

## Flower Gardening

- **Pollinator support:** Attract bees, butterflies, and beneficial insects.
- **Companion planting:** Protect vegetables from pests and enhance growth.
- **Cut flowers:** Grow flowers for fresh arrangements throughout the season.
- Improve **biodiversity** and soil health.
- Increase yields in vegetable gardens by attracting pollinators.
- Provide **beauty and fragrance** to the landscape.
- Support local wildlife and ecological balance.

## Flower Groups

- **Annuals:** Bloom in the same year they are planted (e.g., Zinnias, Cosmos, Sunflowers, Calendula, Nasturtiums, Marigolds).
- **Perennials:** Return each year (Echinacea, Rudbeckia, Yarrow also bulbs or tubers: day lilies, peonies, iris)
- **Biennials:** Grow foliage in the first year, bloom in the second (Foxglove, Sweet William).
- **Wildflowers:** Native species that support local ecosystems (e.g., Milkweed, Black-Eyed Susan, Lupine, oxeye daisy).

## Choosing the Right Flowers

- Select flowers based on bloom time to ensure continuous color.
- Choose based on purpose ie not all flowers are good cut flowers
- Choose varieties suited to local soil and climate conditions.
- Consider plant height and spacing for balanced garden design.
- Include a mix of species to attract different pollinators.

## Extending Bloom Time and Care

- **Deadheading:** Regularly remove spent flowers to encourage more blooms.
- **Succession Planting:** Plant flowers at different times to maintain continuous blooms, when planting transplants, try planting seeds for later flowering of the same crop .
- **Pinching:** Cut back young plants to encourage bushier growth and more flowers, often suggested to remove flower buds at transplant.
- **Care:** water, stakes for tall plants, cages, proper spacing
- **Mulching:** Retains moisture and prevents weed competition, leading to healthier plants.

## Starting Seeds Indoors

- **When to start:** Indoors 6-8 weeks(check packet) (can be longer) before the last frost (some don't like being transplanted: poppy, check packet)
- **Soil:** Use a well-draining, nutrient-rich potting mix
- **Light:** Provide 12-16 hours of light for strong seedlings., timer, close to plants
- **Water/ Air:** Keep soil moist but not soggy, good air flow, fans (damp off)
- **Hardening Off:** Gradually expose seedlings to outdoor conditions before transplanting.
- **Transplant:** transplant on a cloudy day or evening, Water well. Light weight cover.

## Direct Seeding(outdoors)

- use well draining nutrient rich garden beds, after danger of frost, calendula, nasturtiums and others do well this way.

## Flower Succession Chart

Flower Type	First Bloom	Duration	Tips to Extend Bloom
Calendula	Early Summer	Until Frost	Deadhead, light trim
Zinnias	Mid-Summer	Until Frost	Dead Head, Succession plant
Cosmos	Mid-Summer	Until Frost	Deadhead regularly
Marigolds	Early Summer	Until Frost	Pinch early growth
Echinacea	Mid-Summer	Late Fall	Leave some flowers for reseeding

## Companion Planting Guide

<u>Companion Flower</u>	<u>Benefits</u>
Marigolds	Repel nematodes, aphids, and whiteflies <b>Nematodes</b> (microscopic organisms, good or bad depending on type)
Nasturtiums	Trap pests (ie aphids) away from vegetables, repels beetles
Calendula	Attracts pollinators, deters pests, esp aphids
Sunflowers	Provide shade for heat-sensitive crops
Cosmos	Attracts hoverflies (aphid predators)
Borage	Attracts bees, deters tomato hornworms

## Seed Saving Guide

### How to Collect and Store Seeds

1. **Harvest:** Collect seeds from dry, mature flowers.
2. **Clean:** Remove debris and let seeds air-dry.
3. **Store:** Keep in a cool, dry place, well labeled.

### Isolation Requirements for Seed Purity

<u>Flower Type</u>	<u>Isolation Distance Needed</u>
Marigolds	Minimal (self-pollinating)
Zinnias	100+ feet (cross-pollinate by insects)
Sunflowers	1/4 mile (wind/insect pollinated)
Nasturtiums	Minimal (self-pollinating)
Cosmos	500+ feet (cross-pollinated by insects)

### Tips for Successful Seed Saving

- Select the healthiest and most vigorous plants for seed collection.
- Store seeds in a breathable container to prevent mold.
- Label and date seed packets for future reference.