WHAT IS EDIBLE LANDSCAPING?

“Edible landscaping” is the practice of growing edibles in an ornamental way while promoting sustainable gardening practices such as mulching, composting, saving energy, maximizing water use, improved plant diversity, support for pollinating insects and a decreased reliance on chemical applications of herbicides and pesticides.

The aesthetics and function of edible landscaping work together. In the 2014 Bloomin’ Backyards garden tour, both Anne and Cathy’s gardens use landscaping with ornamentals and edibles to continue the beauty of their spaces, create an inviting environment to beneficial insects, build soil through crop and plant selection and produce food for their families.

Edible Landscaping can be of valuable for those who have the correct conditions for growing food only in their front yards. Even if able to grow crops elsewhere, this practice can increase opportunity for crop rotation. In addition to being stewards of the environment, schools and businesses can provide students, parents and employees with food sources and educational opportunities by interplanting ornamentals with edibles.

WHAT ARE THE ELEMENTS OF EDIBLE LANDSCAPING?

1. **Year-round beauty and interest.** Plant perennial ornamentals and edibles together to provide your garden with structure as well as changing foliage and blossom colors. For example:
   - Herbs such as *Agastache*, rosemary, thyme, *Achillea* (yarrow), *Salvia* (sage) and oregano;
   - Perennials such as fruit trees, blueberries, raspberries and pomegranate;
   - Edible flowers such as *Agastache*, chives, nasturtiums, fennel, lavender, *Calendula*, chamomile, marigolds, mustard, *Dianthus* and scented geraniums; and
   - Ornamentals such as *Gaillardia*.

2. **Intercropping and interplanting.** Plant two or more different food crops together such as short- with long-season crops and fast- with slow-growing crops. For example:
   - Lettuce while tomatoes are starting; and
   - Carrots with onions and/or scallions.
3. **Companion Planting.** Plants benefit each other in the following ways:

* Symbiotic nitrogen fixation. Legumes fix atmospheric nitrogen for their own use and for the benefit of neighboring plants via a symbiotic relationship with *Rhizobia* bacteria.

* Trap cropping. A neighboring crop may be more attractive to pests, distracting them. For example: onions distracting carrot beetle; corn distracting squash beetle.

* Biochemical pest suppression. Some plants exude chemicals from roots or aerial parts that suppress or repel pests and protect neighboring plants. For example: marigolds (*Tagetes patula*), French dwarf (*T. Ereta*, African), (*T. minuta*, South American) reduce the number of root lesions and root knot nematodes.

* Physical spatial interactions. Tall plants can shade smaller plants and may yield pest control benefits. For example, vining vegetables - like beans - shading greens; cucumbers shading lettuce.

* Beneficial habitats. Plants that attract beneficial insects to the garden can increase the health of the plants and biodiversity of the system. These plants include flowering herbs, flowers, flowering vegetables, etc.

* Security through diversity. A more general mixing of various crops and varieties provides a degree of security to the grower. In a monoculture, pests can easily spread from one plant to another. For example, a biodiverse garden mixes herbs, greens, *Allium*, etc.

4. **Underplanting.** Planting low-growing plants or ground covers underneath larger plants and trees creates layers in the garden and maximizes space, limits weeds, provides a mulch and attracts beneficials.

5. **Succession Planting.** Provide continuous crop output through staggered planting of crops with different days to maturity and by sowing seed of a given crop at 1- to 2-week intervals.

6. **Perennial Edibles.** Fig and pomegranates, for example, as found in Anne’s garden.

7. **Growing Up.** Espalier, vertical gardening and other ornamental ways with edibles (tuteurs, trellises and grids) can create shade and increase the productivity and aesthetics of the garden.

**HOW IS THE “THREE SISTERS” CONCEPT RELATED TO EDIBLE LANDSCAPE?**

The concept of the “three sisters” is a great example of “companion planting,” one of the elements of edible landscaping. This practice took place over 5,000–6,500 years ago and was employed by American Indians. A typical companion planting includes squash, beans and corn, but there are endless combinations. When the corn is 6-inches tall, beans and squash are planted around the corn, alternating between the two kinds of seeds. The squash grows and shades the roots of the beans and corn, aiding in retaining moisture and keeping the weeds down. The beans assist in “fixing” nitrogen in the soil for the other plants to utilize, and use the corn as support to grow. The corn supports the beans and shades the squash! The “three sisters” concept is featured on the reverse of the 2009 Native American U.S. dollar.
HOW DOES THE DROUGHT IMPACT EDIBLE LANDSCAPE?

It is possible to garden with less water. Both Anne and Cathy employ practices to reduce the water needs of their gardens. They compost and mulch, plant less – just what they personally enjoy/need and might share, select varieties that give the best yield per plant, grow drought-tolerant varieties, irrigate more often but not deeply and target irrigation by using drip irrigation. In a drought year, there is not have enough water to irrigate deeply – so, the recommended practice is to irrigate more often, not letting the root zone dry out completely.

Food Gardening Specialists and GardenSense consultants have developed guidelines for efficient use of water. These can be found on the Sonoma County Master Gardener (SCMG) website: [http://ucanr.edu/sites/scmg/](http://ucanr.edu/sites/scmg/). Review the Workshop Calendar on this site for free classes that include concepts of gardening in a drought. GardenSense – a program created in collaboration with the Sonoma County Water Agency – is intended to help Sonoma County home gardeners improve their water conservation. See the home page to make an online request for a free consultation. You can have a water-wise AND beautiful garden.

WHERE CAN I FIND MORE INFORMATION ABOUT EDIBLE LANDSCAPING?

The elements in Anne and Cathy’s gardens rely heavily on edible landscaping information available through the University of California/Davis and expert advice from Sonoma County Master Gardeners trained in edible landscaping. A free-for-download University of California edible landscaping handbook is in the works. Also, refer to the Workshop Calendar on the SCMG home page for free workshops that include edible landscaping and gardening in a drought. Most workshops are given in the spring and fall.

There are a number of popular references that can be found in your local library or bookstore, or through an online source (these are a few examples of resources; the list is not intended to include or exclude specific publications):

* *Introduction to Edible Landscaping*, Sacramento County Master Gardeners, [http://ucanr.edu/sites/sacmg/files/163567.pdf](http://ucanr.edu/sites/sacmg/files/163567.pdf)
* *Edible Landscaping*, by Rosalind Creasy
* *Designing and Maintaining Your Edible Landscape Naturally*, by Robert Kourik
* *Edible Landscaping*, University of California Pinterest page, [http://www.pinterest.com/ucmastergarden/edible-landscaping/](http://www.pinterest.com/ucmastergarden/edible-landscaping/)
* *YouTube tour of the University of California/Davis Good Life Garden – an edible landscape*, [https://www.youtube.com/watch?v=aSDEgC7iv-U](https://www.youtube.com/watch?v=aSDEgC7iv-U)

Prepared by the 2014 Bloomin’ Backyards Edible Landscaping Education Committee: Chair Sue Lovelace and members Bernadette Nouel, Cheri Olhiser, Tweedy Olson and Bryce Sumner. Photo credits: Cie Cary, Electra de Peyster and Sue Lovelace. Edited by Stephanie Wrightson. (June 2014)
Cathy's Garden is the epitome of edible landscaping: interplanted flowers, herbs, edibles (annuals and perennials) and ornamentals, using vertical elements! Crops and ornamentals are planted together for the benefit of one plant or each other. This is the practice of “companion planting.” [The gardens are color-coded to assist tour participants in locating beneficial pairings. The colors, below, reflect this “search and find” tour activity.]

Companion planting may have the following benefits:

* Symbiotic nitrogen fixation. Legumes fix atmospheric nitrogen as demonstrated by scarlet runner beans and bush beans. [GOLD]
* Biochemical pest suppression. Some plants exude chemicals that suppress or repel pests as demonstrated by basil, borage, Nepeta, chives, garlic, nasturtiums, rosemary, oregano, sage, feverfew and thyme. [PURPLE]
* Physical spatial interactions. Tall growing sun-tolerant plants can provide shade for shorter shade-tolerant plants as demonstrated by tomatoes shading chard, chives and basil. [YELLOW]
* Pests can be disoriented from target crops as demonstrated by basil with tomatoes and eggplants. [ORANGE]
* Beneficial habitats. Plants provide desirable environment for beneficial insects as demonstrated by borage, Alyssum, Salvia, Achillea, Nepeta, feverfew, fennel, Gaillardia, thyme, Verbena, etc. [RED]
* Security through diversity. Avoids monoculture planting; creates a healthy environment as demonstrated by tomatoes, Salvia, Verbena, thyme, Alyssum, beans, onions, eggplants, oregano, poppies, roses, etc. [BLUE]
* Enhances flavors of one or the other as demonstrated by basil with tomatoes.
* Edible flowers including Calendula, squash, borage, chives, nasturtiums and herbs.

Plants in Cathy's raised beds #1 to #5, starting at the west end of the beds:

Bed #1:
Mixture of green (‘Genovese’) and purple basil
‘Brandywine’ tomato (under tuteur)
4 ‘Pepperoncini’ peppers
Peppers: ‘Cajun Belle,’ ‘Hot Portugal,’ ‘Alma Paprika,’ ‘Chili D’Arbol’
‘Berkeley Tie Dye’ tomato (tuteur)
3 ‘Padron’ peppers
‘Cherokee Purple’ tomato (under tuteur)
5 Purple basils
Green sweet basil
Poppies

Bed #2 (with homemade wattle trellis):
4 ‘Early Girl’ tomatoes
Thyme
*Salvia*
Borage
‘Brandywine’ tomato
*Achillea*
2 ‘Green Zebra’ tomatoes
*Calendula*
‘Better Boy’ tomato
‘Black Trifele’ tomato
3 Borage
Parsley
Poppies
*Alyssum*

Bed #3 (with rebar supports):
‘Curled’ parsley
‘Italian’ parsley
‘Green Globe’ artichoke
‘Pepperoncini’ pepper
4 ‘Marconi Red’ peppers
‘Lemon’ cucumbers
Poppies
*Alyssum*

Bed #4 (with angled trellis and several small wire arches over bed):
2 ‘Sungold’ tomatoes
‘Black Krim’ tomato
‘Sungold’ tomato
‘Yellow Pear’ tomato
‘Brandywine’ tomato
‘Sweet Treats’ tomato
‘Copia’ tomato
‘Paul Robeson’ tomato
Mint, ‘Italian’ parsley
*Coreopsis*
*Echinacea*
**Centranthus ruber**  
Poppies  
*Alyssum*

Zinfandel grapes under-planted with ‘Flanders’ poppies to the north and west of these beds.

**Bed #5:**  
2 ‘Travata’ eggplants  
Eggplants: ‘Gretel,’ ‘Kermit,’ ‘Snowy White’ and ‘Orient Express’  
 Tomatillo  
2 *Basil*  
2 *Physalis*  
2 Basils  
Tomatillos  
‘Orient’ eggplant (north)  
‘Turkish’ eggplant (south)  
Poppies  
*Alyssum*

South of these raised beds are two large areas - A (west) and B (east) with a path down the center and an arch with an ‘Altissimo’ Rose over the arch. The grape arbor to the east of the raised beds has red seedless grapes; green seedless grapes grow on the fence above the greenhouse.

**Bed "A":**  
6 large boulders surrounded by mixture of ‘Golden’ feverfew, gladiolas, ‘Paludusom’ daisies, purple basil, shiso, *Gaillardia, Stachys, thyme, Alyssum, Achillea, Aquilegia, Verbena bonariensis*  
Poppies  
Wagon wheel planted with purple tree collard, red *Verbena*, white *Alyssum*, ‘Italian’ parsley, white *Verbena*  
2 tuteurs underplanted with scarlet runner beans  
5 artichokes  
Borage  
*Salvia*, Poppies

**Bed "B" (Herb Bed):**  
4 large boulders bordered with ‘Golden’ feverfew, shiso, ‘Paludusom’ daisies, gladiolas and rosemary  
Behind them are oregano (prostrate), thyme, ‘Golden’ oregano
Bronze fennel
Sunflowers
Several lavenders
Nigella

Both sides of arch around large rocks: ‘Golden’ feverfew, *Tanacetum vulgare*

Plants in large entryway pots and wagon wheel:

‘White and Red Verbena,’ *V. X hortensis*  Wagon Wheel
Purple tree collard, *Brassica oleracea var.*  Wagon Wheel
‘Golden’ oregano, *Origanum vulgare ‘Aureum’*  Wagon Wheel, pots and beds
White *Alyssum*
Parsley, *Petroselinum crispin*  Wagon Wheel
Sage, *Salvia officinalis*  Large pots
Nasturtiums, *Tropaelum majus*  Large pots
Swiss Chard
*Alyssum*  Large pots

Near Cathy’s greenhouse are squash, asparagus and artichokes. On the property you will find a variety of fruiting trees and vines as well as nut trees: peaches, nectarines, cherries, figs, apples, pomegranates, persimmons, lemons, limes, tangerines, oranges, loquats, plums, olives, almonds, pistachios, blueberries and raspberries.
Anne's Edible Garden is a beautiful example of ornamentals and edibles coming together making a perfect transition from one to the other. Crops and ornamentals are planted together for the benefit of one plant or each other. This is the practice of “companion planting.” [The gardens are color-coded to assist tour participants in locating beneficial pairings. The colors, below, reflect this “search and find” tour activity.]

Companion planting may have the following benefits:

* Distract pests from main crop as demonstrated by basil, *Salvia* and oregano. [ORANGE]
* Symbiotic nitrogen fixation. Legumes fix atmospheric nitrogen as demonstrated by the “three sisters” – companion planting of corn, squash and beans. [GOLD COIN]
* Biochemical pest suppression. Some plants exude chemicals that suppress or repel pests as demonstrated by marigolds, oregano and *Salvia*. [PURPLE]
* Physical spatial interactions. Tall sun-loving plants can provide shade for shorter shade-tolerant species as demonstrated by the “three sisters” – companion planting of cucumbers shading komatsuna and ‘Golden’ oregano. [YELLOW]
* Beneficial habitats. Plants provide a desirable environment for beneficial insects as demonstrated by borage, *Alyssum, Salvia, Achillea, Nepeta*, dahlias, marigolds, thyme, *Verbena*, etc. [RED]
* Security through diversity. Avoids monoculture planting, creates a healthy garden environment as demonstrated by tomatoes, *Salvia, Verbena*, thyme, *Alyssum*, beans, onions, marigolds, melon, oregano, etc. [BLUE]
* Enhances flavors of one or the other as demonstrated by basil with tomatoes.
* Edible flowers as demonstrated by *Calendula*, squash, borage, nasturtiums, etc.
List of plants in raised beds in Anne’s garden:

Bed #1:
- Giant mustard
- Marigolds
- **Alyssum**
- Feverfew
- Borage
- Peppers ‘Anaheim Chili’
- Squash ‘Costata Romanesco’
- Corn ‘Tennessee Red Cob’
- Pole Beans ‘Rattlesnake’
- *Salvia blepharophylla*, Eyelash-leaved Sage
- Pepper ‘Pinot Noir’
- Chard ‘Magenta Sunset’
- Onions ‘Red Candy Apple’
- Leeks ‘American Flag’
- Garlic chives
- Nasturtium (possibly ‘Creamsicle’)

Companions:
- Corn, squash, beans

Bed #2:
- Basil ‘Genovese’
- Basil ‘Purple’
- Basil ‘Cinnamon’
- Oregano ‘Hot and Spicy’
- Tomato ‘Mr. Stripey’
- Marigolds
- *Salvia* ‘Amistad’

Bed #3:
- *Origanum vulgare* ‘Aureum’
- Cucumber ‘Armenian’
- Red komatsuna

Companions:
- ‘Superbena Blue’ *Verbena*
- *Achillea* ‘Firedance’
- *Salvia* ‘Mystic Spires’
- Borage
- Squash, volunteer
- Tomato ‘Sun Gold’
- Nasturtium (possibly ‘Creamsicle’)

Companions:
- Tomato, cucumber, nasturtium
Bed #5:

- *Salvia* ‘Mystic Spires’
- Marigolds
- Feverfew
- Cucumber ‘Lemon’
- Giant mustard
- *Alyssum*
- Squash ‘Ronde de Nice’
- *Salvia blepharophylla*, Eyelash-leaved Sage
- Beans, bush, ‘Provider’
- Melon, honeydew

- *Origanum vulgare* ‘Aureum’
- Tomato ‘Celebrity’
- Onions, white
- Borage
- Thyme ‘Lime’
- ‘Superbena Burgundy’ *Verbena*

Companions:
- Cucumbers, beans
- Beans, squash