**The Wilbur L. Bluhm Plant Phenology Study**

**Notable Taxa**

**1. Plants with 15 or More Years of Data, 895 total taxa**

(A taxon’s last entry, when followed by a semi-colon, indicates additional data available.)

**40+ (12)**

*Prunus cerasifera* ‘Pissard’ – st.fl, **48**; st.lf, 18; maxfl,17; end fl,16;

*Prunus* x *blireiana* – start flower, **47**; max.fl, 20; st.lf, 19; end fl, 15;

*Prunus cerasifera* ‘Thundercloud’ – start flower, **44**; def, 20; st.lf, 19;

*Forsythia* spp./cvs. – start fl, **43**; max. fl, 24; st. col, 22; end fl, 20;

*Ginkgo biloba* – start leaf, 43; def., 23; st. yel., 22; fruit st.drop, 19;

*Chaenomeles speciosa* – start flower, **42**; st.lf, 19; end fl, st.yel, 16;

*Betula pendula* ‘Laciniata’ – start leaf,42; start color, 23; defol, 20;

***L****iriodendron tulipifera* – st. lf, 42; st. fl, 32; st.col, 24; def, 21;

*Prunus* (*serrulata*)‘Kanzan’ – st.fl,42; st.lf, 26; max.fl., 23; st.col, 22;

*Prunus pendula* ‘Pendula Rosea – st.fl.42;def,20; st.yel, 19;

*Juglans regia* – start leaf, **41**; def, 20; start yellow, 19;

*Prunus* x *subhirtella* ‘Pendula Rosea’ – st. fl., 41; defol, 19; st.col. 18;

*Quercus garryana* var*. garryana* – start leaf, 41; st.col, 21; defol, 20;

*Salix* x *sepulcralis var. chrysocoma* – start leaf, 41;

*Magnolia stellata* – st.fl, **40**; max, end fl, 20; st.yel, defol, 19; st.lf,17;

*Mahonia aquifolium* – start flower, 40; end flower, 17; max. fl, 16;

**30+ (51)**

*Acer rubrum* – start flower, **39**; start leaf, 28; st.col, 22; def, 18;

*Cornus nuttallii* – start leaf, 39; white bracts st, 36; st.col, def, 21;

*Magnolia* x *soulangiana* – st. fl, 39; st.lf, st.yel, def, 21;

*Prunus* x *yedoensis* ‘Akebono’ – st.fl, 39; max.fl, 30; def,23; st.col, 22;

*Syringa vulgaris* – start leaf, 39; start fl., 38; end fl, 21; def, 20;

*Acer circinatum –* start leaf, **38**; st. fl, st. col, 23; def, 22;

*Acer platanoides* – start flower,38; start leaf, 23; st.col, defol,20;

*Ailanthus altissima* – start leaf, 38; start flower, 25; st.col, def, 22;

*Cornus florida* ‘Red Flowering’ – rd.bracs sho, 38; end fl, def, 19;

*Gleditsia triacanthos* ‘Sunburst’ – start leaf, 38; st.yel, 21; defol, 16;

*Liquidambar styraciflua* – start leaf, 38; start color, 23; def, 16;

*Prunus* (*serrulata*)‘Amanogawa’ – st.fl, 38; def, 23; max.fl, st.col, 21;

*Prunus* x *subhirtella* ‘Whitcomb’ – st.fl, 38; max.fl, 19; end fl, 18;

*Ulmus pumila* – start leaf, 38; start yellow, 22; defoliated, 17;

*Acer macrophyllum* – start flower, **37**; st.lf, 29; st.col, 21; def, 18;

*Aesculus hippocastanum* – st. leaf, 37; st. fl, 35; st.yel, 23; def, 21;

*Crataegus laevigata* ‘Paul’s Scarlet’ – st.lf, st.fl, 37; max/end fl, 20;

*Cotinus coggygria* – st. leaf, **36**; start fl, 26; start col, 22; defol, 21;

*Prunus* x *yedoensis* ‘Akebono’ – start flower, 36; max. flower, 28;

*Quercus palustris* – start leaf, 36; start color, 23; lvs. brown, 18;

*Tamarix parviflora* – start fl, 36; st.yel,21; def, 17; st.gr, end fl, 16;

*Platanus* x *hispanica* – start leaf, **35**; defoliated, 21; start yellow, 20

*Quercus coccinea* – start leaf, 35; max. col, 23; st.col., 20; defol, 18;

*Albizia julibrissin* – start leaf, **34**; start flower, 23; end fl, 20; def, 19;

*Cercis canadensis* – st. fl, 34; start leaf, max. fl., 24; st.col, 22;def, 21;

*Cytisus praecox* – start flower,34;

*Juglans nigra* – start leaf,34; start color, 22; defoliated, 20;

*Potentilla fruticosa* – st.lf, 34; st.fl, 22; defol, 17;end fl, st.col 15

*Carya ovata –* start leaf, **33**; start yellow, 22; defol, 21; max.yel,16;

*Cornus florida* – white bracts st, 33; st.col,22; def, 20;end fl, st.lf., 19;

*Viburnum opulus* ‘Roseum’ – start flower, 33; start leaf, 29; st.col,22;

*Weigela florida* –start fl, 33; start lf, 32; st.col, 21; end fl, 19; def, 18;

*Arbutus menziesii* – start flower, **32**; end fl, 19; st.col, fr.red, 18;

*Carpinus betulus* ‘Fastigiata’ – st.leaf, 32; st.fl, 23; st.col, 22; def.20;

*Cornus sericea* – start leaf, 32; start fl, 23; st.col, 22; def, 21;

*Franklinia alatamaha* – st.leaf, 32; st.col, st.fl, 22; def., 21; end fl, 19;

*Photinia* x *fraseri* – start growth, 32; start flower, 16;

*Quercus rubra* – start leaf, 32; st.fall col, 22; defol, 20; full col, 15;

*Rhododendron* ‘Hardijzer’ Beauty’ – start flower, 32; end fl, 15;

*Rhododendron* ‘Jean Marie de Montague – start flower, 32; end fl,20

*Sassafras albidum* – st.leaf, 32; st.col, 23; def, 21; st.fl, 20; end fl, 18;

*Acer palmatum* cvs– start leaf, **31**; start color, 20;

*Metasequoia glyptostroboides* – start leaf, 31; st.col, 22; defol, 21;

*Paulownia tomentosa* – start flower, 31; st.yel, def,21; max fl, 19;

*Prunus* (*serrulata*) ‘Pendula’ – st.flower, 31; st.lf, 18; end fl, st.col, 17;

*Rhododendron hippophaeoides –* start flower, 31; end flower, 20

*Spiraea thunbergii* – start flower, 31; st. lf, st. col, 23; end fl, 18;

*Styrax japonicus* – start leaf, 31; start fl, 30; st.yel, 22; end fl, 21;

*Acer campestre* – start growth, **30**; st. col, 22; st.fl, 19; def, 18;

*Berberis verruculosa* – start flower,30; start color, 19;

*Camellia japonica* – start flower, 30; end flower, 18;

*Cornus kousa* – start leaf, 30; flower bracts show, 23; start fl,

 st.fall color, 22; def, 21; fruit st. red, 20; fr red, 18; fr.st.drop, 16;

*Hypericum calycinum* – start flower, 30; st.growth, 27; end fl, 19;

*Quercus phellos* – start leaf, 30; start color, 23; defoliated, 21;

*Rhododendron* ‘Blue Peter’ *–* start flower, 30; end flower, 19

*Rhododendron* ‘Exbury Red Orange’ *–* start flower, 30; end fl, 18;

*Rhododendron* ‘Golden Gate’ – start flower, 30;

*Rhododendron* ‘Hurricane’ – start flower, 30; end flower, 19

*Rhododendron* ‘Nova Zembla’ – start flower, 30; end flower, 17

*Rhododendron* ‘Unique’ – start flower, 30; end flower, 18

*Salix babylonica* var*. pekinensis* ‘Tortuosa’ – start leaf, 30; st.col,16;

*Styphnolobium japonicum* – st.lf, 30; st.col, 22; defol, 21; end fl, 18;

*Wisteria floribunda* – start flower, 30; start lf, st.yel, 21; def, 20;

**20+ (231)**

*Acer saccharinum* – start leaf, **29**; start color, 23; st.fl, 22; def, 20;

*Berberis thunbergii* – start leaf, 29; start flower, 17; start color, 16;

*Clerodendrum trichotomum* – st. leaf, 29; st.fl., st.yel, 22; def, 20;

*Crataegus* x *lavalleei* – st. lf, 29; st.fl, 21; endfl, fr.st.red, st.col, 19;

*Fraxinus angustifolia* ‘Flame’ – start leaf, 29; st.color,24; def, 21;

*Gymnocladus dioicus* – start leaf, 29; defoliated, 21; start yellow, 20;

*Oemleria cerasiformis* *–* start flower, 29; st.lf, 24; def, 19; max.fl, 18;

*Populus trichocarpa* – start leaf, 29; start color, 22; defol, 19;

*Prunus laurocerasus –* start flower, 29;

*Pyrus calleryana* ‘Chanticleer’ *–* start fl, 29; max.fl, st.col, def, 22;

*Rhaphiolepis umbellata ovata* – st.fl, 29;st.gr. 19;max fl, 17;end fl, 15

*Rhododendron* ‘Bow Bells’ *–* start flower, 29;

*Rhododendron* ‘Martha Isaacson’ – start flower, 29; end fl, 19;

*Rhododendron* ‘Molly Ann’ – start flower, 29; end flower, 17

*Rhododendron* ‘Yaku Angel’ – start flower, 29; end flower, 17

*Spiraea japonica* ‘Nana’ *–*st. leaf, 29; st.fl, 27; st.col, def, 21;

*Tilia americana* – start leaf, 29; def, 22; st.yel, 20; st.fl, end fl, 17;

*Arctostaphylos uva-ursi* – start flower, **28**;

*Liriodendron tulipifera –* start flower, 28;

*Oxydendrum arboreum* – start leaf,28; st.fl., def. 22; st.col. 21;

*Prunus avium* *–* start flower, 28; max.flower, 16;

*Pyrus communis* – start flower, 28; max.fl, st.lf, 18;

*Rhododendron occidentale –* start flower, 28; st. lf, 22; end fl, def,19;

*Rhododendron occidentale* ‘SM 502’ – st.fl, 28; end fl, 19; def, 17;

*Rhus typhina* – start leaf, 28; leaves start color, 23; defol, 20;

*Ribes sanguineum –* start fl, 28; start leaf, 25; end fl, 19; max. fl, 17;

*Styrax japonicus* – start flower, 28;

*Ulmus americana* – start leaf, 28; st.fl, 24; st.yel, 22; def, 21;

*Viburnum davidii* – start flower, 28; end flower, 15;

*Acer negundo* ‘Variegatum’ – start leaf, **27**; defol, 20;

***F****agus sylvatica* – start leaf, 27; start yellow, 22; defoliated, 21;

***K****almia latifolia* – start flower, 27; end flower, 21; start growth, 18;

*Laburnum* x *watereri –* st.fl, 27; st.lf, 25; st.yel, 20; def, 17; end fl, 16;

*Potentilla fruticosa* ‘Sutter’s Gold’ *–* start flower, 27;

*Prunus laurocerasus* ‘Otto Luyken’ *–* start flower, 27; max. fl, 15;

***R****hododendron* ‘Exbury Light Yellow’ *–* start flower, 27; end fl, 19;

*Rhododendron* ‘Exbury White’ *–* start flower, 27; end fl, st.col, 16;

*Rhododendron* ‘Martha Isaacson *–* start flower, 27;

*Robinia pseudoacacia* – start flower, 27; st.lf, 25; st.yel,22; defol, 18;

***S****piraea* x *vanhouttei* – st. fl, 27; max.fl, 23; st.lf, st.col, 21; end fl, 20;

***A****cer saccharum* – start leaf, **26**; start color, 24; st.fl, 22; def. 20;

*Acer tataricum* ssp*. ginnala* – st. lf,26; st.fl, 23; st.col, 21; def, 20; *Aesculus* x *carnea* – st. flower, 26; st.col, 22; st.lf, defol, 21;

***C****ercidiphyllum japonicum* – start leaf, 26; start color, defol, 21;

*Choisya ternata* – start flower, 26; end flower, 17;

*Clematis armandi* – start flower, 26; end fl, 17; max.fl, 16;

***D****aphne odora* ‘Aureomarginata’ – start flower, 26; end fl, 19;

***F****raxinus ornus* – st.lf, 26; st.fl, 25; st.col, 20; defol, 15;

***K****erria japonica* ‘Pleniflora’ – max.fl, 26; st.fl, 23; st.col, def, 20;

***L****aburnum alpinum* ‘Pendulum’ – start leaf, 26; st.fl,19; st,yel,16;

*Lagerstroemia indica* – st. gr, 26; st.col, st.fl, 20; def, 19; end fl, 16;

***M****orus alba* ‘Kingan’– start leaf, 26; st.yel, 22; st.fl, 21; defol, 19;

***P****runus sargentii* ‘Rancho’ *–* st. fl, 26; st.col, def, 18; end fl, 17;

***R****hododendron* ‘Daphnoides’ *–* start flower, 26; end flower, 19

***V****iburnum rhytidophyllum* – start flower, 26; end flower, 19;

*Viburnum tinus* – start flower, 26;

***A****belia x grandiflora* – start growth, **25**;end fl, 22; st.fl, 20;

*Acer japonicum* ‘Aconitifolium’ – start leaf 25; st.fl, st.col, 21; def, 19;

***B****erberis triacanthophora* *–* start flower, 25; start red, 21; end fl, 19;

*Bergenia crassifolia –* start flower, 25;

***C****amellia japonica* cvs.*–* start flower, 25; end flower, 16;

*Carpinus betulus* ‘Quercifolia’ – st.leaf, 25; st.col, defol, 21; st.fl, 15;

*Catalpa speciosa* – start lf, 25; st.fl, 24; st.yel, 22; end fl, 21; def, 20;

*Cornus mas* – max. flower, 25; st.fl, 23; def, 22; start leaf, 21;

*Corylus avellana* – start leaf, 25; male flowers start, 18;

***D****iospyros virginiana* – start leaf, 25; st.col, defol, 22; st.fl, 21;

***G****enista lydia* – start flower 25; end flower, 20;

***H****ydrangea macrophylla* – start leaf, 25; st. fl., 24; end fl, 19;

***J****asminum nudiflorum* – st. fl, 25; end fl, 21; st. col, 19; st.gr, 17;

***P****runus* (*serrulata*) ‘Shirotae’ *–* st. fl, max.fl, 25; def 21; st.col, 20;

*Pyrus calleryana* ‘Bradford’ *–* start fl, 25; max. fl., st.lf, 24; st.col,22;

***R****hododendron* ‘Arthur Ivens’ *–* start flower, 25; end flower, 15

*Rhododendron* ‘Cream Crest’ *–* start flower, 25; end flower, 16

*Rhododendron* ‘Exbury Dark Orange’ *–* start flower, 25;

*Rhododendron* ‘Exbury Deep Yellow’ *–* start flower, 25; end fl,15;

*Rhododendron* ‘Shamrock’ *–* start flower, 25;

*Rhododendron* ‘Vuyk’s Scarlet’ – start flower, 25; end flower, 17

***S****orbus aucuparia* *–* start flower, 25; start leaf, 22;

*Stewartia pseudocamellia* – st.lf, 25; st.fl, 23; st.col. 22; end fl, 21;

***V****ancouver hexandra* – start growth, start flower, 25; end fl;

*Vinca minor* – start flower, 25;

***Z****elkova serrata* – start leaf, 25; start color, 22; defoliated, 20;

***A****belia* ‘Edward Goucher’– start flower, **24**; end flower, 21; st.gr,19;

*Acer platanoides* ‘Crimson King’ – st.lf, 24; st.col, def, 21; st.fl, 20;

***D****eutzia gracilis* – start fl, 24; start lf, 22; st.yel, 20; end fl, def, 18;

***E****uonymus alatus* ‘Compactus’ – st.lf, 24; st.fl, 23; st.col, 22; def, 19;

***F****icus carica* – start leaf, 24; start yellow, 20; defoliated, 18

***H****ibiscus syriacus* – start leaf, 24; st.yel, 22; st. fl, def, 20; end fl, 17.

***K****oelreuteria paniculata* – start lf, 24; st. fl, 22; end fl, st.yel,pods, 21;

*Kolkwitzia amabilis* – start fl, 24; start lf, 22; end fl, st.col, 21; def,20;

***M****agnolia grandiflora* – start flower, 24; fr.st.red, end fl. 21;

*Magnolia liliiflora* – st. fl., 24; max.fl.,23; def, 22; st.2fl, st.yel, 21;

*Mahonia repens* – start flower, 24; start color, 18;

***N****yssa sylvatica* – start leaf, 24; start col, def,22; start fl, 21;

***O****xalis oregana* – start flower, 24;

***P****arrotia persica* - – start leaf, 24; start color, 22; start flower, 19;

*Philadelphus* – start flower, 24; start lf, 22; end fl, 21; st.yel, def, 20

*Photinia davidiana* – start flower, 24; st.gr, end fl, fr.st.col, old lvs,20;

*Prunus laurocerasus* ‘Zabeliana’ – start flower, 24; end flower, 19;

*Prunus* ‘Ukon’ – st.fl, 24; st.col,22; def,21; st.lf, max.fl, end fl,19;

*Pyracantha* cultivars *–* st. fl, 24; end fl, fr.st.red, 17; fr.red, 16;

***R****hododendron* ‘Pink Walloper’ – start flower, 24; end flower, 20

***S****kimmia japonica* – start flower, 24; fr. st. red, 20; max. flower, 17;

*Spiraea douglasii* – start leaf, 24; st. fl, 22; end fl, st.yel, def, 20;

*Spiraea prunifolia* – max.fl, 24; def, 21;st.fl, 20; end fl, st.lf, st.col, 19;

***T****ilia americana* ‘Redmond’ – st. leaf, 24; st.yel, 21; def, 20; st.fl, 18;

*Tilia* x *euchlora* – st. leaf, 24; start yel, 22; def, 21; st.fl, 19; end fl, 17;

***W****aldsteinia fragarioides* – start flower, 24;

***Z****izyphus jujuba* – start leaf, 24; defol. 20; st.yel, fr.st.ripen, 17;

***B****erberis* x *gladwynensis* ‘William Penn’ – start flower, **23**; end fl, 15;

*Berberis julianae* – start flower, 23; end fl, st.color, 21;

*Betula utilis* var*. jacquemontii* – start leaf, 23; st. yel, defol, 21;

***C****alycanthus occidentalis* – st. fl, 23; st.yel, 22; end fl, def., st.lf, 21;

*Catalpa bignonioides* – st.lf, st.fl, 23; st.yel, ,21; end fl, defol, 20;

*Cotoneaster horizontalis* – start leaf, 23; st.fl, 20; fr.red, st.col, 18;

*Cotoneaster lacteus* – start growth, st. fl, 23; fr. st.red, 21; end fl, 20;

***D****avidia involucrata* – st. fl, 23; st.lf,22; def, 21; end fl, 20; max.fl, 19;

*Deutzia scabra ‘*Candidissima’ *–* st. fl,23; def, 22; st.lf, end fl, st.y, 21;

***E****nkianthus campanulatus* – st.lf, 23; st.col, defol, 22; st.fl, 21;

*Exochorda racemosa* – st. leaf, 23; st.fl, 21; max/fl,19; def, end fl, 18;

***H****ydrangea paniculata* ‘Grandiflora’ – st.fl, 23; st.lf, 22; st.yel, def,20;

***Il****ex aquifolium* – start flower, 23; fruit start red, 20; fruit red, 19;

***L****aburnum* x *watereri* – start leaf, 23; start flower, 23;

*Leucothoe fontanesiana* ‘Rainbow’ – st. fl., 23; st.col. 21; end fl, 18;

*Leycesteria formosa* – start flower, 23; st. lf, 21; end fl, st.col, 20;

***P****ieris japonica –* start flower, 23; st.growth, end fl, 16;

*Prunus lusitanica* – start flower, 23; fr.st.black, 20; st.gr., end fl, 17;

***Q****uercus alba* – start leaf, 23; start color, 21; leaves brown, 16;

*Quercus shumardii* – start leaf, 23; start color, 22; defol, 15;

***R****hododendron* ‘Compacta’ – start flower, 23; end flower, 20;

*Rhododendron occidentale* ‘SM 605’– start flower, 23; st. lf., 15;

***S****orbaria sorbifolia* – start leaf,23; st.fl, end fl, 20; st.col,19; def,18;

*Spiraea japonica* ‘Goldflame’ – start leaf, 23; start fl., 21; end fl, 18;

***T****axodium distichum* – st. leaf, 23; st.color,22; defol, 21; max.col,18;

***V****iburnum opulus* ‘Nanum’ – start leaf, 23; st. color, defol, 17;

***A****cer buergerianum*  - start fall color, **22**; st.lf, 20; def, st. fl, 17;

*Acer cappadocicum* ‘Aureum’ – st. col, 22; defol, st.lf,21; st.fl.,19;

*Acer griseum* – start color, 22; start leaf, 21; defoliated, 19;

*Acer palmatum* ‘Crimson Queen’ – st.col, 22; def, 21; st.lf, 19;

*Acer palmatum* ‘Koto Ito Komachi’ – start color, def., 22; st.lf, 19;

*A. saccharum* ‘Sweet Shadow’ – st.col, 22; def,21;st.lf,17; max.co16;

*Ampelopsis brevipedunculata* – st.leaf, st.fl, 22; fr.st.col,21; end fl,20;

*Arbutus unedo* – start flower, 22; end flower, 20; fruit st. col., 19;

*Asimina triloba* *–* start fl, 22; st.lf, st.col, defol, 21; end fl, 20;

***B****erberis thun.* f*. atropurpurea* – start lf, st. fl, 22; st.col, def, 20;

*Berberis thun. var. atropur.* ‘Rose Glow’ *–* st.flo, 22; st.col,21; st.lf.20

*Berberis triacanthophora* – start flower, 22;

*Bergenia crassifolia* – start flower 22;

*Betula alleghaniensis* – start color, 22; defol, 21; st.leaf, 19; st.fl, 16;

***C****amellia sasanqua* – start flower, 22; end flower, 17;

*Carpinus betulus* – start color, 22; defoliated, 21;

*Cercis canadensis* – full flower, 22;

*Chionanthus virginicus* – start lf, st.fl, st. yel, 22; def, 21; end fl, 20;

*Cistus* x *hybridus* *–* start flower, 22; end flower, 20;

*Clethra alnifolia* –st. fl, 22; st. leaf, end fl, defol, st.yel, 21;

*Cydonia oblonga* – start leaf, st.fl, 22; end fl, 21; st.yel, 20; def, 18;

***D****ichelostemma congestum -* start flower, 22;

***E****dgeworthia chrysantha –* start flower, 22; st.col, 17; st.lf, 15;

*Erythronium oregonum* – start flower, 22; end fl, 19

***F****atsia japonica* – start flower, end flower, 22; start growth, 19;

*Fraxinus americana* ‘Autumn Purple’ – st.color, 22; defol, 20;st.lf, 18;

***G****arrya elliptica* – start flower, 22; start gr, 19; end fl, 17;

***H****amamelis vernalis* – st.yel, 22; st. lf, st.fl, 21; def, 20; end fl, 19;

*Hydrangea anomala* ssp*. petiolaris* – start leaf, st.fl,22, end fl, 19;

***I****ris unguicularis* – start flower, 22; end flower, 18

***M****agnolia macrophylla* –defol, 22; start leaf, 21; st. yel, 19; st. fl, 18;

***N****andina domestica* – start fl, 22; end fl, 18; st.col.,16; fr.st.red, 15;

***O****smanthus delaveyi* – end flower, 22; max. fl, 21; start flower, 20;

***P****achysandra terminalis* – start flower, 22; start growth, 16;

*Photinia villosa* – fr.st.red, 22; st.fl, end fl, st.yel, def, 21; st.lf, 20;

*Pieris japonica* ‘White Rim’ – start flower, 22; end fl, 17; st.gr. 15;

*Populus tremuloides* – start leaf, 22; defoliated, 20; start color, 19;

*Prosartes smithii* – start flower, 22; fr.st.red, 16;

*Prunus* x *yedoensis* – st. color, 22; def, 21; st.fl, 20;end fl, 19; st.lf, 18;

***R****hododendron* ‘Hallelujah’ – start flower, 22; end flower, 18

*Rhododendron* ‘Lem’s Monarch’ – start flower, 22;

*Rhododendron* ‘Mrs. A. T. de la Mare’ – start flower, 22;

*Rhododendron* ‘Vuyk’s Scarlet’ – start flower, 22;

***S****ambucus nigra* – st.fl, 22, st.lf, end fl., fr.st.ripen, st. yel, 21; def, 20;

*Spiraea japonica* ‘Anthony Waterer’ – st.fl.,22; st.gr, end fl, st.col, 21;

*Syringa sweginzowii* – start flower, 22; end fl, st.col, 20; st.lf, def, 19;

***V****iburnum plicatum* ‘Mariesii’ – start leaf, st. fl, st.col, defol, 22;

*Viburnum trilobum* – st.flr, 22; st.col, def, 21; st.lf, 18; fr.st.red,17;

*Vitex negundo* – start fl, def, 22; end fl, 21; st. lf 20; st.yel, 19;

***A****cer palmatum* var. *dissectum* ‘Viridis’ – start color, def,**21**; st.lf, 19;

*Acer platanoides* ‘Crimson Sentry – defol, 21; st.col, 20; st.lf, 19;

*Acer platanoides* ‘Schwedleri’ – start color, 21; def, st.fl, st.lf, 19;

*Acer pseudoplatanus* – defoliated,21; start lf, start fl, st.color, 19;

*Acer rubrum* ‘Armstrong’ – defol, 21; st.color, 20; st.lf., 18; st.fl, 16;

*Aconitum carmichaellii* – start flower, end flower, 21;

*Aesculus californica* – st. fl, end fl, st.yel, defol, 21; st.lf, 18;

*Alnus rubra* – start leaf, 21; def., 20; st.fl., st.yel., 19;

*Amelanchier alnifolia* – max. fl, 21,st.lf, st.fl. 20; st.col.,19; def.18;

*Anemone* x *hybrida* – start flower, 21; end flower, 20

*Aruncus dioicus* – start flower, end flower, 21;

***B****etula nigra* – start yellow, 21; start leaf, st.fl, defol, 19;

*Betula pendula* – start leaf, start color, 21; defoliated, 19;

***C****amassia leichtlinii var. suksdorfii* – start flower, 21; end flower, 15

*Chimonanthus praecox* – start fl, 21; st.yel.,20; end fl., st.leaf,18;

*Clematis montana* var*. rubens* – start flower, 21; st.lf. 16;

*Clerodendrum bungei* – start fl, end fl, 21; start lf, 20; defol, 18;

*Colchicum autumnale* – start flower, 21; end flower, 20

*Convallaria majalis* – start flower, 21; end flower, 18; fr.st.red, 15;

*Crataegus mollis var. submollis* – end fl, st.col, 21; def, fr.st.red,20;

*Crocosmia* ‘Lucifer’ – start flower, 21; end flower, 15

*Cyclamen hederifolium* – start flower, 21; end fl, 17; st. growth, 15

*Cytisus scoparius* – start flower, 21;

***D****aphne x burkwoodii* ‘Carol Mackie’– st. fl, 21; end fl, 19; st.gr. 18;

*Digitalis purpurea* – start flower, 21;

***E****rythronium tuolumnense* – st.flower, 21; end fl, 17

*Euonymus fortunei* ‘Emerald ‘n’ Gold’ – st.winter col, 21; st.grow, 18

*Euonymus japonicus* – st.flower, end fl, 21; st. gr, 19; fr.red, 16;

*Eupatorium purpureum* – start flower, 21; end flower, 20

***F****agus sylvatica* ‘Rohanii’ – start color, 21; start leaf, defol, 19;

*Filipendula rubra* – start flower, end flower, 21

*Fothergilla gardenii* ‘Blue Mist’ – st.col, def, 21; st.fl, 17;

***H****alesia monticola* –st. leaf, 21; end fl, defol, 20; st.fl., st.yel, 19;

*Hamamelis virginiana* – start yel, st. fl, 21; end fl, 20; st.lf, def, 18;

*Helleborus* x *hybridus* – start flower, 21; end flower, 15

*Hemerocallis* ‘Stella D’Oro’ – start flower, 21; end flower, 18

***I****lex cornuta* ‘Burford’ – end flower, 21; fr.st. red, 19; st. flower, 18;

*Iris* ‘Tall Bearded’ – start flower, 21;

*Itea virginica* ‘Henry’s Garnet’ – st.col., 21; st.fl., st.gr, end fl., 19;

***L****eucothoe racemosa* – start fl, 21; st. col, 19; st. lf, end fl, 17;

*Liatris spicata* – start flower, 21; end flower, 20

*Ligustrum japonicum* – start flower, 21; end fl, 19; st.growth, 16;

*Lonicera* ‘Clavey’s Dwarf’ – start flower, 21; end fl, 19; defol, 17;

*Lonicera maackii* – st. fl, 21;st. lf,18;end fl,17;max fl,fr.red,st.yel 16;

*Lycoris squamigera* – start flower, 21; end flower, 18

***M****agnolia virginiana* – st. fl., end fl, fr.st.red, 21; lvs.st.yel, 18;

*Maianthemum racemosum* – start flower, 21; end flower, 16;

***P****apaver orientale* – start flower, 21; end flower, 18

*Parthenocissus tricuspidata* – start color, 21; start leaf, 20; defol, 19;

*Phellodendron amurense* – st. yel, defol, 21; st. lf, 18; st. fl, 17;

*Philadelphus lewisii* – st. yel, 21; end fl, 20; defol, 19; st. lf, st. fl, 18;

*Phlox paniculata* – start flower, 21; end flower, 15

*Populus alba* – start leaf, 21; start flower, 17; st. yellow, 15;

*Prunus avium* ‘Scanlon Globe’ – st. fl, 21; end fl, 18; def, max. fl, 17;

*Punica granatum* –start fl, st.leaf, st. yellow, 21; end fl, 19; def.18;

***Q****uercus robur* f. *fastigiata* – start leaf, 21; start color, 18;

***R****anunculus ficaria* – start flower, 21;

***S****edum* ‘Herbstfreude’ – start flower, 21; end flower, 18

*Sisyrinchium striatum* – start flower, 21; end flower, 19

*Sorbaria tomentosa*– end fl, st.yel, 21; st.fl., def, 20; st.lf. 16;

*Sorbus scopulina –* fruit red, 21; defol, 17; fr. st. red, 16; st.fl., 15;

*Staphylea trifolia* – st. lf, st. fl, 21; st.col, 20;end fl, 19; 18; max.fl,17;

*Sternbergia lutea –* start flower, 21; end flower, 17

*Symplocos paniculata* – st. fl, fr.st.blue, 21; end fl, st.yel, def, 19;

*Syringa villosa* – start flower, 21; end fl, start color, 19; def, 15;

*Syringa yunnanensis* – start flower, 21; st.col, 20; st.lf, end fl, 16;

***T****anacetum vulgare* – start flower, 21;

*Taxodium mucronatum* – start leaf, start color, 21;

*Tilia cordata* – start leaf, 21; start yel, 17; defol, 16; st.fl, end fl, 15;

*Tilia x europaea* –st. fl, end flower, 21; defol, 20; st.lf, 19; st.yel,17;

***U****lmus glabra* ‘Camperdownii’ – st.lf, st.yel, def, 21; full seed,19;

*Umbellularia californica* – start flower, 21;

***V****accinium corymbosum* – st.leaf, st.col, 21; st. fl, 19; end fl, 16;

*Viburnum* x *bodnantense –* start flower, 21; st.col, 19; end fl, 18;

*Viburnum x burkwoodii* – start flower, 21; st. growth, st. color, 19;

*Viburnum ellipticum* – defol. 21; end fl, 20; st.fl., 19; st.lf., 18;

*Viburnum farreri* – start flower, 21; st.color, 19; end fl, 19; st. lf, 17;

*Vinca major* – start flower, 21;

***W****isteria sinensis* – start leaf, start flower, st. yel, 21; defol, 18;

***Y****ucca filamentosa –* start flower, 21; end flower, 19

***Z****antedeschia aethopica –* start flower, 21;

***A****cer rubrum* ‘Bowhall’ – start color, **20**; defoliated, 19; st.lf., 17;

*Acer saccharinum* ‘Weiri’ – start color, 20; def., 19; st.lf., 15;

*Akebia quinata* – start growth, 20; st. yellow,19; st. fl, 18; end fl, 16

*Allium christophii* – start flower, 20; end flower, 18

*Allium schoenoprasum* – start flower, 20;

*Allium tuberosum* – start flower, 20; end flower, 16

*Alnus rhombifolia* – defol, 20; st.flower, st.yel, 19; st.lf., 17;

*Aralia elata –* st.color, 20; st. leaf, 19; st.fl., end fl., defol, 18;

*Aronia arbutifolia* –fr.st.red, st.col, def, 20; st.lf, end fl, 19;

*Asclepias tuberosa* – start flower, 20; end flower, 16

*Aucuba japonica* – fr. start red, 20; st. growth, 18; st.fl, end fl, 17;

***B****accharis pilularis*– start flower, 20; st.gr., end fl, 18

*Baptisia australis* – start flower, 20; end flower, 16

*Berberis aggregata* – st.fl, 20; st. red col., end fl, 19; def,17; st.lf,16;

*Berberis thunbergii ‘Pygmaea’* – start flower, 20; st. gr., 19;

*Berberis wilsoniae* – start leaf, st.yel., 20; st.fl, 19; end flower, 17;

*Betula papyrifera* – st. col, defol, 20; start leaf, 19; st. fl, 17;

*Buddleia davidii* – start flower, 20; end flower, start yellow, 16;

***C****alluna vulgaris* ‘Robert Chapman’ – start flower, 20; end flower, 15;

*Calycanthus floridus* – defol, 20; end fl, st.yel, 19; st. flower, 18;

*Campanula persicifolia* – start flower, 20; end flower, 18

*Celtis jessoensis* – start leaf, 20; st.color, 15;

*Centaurea montana* – start flower, 20;

*Chionodoxa forbesii* – start flower, 20; end flower, 15

*Chionodoxa forbesii* ‘Pink Giant’ – start flower, 20; end flower, 16

*Claytonia sibirica* – start flower, 20; end flower, 17;

*Clematis flammula* – start flower, 20; end flower, 19;

*Cotoneaster franchettii* – start flower, 20; fr.st.red, 19; end fl., 17;

*Crataegus monogyna* ‘Bicolor’ – st.fl, 20; defol, 19; end fl.,17; st.lf, 16;

*Crocus vernus* cvs. – start flower, 20;

***D****iospyros kaki* – start leaf, 20;

***E****chinacea purpurea* – start flower, end flower, 20

*Eschscholzia californica* – start flower, 20;

***F****othergilla gardenii* – st. col, def, 20; end fl., st.lf, 16; st.fl, 15;

*Fraxinus holotricha* ‘Moraine’ – defol, 20; start yel, 19; st.lf, 16;

***G****aultheria procumbens* – st.fl, 20; end fl, 19; fr.st.col., 18; fr.red, 15;

*Geranium endressii* ‘Wargrave Pink’ –start flower, 20; end flower, 17

*Geranium* ‘Johnson’s Blue’ – start flower, 20; end flower, 16

***H****amamelis x int.* ‘Arnold Promise’ – st.col, def, 20; st.fl, st.lf, 19;

*Hamamelis vernalis* ‘Sandra’ –def, 20; st. fl, st.col, 19; st.lf, end fl, 17;

***I****ris sibirica* – start flower, 20;

***K****almia latifolia* ‘Olympic Fire – end fl, 20; start flower, 18;

***L****agerstroemia* ‘Tuscarora’– st. fl, def, 20; end fl, st.col, 19; st. lf, 18;

*Larix occidentalis* – start leaf, 20; defoliated, 19; st.yel, 16;

*Lilium pardalinum* – start flower, end flower, 20;

*Lonicera tatarica* – st.fl, 20; st.lf, 19; end fl, 18; max. fl, 17;

*Lychnis chalcedonica* – start flower, 20; end flower, 18

***M****aackia amurensis* var*. buergeri* – st.lf, st.yel, defol, 20; end fl, 17;

*Magnolia acuminata* –defol, 20; st. yel, 19; st. leaf, st. fl, 17;

*Magnolia kobus* – st. yel, defol, 20; st. fl, 17; st.lf., 16;

X *Mahoberberis miethkeana* – start flower, 20; start color, 18;

*Muscari armeniacum* – start flower, 20;

***P****apaver somniferum* – start flower, 20; end flower, 15

*Philadelphus* cultivars – start flower, 20;

*Phygelius capensis* – start flower, 20; end flower, 16;

*Pieris japonica* ‘Valley Valentine’ start flower, 20; end flower, 19;

*Potentilla nepalensis* – start flower, 20;

*Prunus sargentii* ‘Columnaris’ – st. col, defol, 20; st.fl, end fl, 17;

*Prunus serrula* – st. yel, 20; st.lf, defol, 19; end fl, 18; st. fl, 17;

*Prunus* ‘Shirofugen’ – max. fl, end fl, st.col, 20; defol, 18;st.fl, 17;

***Q****uercus kelloggii* – defoliated, 20; start yellow, 19; start leaf, 15;

***R****anunculus ficaria* ‘Brazen Hussy’ – start flower, 20;

*Rhaphiolepis indica* – start flower, 20; st. gro, max. fl, end fl, 17

*Rhododendron* ‘Kraus Red’ – start flower, 20; end flower, 15;

*Rhododendron* ‘Virginia Richards – start flower, 20;

*Rosa* ‘Green Rose’ – start flower, 20; start leaf, 18; start yellow, 15;

*Rosa rugosa* – start flower, 20; st. leaf, st. yel, 18; hips st. red, 17;

*Rosa* ‘Tausendschon’ – st. flower, 20; st. lf, 18; st. yel, 17; end fl, 165;

*Rubus parviflorus* – start fl, 20; st. lf, 1st fr ripe, def, 17; st.yel, 15;

*Rudbeckia fulgida* var*. sullivantii* ‘Goldsturm’ – st. fl, 20; end fl, 16;

***S****ambucus nigra ssp. cerulea* – st. leaf, 20; st. yel, 18; end fl, def, 16;

*Sarcococca hookeriana* var*. humilis –* start flower, 20; end fl., 18;

*Stachys byzantina –* start flower, 20; end flower, 18

*Stachys officinalis –* start flower, 20; end flower, 18

*Stokesia laevis –* start flower, 20; end flower, 17

*Symphoricarpos albus* – st.leaf, st.fl., 20; fr. st. white, 18; end fl, 17;

*Syringa reticulata ssp. pekinensis –* st.fl, def, 20; end fl, st/yel, 19;

***T****ilia cordata* ‘Silverleaf’ – start yel, defol, 20; st.lf,19; st.fl, end fl.,18;

*Tradescantia virginiana* – start flower, 20;

*Trillium ovatum* ssp*. ovatum –* start flower, 20; end flower, 16

*Tulipa* ‘Elegant Lady’ *–* start flower, end flower, 20

***V****iburnum cinnamomifolium* – start flower, 20; end flower, 16;

*Viburnum opulus* –start color, 20; st. leaf, fr.red, 18; def 17, st. fl, 16;

**15 to 19 YEARS (549)**

**19+ (885)**

*Acer palmatum* ‘Sango Kaku’ – def, **19**; st.lf, st.col, 18; max col, 16;

*Acer platanoides* ‘Olmsted’ – start color, defoliated, 19; max.col,15;

*Acer rubrum* ‘Scanlon’ – start color, defoliated, 19;

*Adonis amurensis* – start flower, 19; end flower, 17;

*Allium unifolium* – start flower, 19; end flower, 16

*Aronia melanocarpa* – def, 19; st.col, 16; end fl; fr.black, max.col, 15;

*Aster* ‘Alert Dwarf’ – start flower, 19;

***B****erberis thun.* var*. atro.* ‘Aurea’ – start leaf, 19;

*Berberis th.* var*. atro.* ‘Crimson Pygmy’ – st.col.,def, 19; st.lf,st.fl. 18;

***C****alluna vulgaris* ‘Sister Anne’ – start flower, 19; end flower, 16

*Calluna vulgaris* ‘Tib’ – start flower, 19; end flower, 17;

*Camellia japonica* ‘Otome’ – start flower, 19; end fl, 15

*Campanula portenschlagiana* – start flower, 19;

*Canna generalis* x *indica* – end flower, 19; start flower, 17

*Carpinus caroliniana* – start yellow, def, 19; start leaf, 16;

*Castanea sativa* – st.fl., end fl., st.yel., defol, 19; nuts st.drop, 18;

*Centranthus ruber* – start flower, 19;

*Chamaemelum nobile* – start flower, 19; end flower, 18

*Cistus x purpureus* – start flower, end flower, 19;

*Cornus sericea* ‘Kelseyi’ – start red color, 19; start leaf, 18; defol, 15;

*Corylopsis pauciflora* – defol, 19; st.yel., 18; start fl, 17; end fl., 15;

*Cotinus coggygria* ‘Royal Purple’ – st. fl, 19; st.col, 18; st. lf, 17;

*Cotoneaster apiculatus* – defol, fr. red, 19; st. red fol., 18;

*Crataegus pinnatifida* var*. major* – st. fl., 19; st.yel, def,18; end fl, 17; *Crocosmia* x *crocosmiiflora* – start flower, 19; end flower, 15

***D****eutzia gracilis* ‘Nikko’– st. fl, 19; st.color, 18; end fl, 17; st.leaf, 16;

*Deutzia* x *rosea* – start fl, st.yel, 19; end fl. 18;, st. leaf, 17; max.fl,15;

*Deutzia scabra* – defol, 19; end fl, 18; st.flower, st.lf, 17; st.col, 16;

***E****pimedium pinnatum* – start flower, 19;

*Erythronium* ‘Pagoda’ – end flower, 19; st.flower, 18

***F****agus sylvatica* ‘Tricolor’ – start color, defoliated, 19; st.lf, 15;

*Filipendula ulmaria* ‘Aurea’ – start flower, 19; end flower, 16

***G****enista pilosa* ‘Vancouver Gold’ – start flower, 19; end flower, 16;

*Geranium macrorrhizum* – start flower, 19;

*Geum macrophyllum* var*. macrophyllum* – start flower, 19;

***H****elleborus argutifolius* – start flower, 19;

*Hydrangea quercifolia* – st. fl, st. color, 19; st. growth, 18;

*Hypericum androsaemum* – st. fl, 19; fr.st.red, st.black, 18;

***I****lex serrata* –start fl, end fl, st. yel, 19; fr.st. red, fruit red, 18;

*Iris* x *hollandica* – start flower, 19;

***K****almia latifolia* ‘Carousel’ – end flower, 19; start flower, 18;

*Kalmia latifolia* ‘Elf’ – end flower, 19; start flower, 17;

*Kerria japonica* – end fl., 19; start leaf, st.fl., st.yel., 18;

***L****aurus nobilis* – start flower, end flower, 19;

*Leucojum aestivum* ‘Gravetye Giant’ – start flower, 19; end fl., 18

*Ligularia przewalskii* – start flower, end flower, 19

*Liriope muscari* ‘Silvery Midget’ – start flower, end flower, 19

*Loropetalum chinense* ‘Sizzlin’ Pink’ – st.flr, 19;st.gr,16; end fl,15;

*Lychnis coronaria* – start flower, 19;

*Lychnis flos-cuculi* – end flower, 19; start flower, 17

*Lysimachia punctata* – start flower, 19;

***M****agnolia sprengeri ‘*Diva’– st.yel. ,19; defol, 18; end fl, 17;

*Mahonia lomariifolia* – st.fl, 20; start growth, 19; end fl, 15;

*Malus floribunda* – start flower, 19; end fl, 17; max. fl,16; st.yel, 15;

*Malus tschonoskii* – defol, 19; st. lf, st. col, 18; st. fl, 17; end fl, 16;

*Meconopsis cambrica* – start flower, 19; end flower, 15

***O****mphalodes verna* – start flower, 19

*Osmanthus heterophyllus* ‘Variegatus’ – start flower, end fl, 19;

***P****hysocarpus capitatus* – defol, 19; st.lf, st. fl, 18; end fl, st.col, 16;

*Pieris japonica* ‘Mountain Fire’ – start fl, 19; st.growth, 17; end fl, 16;

*Pieris japonica* ‘Valley Fire’ – start growth, 19; st.fl, end fl, 17

*Prosartes hookeri* – end flower, 19; start flower, 17; fr.st.col, 16;

*Prunus cerasifera* ‘Newport’ – def, 19; st. lf, end fl, 18;st.red, st.fl, 17;

*Prunus* x *subhirtella* ‘Autumnalis’ – st. fl, 19; st. lf, 17; st. col, 16;

*Pyrus calleryana* ‘Aristocrat’ – st. fl, end fl, st. lf, st. col, defol, 19;

*Pyrus calleryana* ‘Autumn Blaze’ – st. col, 19; defol, 18; st. flower, 17;

*Pyrus calleryana* ‘Trinity’ – start flower, 19;

***R****hododendron* ‘Bibiani’ – start flower, 19; end flower, 16

*Rhododendron* ‘Old Copper’ – start flower, 19;

*Rhododendron* ‘PJM’ – start flower, 19;

*Rhododendron* ‘Rose Elf’ – start flower, 19;

*Rosa*, ancestor of ‘Cl. American Beauty’ – st.fl, 19; st. lf, 18;end fl, 16;

*Rosa* ‘Baronne Prevost’ – start flower, 19; st. lf, 18; end fl, st. yel, 16;

*Rosa* x *centifolia* ‘Charles Lawson’ – st. fl, 19; end fl,st.lf,18;st. yel,17;

*Rosa* x *centifolia* ‘Russelliana’ – st. fl, end fl, 19; st. lf, 18; st. yel, 17;

*Rosa* ‘Cramoisi Superieur’ – start flower, 19; start leaf, 18; end fl, 15;

*Rosa damascena* var*. bifera* – st. fl, 19; st. lf, 18; end fl, st.yel, 16;

*Rosa* ‘Harison’s Yellow’ – st. flower, 19; end fl, st. yel, 17; st. leaf, 16;

*Rosa* ‘Climbing Hermosa’ – start flower, 19; st. lf, 17; end fl, 17;

*Rosa* ‘Louis Gimard’ – start flower, 19; start leaf, 18; end fl, st.yel, 16;

*Rosa* ‘Manetti’ – end flower, 19; st. flower, st. leaf, st. yellow, 17;

*Rosa* ‘Madame Gregoire Staechelin’ – start flower, 19; start leaf, 16;

*Rosa* ‘Old Blush’ – start flower, 19; start leaf, 17; start color, 16;

*Rosa* *pimpinellifolia* ‘Altaica’ – start flower, 19; end fl, st. color, 16;

*Rosa* ‘Reine de Violettes’ – st.flower, 19; st.lf, 18; st.col,17; end fl,15;

*Rosa sericea* ssp*. omeiensis* f. *pteracantha* – st.lf, st.fl, 19; st.yel, 16;

*Rubus spectabilis* – st. flower, 19; st. leaf, 18; st. yellow, 15;

***S****alix gracilistyla* ‘Melanostachys’ – st. lf, 19; defol, st.fl, 18; st.yel,17;

*Sambucus racemosa* – start leaf, 19; start fl, 18; fr.red, 16; st.col, 15;

*Sarcococca confusa –* st. fl, end fl., 19; fr.st.red, 18; fr.st.black, 16;

*Spiraea cantoniensis* – st.growth, 19; end fl, 18; st.fl, 17; st.color, 16;

*Stylophorum diphyllum* – start flower, 19; end flower, 15

*Symphotrichum novi-belgi* ‘Alert’ – start flower, 19;

*Syringa patula* ‘Miss Kim’ – start fl, 19; end fl, st.col, defol, 16;

***T****halictrum flavum* ssp*. glaucum* – start flower, 19; end flower, 16

*Tulipa* ‘Queen of Sheba *–* end flower, 19; start flower, 19

**18+ (1423)**

***A****canthus mollis* – start flower, **18**; end flower, 17;

*Achillea* ‘Moonshine’ – start flower, 18;

*Allium roseum* – start flower, 18;

*Alstroemeria aurantiaca* – start flower, 18;

*Anemone blanda* – start flower, 18;

*Aucuba japonica* ‘Golddust’ – st.growth, 18; st.fl, 17; fr.st.red, 16;

***B****accharis pilularis* – start flower, 18; st. growth, 16; end fl., 15;

***C****allicarpa bod.* var*. gir.* ‘Profusion’ – st.lf, fr.st.col, st.col,18; st.fl, 17;

*Calluna vulgaris* ‘H. E. Beale’ – start flower, 18; end flower, 16

*Chelone lyonii* – end flower, 18; start flower, 17

*Chlorogalum pomeridianum* – end flower, 18; start flower, 17

*Cladrastis kentuckea* – start yel, 18; start leaf, defoliated, 17;

*Clematis* ‘Marie Boisselet’ – start flower, 18; start leaf, 17;

*Corylopsis spicata* – start flower, st.yel, def, 18; st.lf, 17; end fl, 16;

***D****icentra formosa* – start flower, 18;

*Disanthus cercidifolius* – start color, defol, 18; st.fl, end fl, 16;

***E****pimedium* x *versicolor* ‘Sulphureum’ – start flower, 18;

*Erica carnea* f. *alba* ‘Springwood White’ – start fl, 18; end fl, 16

*Erica* x *darleyensis* ‘Silberschmelze’ – start flower, 18;

*Eucommia ulmoides* – start yellow, defoliated, 18;

*Euonymus fortunei* – start growth, 18;

*Euonymus fortunei* ‘Emerald Gaiety’ – st.winter col, 18; st.gr, 15;

*Eupatorium maculatum* ‘Gateway’ – end flower, 18; start flower, 17

***F****agus sylvatica ‘*Atropurpurea’– defoliated, 18; st.col, 17; st.lf, 15;

*Fragaria chiloensis* – start flower, 18;

***G****aillardia* x *grandiflora* – end flower, 18; start flower, 16

*Galanthus nivalis* – start flower, 18;

***H****amamelis x intermedia* – start flower, 18;

*Helleborus niger* – start flower, 18;

*Hyacinthoides non-scripta* – start flower, 18;

***I****beris sempervirens* – start flower, 18;

*Inula royleana* – start flower, 18;

*Iris pseudacorus* – start flower, 18;

***L****igustrum ovalifolium* ‘Aureum’ – start yel, 18; st.fl. 16; st.gr. 15;

*Lithodora diffusa* – start flower, 18; end flower, 15;

***M****agnolia sargentiana* var*. robusta* – st.col, 18; def, st.lf., 17;

*Malus* x *purpurea* ‘Eleyi’ – start leaf, 18;

***N****arcissus asturiensis* – start flower, 18;

*Narcissus* cultivars – start flower, 18;

*Nectaroscordum siculum ssp. bulgaricum* – st. flower, 18; end fl, 16

***O****smanthus* x *burkwoodii* – start flower, end flower, 18; max.fl,16;

*Oxalis tetraphylla* ‘Iron Cross’ – start flower, 18; end flower, 17;

***P****opulus alba* ‘Pyramidalis’ – start leaf, 18; st. yel, 17; defol, 16;

*Populus nigra* ‘Italica’ – start leaf, start fl, 18; st. yel, 15; defol, 15;

*Potentilla anserina ssp. pacifica* – start flower, 18;

*Prunus* ‘Snofozam’ – defol, start color, 18; start fl, 17; end fl, 16;

*Prunus virginiana* var*. demissa* –st. fl,; end fl, st.col, 18; defol, 17;

*Pyracantha*, yellow fruited – fruit yellow, 18;

***Q****uercus macrocarpa* – start yellow, defoliated, 18; start leaf, 17;

***R****hododendron* ‘Christmas Cheer’ – start flower, 18; end flower, 15;

*Rhododendron* ‘Mrs. Furnival’ – start flower, 18;

*Rhododendron* ‘Mrs. G. W. Leak – start flower, 18;

*Rhododendron schlippenbachii* – start leaf, 18;

*Rosa* ‘Baltimore Belle’ – st. lf, 18; st. fl, st. yel, 17; end fl, 15;

*Rosa* ‘Bella Donna’ – start flower, start color, st. lf, 18; end fl, 17;

*Rosa* ‘Clotilde Soupert’ – st. flower, st. leaf, 18; end fl, 16; st.col, 15;

*Rosa communis* – start & end flower, start color, 18; start leaf, 17;

*Rosa* ‘Comtesse de Murinais’ – end fl, 18; st.lf, st. fl, st. yel, 17;

*Rosa* ‘De Resht’ – start flower, 18; start leaf, 15;

*Rosa* ‘Dr. J. H. Nicolas’ –start flower, start leaf, 18;

*Rosa* ‘Dr. William Van Fleet’ – start leaf, 18; start flower, st. yel, 16;

*Rosa eglanteria* – end fl, 18; st.fl, st.yel, 17; hips st.red, red, 15;

*Rosa* ‘F. J. Grootendorst’ – st. lf, start & end flower, 18; st.yel, 16;

*Rosa* ‘Felicite et Perpetue’ – st. lf, end flower, 18; st. fl, st. col, 17;

*Rosa* ‘Frau Karl Druschki’ – start flower, 18; st.lf, 17; st. yellow, 16;

*Rosa* ‘Gabrielle Noyelle’ – start flower, start leaf, 18;

*Rosa gallica* var*. officinalis* – start flower, 18; end flower, 17;

*Rosa gallica* ‘Versicolor’ – start yellow, 18; end fl, hips st. red, 17;

*Rosa* ‘Garisenda’ – st. leaf, end flower, st. yellow, 18; st. flower, 17;

*Rosa* ‘General Washington’ – start flower, 18; end fl, st. leaf, 17;

*Rosa* ‘Gloire Des Rosomanes’ – start leaf, start flower, 18;

*Rosa* ‘Henri Martin’ – hips st. col, 18; st. lf, end fl, 17; st. fl, st. yel, 16;

*Rosa* ‘Hermosa’ – start flower, start leaf, 18; end flower, 15;

*Rosa* ‘Hollandica’ – end fl, st. red col, 18; st. fl, 17; st. lf, hips red, 16;

*Rosa* ‘Kathleen’ – start flower, 18; st.yel, st. lf, 17; hips st.red, 15;

*Rosa* ‘La Belle Sultane’ – end fl, 18; st.lf, st.fl, st.yel, 17;hips red,16;

*Rosa* ‘La France’ – start leaf, 18; start flower, 15;

*Rosa* ‘Madame Hardy’ – end flower, 18; st.fl, st.col, 17; st.lf, 15;

*Rosa* ‘Maman Cochet’ – start flower, 18; st. color, start leaf, 17;

*Rosa* ‘Magna Charta’ – start & end flower, 18; st. yel, st. lf, 17;

*Rosa* ‘Mademoiselle Cecile Brunner’ – start flower, start leaf, 18;

*Rosa* ‘Madame Plantier’ – end flower, 18; st.lf, st. fl, st. yel, 17;

*Rosa multiflora* – st. leaf, start color, 18; st. flower, end flower, 17;

*Rosa* ‘Old Greek’ – start color, 18; start flower, end flower, 17;

*Rosa* ‘Paul Neyron’ – start leaf, 18; start flower, 17; end fl, 15;

*Rosa* ‘Paul Ricault’ – start & end flower, 18; st. lf, 17; st. yellow, 15;

*Rosa* ‘Pink Grootendorst’ – st. flower, st. lf, 18; st.yel, 16; end fl, 15;

*Rosa* ‘President de Seze’ – st. lf, 18; end flower, st. flower, st. col, 17

*Rosa* ‘Rivers’ – start leaf, start & end flower, 18; start yellow, 16;

*Rosa* ‘Rose of Melitus’ – st. flower, st. yellow, 18; st. lf, 17; end fl, 16;

*Rosa roxburghii* ‘Plena’ – start leaf, 18; start & end flower, 16;

*Rosa* ‘Seagull’ – start leaf, end flower, 18; st. fl, st.yel, 17;

*Rosa* ‘Shailer’s Provence’ – start leaf, 18; start & end flower, 17;

*Rosa* ‘The Gem’ – start leaf, end flower, 18; start color, 17; st. fl, 16;

*Rosa* ‘Turner’s Crimson Rambler’ – st. lf, start & end fl, 18; st.yel, 17;

*Rosa* ‘Vielchenblau’ – st. lf, start flower, start color, 18; end fl, 17;

*Rosa* ‘Williams Brier’ – st. lf, start flower, 18; end fl, start color, 17;

*Rosa* ‘All American Beauty’ – start flower, 18

*Rosa* ‘Big Purple’ – start flower, 18

*Rosa* ‘Burnaby’ – start flower, 18

*Rosa* ‘Carefree Monder’– start flower, 18

*Rosa* ‘Carousel’ – start flower, 18

*Rosa* ‘Cherish’ – start flower, 18

*Rosa* ‘Cocoricco’ – start flower, 18

*Rosa* ‘Columbus Queen’ – start flower, 18

*Rosa* ‘Confidence’ – start flower, 18

*Rosa* ‘Coral Crown’ – start flower, 18

*Rosa* ‘Diamond Jubilee’ – start flower, 18

*Rosa* ‘Doctor Debat’ – start flower, 18

*Rosa* ‘Double Delight’ – start flower, 18

*Rosa* ‘Eden Rose’ – start flower, 18

*Rosa* ‘El Capitan’ – start flower, 18

*Rosa* ‘Electron’ – start flower, 18

*Rosa* ‘Fashion’ – start flower, 18

*Rosa* ‘First Prize’ – start flower, 18

*Rosa* ‘Ginger’ – start flower, 18

*Rosa* ‘Girona’ – start flower, 18

*Rosa* ‘Golden Slippers’ – start flower, 18

*Rosa* ‘Granada’ – start flower, 18

*Rosa* ‘High Esteem’ – start flower, 18

*Rosa* ‘Irene of Denmark’ – start flower, 18

*Rosa* ‘Jiminy Cricket’ – start flower, 18

*Rosa* ‘John S. Armstrong’ – start flower, 18

*Rosa* ‘Lilac Dawn’ – start flower, 18

*Rosa* ‘Lilibet’ – start flower, 18

*Rosa* ‘Little Darling’ – start flower, 18

*Rosa* ‘Ma Perkins’ – start flower, 18

*Rosa* ‘Marina’ – start flower, 18

*Rosa* ‘Mojave’ – start flower, 18

*Rosa* ‘Pascali’ – start flower, 18

*Rosa* ‘Peace’ – start flower, 18

*Rosa* ‘Pinkie’ – start flower, 18

*Rosa* ‘Poulsens Bedder’ – start flower, 18

*Rosa* ‘Red Favorite’ – start flower, 18

*Rosa* ‘Ruby Lips’ – start flower, 18

*Rosa* ‘Saratoga’ – start flower, 18

*Rosa* ‘Simplicity’ – start flower, 18

*Rosa* ‘South Seas’ – start flower, 18

*Rosa* ‘The Duke’ – start flower, 18

*Rosa* ‘Tiffany’ – start flower, 18

*Rosa* ‘White Prince’ – start flower, 18

*Rosa* ‘Young Quinn’ – start flower, 18

*Rubus rolfei* (pentalobus)– start flower, 18;

***S****idalcea hirtipes* – start flower, 18;

*Styrax obassia* – start leaf, 18; defol, 17; st.fl, 15;

*Syringa reticulata* – st.leaf, 18; st.fl, defol, 17; st.yel, 16; end fl, 15;

***T****ellima grandiflora* – start flower, 18; end flower, 16

*Tulipa clusiana* – start flower, 18; end flower, 15

*Tulipa* ‘Madame Lefeber – start flower, end flower, 18

***U****lmus parvifolia* ‘Seiju’ – start yellow, start leaf, 18; defoliated, 17;

***V****accinium ovatum* – start flower, 18; fr.st.ripen, 16; start gr, 15;

*Viburnum carlesii* – st.color, 18; st.leaf, 17; st.fl, end fl, 16;

*Viburnum lantana* – st. fl, st. lf, st.col, 18; end fl., 17; defol, 16;

**17+ (95)**

***A****cer grandidentatum* ‘Rocky Mtn. Glow’ – defoliated, st.col, **17**;

*Adenophora confusa* – start flower, 17;

*Ajuga reptans* – start flower, 17;

*Anemone nemorosa* – start flower, 17;

*Anemone pulsatilla* – start flower, 17;

*Aquilegia formosa* – start flower, 17;

*Astrantia major* – start flower, 17;

***B****oltonia asteroides* ‘Snowbank’ – start flower, 17;

*Buddleia globosa* – start flower, end flower, 17;

***C****alluna vulgaris* ‘Sister Ann’ – start flower, 17; end flower, 15;

*Campanula garganica* – start flower, 17;

*Chamerion angustifolium* – start flower, 17;

*Clematis flammula* – start flower, 17; end flower, 15;

*Cornus controversa* – st.col., 17; defol., 16; st. leaf., st. flower, 15;

*Cornus florida* ‘Cherokee Chief’ – defoliated, 17; Start color, 15;

*Cortaderia selloana* – start flower, 17;

*Crataegus laevigata* ‘Plena’ – start flower, 17;

*Crataegus phaenopyrum* – fr.st.red, st.col, 17; st.lf., end fl, def, 16;

***E****chinops ritro* – start flower, 17; end flower, 16

*Epimedium* x *warleyense* – start flower, 17;

*Eranthis hyemalis* – start flower, 17; end flower, 15

*Erica vagans* ‘Mrs. D. F. Maxwell’ – start flower, 17; end fl, 16

*Erythronium oregonum* – start flower, 17; end flower, 17

*Euonymus fortunei* ‘Moonshadow’ – start winter color, 17

***F****raxinus angustifolia* ‘Raywood’ – start color, 17; defol, 15;

*Fraxinus angustifolia ssp. oxycarpa* – start yellow, 17;

***G****alium odoratum* – start flower, 17;

*Gaultheria shallon* – start flower, end flower, 17;

*Geranium phaeum* ‘Samobor’ – start flower, 17;

*Gleditsia triacanthos* ‘Ruby Lace’ – start leaf, 17;

***H****elenium* ‘Moerheim Beauty’ – start flower, 17;

*Helleborus foetidus* – start flower, 17;

*Heptacodium miconioides* – start color, defol, 17; st. leaf, 15;

*Holodiscus discolor* – start leaf, end flower, 17;

*Houttuynia cordata* ‘Chameleon’ – start flower, 17;

*Hydrangea serrata* ‘Bluebird’ – start flower, 17; def, 16; st.lf, 15;

***I****ris ensata* – start flower, 17; end flower, 15

*Iris innominata* – start flower, 17;

*Iris pallida* ‘Variegata’ – start flower, 17;

***L****ilium ‘*Connecticut King’ – start flower, 17; end flower, 15

*Lonicera periclymenum* – start flower, start leaf, 17; end flower, 15;

*Lysimachia ciliata* ‘Purpurea’ – end flower, 17; start flower, 15

*Lysimachia punctata* – start flower, 17;

***M****ahonia bealei* – start flower, 17;

*Malus* ‘Indian Magic’ – defol, 17; st. fl, end fl, 16; end lf,fr st.red, 15;

*Malus sargentii* – end fl, 17; st. fl,fr st. red,def, 16; st.lf, fr.red, 15

*Malus* ‘Van Eseltine’ – end flower, 17; st. flower, def, 16; st.lf, 15

*Muscari latifolium* – start flower, 17; end flower, 15

***N****andina domestica* ‘Nana’ – start red, 17;

***P****enstemon pinifolius* – start flower, 17;

*Physocarpus opulifolius* ‘Dart’s Gold’ – st.fl, 17; end fl, def, 16;

*Polygonatum biflorum* – start flower, 17;

*Potentilla gracilis* – start flower,17; end flower, 15

*Pulmonaria saccharata* ‘Mrs. Moon’ – start flower, 17; end fl, 16

***R****ehmannia elata* ‘Beverly Hills’ – start flower, 17;

*Rosa* ‘Variegata di Bologna’ – start leaf, start color, 17; end fl, 16;

*Rosa* ‘Big Red’ – start flower, start leaf, 17; end flower, 16;

*Rosa* ‘Coupe d’Hebe’ – st. leaf, st. flower, st. yellow, 17; end fl, 16;

*Rosa foetida* ‘Bicolor’ – start leaf, 17; start flower, 16; end fl, 15;

*Rosa* ‘Gruss An Teplitz’ – start flower, 17; start leaf, end flower, 15;

*Rosa* ‘Little Red Velvet’ – start leaf, 17; start flower, 15;

*Rosa* ‘Rose de Rescht’ – start flower, 17;

*Rosa rubiginosa* – end flower, 17; start flower, start yellow, 16;

*Rosa* ‘Silver Moon’ – start flower, start leaf, st. yellow, 17; end fl., 16;

*Rosa* ‘Blue Girl’ – start flower, 17

*Rosa* ‘Duet’ – start flower, 17

*Rosa* ‘First Love’ – start flower, 17

*Rosa* ‘Gene Boerner’ – start flower, 17

*Rosa* ‘Golden Lace’ – start flower, 17

*Rosa* ‘Grand Dutchess Charlotte’ – start flower, 17

*Rosa* ‘Happy Talk’ – start flower, 17

*Rosa* ‘Heat Wave’ – start flower, 17

*Rosa* ‘Honor’ – start flower, 17

*Rosa* ‘Ivory Triumph’ – start flower, 17

*Rosa* ‘Jadis’ – start flower, 17

*Rosa* ‘Legendary’ – start flower, 17

*Rosa* ‘Lottie Gunthart – start flower, 17

*Rosa* ‘Mandarin’ – start flower, 17

*Rosa* ‘Merci’ – start flower, 17

*Rosa* ‘New Yorker’ – start flower, 17

*Rosa* ‘Orange Sweetheart’ – start flower, 17

*Rosa* ‘Oregon Centennial’ – start flower, 17

*Rosa* ‘Perfume Delight’ – start flower, 17

*Rosa* ‘Pink Parfait’ – start flower, 17

*Rosa* ‘Promise’ – start flower, 17

*Rosa* ‘Queen Elizabeth’ – start flower, 17

*Rosa* ‘Rossellini’ – start flower, 17

*Rosa* ‘Sexy Rexy’ – start flower, 17
*Rosa* ‘Sister Therese’ – start flower, 17

*Rosa* ‘Sutter’s Gold’ – start flower, 17

*Rosa* ‘Tropicana’ – start flower, 17

*Rosa* ‘Vogue’ – start flower, 17

***S****ambucus nigra* ‘Aurea’ – start leaf, 17;

*Sanguinaria canadensis* – start flower, 17;

*Sarcococca ruscifolia* – start flower, 17; end flower, 16;

*Schizostylis coccinea* Red Form – end flower, 17;

*Sisyrinchium californicum* – start flower, 17;

*Spiraea japonica* ‘Crispa’ – start color, 17; st.lf, St.fl, end fl, 15;

*Stewartia monadelpha* – st.col, Def, 17; st.fl, end fl, 16; st.lf, 15;

***V****erbascum chaixii* ‘Album’ – start flower, end flower, 17

*Verbena bonariensis* – start flower, 17;

*Viola glabella* – start flower, 17;

***Z****antedeschia rehmannii* – start flower, 17;

**16+ (930)**

***A****cer palmatum* ‘Flavescens’ – start leaf, start color, **16**; defol, 15;

*Achillea ageratifolia* – start flower, 16;

*Agrimonia eupatoria* – start flower, 16;

*Allium karataviense* – start flower, 16; end flower, 15

*Allium senescens* ssp*. montanum* var*. glaucum* – start flower, 16;

*Amelanchier canadensis* – start leaf, 16; st.flower, st.col, defol, 15;

*Amsonia tabernaemontana* – start flower, 16;

*Aralia chinensis* – start flower, 16; end flower, 15;

*Asclepias speciosa* – start flower, 16;

***B****erberis darwinii* – max. flower, 16; end flower, 15;

*Berberis thun.* var*. atro.* ‘Crimson Pygmy’ – start leaf, st.fl.,defol., 16;

*Bergenia cordifolia* – start flower, 16;

***C****amassia leichtlinii ssp. leichtlinii* – start flower, 16;

*Camassia quamash*– start flower, 16;

*Campanula poscharskyana* – start flower, 16;

*Ceanothus* ‘Concha’ – start flower, 16; full flower, end flower, 15;

*Chrysanthemum* x *morifolium* – start flower, 16;

*Clematis* ‘Henryi’ – start leaf, 16;

*Cornus alba ‘Argenteo-marginata* – start fl, defol, 16; st.lf., st.col, 15;

*Cornus* x *rutgersiensis* ‘Celestial’ – bracts, defol, end bracts, 16;

*Cotoneaster dammeri* – start flower, 16;

*Cotoneaster microphyllus* ‘Cooperi’ – start flower, 16;

*Crataegus gaylussacia* – start flower, 16;

***D****icentra spectabilis* – start flower, 16;

***E****rica x darleyensis* ‘Darley Dale’ – start flower, 16;

*Escallonia x exoniensis* ‘Frades’ – end flower, 16; start flower, 15;

***F****ragaria Pink Panda*/'Frel' – start flower, 16; end flower, 15

***G****eum rivale* – start flower, 16;

***H****amamelis x intermedia* ‘Westerstede’ – st.fl, 16; start col, def, 15;

*Helenium autumnale* – start flower, 16;

*Helianthemum* ‘Henfield Brilliant’ – start flower, 16;

*Hyacinthus orientalis* – start flower, 16;

***I****ris reticulata* – start flower, 16;

***K****irengeshoma palmata* – start flower, 16; end flower, 15

***L****avandula stoechas* – start flower, 16;

*Leucojum aestivum* – start flower, 16; end flower, 15

*Lewisia cotyledon* – start flower, 16;

*Ligustrum ovalifolium* ‘Aureum’ – start flower, 16; start growth, 15;

*Linaria purpurea* – start flower, 16;

***M****agnolia denudata* – start flower, 16; max fl, st.lf., end fl, 15;

*Mahonia nervosa* – start flower, 16;

*Malva sylvestris* var*. mauritiana* ‘Zebrina’ – start flower, 16;

***N****arcissus* ‘Baby Moon’ – start flower, 16; end flower, 15

*Narcissus cyclamineus* – start flower, 16; end flower, 15

*Narcissus* ‘Pipit’ – start flower, 16;

*Narcissus tazetta* ‘Falconet– start flower, 16;

***P****ersicaria virginiana* – start flower, 16;

*Physostegia virginiana* – start flower, 16;

*Pulmonaria* ‘Raspberry Splash’– start flower, 16;

*Pyrus calleryana* ‘Red Spire’ – start color, defol, 16; st.fl, end fl, 15;

***R****hododendron* ‘Encore Autumn Coral’ – st. flower, 1st & 2nd, 16;

*Rhododendron* ‘Exbury Pink’ – start flower, 16;

*Rhododendron* ‘Polypetalum’ – start flower, 16;

*Rosa banksiae* ‘Lutea’ – start leaf, 16;

*Rosa* ‘Climbing Baronne Prevost’ – st.flr, 16; st.lf, st.col, 15;

*Rosa* ‘Blanc Double de Coubert’ – start flower, 16;

*Rosa* ‘Bit-O-Sunshine’ – start flower, 16

*Rosa* ‘Capistrano’ – start flower, 16

*Rosa* ‘Command Performance’ – start flower, 15

*Rosa* ‘Dean Collins’ – start flower, 16

*Rosa* ‘Garden Party’ – start flower, 16

*Rosa* ‘Hawaii’ – start flower, 16

*Rosa* ‘Love’ – start flower, 16;

*Rosa* ‘Medallion’ – start flower, 16;

*Rosa* ‘Mr. Lincoln’ – start flower, 16;

*Rosa* ‘Pink Favorite’ – start flower, 16;

*Rosa* ‘Polonaise’ – start flower, 16;

*Rosa* ‘Prominent’ – start flower, 16;

*Rosa* ‘Red Reflection’ – start flower, 16;

*Rosa* ‘Simon Bolivar’ – start flower, 16;

*Rosmarinus officinalis* – start flower, 16;

***S****antolina chamaecyparissus* – start flower, 16;

*Senecio cineraria* – start flower, 16;

*Sidalcea campestris* – start flower, 16;

*Synthyris reniformis* – start flower, 16;

***T****ilia platyphyllos* – defoliated 16; start leaf, start yellow, 15;

*Tradescantia virginiana* ‘Red Cloud’ – start flower, 15;

*Trillium albidum* – start flower, 16;

*Tulipa clusiana* var*. chrysantha* – start flower, 16; end flower, 15

*Tulipa praestans* ‘Fusilier’ – end flower, 16; start flower, 15

***V****accinium moupinense* – start flower, 16; end flower, 15;

*Viola odorata* – start flower, 16;

*Weigela praecox* – start color, 16; start leaf, 15;

**15+ (66)**

*Allium senescens* ssp. *montanum* ssp. *glaucum* – start flower, **15**;

*Anthriscus sylvestris* ‘Ravenswing’ – start flower, 15;

*Arctostaphylos columbiana* – start flower, 15;

*Arctostaphylos nevadensis* – start flower, 15;

***B****etula* *pendula* ‘Youngii’ – start leaf, 15; defoliated, 15;

***C****allicarpa americana* – start leaf, 15;

*Calochortus tolmiei* – start flower, 15;

*Campanula persicifolia* var*. alba* – start flower, 15;

*Cercis chinensis* ‘Avondale’ – max. flower, end fl, defol, 15;

*Chionanthus retusus* – start lf, start flr, st. yelw, def, 15;

*Cornus mas* ‘Integrity’ – st.fl, end fl, st.lf., st.col, 15;

*Cornus sericea* ‘Flaviramea’ – defoliated, 15;

*Corydalis bulbosa* – start flower, 15;

*Cosmos atrosanguinea* – start flower, 15;

*Cotoneaster salicifolius ‘Repens’* – start flower, 15;

***D****oronicum cordatum* – start flower, 15;

*Duchesnea indica* – start flower, 15;

***F****raxinus angustifolia* ‘Raywood’ – defoliated, 15;

***G****entiana asclepiadea* – start flower, 15; end flower, 15;

***H****ebe* ‘Amy’ – start growth, 15;

*Helleborus* x *sternii* – start flower, 15

*Hydrophyllum tenuipes* – start flower, 15

***I****lex cornuta* ‘Dwarf Burford – start flower, 15

*Iris douglasiana* – start flower, 15;

***L****aburnum anagyroides* – start flower, 15

*Ligularia dentata* ‘Desdemona’ – start fl, 15; end fl, 15;

*Lilium* ‘Grand Cru’ – start flower, 15;

*Lilium* ‘Sorbet’ – start flower, 15;

*Lupinus* ‘Russell Hybrid’ – start flower, 15;

*Lysimachia ephemerum* – start flower, end flower, 15

***M****agnolia sargentiana* var*. robusta* – end fl, st. lf, st. col,15

*M. x soulangeana* ‘Lennei’ – start fl, st. leaf, st. color, 15;

*Maianthemum stellatum* – start flower, 15;

*Moltkia petraea* – start growth, 15;

***N****arcissus triandrus* ‘Albus’ – start flower, 15;

***P****enstemon* ‘Scarlet Queen’ – start flower, 15;

*Perovskia* ‘Hybrida’ – end flower, 15;

*Pieris japonica* ‘Valley Rose’ – start flower, end flower, 15;

*Podophyllum peltatum* – start flower, 15;

*Primula veris* – start flower, 15;

*Prunus* x *cistena* – start flower, 15;

*Pyrus calleryana* ‘Capital’ – max. color, 15;

***R****anunculus uncinatus*– start flower, 15;

*Rhododendron* ‘Rosebud’ – start flower, 15;

*Romneya coulteri* – start flower, 15;

*Rosa* ‘Fragrant Cloud’ – start flower, 15;

*Rosa* ‘Frensham’ – start flower, 15;

*Rosa* ‘Governor Mark Hatfield’ – start flower, 15;

*Rosa* ‘Little Buckaroo’ – start flower, 15;

*Rosa* ‘Lucky Peace’ – start flower, 15;

*Rosa* ‘Montezuma’ – start flower, 15;

*Rosa* ‘Peace Sport’ – start flower, 15;

*Rosa* ‘Razzle Dazzle’ – start flower, 15;

*Rosa* ‘Ruffles’ – start flower, 15;

*Rosa* ‘Seashell’ – start flower, 15;

*Rosa* ‘Voo Doo’ – start flower, 15;

*Ruta graveolens* – start flower, 15;

***S****alix**integra* ‘Hakuro-nishiki’ – start yellow. 15;

*Sorbus alnifolia* – defoliated, 15;

*Spiraea* x *pyramidata* – end flower, 15;

*Symphyotrichum novae-angliae* ‘Hella Lacy,’ 15

***T****ulipa* ‘Aladdin’ – start flower, 15; end flower, 15

*Tulipa saxatilis* Bakeri Group ‘Lilac Wonder’ – start fl, 15;

*Tulipa* ‘Triumph Lucky Strike’ – start flower, 15;

***W****eigela florida* ‘Alexandra’ – start flower, 15;

**2. Plants Flowering Intermittently or Extending Through Season after Initial Flowering Period**

*(Most plants may have the inclination and ability to flower out of their normal flowering season.)*

*Abelia* ‘Edward Goucher’

*Abelia* x *grandiflora* (spring)

*Abeliophyllum distichum* (fall)

*Achillea filipendula* ‘Moonshine’ (winter)

*A. millefolium* (fall)

*A. m*. ‘Rosea’

*Adenophora* sp.

*Agrimonia eupatoria* (summer)

*Ajuga reptans* (summer, fall)

*Alchemilla mollis*

*Allium schoenoprasum* (summer)

*Alstroemeria* *aurantiaca*

*Amelanchier canadensis* (summer, fall)

*Androsace lanuginosa*

*Anemone* x *hybrida*

*Anemone multifida*

*Aquilegia formosa* ssp. *formosa*

*Arabis fernandi-coburgi*

*Arbutus unedo* (summer)

##### Arctostaphylos columbiana (spring)

##### A. uva-ursi (late summer, fall)

##### Aronia arbutifolia (fall)

*Asclepias speciosa*

*A. tuberosa*

*Astrantia major* (late summer, fall)

*Atropa belladonna* ‘Lutea’

*Aubrieta deltoidea*

*Aurinia saxatilis*

*Azalea* cvs. (evergreen)

*Baccharis pilularia* ‘Twin Peaks’ (late summer, fall)

*Berberis aggregata* (late summer, fall)

*B. buxifolia* (fall-winter)

*B. darwinii* (spring, summer, fall, winter)

*B. gladwynensis* ‘William Penn’ (spring)

*B. thunbergii* ‘Royal Cloak’ (summer)

*B. triacanthophora* (late summer, fall)

*B. verruculosa* (late summer, fall)

*Bergenia* *cordifolia* (late spring flowering, summer)

*B. crassifolia* (late spring flowering, summer)

*Brunnera macrophylla* (winter)

*Buddleia davidii ‘Burgundy’*

*Callicarpa bodnierii ‘Profusion’* (summer, fall)

*Camellia japonica* ‘Pink Perfection’ (‘Otome’) (winter)

*Campanula carpatica*

*C. collina*

*C. garganica*

*C. rotundifolia* (late fall)

*Canna* x *generalis* (late fall)

*C.* ‘Tropicanna’ (late fall)

*Castanea dentata* (late summer, fall)

*Ceanothus* ‘Concha’ (summer, fall, winter)

*C. impressus* (summer, fall, winter)

*C. integerrimus* (summer)

*C. thyrsiflorus*

*C.* ‘Victoria’ (summer, fall)

*Centaurea montana* (summer, late fall)

*Centranthus ruber* ‘Albus’ (fall)

*Cerinthe major* ‘Purpurescens’

*Chaenomeles japonica* var. *pygmaea* (fall)

*Chamaemelum nobile* (fall)

*Chelone lyonii* (fall)

*Choisya ternata* (summer, fall, winter; may flower for extended

periods of time in fall & winter)

*C. t*. ‘Sundance’ (summer, fall)

*Chrysanthemum morifolium*

*Cistus hybridus* (late summer)

*C. ladanifer* (late summer, fall)

*C.* X*purpureus* (summer)

*Claytonia* (Montia) *sibirica* (summer, late fall, winter)

*Clematis armandi* (summer, fall)

*C. flammula* (late fall)

*C.* ‘Henryi’ (fall)

*C. ligusticifolia* (fall)

*C. macropetala*

*C. ’Marie Boisselet* (late summer, fall)

*C. montana* ‘Rubens’ (summer) [var. rubens?]

*C.* ‘Nelly Moser’ (fall)

*C. recta* ‘Purpurea’ (late summer, fall)

*Clerodendrum bungei* (fall)

*C. trichotomum*

*Colchicum autumnale* [extension of flowering

 season into mid-December]

*Colchicum* ‘Waterlily’

*Cornus alba* ‘Elegantissima’ (summer, fall)

*C. kousa* (summer, fall, late fall)

*C. k.* ‘Miss Satomi’ (late summer, fall)

*C. nuttallii*

*C. sanguinea* ‘Midwinter Fire’ (summer, fall)

*C. sericea* [stolonifera var. occidentalis] (summer, fall)

*C. s.* ‘Flaviramea’ (summer)

*C. s.* ‘Kelseyi’ (summer)

*Corylopsis pauciflora* (fall)

*Cotoneaster dammeri* (fall)

*C. franchettii* (summer)

*C. lacteus* (summer)

*C. macrophylla* (fall)

*Crataegus laevigata* ‘Paul’s Scarlet’ (late summer)

*C. l.* ‘Plena’

*C. pinnatifida* var. *major* (late summer)

*Crocosmia* X*crocosmiiflora* (late fall, winter)

*Crocus vernus* cv.

*Cyclamen coum* (fall)

*C. hederifolium* (winter)

##### Cydonia oblonga

*Cytisus battandieri* (late summer)

*Daphne* x *burkwoodii* ‘Carol Mackie’ (summer, winter)

*D. caucasica* (late summer)

*D. genkwa*

*Davidia involucrata*

*Delosperma cooperi* (late summer, fall)

*Delphinium* *elatum*

*Deutzia crenata* var. *nakaiana* ‘Nikko’

*D. gracilis* (summer)

*D.* X*hybrida* ‘Magicien’ (summer)

*D.* ‘Pink Minor’ (summer, fall)

*D. rosea* (late spring, late summer, fall)

*D. scabra*

*D. s*. ‘Candidissima’ (summer, fall)

*D. setchuenensis* (late summer, fall)

*Dianthus deltoides* ‘Brilliant Cascade’

*Dicentra formosa*

*D. scandens*

*D. spectabilis*

*Dierama pulcherrimum* (fall, late fall)

*Digitalis purpurea*

*Echinops exaltatus*

*E. ritro*

*Enkianthus campanulatus*  (late fall)

*Escallonia* x *exoniensis* ‘Frades’

*E. langleyensis*

*Escallonia* sp. (fall)

*Euonymus fortunei* (fall)

*Eupatorium cannabinum*

*E. purpureum* (late fall)

##### Fatshedera lizei

##### Filipendula rubra (summer)

*Forsythia* X *intermedia* ‘Karl Sax’ (winter)

*F.* X*i* ‘Lynwood’ (late summer, fall)

*Forsythia* sp./cv. (late spring, summer, fall, winter)

*Fragaria chiloense*

*F. vesca* var. *bracteata* (summer)

*Fremontodendron californica* (fall)

*Galium odoratum* (summer)

*Gaultheria procumbens* (fall)

*G. shallon* (late summer, fall, winter)

*Genista pilosa* ‘Vancouver Gold’ (summer, fall)

*Gentiana septemfida* (early fall)

*Geranium* ‘Johnson Blue’ (fall, winter)

*G. macrorrhizum*

*G. oreganum* (summer, fall)

*G. phaeum* ‘Samobor’ (summer)

*Geranium* spp.

*Geum macrophyllum* (summer)

*G. rivale* (fall, winter)

*Hamamelis* x *intermedia* (fall)

*H.* X*intermedia* ‘Arnold’s Promise’ (fall)

*H*. x *int*.‘Jelena’ (off & on during rest of year,

depending on wx.)

*H*. X*i*. ‘Pallida’ (early spring)

*H. virginiana* (late winter, spring)

*Hebe* ‘Amy’ (early spring)

*Helianthemum* ‘Henfield Brilliant’ (summer)

*Helleborus argutifolius* (Sept.)

*H. orientalis* (Sept.)

*Heptacodium miconioides* (late fall)

##### Heuchera ‘Palace Purple’

##### Hydrangea anomala ssp. petiolaris (summer)

*H. paniculata* ‘Grandiflora’ (fall)

##### H. quercifolia (late summer, fall)

*H. Q.* ‘Pee Wee’ (fall)

*Hypericum androsaemum* (summer, fall)

*H. calycinum*

*Iberis sempervirens*

*Ilex aquifolium* (late summer, fall)

*Ilex cornuta Dwarf Burford* (late summer)

*Ilex cornuta* cultivars (fall)

*Iris* *foetidissima* (summer, fall)

*I.* tall bearded hybrid cv. (fall)

*Jasminum nudiflorum* (spring)

*Kalmia angustifolia* ‘Forest Green’ (fall)

*K. latifolia* (spring/April before flowering/summer)

*K. l*. ‘Elf’

*K. l.* ‘Olympic Fire’

*Kerria japonica* (summer, late summer, fall, winter)

*Kerria japonica* ‘Pleniflora’ (summer, fall, winter)

*Kniphofia* ‘Little Maid’ (fall, winter)

*K. ‘*Shining Sceptre’

*Kolkwitzia amabilis*

*K. a.* ‘Pink Cloud’ (late summer)

*Lavandula stoechas* (fall)

*Leucothoe davisiae* (late summer, fall)

*L. fontanesiana* (summer)

*L. keiskei* (fall)

*Lewisia cotyledon*

*Leycesteria formosa* (fall)

*Limnanthes douglasii* (late summer, fall, winter)

*Lithodora diffusa*

*Lonicera fragrantissima* (late summer)

*L. maackii* (late summer)

*L. periclymenum* (summer)

*L.* X*xylosteoides* 'Clavey's Dwarf'’ (summer)

*Loropetalum chilense* (fall)

*L. c*. ‘Rubrum Sizzlin’ Pink’ (late summer, fall)

*Lychnis chalcedonica* (late summer, fall)

*L. coronaria* ‘Angel Blush’ (fall)

*L. flos-cuculi* (summer, fall, winter)

*Lysimachia ciliata* ‘Purpurea’

*L. nummularia* ‘Aurea’

*Malus domestica* (summer)

*M. prunifolia* ‘Pendula’ (fall)

*Meconopsis cambrica* (fall)

*Nandina domestica* (fall)

*Magnolia denudata* (summer)

*M.* ‘Galaxy’ (late summer, fall)

*M. grandiflora*

*M. kobus*

*M. liliiflora*

*M. macrophylla*

*M*. ‘Randy’

*M*. ‘Royal Crown’

*M. sieboldii*

*M. soulangeana* (summer, fall)

*M. stellata* (summer, fall)

*M. virginiana* (late summer, fall)

*Mahonia aquifolium* (fall, winter)

*M. lomariifolia* (late spring)

*M. nervosa*

*Malus* *domestica* (apple, late summer)

*M.* ‘Ferrill’s Crimson (late summer)

*M.* ‘Hopa’ (late summer)

*M.* ‘Indian Magic’ (summer, fall)

*M. moerlandsii* ‘Profusion’ (late summer)

*M.* ‘Prairifire’ (summer)

*M. prunifolia* var. *pendula* (summer)

*M.* ‘Purpurea’ (fall)

*M.* ‘Scheideckeri’ (summer)

*M*. ‘Sugar Tyme’ (late spring)

*M*. sp. (crabapple)

*Mazus reptans*

*Meconopsis cambrica* (summer, fall)

*Nandina domestica* (late summer, fall, winter)

*Narcissus* cv. (fall, late fall)

*Nemophila maculata* (late summer, fall)

*Origanum vulgare*

*Osmanthus delaveyi*

*Oxalis tetraphylla* (deppei) ‘Iron Cross’

*O. oregana* (summer, fall)

*Pachysandra terminalis*

*Paeonia delaveyi* (fall)

*Papaver orientale* (summer, fall, late fall)

[*P. rhoeas* (fall – an annual)]

[*P. somniferum* – an annual]

*Parthenocissus tricuspidata* (fall)

*Penstemon heterophyllus* 'Zuriblau'

*P. pinifolius*

*P. procerus* var. *tolmiei*

*P. serrulatus* ‘Husker Red’

*P*. ‘Sour Grapes’

*Philadelphus* cvs. (summer)

*P. lewisii* (summer)

*Phlomis fruticosa* (late summer)

*Phlox douglasii* (winter)

*P. subulata* (winter)

*Photinia* X*fraseri*

*P. villosa* (summer)

*Phuopsis stylosa* (summer)

*Phygelius* X*rectus* ‘Moonraker’

*Physocarpus opulifolius* ‘Dart’s Gold’ (late summer, fall)

*Potentilla anserina* ssp. *pacifica* (summer, fall)

*P. gracilis* (summer, fall)

*P. neumanniana* (late summer, fall)

*P. tridentata* ‘Minima’ (late summer, fall)

*Primula elatior* (fall)

*P. japonicum* (late summer, fall)

*P. veris* (summer, fall)

*Prunus laurocerasus*

*P. l.* ‘Mt. Vernon’ (late spring)

*P. l*. ‘Otto Luyken’ (summer, fall)

*P. l.* ‘Zabeliana’ (fall)

*P. lusitanica*

*P. serrulatus* ‘Shirofugen’ (spring)

*P. subhirtella* ‘Autumnalis’

*Pulmonaria longifolia*

*P*. ‘Raspberry Splash’

*Pulsatilla vulgaris* [Anemone p.]

*Punica granatum* (early fall)

*Pyracantha* cvs. (summer)

*P*. [yellow fruited cv.] (summer)

[? *Rehmannia elata* ‘Beverly Bells’]

##### Rhaphiolepis indica

*R. umbellata ovata* (fall)

*Rhododendron* ‘Bow Bells’ (fall)

*R.* ‘Christmas Cheer’ (summer)

*R.* ‘Cosmopolitan’ (fall)

*R*. ‘Cupcake’

*R*. ‘Curlew’ (fall)

*R*. ‘Elizabeth’ (fall)

[*R*. ‘Encore Autumn Coral’ (fall)]

*R*. ‘Glacier’ (? ‘Everest’)

*R*. ‘Halfdan Lem’ (fall)

*R*. ‘Hardijzer Beauty’

*R*. ‘Hinocrimson’ (fall, winter)

*R. hippophaeoides* (late spring, summer, fall)

*R. impeditum* (summer, fall)

*R*. X*laetevirens* (R.carolinianum x R. ferrugineum garden hybrid, fall)

*R.* ‘Mardi Gras’ (fall)

*R*. ‘Mrs. G. W. Leak’ (fall)

*R. occidentale* (summer, fall, late winter)

*R. occidentale* ‘SM605’ (summer)

*R*. ‘PJM’ (summer, fall)

*R*. ‘Purple Gem’ (fall)

*R*. ‘Red Wing’ (‘Redwing’ ?) (fall)

*R*. ‘Rose Elf’ (summer, fall)

*R.* ‘Rosevallon’ (late summer, fall)

*R. schlippenbachii* (late summer, fall)

*R*. ‘Wilsonii’ (fall)

*R.* ‘Yaku Angel’ (summer)

*Rhododendron* cvs. (fall)

*Ribes sanguineum* (fall)

*Robinia* x *ambigua*

*Romneya coulteri* (summer)

*Rosa* ‘Baronne Prevost’

*R.* ‘Blanc Double De Coubert’ (late summer)

*R.* ‘Climbing Baronne Prevost’

*R*. ‘Bella Donna’

*R*. ‘Big Red’

*R*. ‘Clotilde Soupert’

*R.* ‘Compacta’

*R*. ‘Crimson Rambler’

*R. damascena bifera* ‘Autumn Damask’

*R*. ‘Dr. Huey’

*R*. ‘Dr. J. H. Nicholas’ (fls.lighter colored)

*R*. ‘Dr. William Van Fleet’

*R*. ‘F. J. Grootendorst’

*R*. ‘Gabriel Noyelle’

*R*. ‘Garisenda’

*R*. ‘General Jacqueminot’

*R*. ‘Gloire De Rosomanes’

*R*. ‘Gruss An Teplitz’

*R*. ‘Hermosa’

*R*. ‘Climbing Hermosa’

##### R. hollandica

*R*. ‘Kathleen’ [‘Clestra’] (fall)

*R*. ‘LaFrance’

*R*. ‘Mamam Cochet’

*R*. ‘Mary Wallace’

*R*. ‘Cl. Mlle. Cecile Brunner’

*R*. ‘Mme. Gregoire Staechelin’

*R. multiflora* ‘Veilchenblau’ (summer, fall)

*R. pimpinellifolia* ‘Altaica’ (summer)

*R*. ‘Paul Neyron’

*R*. ‘Pink Grootendorst’

*R*. ‘PJM’ (summer, fall, winter)

*R*. ‘Plato’

*R*. ‘President De Seze’

*R*. ‘Red Portland’

*R*. ‘Reine Des Violettes’

*R*. ‘Rosa De Rescht’ (fall)

*R. roxburghii plena*

*R. rugosa* (fall)

*R. schlippenbachii* (fall)

*R*. ‘Shailer’s Province’

*R*. ‘Silver Moon’

*R*. ‘Tausendschon’ (late summer)

*R*. ‘The Bride’

*R.* ‘Vielchenblau’ (summer)

*R*. ‘Williams Brier’

*Romneya coulteri* (summer, fall)

##### Rosmarinus officinalis

*Rubus discolor*

*R. parviflorus* (summer)

*R. pentalobus* (summer)

*Ruta graveolens*

*Sambucus nigra* (summer)

*Sambucus nigra* ‘Aurea’

*Sambucus racemosa*

*Saxifraga stolonifera* (summer)

*Schizostylis coccinea* (spring, winter)

*Senecio cineraria* (fall)

*Sidalcea campestris* (late summer, fall)

*S. hendersonii*

*S. hirtipes* (late summer, fall)

*S. malviflora* ‘Elsie Heugh’ (winter)

*S. m*. ‘Party Girl’

*S. virgata* (fall)

*Silene zawadzkii* (fall)

*Sisyrinchium californicum* (summer, fall)

*S. striatum* (fall)

*Solidago canadensis* var. *salebrosa*

*Sorbaria sorbarifolia* (summer, fall)

*S. tomentosa angustifolia*

*Sorbus aucuparia* (late summer)

*Spiraea douglasii*

*S. japonica* ‘Nana’ (late summer)

*S. j*. ‘Anthony Waterer’

*S. j*. ‘Crispa’ (summer, fall)

*S. j*. cvs.

*S. prunifolia* (spring, fall)

*S.* X*pyramidata* (summer, fall)

*S. splendens* (summer, fall)

*S. thunbergii* (fall)

*S*. X *vanhouttei* (late spring, summer, fall)

*Stachys officinalis* (fall)

*Sternbergia lutea* (December)

*Stokesia laevis* (late summer)

*Stylophorum diphyllum* (late summer)

*Symplocos paniculata* (fall)

*Syringa* ‘Bailbelle’ [Tinkerbelle] (summer, fall)

*S. meyeri* ‘Palibin’ (summer, fall)

*S. reticulata* (summer)

*S. sweginzowii*

*S. vulgaris* (fall)

*S. yunnanensis* (summer, fall)

*Tanacetum vulgare* (fall)

*Teucrium fruticans*

*Vaccinium corymbosum* (fall)

*V. ovatum* (late summer, fall, winter)

*V. vitis-idaea* (fall)

*Verbascum thapsus*

*Veronicastrum virginicum* (fall)

*Viburnum* X*bodnantense* (late summer)

*V*. x *burkwoodii*

*V. carlesii*

*V. cinnamomifolium* (fall)

*V. davidii* (late spring, summer, fall)

*V. farreri* (late spring, summer)

*V. opulus*

*V. opulus* ‘Roseum’ (late summer, fall)

*V. plicatum* ‘Summer Snowflake’ (fall)

*V. plicatum* f. *plicatum*

*V. plicatum* f. *tomentosum* & cvs.

*V. plicatum* f. *tomentosum* ‘Mariesii’ (summer, fall, winter)

*V. rhytidophyllum* (summer, fall, winter)

*V. tinus* (late summer, fall)

*V. tinus* ‘Spring Bouquet’

*Vinca minor* (summer, fall, winter)

*Viola labridorica*

*V. glabella* (late summer, fall)

*Weigela florida* (late summer, fall)

*W. f.* “Alba” (summer)

*W. f.* ‘Minuet’

*W. f.* ‘Alexandra’ (‘Wine and Roses’) (summer, fall, winter)

*W. florida* cvs. (late summer, fall)

*W. middendorfiana* (late summer, fall)

*W. praecox* (fall)

*Wisteria floribunda* (summer)

*W. sinensis* (fall)

*Yucca aloifolia* (fall,winter)

##### Y. filamentosa (summer, fall)

##### Zantedeschia aethiopica