# NATIVE PLANT GARDENS IN SMALL SPACES

## Raised Beds and Container Gardens

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# Creating Raised Bed Gardens in Paved Areas

**1. Determine Location and Design Constraints**

- Identify the site, such as a patio, paved public space, or parking lot.
- Plan for site conditions common in paved areas: full sun, hot, dry, and windy, which necessitate using drought-tolerant plant species.
- Consider portable and movable garden solutions, especially if site permanence is uncertain.
- A common dimension is a 4 x 8 feet raised bed, covering 32 square feet and requiring approximately 30 plants. Other sizes are 4 x 4 feet (12 - 16 plants) or 2 x 2 feet (3 - 4 plants)

**2. Construct the Raised Bed Structure**

- Options for materials include galvanized steel tanks (metal troughs) or wooden frameworks. Add holes near base for drainage
- For bottomless beds, use pond liner and hardware cloth to manage drainage and containment issues.
- Consider adding a trellis or a pergola to create shaded garden areas.

**3. Fill with Appropriate Soil and Planter Features**

- Fill the raised beds with soil.
- **The "Perfect Soil" Recipe**: For optimal vegetable growth, use 50% topsoil, 30% compost, and 20% other organic matter (like aged leaves or worm castings).
- **Mel's Mix (Square Foot Gardening)**: A lightweight, soilless blend consisting of equal parts (1/3 each) peat moss (or coconut coir), coarse vermiculite, and high-quality compost.
- **High-Drainage Mix**: If you are growing root rot-prone plants like strawberries, use a 1:1:1 ratio of topsoil, coarse sand, and compost.
- Explore options for self-watering planters with reservoirs and drainage holes.

**4. Select Native Plants for Pollinator Support**

Choose plants that are drought-tolerant and provide seasonal bloom from spring through fall.
Focus on species that act as sources for pollen and nectar for pollinators.
Example native plant list for seasonal bloom:

- **Spring:** wild strawberries, wild columbine
- **Early summer:** Lanceleaf coreopsis
- **Mid-late summer:** Hoary vervain, nodding onion
- **Fall:** Grey goldenrod, smooth aster

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# Creating Raised Bed Gardens on Soil

**1. Plan the Location and Size**
Determine your garden's location and dimensions, noting site conditions like full sun, heat, wind, and soil drainage. A raised bed of 4 x 8 feet covers 32 square feet and may require a collection of 30 native plants, generally spaced one foot apart. Aim to plant densely to help crowd out weeds and foster biodiverse microbial communities in the soil.

**2. Select Appropriate Plants**
Choose plants that match the site conditions, prioritizing those that are drought-tolerant and provide seasonal bloom (spring, summer, and fall). Select keystone plants, which are crucial for nurturing a high percentage of local wildlife and insects, for the highest level of ecological function.

**3. Prepare the Planting Area**
If your raised bed is sitting on the ground soil, first get rid of existing weeds and roots in the planting area using a hoe and rake.

**4. Create a Well-Draining Soil Mix**
Avoid using regular black soil alone, as it lacks organic content, compacts, and drains poorly in containers. Use a well-draining mix that mimics native soil conditions. A commercial potting mix can be used as a base.

- **Good Additions:** Incorporate coarse sand, perlite, or vermiculite to improve aeration and drainage. Use coconut coir or peat moss for moisture retention. Compost can be added for organic matter and nutrients.

**Recommended Mixes:**

- **The "Perfect Soil" Recipe**: For optimal vegetable growth, use 50% topsoil, 30% compost, and 20% other organic matter (like aged leaves or worm castings).
- **Mel's Mix (Square Foot Gardening)**: A lightweight, soilless blend consisting of equal parts (1/3 each) peat moss (or coconut coir), coarse vermiculite, and high-quality compost.

**5. Plant Installation**

- Water the plant while it is still in its container to moisten the soil.
- Dig a hole with a trowel that is slightly larger than the plant's container.
- Gently remove the plant from its container by tipping it on its side and pushing on the bottom to loosen it; avoid breaking the stem.
- Plant it at the same depth it was growing in the container.
- Gently firm the soil around the plant after placing it.

**6. Water and Mulch**

- Water after planting, using about 2 cups of water per plant.
- Apply shredded bark mulch around all the plants to a depth of no more than 2 inches (about 5 or 6 cm). Water buckets and containers (like clean, empty yogurt containers) can be used to distribute the water and mulch.