

## Arboretum







All Things
Cireen

Brown Bag Gatherings

Download pdfs at plantnebraska.org/brownbags

## LESS WEEDS / MORE WOW

Rachel Anderson

Community Landscape Specialist

Nebraska Statewide Arboretum

### LESS WEEDS / MORE WOW

What is a designed plant community? Why approach gardening this way?

How does a designed plant community work? What are its parts?

How can you design your own plant community? What's involved in its care?

What challenges does this approach present? What resources are out there to help?

### PLANT COMMUNITIES

Naturally-occurring or designed planting of compatible species that cover the ground in **dynamic**, interlocking layers.









### **BRIDGING THE GAP**

#### PLANTS IN NATURE

- Thrive in inhospitable environments
- Richly cover the ground
- Have place-based visual harmony
- Grow together dynamically over time
- Lower maintenance

#### PLANTS IN THE GARDEN

- Lack vigor, even with rich soil and water
- Placed far apart and mulched heavily
- Often arbitrary assortments
- Individual objects used for decoration
- Higher maintenance





## DESIGNING A PLANT COMMUNITY

### PLANT COMMUNITIES

Plant Community = a rich mosaic of species, exquisitely tuned to a particular site.

Inspired by nature, but not an imitation. Natives and non-natives working together.

Provides more resilience and better ecological function.



### STRESS IS AN ASSET.

Rather than spending \$\$\$ enriching the soil or providing irrigation, you can pick plants to fit the conditions of your site.

A plant palette exists for every situation.



### BE AN EDITOR.

Utilize the dynamism of plants. Grow, move, die, reproduce...repeat.

Allow plants to seed themselves and move about the garden.

What until you know what a plant is before deciding whether to remove it.



## MANAGEMENT (NOT MAINTENANCE)

Maintenance = keeping plants in a static state that doesn't change over time.

Management = adapting your landscape strategy as plants change over time.

*Know* maintenance, not no maintenance.

Work with plants' natural tendencies to save time and frustration.







### COVER THE GROUND.

Plants are programmed to fill space. Use this tendency to your advantage.

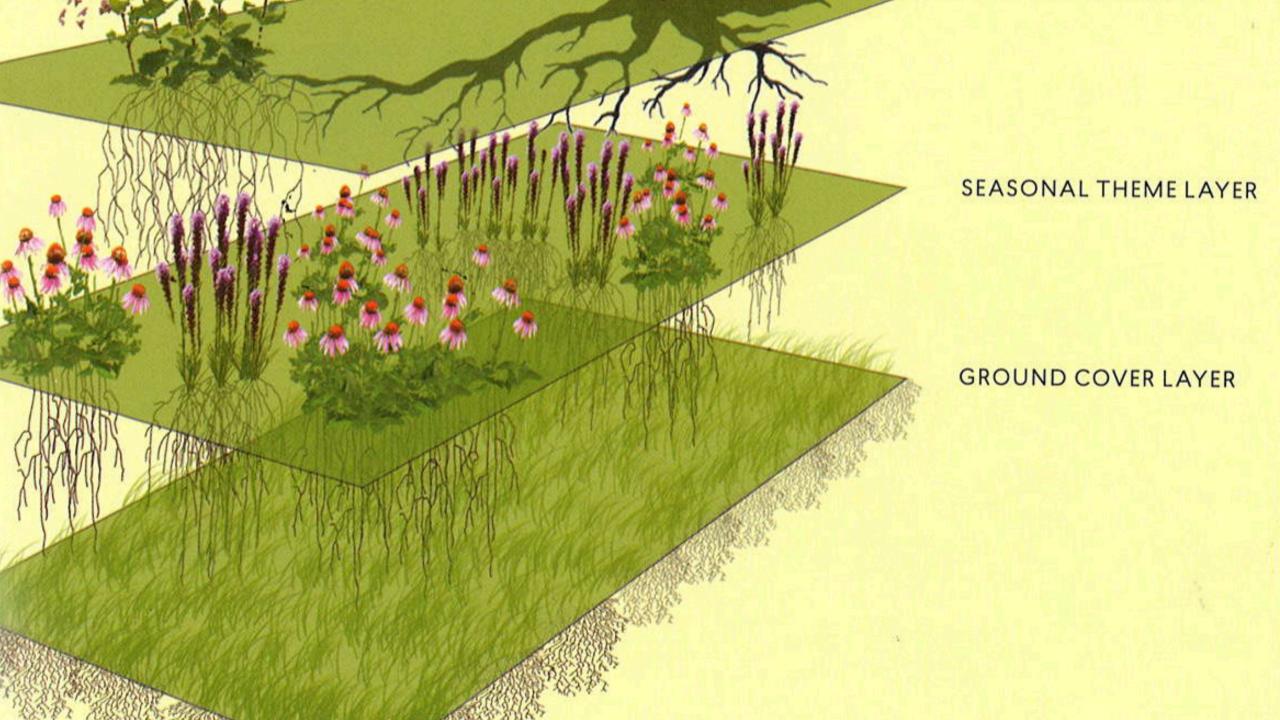
Plants = living mulch.
Let your landscape do the weeding for you.

(Mulch becomes soil eventually, making it an invitation for weeds.)

















### Less weeds, more WOW

### GARDEN DESIGN GUIDE

For healthy plant communities, try this four-tiered system from *Planting in a Post-Wild World* (Rainer & West).

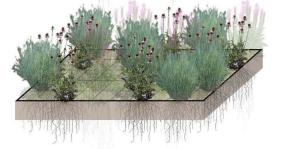
#### **Anchors** 10-15%

Tall, well-behaved, long-lived plants with year-round presence that provide a structural framework.



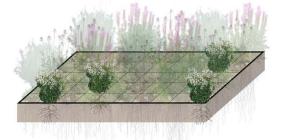
# Seasonal Stars 25-40% Mid-height plants with flowers or textures that shine for a while.

then blend in.



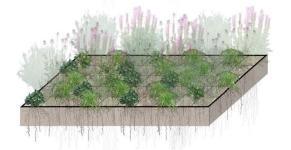
Placeholders 5-10%

Short-lived plants that reseed to fill gaps and add brief seasonal display.



## Groundhuggers 50%

Low, spreading plants that cover the ground to prevent erosion and suppress weeds.



## **Beauty** at eye-level, diversity on the ground.

This approach works by planting at least one plant per square foot. Tight spacing means faster coverage and fewer opportunities for weeds to sprout. It also works with plants' tendency to cover ground, so that we can celebrate (instead of curse) plants that spread out and pop up in new places.

By tiering plants on top of each other, we're adapting lessons from wild ecosystems to make better gardens—gardens that look good while acting as environmental workhorses. Eye-popping themes of color combine with a lush network of roots and shoots to control weeds, prevent erosion, improve water quality and provide habitat.



**Anchors** 10-15%

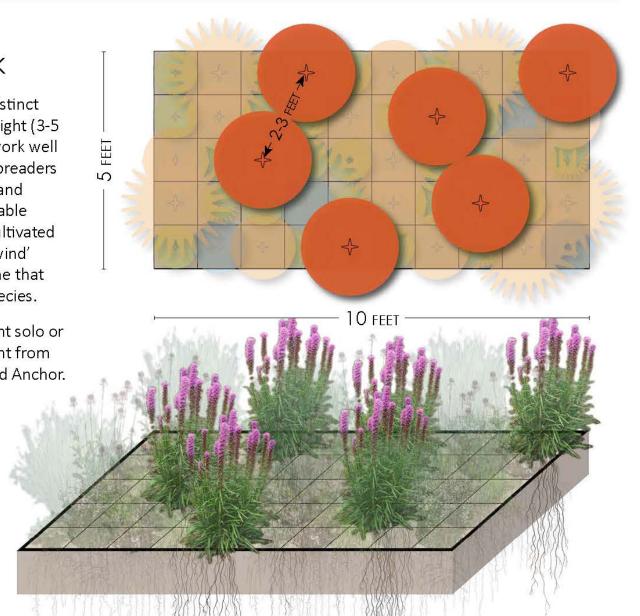
### A Solid Framework

Large, long-lived plants that have distinct forms—trees, shrubs and some upright (3-5 foot tall) grasses and perennials—work well as Anchors. Beware of aggressive spreaders here, which can overtake a garden and increase its height to an uncomfortable level. Sometimes colonizers have cultivated varieties that aren't bullies. 'Northwind' switchgrass is a good example of one that behaves better than the straight species.

On a hike, you might see an old plant solo or in a small group that looks consistent from year to year. This might make a good Anchor.

- arrange first
- singly or in groups
- 2-3 feet apart based on mature spread

Liatris spicata (12%, 6/50 total plants).



TIER 1











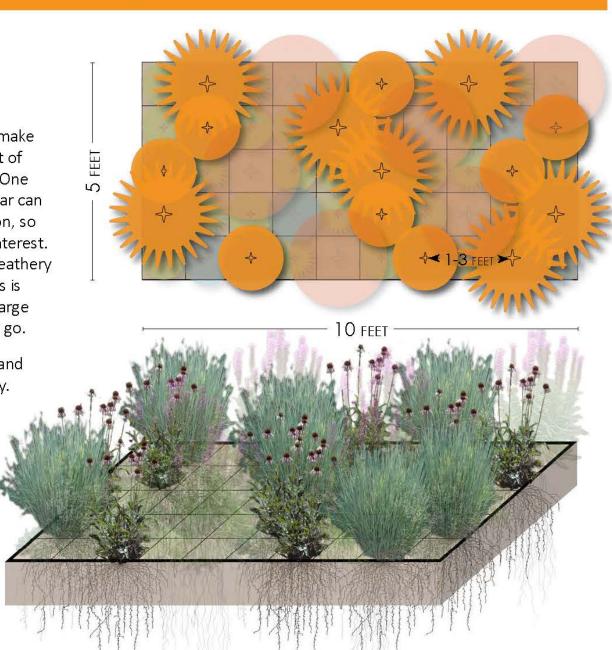
### **Emotional Scenes**

Mid-height plants (1-3 feet tall) with medium lifespans (5-10 years) often make sense as Seasonal Stars because most of them have a showy attribute or two. One looking scruffy at a certain time of year can hide behind another in its peak season, so use plants with different periods of interest. Striking flowers, bold seedpods and feathery textures add to a garden's beauty, this is especially true when they appear in large drifts that catch the eye and don't let go.

Seasonal Stars can be free to spread and move—this is key for garden longevity.

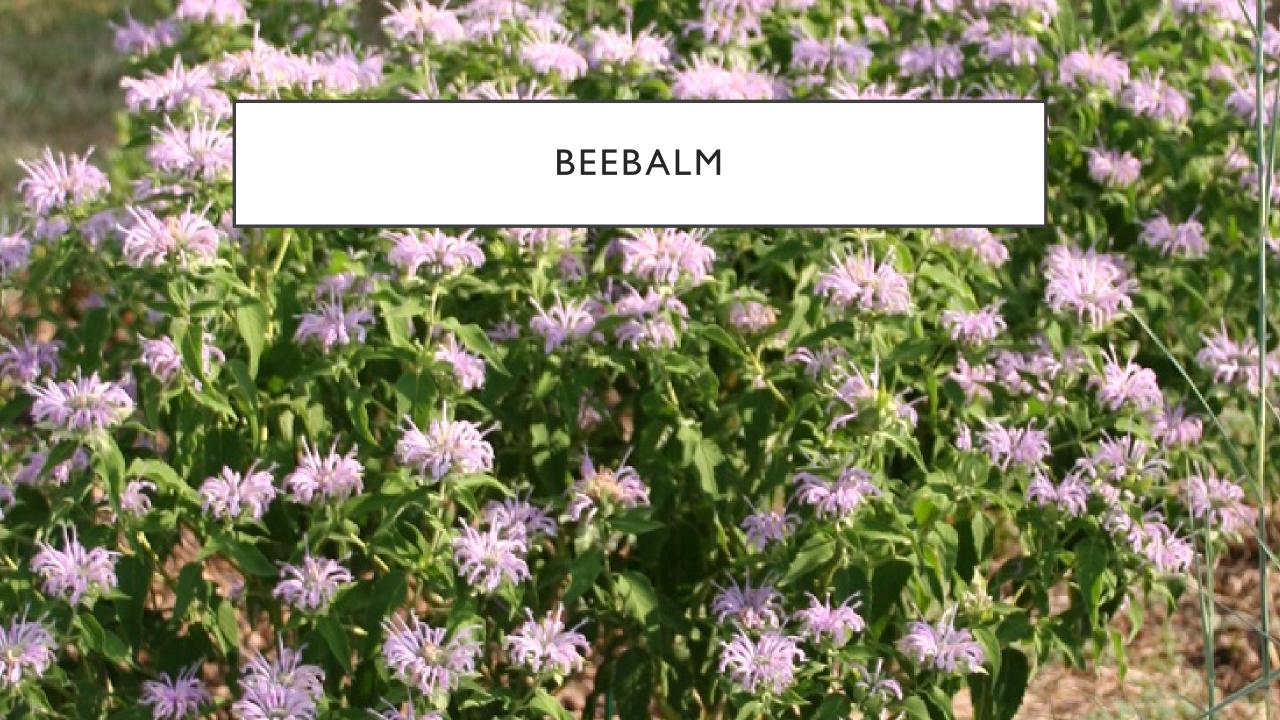
- arrange second
- in groups or drifts
- 1-3 feet from other plants based on mature spread

Schizachyrium scoparium and Echinacea angustifolia (30%, 15/50 total plants).

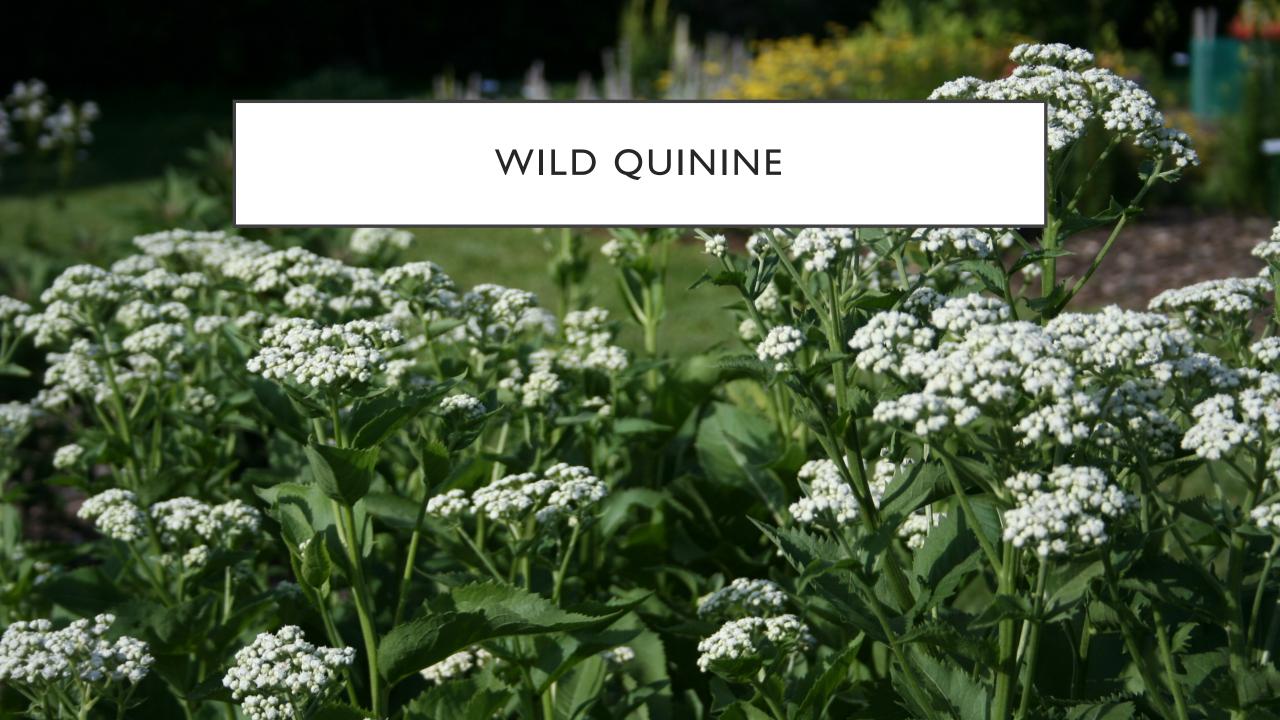


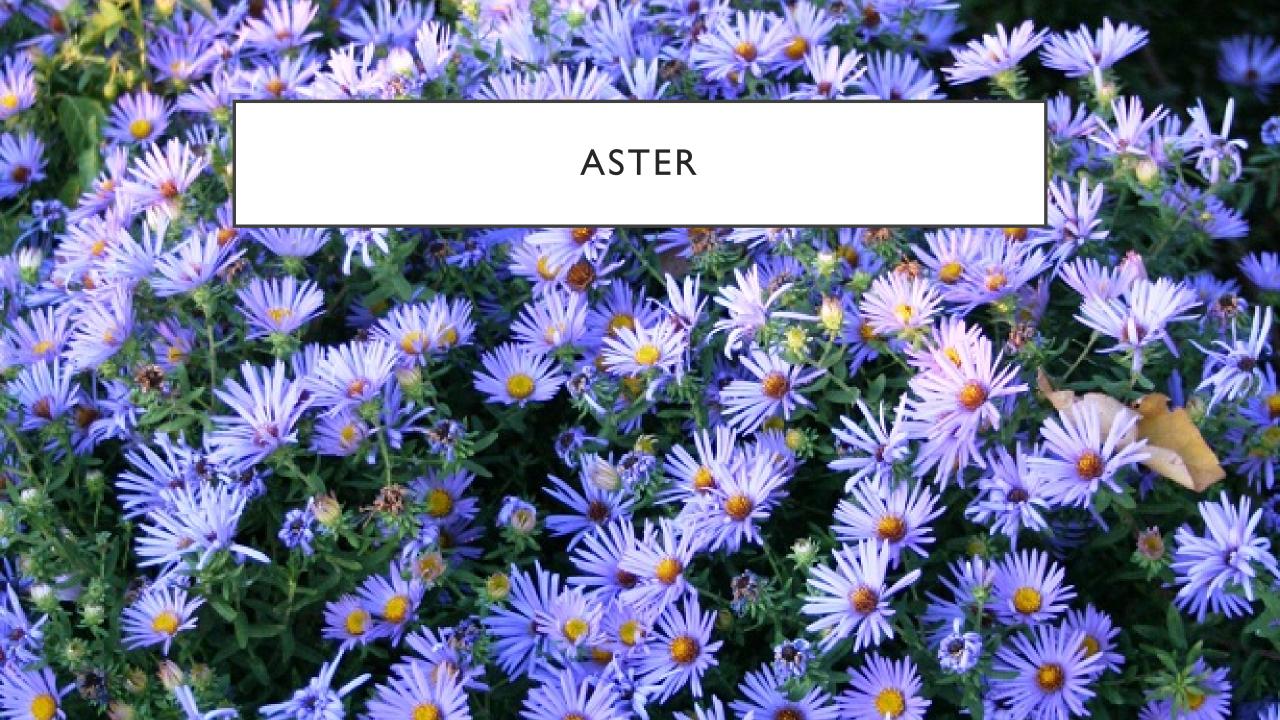












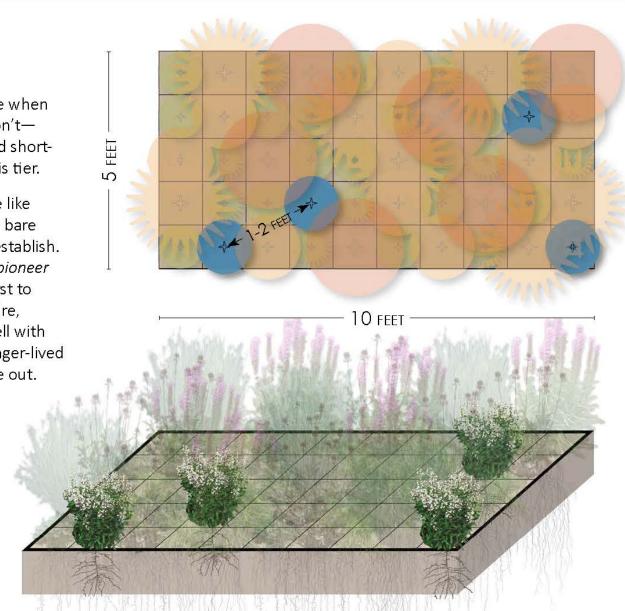
#### Filling Gaps

Placeholders are temporary—there when you need them, gone when you don't—which makes annuals, biennials and short-lived plants good candidates for this tier.

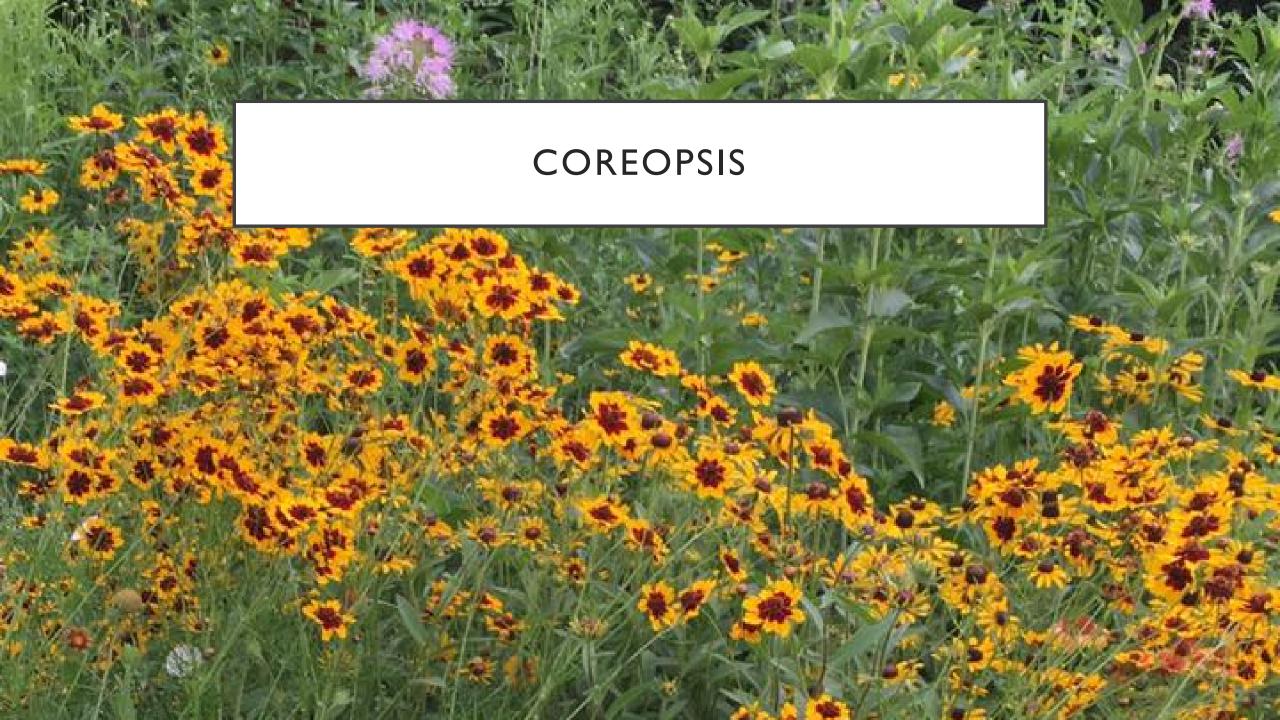
In the garden, Placeholders behave like most weeds would, and help cover bare spots to give other plants time to establish. In ecology, these plants are called *pioneer* and *ruderal* species, and are the first to come in after a disturbance like a fire, flood or drought. They don't do well with competition, however, so when longer-lived plants settle in, these species move out.

- arrange third
- singly or in groups
- 1-2 feet from other plants based on mature spread

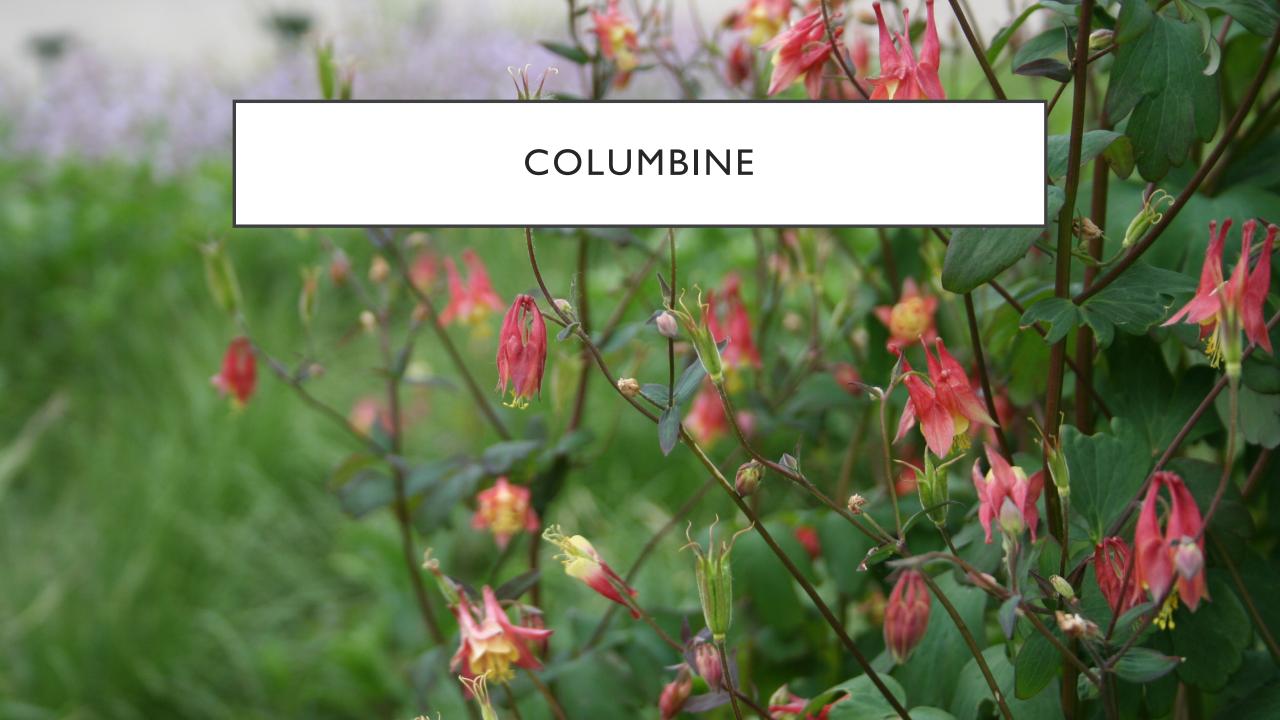
Penstemon digitalis (8%, 4/50 total plants).



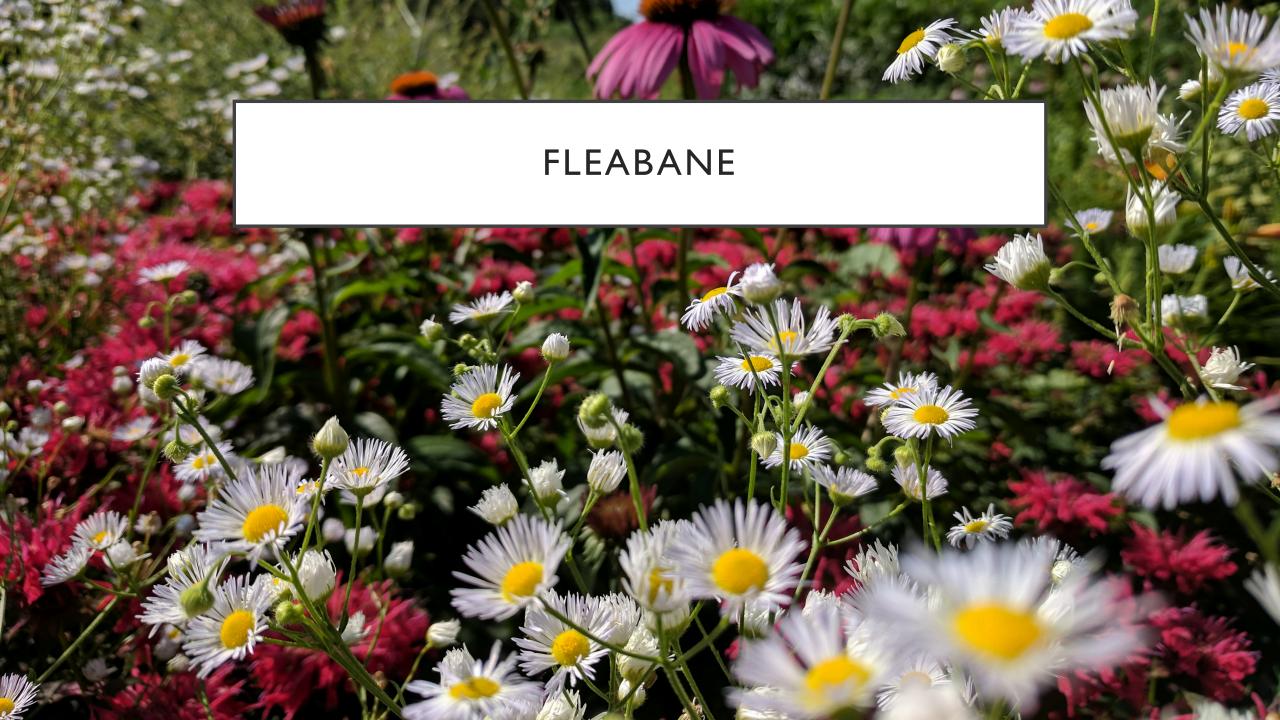














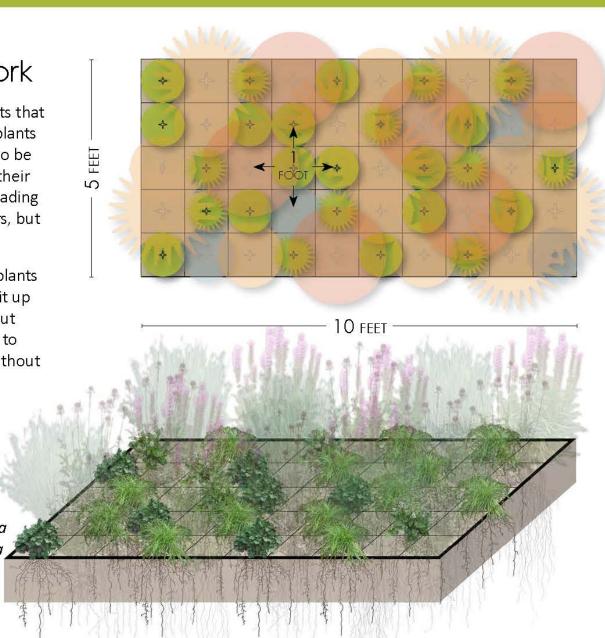
#### Living Mulch Network

Groundhuggers are low-growing plants that live underneath the canopy of taller plants in other tiers. This means they need to be shade- and stress-tolerant. Because their job is to cover the ground, many spreading plants perform well as Groundhuggers, but non-spreading plants work too.

While there might be few species of plants used in other tiers, here you can mix it up because Groundhuggers are mostly out of view. This presents an opportunity to increase your garden's biodiversity without compromising the look you want.

 arrange last in open spots until the garden has one plant per square foot

Carex pensylvanica, Heuchera richardsonii and Viola sororia (50%, 25/50 total plants).















## LAYOUT FOR PLANTING

#### DENSE, BUT NOT CROWDED

Like a traditional garden, but underplanted with groundhuggers.

Space plants appropriately based on their mature spread.

Overall spacing should be close—at least one plant per square foot.











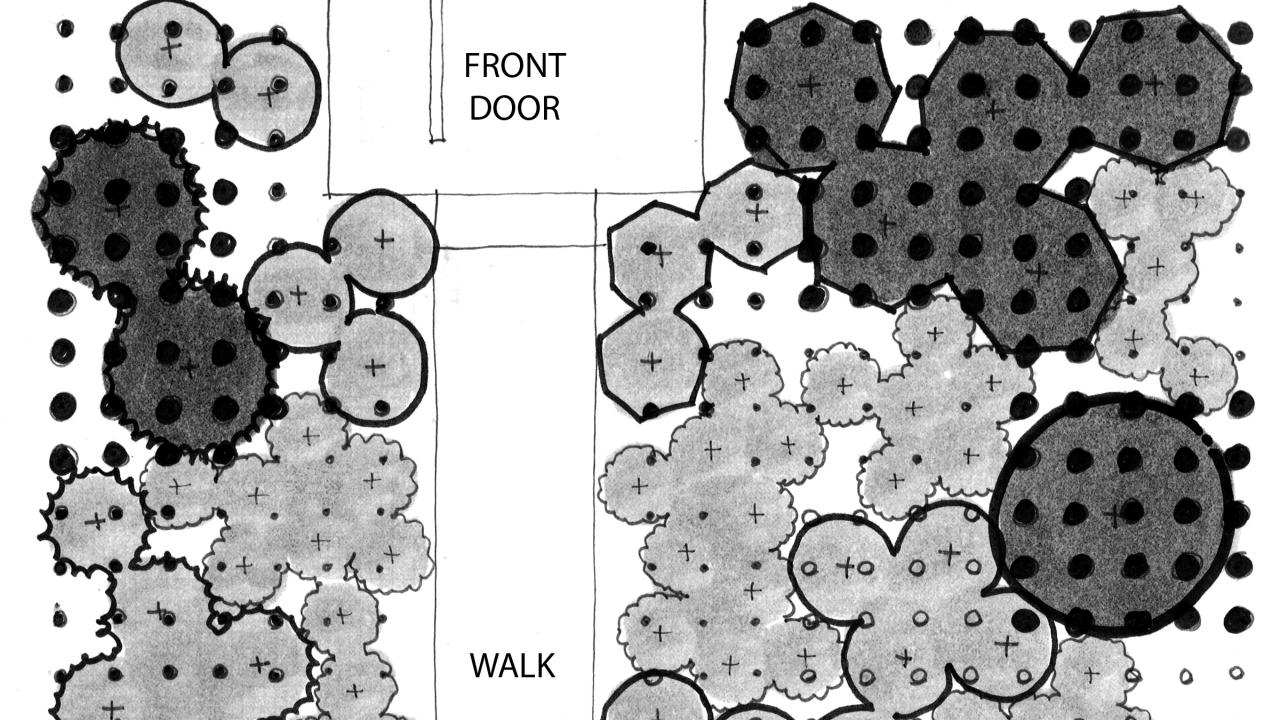
# **CONSIDERATIONS**

#### MORE \$\$\$ UP FRONT

One plant per square foot probably means 2-3 times as many plants are needed.

Plant material costs can be offset by choosing smaller pot sizes and by using seed.







#### PLANT KNOWLEDGE

Tiered gardens can be difficult to keep up without a base knowledge in plants.

This approach can be simplified to use less species if necessary.

Fun challenge??

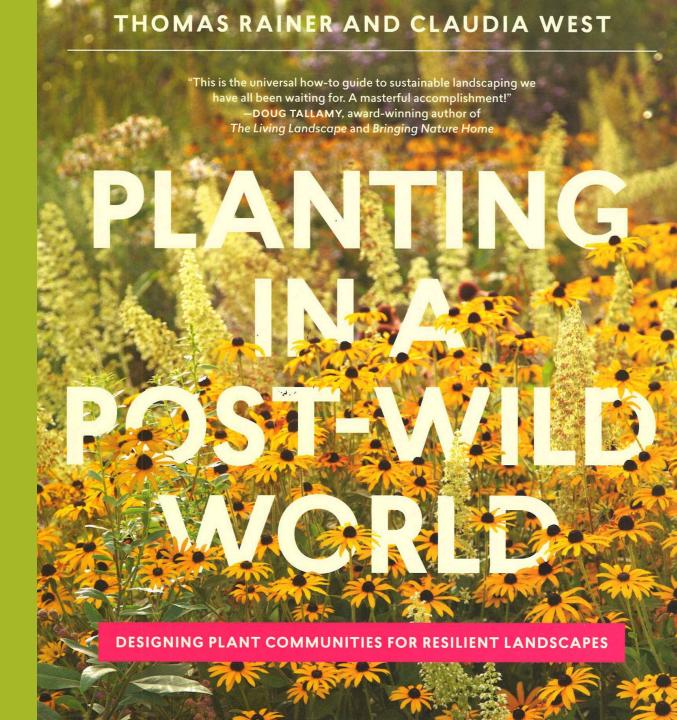


#### **RESOURCES**

Planting in a Post-Wild World by T. Rainer and C. West

Less Weeds, More WOW Guide Nebraska Statewide Arboretum

Garden Weavers as Living Mulch Nebraska Statewide Arboretum



### PLANT COMMUNITIES APPROACH

Adaptable to different garden styles and maintenance capabilities.

Allows for native plants, cultivars and introduced plants.





## PLANT COMMUNITIES APPROACH

Prevents rainwater from running off into the sewer.

Conducive to wildlife habitat goals.





## PLANT COMMUNITIES APPROACH

Designed for longevity.

20+ year lifespan, even for herbaceous gardens.









# Arboretum







"All Things Green"

Brown Bag Gatherings

Download pdfs at plantnebraska.org/brownbags