olensis</i>	4	Sun/part sun	Moderate	Spring	Blue	1

Description	Zone	Light	Foot traffic	Bloom period	Bloom color	Height (inches)
<i>Veronica pectinata</i> 'Blue'	5	Sun/part sun	Light	Spring	Blue, light	3
<i>Veronica pectinata</i> 'Rosea'	5	Sun/part sun	Light	Spring	Pink, rose	3
<i>Veronica repens</i>	4	Part sun/part shade	Moderate	Spring	White, pearl	1-3
<i>Veronica repens</i> 'Sunshine'	4	Part shade/shade	Moderate	Spring	Blue pearl	1-3
<i>Veronica</i> 'Waterperry Perry'	4	Sun/part sun	Moderate	Spring	Blue, sky	4-6
<i>Veronica</i> 'New Century'	6	Sun/part sun	Moderate	Summer	Blue	3
<i>Viola</i> 'Sylvia Hart'	4	Part shade/shade	Light	Spring (L)	Pink, hot	4
<i>Viola labradorica</i>	2	Part sun/part shade	Moderate	All Season	Lilac	2-4
<i>Viola verecunda</i> var. <i>yakusimana</i>	6	Part shade/shade	Moderate	Spring (L)	White	1-2

^x E = early, L = Late