Flower Planting Planner

When to start seed, plant out and plant bulbs - dates from extension services

Your last frost date: _____ **Your USDA zone:** _____

Look both up for free at myplantingcalendar.com/frost-dates/ (by state) or /zones/. Write them above, then use the pages that follow.

How to use this planner

- Most flower timing is counted back from your average last spring frost: start seed indoors a number of weeks before it, then plant out or sow outdoors once the danger of frost has passed.
- Page 3 has ready-made dates for every USDA zone from 3 to 10. Page 4 lets you work out your own dates from your own frost date.
- Spring bulbs work differently: they go in during fall, when the soil has cooled. Page 5 has the planting rules published by six state extension services, plus a depth and spacing chart.
- Pages 6 and 7 cover perennials, sweet peas and succession planting. Pages 8 and 9 are blank logs and a bed plan to fill in.

What's inside

Page 2	Weeks to start seed indoors (Colorado State table, 23 flowers)
Page 3	Dates by USDA zone for 8 flowers
Page 4	Work out your own dates
Page 5	Fall bulbs: regional rules and depth chart
Page 6	Perennials, shrubs, lilies and sweet peas
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Page 10	Sources (two pages)

How much to trust the dates

Every rule here was read on a university extension page, and each is credited on page 10. Extension advice is local to the state that wrote it. Where two sources disagree, this planner shows both rather than picking one. The zone dates are estimates from typical frost dates; your own garden can differ by a week or more, so your own last frost date (page 4) is better than the table.

This planner covers 18 flowers so far and grows as more are checked. The full, always-current pages are at myplantingcalendar.com/flowers/.

Weeks to start seed indoors

Count back from your average last frost (frost-free) date

Colorado State Extension's table gives the number of weeks to start seed before the average frost-free date, indoors or in a cold frame. A star means the flower is best direct seeded in the garden two weeks before that date. These are Colorado State's numbers; page 3 and the flower pages at myplantingcalendar.com/flowers/ add other sources.

Flower	Indoors	Cold frame
Ageratum	8 wk	6 wk
Amaranth *	6 wk	4 wk
Bachelor's button *	4 wk	4 wk
Calendula *	4 wk	4 wk
California poppy *	4 wk	4 wk
Calliopsis	6 wk	4 wk
China aster	6 wk	4 wk
Cosmos *	4 wk	4 wk
Dahlia	8 wk	6 wk
Gaillardia *	4 wk	4 wk
Gomphrena *	4 wk	4 wk
Larkspur	6 wk	4 wk

Flower	Indoors	Cold frame
Marigold *	4 wk	4 wk
Morning glory *	4 wk	4 wk
Nasturtium *	4 wk	4 wk
Phlox (annual)	6 wk	4 wk
Poppy (Shirley) *	4 wk	4 wk
Salvia	6 wk	4 wk
Scabiosa *	4 wk	4 wk
Snapdragon	8 wk	6 wk
Straw flower *	4 wk	4 wk
Sweet alyssum *	6 wk	4 wk
Zinnia *	4 wk	4 wk

The flowers on this planner

Flower	Start indoors, before last frost	Plant out or sow outdoors
Dahlias	6-8 weeks	from the last frost date
Zinnias	3-4 weeks	from the last frost date
Sunflowers	2-3 weeks (optional)	from the last frost date
Snapdragons	8 weeks	from the last frost date
Cosmos	3-4 weeks	from the last frost date
Marigolds	4 weeks	from the last frost date
Gladiolus	4-6 weeks (optional)	from the last frost date
Poppies	4 weeks (optional)	2 weeks before last frost

Snapdragons can go out earlier than the last frost once hardened off (Missouri Extension). Dahlias, gladiolus and sunflowers can also be started indoors for a head start, or planted straight outdoors after frost.

Source for the star table: https://extension.colostate.edu/resource/growing-annual-plants-from-seed/

Dates by USDA zone

Typical last frost, then start-indoors and plant-out dates for each flower

Each date is the zone's typical last spring frost, moved back by the number of weeks the extension sources give (page 2). Find your zone at myplantingcalendar.com/zones/. Zones 11 and above are frost-free, so timing there depends on heat and rain.

Start seed or tubers indoors (earliest - latest date)

Zone	Last frost	Dahlias	Zinnias	Sunflowers	Snapdragons	Cosmos	Marigolds	Gladiolus	Poppies
3	May 15	Mar 20 - Apr 3	Apr 17 - Apr 24	Apr 24 - May 1	Mar 20	Apr 17 - Apr 24	Apr 17	Apr 3 - Apr 17	Apr 17
4	May 10	Mar 15 - Mar 29	Apr 12 - Apr 19	Apr 19 - Apr 26	Mar 15	Apr 12 - Apr 19	Apr 12	Mar 29 - Apr 12	Apr 12
5	Apr 30	Mar 5 - Mar 19	Apr 2 - Apr 9	Apr 9 - Apr 16	Mar 5	Apr 2 - Apr 9	Apr 2	Mar 19 - Apr 2	Apr 2
6	Apr 15	Feb 18 - Mar 4	Mar 18 - Mar 25	Mar 25 - Apr 1	Feb 18	Mar 18 - Mar 25	Mar 18	Mar 4 - Mar 18	Mar 18
7	Apr 5	Feb 8 - Feb 22	Mar 8 - Mar 15	Mar 15 - Mar 22	Feb 8	Mar 8 - Mar 15	Mar 8	Feb 22 - Mar 8	Mar 8
8	Mar 20	Jan 23 - Feb 6	Feb 20 - Feb 27	Feb 27 - Mar 6	Jan 23	Feb 20 - Feb 27	Feb 20	Feb 6 - Feb 20	Feb 20
9	Feb 20	Dec 26 - Jan 9	Jan 23 - Jan 30	Jan 30 - Feb 6	Dec 26	Jan 23 - Jan 30	Jan 23	Jan 9 - Jan 23	Jan 23
10	Jan 30	Dec 5 - Dec 19	Jan 2 - Jan 9	Jan 9 - Jan 16	Dec 5	Jan 2 - Jan 9	Jan 2	Dec 19 - Jan 2	Jan 2

Plant out or sow outdoors (from this date)

Zone	Last frost	Dahlias	Zinnias	Sunflowers	Snapdragons	Cosmos	Marigolds	Gladiolus	Poppies
3	May 15	May 15	May 15	May 15	May 15	May 15	May 15	May 15	May 1
4	May 10	May 10	May 10	May 10	May 10	May 10	May 10	May 10	Apr 26
5	Apr 30	Apr 30	Apr 30	Apr 30	Apr 30	Apr 30	Apr 30	Apr 30	Apr 16
6	Apr 15	Apr 15	Apr 15	Apr 15	Apr 15	Apr 15	Apr 15	Apr 15	Apr 1
7	Apr 5	Apr 5	Apr 5	Apr 5	Apr 5	Apr 5	Apr 5	Apr 5	Mar 22
8	Mar 20	Mar 20	Mar 20	Mar 20	Mar 20	Mar 20	Mar 20	Mar 20	Mar 6
9	Feb 20	Feb 20	Feb 20	Feb 20	Feb 20	Feb 20	Feb 20	Feb 20	Feb 6
10	Jan 30	Jan 30	Jan 30	Jan 30	Jan 30	Jan 30	Jan 30	Jan 30	Jan 16

Sunflowers, gladiolus and poppies are often sown straight outdoors; their indoor dates are optional. Poppies go out about two weeks BEFORE the last frost (Colorado State); every other flower goes out on or after it.

Work out your own dates

Last frost date minus the weeks below

My average last frost date: _____

Example (zone 6, typical last frost Apr 15): dahlias are potted 6-8 weeks before that, so Feb 18 - Mar 4; they go outdoors from Apr 15.

Flower	Weeks before last frost	My start date	Outdoor rule	My outdoor date
Dahlias	6-8 weeks		on/after last frost	
Zinnias	3-4 weeks		on/after last frost	
Sunflowers	2-3 weeks (opt.)		on/after last frost	
Snapdragons	8 weeks		on/after last frost	
Cosmos	3-4 weeks		on/after last frost	
Marigolds	4 weeks		on/after last frost	
Gladiolus	4-6 weeks (opt.)		on/after last frost	
Poppies	4 weeks (opt.)		2 wk before last frost	

Tips from the sources

- Harden seedlings off for a week or two before planting out (Minnesota and Iowa State Extension).
- Missouri Extension: annual flowers are usually planted as soon as the danger of frost has passed; frost-tolerant ones such as snapdragon can go earlier if hardened off.
- Tall dahlias need a stake: put it in before the tuber so the tuber is not speared (Iowa State Extension).
- If you start indoors earlier than your last frost date minus these weeks, seedlings can become spindly (Colorado State Extension).

Fall bulbs: when and how deep

Planting rules published by state extension services

Tulips, daffodils, hyacinths, crocus and other hardy bulbs need a cold winter to flower, so they are planted in fall, once the soil has cooled and before it freezes. There is no single date: it depends on when your soil cools.

Region	Fall planting rule	Source
Minnesota	Usually mid-September to mid-October, so roots grow before the ground freezes. Tulips can go in as late as you can get them into the soil.	University of Minnesota
Colorado	Late September is preferred and September and October are the best months. Bulbs planted after October may not root well enough to flower evenly in spring.	Colorado State
Iowa	October is ideal. September can make tulips send up leaves in fall. Procrastinators can plant as late as December if the ground is not frozen.	Iowa State
Wisconsin	Plant when the ground cools to about 50-55°F or lower (but is not frozen), and keep planting until a couple of weeks before the ground freezes.	University of Wisconsin
South Carolina	Daffodils in October or November. Other spring bulbs only once the soil at planting depth stays below 60°F. On the coast, most bulbs go in late December or early January.	Clemson Home & Garden Information Center
North Carolina	Plant in fall to build roots and meet the cold requirement, which ranges from six to 20 weeks depending on species or cultivar. Wait until the soil at planting depth is below 60°F.	NC State

South Carolina (Clemson): most bulbs need a 12- to 16-week chilling period; too little chilling gives blooms close to the ground on short stems.

Planting depth and spacing (inches)

Bulb	Depth	Space
Tulip (Darwin hybrid, triumph)	6-8	4-6
Tulip (species or botanical)	3-5	3-4
Daffodil (trumpet, large-cupped)	6-8	6-8
Daffodil (miniature)	3-5	4-6
Hyacinth	6	6-8
Crocus	3-4	3
Allium (large, e.g. giganteum)	6	12-18
Allium (small, e.g. moly)	3-5	6-8
Grape hyacinth (Muscari)	3-4	3-4

Bulb	Depth	Space
Snowdrop	3-4	3
Siberian squill (Scilla)	3-4	3
Striped squill	3-4	3
Glory-of-the-snow	3-4	3
Spring snowflake	3-4	3-4
Spanish bluebell	4	4-6
Camassia	4	4
Fritillaria (crown imperial)	6-8	12-18
Fritillaria (checkered lily)	3-4	4

Iowa State Extension; depth is measured from the base of the bulb to the soil surface, pointed end up. Add 1-2 inches in light sandy soil and use 1-2 inches less in heavy clay (Minnesota). NC State uses a slightly deeper rule: 2.5 to 3 times the bulb diameter, counting 2-3 inches of mulch.

Perennials, shrubs, lilies and sweet peas

When extension services say to plant them

Where sources disagree, both are given. Full detail and links are on each flower page at myplantingcalendar.com/flowers/.

Flower	When to plant	Key numbers
Peonies	Fall is the ideal time to plant bare-root peonies (Minnesota); September to October for transplanting (Wisconsin). Plant the buds no more than 2 inches deep.	Hardiness zones: 3-8; Depth: buds (eyes) no deeper than 2 inches; Sun: full sun; shade or tree-root competition means poor or no flowering
Lilies	Early fall is the usual time to plant lily bulbs, any time before the ground freezes. Iowa State, Missouri and Illinois say fall; Wisconsin and Iowa State also allow early spring.	Depth: 6-8 inches (three times the bulb's diameter); Spacing: 8-12 inches (Missouri); at least 1 foot (Illinois); Sun: full sun, at least 6 hours (martagon lilies like partial shade)
Lavender	Spring, after the last hard frost, is the safest time to plant lavender; fall also works where there are about two months of good weather before winter.	Sun: 6-8 hours of direct sun a day; Spacing: 18-24 inches apart; Hardiness: Iowa: reliably hardy to zone 5; Utah: zones 5-10
Hydrangeas	Spring or fall is the best time to plant hydrangeas; avoid hot, dry weather.	Hole: 2-3 times as wide as the root ball, no deeper than its height; Sun: bigleaf hydrangea prefers morning sun and afternoon shade
Daylilies	Early fall or early spring is the best time to plant daylilies; Indiana's ideal window is August 15 to September 30.	Crown depth: no deeper than 1 inch below the soil surface; Spacing: 18-24 inches (Clemson); at least 2 feet (Purdue); Sun: direct sun or light shade
Sweet Peas	Sweet peas are cool-season flowers. Where winters freeze, sow outdoors as soon as the ground can be worked in very early spring; in Texas they are planted in fall for spring bloom.	Seed depth: 3/4 to 1 inch (Oregon); Spacing: sow 2 inches apart, thin to 5-6 inches; Soaking: soak seed 24 hours before planting to improve germination

Where the sources differ

Peonies: Sources differ on bud depth (2 inches in Minnesota, Wisconsin and Illinois; 1 inch from Clemson in the South).

Lilies: Sources disagree: Iowa, Missouri and Illinois lead with fall; Colorado says spring; Wisconsin allows both.

Lavender: Sources differ: Iowa says spring only; Utah says spring, or fall with about two months of good weather; Colorado says spring through fall and favors fall in its dry climate.

Hydrangeas: Oregon State's care page says spring only; its news article and Clemson allow fall. No extension page read so far gives a cold-climate (zone 4-5) date, so none is shown.

Daylilies: Spacing differs by source (18-24 inches at Clemson, at least 2 feet at Purdue); the larger figure leaves more room for the clump to grow.

Sweet Peas: Spring sowing as soon as the ground can be worked is the rule for cold and temperate climates (Missouri, Oregon). In Texas, sweet peas are a fall-planted, spring-flowering annual instead. No extension page read so far gives a fall date for the Southeast or California.

Succession planting sheet

Sow or plant in batches for flowers all season

Sunflowers: Repeat every 1-2 weeks for a long bloom season (Minnesota: same variety every one to two weeks; Illinois: every one to three weeks). Another method (Minnesota Extension): plant varieties with different days to maturity at three- to four-week intervals.

Gladiolus: Plant again every two weeks for continuous bloom. Iowa State's last planting is early July. They bloom about 8-10 weeks after planting (Iowa State Extension).

Flower / variety	Batch 1	Batch 2	Batch 3	Batch 4	Batch 5	Batch 6

Write the date you sow or plant each batch in the box.

Seed-starting log

One row per flower and variety

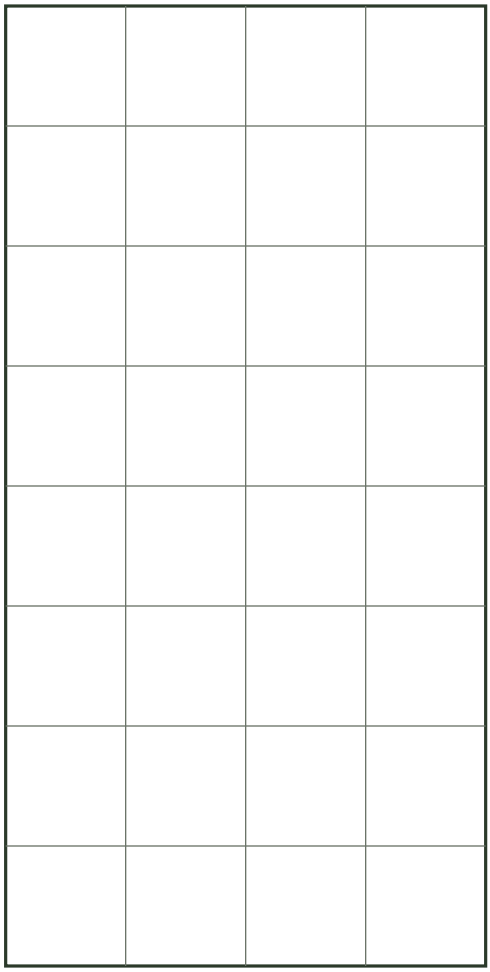
Flower and variety	Sown	Sprouted	Potted up	Hardened off	Planted out	Notes

Spacing numbers and a bed plan

Numbers from the extension sources; one square = 1 sq ft

Flower	Depth and spacing
Dahlias	Hole depth: 6-8 inches, tuber laid horizontally
Sunflowers	Seed depth: 1 inch; Spacing: about 6 inches for 2-5 ft varieties; taller ones at least 1 ft; giants 2 ft
Cosmos	Seed depth: about 1/8 inch (Florida)
Gladiolus	Depth and spacing: large corms 4-6 inches deep, 6-8 apart; small corms 3 inches deep
Tulips	Depth (hybrids): 6-8 inches, 4-6 apart (Iowa); Depth (species tulips): 3-5 inches, 3-4 apart (Iowa)
Daffodils	Depth (large): 6-8 inches, 6-8 apart (Iowa); Depth (miniature): 3-5 inches, 4-6 apart (Iowa)
Hyacinths	Depth and spacing: 6 inches deep, 6-8 apart (Iowa)
Crocus	Depth and spacing: 3-4 inches deep, 3 apart (Iowa)
Peonies	Depth: buds (eyes) no deeper than 2 inches
Lilies	Depth: 6-8 inches (three times the bulb's diameter); Spacing: 8-12 inches (Missouri); at least 1 foot (Illinois)
Sweet Peas	Seed depth: 3/4 to 1 inch (Oregon); Spacing: sow 2 inches apart, thin to 5-6 inches
Lavender	Spacing: 18-24 inches apart
Daylilies	Crown depth: no deeper than 1 inch below the soil surface; Spacing: 18-24 inches (Clemson); at least 2 feet (Purdue)

Bed 1 (4 x 8 ft)



Notes

Sources

Every rule in this planner was read on these pages

Colorado State University Extension: Growing Annual Plants from Seed (page 2 table)
https://extension.colostate.edu/resource/growing-annual-plants-from-seed/

Clemson Home & Garden Information Center: Daylily
https://hgic.clemson.edu/factsheet/daylily/

Clemson Home & Garden Information Center: Dividing Perennials
https://hgic.clemson.edu/factsheet/dividing-perennials/

Clemson Home & Garden Information Center: Hydrangea Care in South Carolina
https://hgic.clemson.edu/factsheet/hydrangea-care-in-south-carolina/

Clemson Home & Garden Information Center: Spring-Flowering Bulbs (HGIC 1155)
https://hgic.clemson.edu/factsheet/spring-flowering-bulbs/

Colorado State University Extension: Fall-Planted Bulbs and Corms
https://extension.colostate.edu/resource/fall-planted-bulbs-and-corms/

Colorado State University Extension: Growing Annual Plants from Seed
https://extension.colostate.edu/resource/growing-annual-plants-from-seed/

Colorado State University Extension: Growing Lavender in Colorado
https://extension.colostate.edu/resource/growing-lavender-in-colorado/

Iowa State University Extension: Growing Lavender in Iowa
https://yardandgarden.extension.iastate.edu/how-to/growing-lavender-iowa

Iowa State University Extension: Growing Lilies in Iowa
https://yardandgarden.extension.iastate.edu/how-to/growing-lilies-iowa

Iowa State University Extension: Planting and Caring for Tender Perennials
https://yardandgarden.extension.iastate.edu/how-to/planting-and-caring-tender-perennials

Iowa State University Extension: Selecting and Planting Spring-Blooming Bulbs
https://yardandgarden.extension.iastate.edu/how-to/selecting-and-planting-spring-blooming-bulbs

NC State Extension: Extension Gardener Handbook: Herbaceous Ornamentals
https://content.ces.ncsu.edu/extension-gardener-handbook/10-herbaceous-ornamentals

Oregon State University Extension: General care for hydrangeas
https://extension.oregonstate.edu/gardening/flowers-shrubs-trees/general-care-hydrangeas

Oregon State University Extension: Grow your own sunflowers (EM 9866)
https://extension.oregonstate.edu/catalog/em-9866-grow-your-own-sunflowers

Oregon State University Extension: Hydrangeas bring beauty and variety to Oregon gardens
https://extension.oregonstate.edu/news/hydrangeas-bring-beauty-variety-oregon-gardens

Oregon State University Extension: Sweet peas add color and fragrance to Oregon gardens
https://extension.oregonstate.edu/news/sweet-peas-add-color-fragrance-oregon-gardens

Purdue University Extension: HO-16: Daylilies
https://ag.purdue.edu/department/hla/extension/extension-publications-library/ext-pubs/ho-16-w.html

Texas A&M AgriLife (Earth-Kind Landscaping): Seasonal Color...Care and Management
https://aggie-horticulture.tamu.edu/earthkind/landscape/seasonal-color/

UF/IFAS Gardening Solutions: Cosmos
https://gardeningsolutions.ifas.ufl.edu/plants/ornamentals/cosmos/

UF/IFAS Gardening Solutions: Zinnia
https://gardeningsolutions.ifas.ufl.edu/plants/ornamentals/zinnia/

University of Illinois Extension: Dividing Peonies
https://extension.illinois.edu/blogs/timeline-through-landscape-design-archives/2015-10-07-dividing-peonies

University of Illinois Extension: Dividing Perennials
https://extension.illinois.edu/flowers/dividing-perennials

University of Illinois Extension: How to grow sunflowers at home
https://extension.illinois.edu/blogs/good-growing/2022-03-18-how-grow-sunflowers-home-great-addition-any-garden

University of Illinois Extension: Oriental Poppy
https://extension.illinois.edu/flowers/oriental-poppy

University of Illinois Extension: Peony
https://extension.illinois.edu/flowers/peony

University of Illinois Extension: Plant of the Week: Asiatic Lilies
https://extension.illinois.edu/blogs/hort-home-landscape/2017-06-13-plant-week-asiatic-lilies

University of Illinois Extension: Zinnia
https://extension.illinois.edu/flowers/zinnia

University of Minnesota Extension: Daylilies
https://extension.umn.edu/garden-and-home/yard-and-garden/gardening-in-minnesota/daylilies

Sources (continued)

Every rule in this planner was read on these pages

University of Minnesota Extension: Dividing peonies
https://extension.umn.edu/garden-and-home/yard-and-garden/gardening-in-minnesota/peonies

University of Minnesota Extension: Planting bulbs, tubers and rhizomes
https://extension.umn.edu/garden-and-home/yard-and-garden/gardening-in-minnesota/planting-bulbs-tubers-and-rhizomes

University of Minnesota Extension: Starting seeds indoors
https://extension.umn.edu/garden-and-home/yard-and-garden/gardening-in-minnesota/starting-seeds-indoors

University of Minnesota Extension: Sunflowers
https://extension.umn.edu/garden-and-home/yard-and-garden/gardening-in-minnesota/sunflowers

University of Missouri Extension: Herbaceous Ornamentals (MG9)
https://extension.missouri.edu/publications/mg9

University of Missouri Extension: Plant true lilies in fall for striking spring color
https://extension.missouri.edu/news/plant-true-lilies-in-fall-for-striking-spring-color

University of Missouri Extension: Planting wonderful sweet peas
https://extension.missouri.edu/news/planting-wonderful-sweet-peas

University of Missouri Extension: Starting Plants Indoors From Seeds (G6570)
https://extension.missouri.edu/publications/g6570

University of Wisconsin Extension: 'Stargazer' Lily
https://hort.extension.wisc.edu/articles/stargazer-lily/

University of Wisconsin Extension: Peony
https://hort.extension.wisc.edu/articles/peony/

University of Wisconsin Extension: Plant Bulbs Now for Spring Color
https://hort.extension.wisc.edu/planting-spring-bulbs/

Utah State University Extension: How to Grow English Lavender in Your Garden
https://extension.usu.edu/yardandgarden/research/english-lavender-in-the-garden

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