

FIRST FLOWERING DATES FOR CENTRAL OKLAHOMA

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INTRODUCTION

The following list of native and cultivated plants is arranged according to the first recorded date of blooming for each species as observed in Oklahoma County or any of the counties contiguous to it. Most of the records are from Norman in Cleveland County, with a few from Oklahoma City in Oklahoma County and Shawnee in Pottawatomie County.

Where more than one has been recorded, the average is given as the arithmetic average of the dates.

Dates of observations of plants which had attained full bloom, where known, have been eliminated, except where they were the earliest recorded dates for the species. Such dates have been starred (*) in the list.

A plant is considered in bloom when as many as one flower is open and having either stamens shedding pollen or the stigma ready to receive pollen, as indicated by pollen grains adhering to it or the obviously mature condition of the stigma. Exceptionally early bloomings within the shelter of buildings or other barriers are included, but those resulting from artificial heat have been eliminated.

FIRST FLOWERING DATES

Editor's Note: Where nomenclature has been updated using ITIS–Integrated Taxonomic Information Service (<http://www.itis.gov>), the original name is in brackets []. There are no voucher specimens for this work; therefore, species identifications are provisional. The dates of observations of plants which have attained full bloom are marked with a single asterisk (*). Observations added by Fred Barkley on 6 June 1934, are marked with a double asterisk (**).

JANUARY

1 January

Stellaria media. Average 30 January. Earliest, Oklahoma City, 1933, Osborn.**

7 January

Common dandelion, *Taraxacum officinale*. Average 25 January. Earliest, Norman, 1929, Gould.

19 January

Shepherd's purse, *Capsella bursa-pastoris*. Average 7 February. Earliest, Norman, 1927, Gould.

21 January

Chinese elm, *Ulmus pumila*. Earliest, Oklahoma City, 1933, Osborn.

23 January

American elm, *Ulmus americana*. Average 10 February. Earliest, Oklahoma City, 1933, Osborn.**

28 January

Silver maple, *Acer saccharinum*. Average 8 February. Earliest, Oklahoma City, 1934, Osborn.

30 January

Arbor vitae, *Thuja occidentalis*. Oklahoma City, 1933, Osborn.

FEBRUARY

1 February

Common violet, *Viola sororia* var. *sororia* [= *Viola papilionacea*]. Oklahoma City, 1933, Osborn.

3 February

Spring beauty, *Claytonia virginica*. Average 18 February. Earliest, Norman, 1927, Gould.

5 February

Bush honeysuckle, *Lonicera fragrantissima*. Average 6 February. Earliest, Norman, 1927, Gould.

6 February

Wild pansy, *Viola bicolor* [= *Viola rafinesquii*]. Average 24 February. Earliest, Norman, 1928, Gould.
Virginia rock-cress, *Planodes virginica* [= *Arabis virginica*]. Average 26 February. Earliest, Norman, 1928, Gould.

7 February

Jasminum nudiflorum [= *Jasminum nudum*]. Norman, 1927, Gould.

8 February

Least bluet, *Houstonia pusilla* [= *Houstonia minima*]. Average 27 February. Earliest, Norman, 1927, Gould.

14 February

Goldenbells, *Forsythia suspensa*. Norman, 1927, Gould.

24 February

Carolina whittow-grass, *Draba reptans* [= *Draba caroliniana*]. Average 2 March. Earliest, Norman, 1927, Gould.Midland dogtooth-violet, *Erythronium mesochoreum*. Average 6 March. Earliest, Norman, 1927, Gould.
Anemone caroliniana. Average 14 March. Earliest, Norman, 1927, Gould.

25 February

Shortpod whittow-grass, *Draba brachycarpa*. Average 7 March. Earliest, Norman, 1927, Gould.

28 February

Red cedar, *Juniperus virginiana*. Average 6 March. Earliest, Norman, 1927, Gould.Thunberg spirea, *Spiraea thunbergii*. Average 7 March. Earliest, Norman, 1927, Gould.**MARCH**

3 March

Hoary tansy-mustard, *Descurainia incana* [= *Sisymbrium canescens*]. Average 29 March. Earliest, Norman, 1928, Gould.

4 March

Slippery elm, *Ulmus rubra* [= *Ulmus fulva*]. Average 8 March. Earliest, Norman, 1927, Gould.**

5 March

Chaenomeles japonica. Average 14 March. Earliest, Norman, 1928, Gould.

7 March

Peach, *Prunus persica*. Average 16 March. Earliest, Norman, 1927, Gould.*Androsace occidentalis*. Average 12 March. Earliest, Norman, 1927, Gould.

10 March

Pear, *Pyrus communis*. Norman, 1927, Gould.Shortstalk chickweed, *Cerastium brachypodum*. Average 10 March. Earliest, Norman, 1928, Gould.Common henbit, *Lamium amplexicaule*. (Open flowers). Average 12 March. Earliest, Norman, 1928, Gould.Plantainleaf cat's-foot, *Antennaria plantaginifolia*. Average 24 March. Earliest, Norman, 1927, Gould.Chickasaw plum, *Prunus angustifolia*. Average 17 March. Earliest, Norman, 1927, Gould.**

11 March

Yellow false-garlic, *Nothoscordum bivalve*. Average 19 March. Earliest, Oklahoma City, 1924, Osborn.
Spreading pearlwort, *Sagina decumbens*. Average 26 March. Earliest, Norman, 1928, Gould.

12 March

Box-elder, *Acer negundo*. Average 19 March. Earliest, Norman, 1928, Gould.

15 March

Prunus triloba. Norman, 1927, Gould.
Apricot, *Prunus armeniaca*. Norman, 1927, Gould.
Yellow woodsorrel, *Oxalis stricta*. Average 31 March. Earliest, Norman, 1927, Gould.

16 March

Missouri buffalo currant, *Ribes aureum*. Average 19 March. Earliest, Norman, 1927, Gould.

18 March

Redbud, *Cercis canadensis*. Average 24 March. Earliest, Norman, 1927, Gould.
Tulip, *Tulipa* sp. Oklahoma City, 1934, Osborn.

19 March

Low plum, *Prunus gracilis*. Average 23 March. Earliest, Norman, 1928, Gould.**
Carrotleaf parsley, *Lomatium foeniculaceum* ssp. *daucifolium* [= *Lomatium daucifolium*]. Average 24 March. Earliest, Norman, 1928, Gould.
Missouri violet, *Viola sororia* var. *missouriensis* [= *Viola missouriensis*]. Average 24 March. Earliest, Norman, 1928, Gould. (Reported as *V. papilionacea*.)

20 March

Berberis aquifolium [= *Mahonia aquifolium*]. Norman, 1927, Gould.

22 March

Cottonwood, *Populus deltoides*. Average 26 March. Earliest, Norman, 1928, Gould.

24 March

Lilac, *Syringa x persica* [= *Syringa persica*]. Norman, 1927, Gould.
Common pansy, *Viola tricolor*. Norman, 1927, Gould.
American plum, *Prunus americana*. Norman, 1929, Gould.
Ground-plum, *Astragalus crassicaarpus* var. *crassicaarpus* [= *Astragalus caryocarpus*]. Average 28 March. Earliest, Norman, 1929, Gould.

25 March

Narrowleaf puccoon, *Lithospermum incisum* [= *Lithospermum angustifolium*]. Average 27 March. Earliest, Norman, 1928, Gould.

27 March

Lonicera tatarica. Norman, 1927, Gould.
Lonicera morrowii. Norman, 1927, Gould.

28 March

Ash, *Fraxinus* sp. Oklahoma City, 1933, Osburn.

29 March

Eastern hackberry, *Celtis occidentalis*. Norman, 1928, Gould.

Maclura pomifera. Norman, 1928, Gould.

Krigia caespitosa [= *Scrinia oppositifolia*]. Average 9 April. Earliest, Norman, 1929, Gould.

Purple poppy-mallow, *Callirhoe involucrata*. Average 13 April. Earliest, Norman, 1928, Gould.

30 March

White mulberry, *Morus alba*. Norman, 1928, Gould.

Purslane speedwell, *Veronica peregrina*. Average 2 April. Earliest, Norman, 1928, Gould.

Androstegium coeruleum. Average 5 April. Earliest, Norman, 1928, Gould.

Red mulberry, *Morus rubra*. Average 9 April. Earliest, Norman, 1928, Gould.

31 March

Chaenomeles speciosa [= *Chaenomeles lagenaria*]. Norman, 1927, Gould.

Prairie false-dandelion, *Nothocalais cuspidata* [= *Agoseris cuspidata*]. Average 2 April. Earliest, Norman, 1927, Gould.

APRIL

1 April

Apple, *Malus pumila* [= *Pyrus malus*]. Norman, 1927, Gould.

Prunus cerasus. Norman, 1927, Gould.

Scarlet strawberry, *Fragaria virginiana*. Norman, 1927, Gould.

Thunberg barberry, *Berberis thunbergii*. Norman, 1927, Gould.

Common lilac, *Syringa vulgaris*. Average 2 April. Earliest, Norman, 1927, Gould.

Stout blue-eyed grass, *Sisyrinchium angustifolium* [= *Sisyrinchium gramineum*]. Average 3 April. Earliest, Norman, 1928, Gould.

Tall dock, *Rumex altissimus*. Average 13 April. Earliest, Oklahoma City, 1933, Osborn.

2 April

Caragana arborescens. Norman, 1927, Gould.

Colutea arborescens. Norman, 1927, Gould.

White ash, *Fraxinus americana*. Average 6 April. Earliest, Norman, 1927, Gould.

Philadelphia fleabane, *Erigeron philadelphicus*. Average 3 April. Earliest, Norman, 1928, Gould.

Blackjack oak, *Quercus marilandica*. Average 4 April. Earliest, Norman, 1928, Gould.

Prairie ragwort, *Packera plattensis* [= *Senecio plattensis*]. Average 8 April. Earliest, Norman, 1928, Gould.

Violet wood-sorrel, *Oxalis violacea*. Average 9 April. Earliest, Oklahoma City, 1933, Osborn.

Cutleaf evening-primrose, *Oenothera laciniata*. Average 9 April. Earliest, Norman, 1929, Gould.

Roundleaf moneyflower, *Mimulus glabratus* var. *jamesii*. Average 21 April. Earliest, Norman, 1928, Gould.

3 April

Comptonia peregrina [= *Myrica asplenifolia*]. Norman, 1927, Gould.

4 April

Ovalleaf bladderpod, *Physaria ovalifolia* ssp. *ovalifolia* [= *Lesquerella ovalifolia*]. Norman, 1929, Gould.
Spurge, *Euphorbia* sp. Oklahoma City, 1933*, Osborn.

5 April

Ellisia nyctelea. Norman, 1927, Gould.
Smooth yellow violet, *Viola pubescens* var. *scabriuscula* [= *Viola scabriuscula*]. Norman, 1927, Gould.
Virginia pepper-grass, *Lepidium virginicum*. Norman, 1929, Gould.
Poncirus trifoliata. Norman, 1927, Gould.
Juglans cinera. Norman, 1927, Gould.
Celtis laevigata [= *Celtis mississippiensis*]. Norman, 1927, Gould.
Mousetail, *Myosurus minimus*. Average 8 April. Earliest, Norman, 1929, Gould.
Dewberry, *Rubus flagellaris* [= *Rubus villosus*]. Average 14 April. Earliest, Norman, 1927, Gould.
Spiny sow-thistle, *Sonchus asper*. Average 15 April. Earliest, Norman, 1928, Gould.

6 April

Sycamore, *Platanus occidentalis*. Norman, 1929, Gould.

7 April

Broussonetia papyrifera. Norman, 1929, Gould.
Slender bladderpod, *Physaria gracilis* [= *Lesquerella gracilis*]. Norman, 1929, Gould.

8 April

Plantago elongata. Norman, 1927, Gould.
Wild columbine, *Aquilegia canadensis*. Norman, 1927, Gould.
Spiraea vanhoutei. Norman, 1927, Gould.
Tamarisk, *Tamarix gallica*. Average 9 April. Earliest, Norman, 1927, Gould.
Large wild-onion, *Allium canadense* var. *mobile* [= *Allium mutabile*]. Average 12 April. Earliest, Norman, 1927, Gould.
Blue toadflax, *Nuttallanthus canadensis* [= *Linaria canadensis*]. Average 16 April. Earliest, Norman, 1927, Gould.
Woolly yarrow, *Achillea millefolium* [= *Achillea lanulosa*]. Average 23 April. Earliest, Norman, 1927, Gould.
Meadow garlic, *Allium canadense*. Average 23 April. Earliest, Oklahoma City, 1933, Osborn.

9 April

Corn speedwell, *Veronica arvensis*. Norman, 1929, Gould.
Lonicera flava. Norman, 1927, Gould.
Black willow, *Salix nigra*. Average 12 April. Earliest, Oklahoma City, 1933, Osborn.
Bracted false-indigo, *Baptisia bracteata*. Average 14 April. Earliest, Oklahoma City, 1933, Osborn.
Western plantain, *Plantago virginica*. Average 14 April. Earliest, Norman, 1927, Gould.

10 April

Black-haw, *Viburnum plicatum* [= *Viburnum tomentosum*]. Norman, 1927, Gould.
Western crab-apple, *Malus ioensis* [= *Pyrus ioensis*]. Norman, 1927, Gould.
Aquilegia coerulea. Norman, 1927, Gould.

Spreading chervil, *Chaerophyllum procumbens*. Average 13 April. Earliest, Oklahoma City, 1933, Osborn.

Goose-grass, *Galium aparine*. Average 14 April. Earliest, Oklahoma City, 1933, Osborn.

11 April

Tropaeolum majus. Norman, 1927, Gould.

Robinia hispida. Norman, 1927, Gould.

Salix alba [= *Salix vitellina*]. Norman, 1927, Gould.

Western tansy-mustard, *Descurainia incisa* ssp. *incisa* [= *Sisymbrium incisum*]. Norman, 1928, Gould.

Vaillant's goose-grass, *Galium aparine* [= *Galium aparine baillanti*]. Average 12 April. Earliest, Norman, 1928, Gould.

Tetaneuris linearifolia [= *Actinea linearifolia*]. Average 14 April. Earliest, Norman, 1928, Gould.

12 April

Viburnum opulus [= *Viburnum opulus sterile*]. Norman, 1927, Gould.

Black medick, *Medicago lupulina*. Average 6 May. Earliest, Norman, 1927, Gould.

13 April

Fragrant sumac, *Rhus aromatica* [= *Rhus canadensis*]. Norman, 1927, Gould.

Kerria japonica. Norman, 1927, Gould.

Frost grape, *Vitis vulpina* [= *Vitis cordifolia*]. Average 10 April. Norman, 1928, Gould.

14 April

Alyssum alyssoides. Norman, 1927, Gould.

Crataegus calpodendron [= *Crataegus globosa*]. Norman, 1927, Gould.

Black-haw, *Virburnum prunifolium*. Norman, 1927, Gould.

Leafy stem false-dandelion, *Pyrrhopappus carolinianus*. Norman, 1927, Gould.

Corydalis aurea ssp. *occidentalis*. Average 19 April. Earliest, Norman, 1927, Gould.

Black locust, *Robinia pseudoacacia*. Average 20 April. Earliest, Norman, 1927, Gould.

Beaked corn-salad, *Valerianella radiata*. Average 22 April. Earliest, Norman, 1927, Gould.

Pecan, *Carya illinoensis*. Average 27 April. Earliest, Norman, 1927, Gould.

15 April

Calycanthus floridus. Norman, 1927, Gould.

Pepper-grass, *Lepidium apetalum*. Average 15 April. Earliest, Norman, 1929, Gould, and Oklahoma City, 1933, Osborn.

Silverleaf nightshade, *Solanum elaeagnifolium*. Average 29 April. Earliest, Oklahoma City, 1933, Osborn.

16 April

Western crab apple, *Pyrus ioensis*. Norman, 1927, Gould.**

Cryptantha fendleri. Average 20 April. Earliest, Norman, 1927, Gould.

Post oak, *Quercus stellata*. Average 17 April. Earliest, Norman, 1927, Gould.

Western daisy, *Astranthium integrifolium* ssp. *integrifolium* [= *Bellis integrifolia*]. Average 20 April. Earliest, Norman, 1927, Gould.

Red oak, *Quercus rubra* [= *Quercus borealis*]. Norman, 1929, Gould.

17 April

Rhodotypos scandens [= *Rhodotypos kerrioides*]. Norman, 1927, Gould.

Yellow oak, *Quercus muhlenbergii*. Norman, 1929, Gould.

Cotoneaster gaballei. Norman, 1927, Gould.

Cotoneaster horizonalis. Norman, 1927, Gould.

Southern black-haw, *Viburnum rufidulum*. Average 19 April. Earliest, Norman, 1929, Gould.

Burr oak, *Quercus macrocarpa*. Average 23 April. Earliest, Norman, 1929, Gould.

18 April

Nandina domestica. Norman, 1927, Gould.

Aronia melanocarpa. Norman, 1927, Gould.

Carolina cranebill, *Geranium carolinianum*. Average 27 April. Earliest, Norman, 1928, Gould.

19 April

Phacelia hirsuta. Norman, 1927, Gould.

Eleagnus angustifolia. Norman, 1927, Gould.

Deutzia scabra. Norman, 1927, Gould.

Stemless loco-weed, *Oxytropis lambertii*. Average 24 April. Earliest, Norman, 1927, Gould.**

Small skullcap, *Scutellaria parvula*. Average 25 April. Earliest, Norman, 1927, Gould.

20 April

Rosa rubiginosa [= *Rosa eglanteria*]. Norman, 1927, Gould.

21 April

Hoary puccoon, *Lithospermum canescens*. Norman, 1929, Gould.

Light poppy-mallow, *Callirhoe alcaeoides*. Oklahoma City, 1934, Osborn.

22 April

White clover, *Trifolium repens*. Oklahoma City, 1934, Osborn.

Nuttall onion, *Allium drummondii* [= *Allium nuttallii*]. Norman, 1928, Gould.

True water-cress, *Nasturtium officinale* [= *Radicula nasturium-aquaticum*]. Norman, 1929, Gould.

Western spiderwort, *Tradescantia occidentalis*. Average 24 April. Earliest, Norman, 1929, Gould.

Poison oak, *Toxicodendron pubescens* [= *Rhus toxicodendron*]. Average 29 April. Earliest, Norman, 1929, Gould.

Horsenettle, *Solanum carolinense*. Average 3 May. Earliest, 1929, Gould.

23 April

Smallflower verbena, *Glandularia bipinnatifida* var. *bipinnatifida* [= *Verbena bipinnatifida*]. Norman, 1938, Gould.

Rock sandwort, *Minuartia tenella* [= *Arenaria stricta*]. Norman, 1928, Gould.

Petioled wild four-o'clock, *Mirabilis nyctaginea* [= *Oxybaphus nyctagineus*]. Average 1 May. Earliest, Norman, 1929, Gould.

24 April

Alfalfa, *Medicago sativa*. Average 1 May. Earliest, Norman, 1929, Gould.

Curly dock, *Rumex crispus*. Average 3 May. Earliest, Norman, 1929, Gould.

25 April

Red-haw, *Crataegus* sp. Average 25 April. Norman, 1928–29, Gould.

Rough false-dandelion, *Pyrrhopappus grandiflorus* [= *Pyrrhopappus scaposus*]. Average 26 April. Earliest, Norman, 1929, Gould.

Blue false-indigo, *Baptisia australis*. Average 27 April. Earliest, Norman, 1929, Gould.

Chaetopappa asteroides. Average 29 April. Earliest, Norman, 1928, Gould.

Black walnut, *Juglans nigra*. Average 30 April. Earliest, Norman, 1928, Gould.

Wild parsnip, *Pastinaca nativa*. Average 1 May. Earliest, Norman, 1928, Gould.

Hairy puccoon, *Lithospermum caroliniense* [= *Lithospermum gmelini*]. Average 3 May. Earliest, Norman, 1928, Gould.

26 April

Vetch, *Vicia* sp. (cultivated). Oklahoma City, 1934, Osborn.

Basket oak, *Quercus michauxii*. Norman, 1928, Gould.

27 April

Common greenbriar, *Smilax rotundifolia*. Norman, 1929, Gould.

Virginia willow, *Itea virginica*. Norman, 1929, Gould.

Yellow sweet-clover, *Melilotus officinalis*. Average 4 May. Earliest, Oklahoma City, 1934*, Osborn.

28 April

Spreading fleabane, *Erigeron divergens*. Average 3 May. Earliest, Norman, 1927, Gould.

Serrateleaf evening-primrose, *Oenothera serrulata*. Average 1 May. Earliest, Norman, 1927, Gould.

29 April

Skunk bush, *Rhus aromatica* [= *Rhus canadensis trilobatus*]. Norman, 1928, Gould.

Purple milkweed, *Asclepias purpurascens*. Norman, 1928, Gould.

Bluntleaf milkweed, *Asclepias amplexicaulis*. Average 5 May. Earliest, Norman, 1929, Gould.

Wavyleaf gaura, *Oenothera sinuosa* [= *Gaura sinuata*]. Average 2 May. Earliest, Norman, 1929, Gould.**

30 April

Reflexed spiderwort, *Tradescantia ohiensis* [= *Tradescantia reflexa*]. Norman, 1927, Gould.

Mexican sandbur, *Tribulus terrestris*. Average 30 April. Earliest, Norman, 1928, Gould.

Cutleaf bayless gaillardia, *Gaillardia suavis*. Average 5 May. Earliest, Oklahoma City, 1933, Osborn.

Oblongleaf milkweed, *Asclepias viridis* [= *Asclepiodora viridis*]. Average 6 May. Earliest, Oklahoma City, 1933, Osborn.

MAY

1 May

Vetch, *Vicia tetrasperma*. Norman, 1928, Gould.

Small Venus'-lookingglass, *Triodanis perfoliata* ssp. *biflora* [= *Specularia biflora*]. Norman, 1928, Gould.

Prairie larkspur, *Delphinium carolinianum* [= *Delphinium penardii*]. Norman, 1928, Gould.

Sand grape, *Vitis rupestris*. Norman, 1928, Gould.

American mistletoe, *Phoradendron serotinum* ssp. *serotinum* [= *Phoradendron flavescens*]. Norman, 1928, Gould.

2 May

Sleepy catchfly, *Silene antirrhina*. Average 6 May. Earliest, Norman, 1929, Gould.
Venus'-lookingglass, *Specularia perfoliata*. Average 12 May. Earliest, Norman, 1928, Gould.

3 May

Salsify, *Tragopogon porrifolius*. Norman, 1928, Gould.
River locust, *Amorpha fruticosa*. Average 5 May. Earliest, Norman, 1927, Gould.
Scarlet gaura, *Oenothera suffrutescens* [= *Gaura coccinea*]. Norman, 1927, Gould.
Downy phlox, *Phlox pilosa*. Average 4 May. Norman, 1929, Gould.
Calystegia sepium ssp. *angulata* [= *Convolvulus repens*]. Average 6 May. Earliest, Norman, 1929, Gould.
Smooth soapweed, *Yucca glauca*. Average 7 May. Earliest, Norman, 1929, Gould.
Large beardtongue, *Penstemon cobaea*. Average 7 May. Earliest, Norman, 1927, Gould.
Slender beardtongue, *Penstemon gracilis*. Average 2 May. Earliest, Norman, 1929, Gould.
Missouri evening-primrose, *Oenothera macrocarpa* ssp. *macrocarpa* [= *Oenothera missouriensis*]. Average 8 May. Earliest, Norman, 1929, Gould.
Whorled tickseed, *Coreopsis verticillata*. Average 8 May. Earliest, Norman, 1927, Gould.
Spermolepis echinata. Average 12 May. Earliest, Norman, 1927, Gould.
Spurge nettle, *Cnidoscopus urens* var. *stimulosus* [= *Jatropha stimulosa*]. Average 12 May. Earliest, Norman, 1929, Gould.
Hymenopappus scabiosaeus [= *Hymenopappus carolinensis*]. Average 13 May. Earliest, Norman, 1929, Gould.

4 May

Hairy bedstraw, *Galium pilosum*. Norman, 1929, Gould.
Delphinium carolinianum [= *Delphinium virescens*]. Norman, 1929, Gould.
Psoralidium tenuiflorum [= *Psoralea tenuiflora*]. Norman, 1929, Gould.

5 May

Galium tricornutum [= *Galium tricornae*]. Norman, 1928, Gould.
Spinyleaf catbriar, *Smilax bona-nox*. Average 9 May. Earliest, Norman, 1927, Gould.
Showy evening-primrose, *Oenothera speciosa*. Average 6 May. Earliest, Norman, 1927, Gould.
Largeflower flax, *Linum rigidum*. Average 7 May. Earliest, Norman, 1929, Gould.
Sweet-scented grape, *Vitis vulpina*. Average 8 May. Earliest, Norman, 1927, Gould.
Sensitive-briar, *Mimosa microphylla* [= *Schrankia uncinata*]. Average 11 May. Earliest, Norman, 1927, Gould.

6 May

Longstalk green-briar, *Smilax pseudo-china*. Norman, 1928, Gould.
Pedimelum digitatum [= *Psoralea digitata*]. Norman, 1928, Gould.
Kentucky coffee-tree, *Gymnocladus dioica*. Norman, 1928, Gould.

7 May

Polygala senega. Average 15 May. Earliest, Norman, 1927, Gould.
Virginia ground-cherry, *Physalis virginiana*. Norman, 1927, Gould.
Dwarf morning-glory, *Evolvulus nuttallianus* [= *Evolvulus argenteus*]. Average 10 May. Earliest, Norman, 1927, Gould.

8 May

Bracted plantain, *Plantago aristata*. Norman, 1928, Gould.

Honey locust, *Gleditsia triacanthos*. Norman, 1928, Gould.

Rib-grass, *Plantago lanceolata*. Norman, 1928, Gould.

9 May

Western catalpa, *Catalpa speciosa*. Norman, 1929, Gould.

Catalpa, *Catalpa bignonioides* [= *Catalpa catalpa*]. Norman, 1927, Gould.

American vetch, *Vicia americana*. Norman, 1927, Gould.**

American elder, *Sambucus nigra* ssp. *canadensis* [= *Sambucus canadensis*]. Average 13 May. Earliest, Norman, 1929, Gould.

White sweet-clover, *Melilotus albus*. Average 14 May. Earliest, Norman, 1927, Gould.

Roughleaf dogwood, *Cornus asperifolia*. Average 16 May. Earliest, Norman, 1927, Gould.

12 May

Potentilla norvegica [= *Potentilla monspeliensis*]. Norman, 1927, Gould.

Purple lemon-mint, *Monarda citriodora* [= *Monarda dispersa*]. Average 23 May. Earliest, Norman, 1927, Gould.

13 May

Queen's delight, *Stillingia sylvatica*. Norman, 1928, Gould.

Rabbit tobacco, *Diaperia prolifera* [= *Evax prolifera*]. Norman, 1928, Gould.

Canada moonseed, *Menispermum candense*. Norman, 1928, Gould.

Bristly greenbriar, *Smilax tamnoides* [= *Smilax hispida*]. Norman, 1928, Gould.

14 May

Low ground-cherry, *Physalis pumila*. Norman, 1928, Gould.

Low hairy ground-cherry, *Physalis pubescens*. Norman, 1928, Gould.

Largeflower tickseed, *Coreopsis grandiflora*. Oklahoma City, 1933*, Osborn.

Pediomelum cuspidatum [= *Psoralea cuspidata*]. Average 17 May. Earliest, Norman, 1927, Gould.

Bank-bur, *Krameria lanceolata*. Average 21 May. Earliest, Norman, 1927, Gould.

15 May

Dogbane, *Apocynum cannabinum*. Norman, 1929, Gould.

Showy gaillardia, *Gaillardia puchella*. Norman, 1928, Gould.

Green dragon, *Arisaema dracontium*. Average 17 May. Earliest, Norman, 1929, Gould.

16 May

Dwarf verbena, *Glandularia pumila* [= *Verbena pumila*]. Norman, 1928, Gould.

17 May

Ground ivy, *Nepeta cataria*. Norman, 1928, Gould.

Purple cone-flower, *Echinacea purpurea* [= *Brauneria purpurea*]. Average 21 May. Earliest, Norman, 1928, Gould.

Field bindweed, *Convolvulus arvensis*. Norman, 1928, Gould.

19 May

Decumbent milkweed, *Asclepias asperula* [= *Asclepiodora decumbens*]. Norman, 1928, Gould.

Tumble mustard, *Sisymbrium altissimum*. Norman, 1929, Gould.

Engelmannia peristenia [= *Engelmannia pinnatifida*]. Norman, 1929, Gould.

Persimmon, *Disopyros virginiana*. Norman, 1929, Gould.

20 May

Phlox maculata. Norman, 1927, Gould.

Leafy white prickly-poppy, *Argemone polyanthemus* [= *Argemone intermedia*]. Average 22 May.

Earliest, Norman, 1927, Gould.

21 May

Smooth Solomon's seal, *Polygonatum biflorum* [= *Polygonatum commutatum*]. Norman, 1928, Gould.

Bluntleaf spurge, *Euphorbia spathulata* [= *Euphorbia obtusata*]. Norman, 1928, Gould.

Low dwarf mallow, *Malva neglecta* [= *Malva rotundifolia*]. Norman, 1928.

Climbing bittersweet, *Celastrus scandens*. Norman, 1928, Gould.

Prairie sunflower, *Helianthus petiolaris*. Average 24 May. Earliest, Norman, 1928.

22 May

Spermolepis inermis [= *Spermolepis patens*]. Norman, 1928, Gould.

23 May

Longhead coneflower, *Ratibida columnifera* [= *Lepachys columnaris*]. Average 29 May. Earliest, Norman, 1927, Gould.

24 May

Wild sweet-pea, *Tephrosia virginiana*. Average 25 May. Earliest, Norman, 1928, Gould.

25 May

Ruellia strepens. Average 26 May. Earliest, Norman, 1929, Gould.

26 May

Intermediate bush-clover, *Lespedeza simulata*. Norman, 1927, Gould.

Snow-on-the-mountain, *Euphorbia marginata*. Norman, 1928, Gould.

Lead plant, *Amorpha canescens*. Norman, 1927, Gould.

Claspingleaf coneflower, *Rudbeckia amplexicaulis*. Norman, 1927, Gould.

Smooth sumac, *Rhus glabra*. Average 28 May. Earliest, Norman, 1927, Gould.

Black-eyed Susan, *Rudbeckia hirta*. Earliest, Norman, 1927, Gould.

27 May

Denseflower water-willow, *Justicia americana* [= *Dianthera americana*]. Norman, 1929, Gould.**

28 May

Lateflower talinum, *Phemeranthus calycinus* [= *Talinum calycinum*]. Norman, 1928, Gould.

Smallflower talinum, *Phemeranthus parviflorus* [= *Talinum parviflora*]. Norman, 1928, Gould

Buffalo burr, *Solanum rostratum*. Norman, 1928, Gould.

30 May

Butterfly weed, *Asclepias tuberosa*. Norman, 1929, Gould.

31 May

Sabatia campestris. Norman, 1927, Gould.

Yellow gaillardia, *Gaillardia pinnatifida*. Norman, 1928, Gould.

JUNE

1 June

Gold tickseed, *Coreopsis tinctoria*. Norman, 1927, Gould.