It’s a bit scary to write 2015! Where does time go—especially with much of 2014 year in the garden lost for me! Foot is all well again—and the New Year brings new challenges and opportunities—one of which will be to continue to downsize my garden, but keep the beauty/enjoyment! Come with us as the Scatter Info as We Bloom and Grow editors present for you information in three important GCG/NGC school areas—horticulture, environment, and landscape design.

**Sustainability in the Garden**

“**Sustainability** is the endurance of systems and processes. The organizing principle for **sustainability** is **sustainable** development, which includes the four interconnected domains: **ecology, economics, politics and culture.**”—straight from Google! And it seems to cover all bases—including horticulture. How do we accomplish it in our home gardens—both food crops and ornamental? (Personally I gave up food crops when the deer won the battle despite some very expensive equipment and supplies to win on my part—more about that in the next section of this January edition.)

“**Sustainable horticulture** is a way of growing plants that’s sensitive to the environment… **through minimal use of chemicals, growing in compostable pots, and using biologically enriched soil and organically-based fertilizers.** We’ve found in our research that plants grown in this way are not only better for the environment, but better for your garden!” Ball CIRCLE OF LIFE™ methods produce stronger roots, better growth, earlier blooms, and better garden performance in general. (This is taken from Ball Horticulture which is a world leader in plant development & distribution.)
“A sustainable garden, one that supports the local ecosystem and spurns chemical intervention, can be as beautiful as it is virtuous.” Jennifer Carlson thought about how each part of her Seattle backyard garden could be engineered so that it would add up to one self-supporting loop. From rain barrels that harvest water for irrigation, to permeable paving that allows runoff to percolate into the soil, to a fence that composts garden clippings, every backyard element contributes to the landscape's sustainability as well as its beauty and productivity.” From ‘This Old House’ website

(The Happy Gardener isn’t brave enough to tackle the total subject of sustainability! As the first definition states sustainability is ecology, economics, politics and culture—true, but an entirely too broad a definition to be discussed at the Scatter Info….purpose—most would stop reading at the first paragraph. I’ve done three different rewrites and barely scratched the surface of this entire topic! Therefore we will talk about the basic horticulture of sustainably maintaining a garden! And it will be basically from my very pragmatic approach to the garden. Hopefully, it will help you adjust your gardening to serve this ecologically necessary approach. The web has an amazing number of excellent resources. Thanks for your patience)

Gardens come in all sizes and design from the most chaotic to the most formal—the design decision belongs to the gardener, the materials at hand, and the time and money to be spent. As a Navy wife there was a lot of experience gained in almost every climate possible—from growing up in Missouri, Kansas, and Oklahoma to the panhandle of Florida, to California—both northern and southern, to Virginia/Maryland, to Buffalo NY, and now in Georgia. What did I learn? It is not possible to grow all genus in every part of the United States! Soil comes in all forms from fertility, tilth, terrain, available water, and climate! But a satisfying garden is possible with determination and use of containers. (We will tackle container gardening in the April edition) Each new climate brought new experience and understanding and believe it or not Buffalo had the most beautiful gardens you can imagine! People made the very best of the ‘gardening season’ and ‘Garden Walk’, held the
last full weekend of July, is an experience to not miss—300+ houses on walking tour from the grand turn of century mansion to the charming cottages.

Jean Givens and Rebecca McNeill are the grand doyennes of horticulture for Garden Club of Georgia. Their stress on the Basic Horticulture concept has done much to promote gardening for Georgia. In today’s world we are becoming very aware of the ecological necessity to practice the concept of sustainable gardens. We ‘grew up’ using chemicals to kill the bugs and wipe out the weeds, fertilize the plants, and promoting inappropriate use of water resources resulting in contaminated water sources, depletion of ground water, destroying balance of nature between good bugs and bad and diminishing resources for future generations. How can we change our methods and establish maintainable gardens? The suggestions listed below are condensed from the Missouri Botanical Garden—one of the oldest and best in the country. It is an excellent site for almost any gardening question--  www.missouribotanicalgarden.org/gardens

**Sustainable Gardening**

1. **Conserve water and control water runoff**
   **Lawn**—one inch a week is quite sufficient. Using drought tolerant grass is a better choice
   **Garden**—drip or soaker hoses and water deep first thing in the morning; mulch; if legal in your area establish rain barrels and use ‘grey water’ appropriately; use porous surfaces rather than concrete to allow water to percolate into the soil rather than ‘run off’ down the street

2. **Reduce fossil-fuel energy use**
   **Lawn**— Reduce the size of your lawn by replacing some of it with beds of shrubs or drought tolerant perennials; keep the lawn mower serviced with sharp blades and reduce mowing; tolerate/hand pull weeds; consider an old-fashioned push mower—but let’s face it in our hot summer climate this isn’t too practical
   **Garden**—weed control and cultivation by hand; landscape lighting with solar controls and only where needed for safely, conservative use of holiday lights; dig beds manually and pull weeds by hand—which is often more effective and less damaging than resorting to chemical sprays; add landscape lighting only where it is really needed and when used, use compact fluorescent bulbs or solar-powered lights--Low voltage lighting also uses less electricity and is safer for outdoor use.
3. Deal with yard and garden “waste” in a sound way
Lawn—grass clippings do not need to be collected in most instances—use a mulching lawn mower or add to the compost pile if they must be collected, do not send grass clippings to the landfill
Garden—develop a compost pile; don’t send plant based garden waste to the landfill; reuse any containers in your own garden or recycle

4. Plant Selection
Lawn—Select more drought tolerant grasses that require less mowing and water
Garden—Replace plants that require a lot of watering with plants that are more drought tolerant; use appropriate native plants—choose plants that are suitable to your climate; use diverse plant selection—not all roses! (Georgia Gold Medal Winners are excellent choices); avoid invasive plants (any plant listed as ‘grows or spreads quickly should raise red flags)

5. Garden Design
Lawn—Reduce the size of your lawn.
Garden—Locate deciduous trees to help shade and cool your home in the summer and warm the house in the winter; plant a windbreak; chose sustainable wood for any outdoor garden structures; rainscaping features will help manage stormwater

6. Plant Maintenance
Lawn—Get a soil test before you add fertilizer and or lime to your lawn and follow the recommendation—over fertilizing leads to excess plant growth which can be more susceptible to diseases; fertilizer runoff will pollute streams and groundwater; apply fertilizer according to directions—a little bit more is not better; be tolerant of some insect damage and weed grown—it is possible to handle these conditions with less damaging methods; don’t overwater, use a proper maintenance schedule for your climate conditions
Garden—Learn to tolerate minor insect damage in your yard and garden and work to increase the number of beneficial insects; learn to distinguish the good insects from the bad! Spraying with a pesticide can place harmful chemicals in the environment and may also kill beneficial insects, birds or nearby plants. Learn which plant diseases are harmful to your plants and may warrant control and which are just a cosmetic nuisance that will not affect the health of your tree, shrub, or perennial. For example, leaf spot diseases and leaf galls are very common on trees but few if any require treatment.Get a soil test before you add fertilizer and or lime to your yard or garden and follow the recommendations. Over fertilizing can lead to excess plant growth, which can be more susceptible to diseases. Trying to grow a plant in a soil outside its recommended climate range will result in poor growth or even death.
**Deer and the Garden!**

Deer, such beautiful and graceful animals— we are taking their space, BUT they are taking our gardens. Maybe we need to figure out how co-exist! The deer aren’t going to change; we will need to adapt to them. Below are some options based on personal experience:

- **Build a very tall fence**
  - 7 feet minimum—9 is better—expensive and difficult to landscape.
  - Install an electric fence—we put a four strand substantial one around a large vegetable garden which kept them out for three years, but they learned to get through it after that.
  - There are some ‘invisible’ wire fence options which have mixed reviews but I have no personal experience with them
- **A big dog or two…(don’t seem to be scared of my cat)**
- **Scare tactics including strong smelling soap, water spray, noise…**
- **Various commercial Deer repellants to spray, attach, or spread on the ground to deter their being devoured**
  - (many years ago my neighbor (with no deer experience) planted impatiens as a border in front of some shrubs—of course the deer ate them. Next night he sprayed the impatiens with hot pepper spray—he swears that evening they were back eating and discussing the fact they were having ‘Mexican’ for supper and how nice to have a varied menu!)
  - Alternating commercial spray/apparatus/granular products every time it is necessary to re-spray can sometimes be effective—but a nuisance
- **Deer don’t like to be in a confined area**
  - A smaller area fenced can be a good place to use marginal deer proof plants. The area behind our house where the swimming pool is located can be easily accessed by the deer—the gates are always open (no small children in our neighborhood and several acres between houses) we’ve never had deer in this area.
  - **Alcoves in the house exterior design are another good place**
- **Milorganite is a commercial fertilizer made from Milwaukee sewage sludge! It works not only as a great fertilizer but as a deer deterrent! Home Depot seems to be the only place it is available where we live. Another neighbor with a beautiful garden uses it successfully and uses some deer favorites in**
her garden, but it is a really good fertilizer—slow acting but after a year it can really show a difference

- One more ‘trick’ is to use a favorite plant nestled with disliked varieties
- Research including trial and error for plants they will not eat—unless they are starving—listed below are some general characteristics deer avoid
  - Fuzzy leaves—*Stachys byzantine*, Lambs Ear are an example
  - Fuzzy flowers such as *Helichrysum bracteatum*, strawflower
  - Thorny plants—*Rosa rugosa*, many cultivars for this very hardy shrub rose
  - Most culinary and medicinal herbs—probably because of the strong scent
  - Any plant with a sword shaped leaf such as *Iris*, *Aspidistra*
  - *Salvia*—the ornamental varieties of which there are some lovely cultivars—one of my favorites is ‘Hot of which they are many lovely cultivars
  - Ornamental grasses
  - Ferns
  - Any shrub of tree which has a sharp pointy leaf—many holly
  - Most succulents and many are winter hardy in Georgia
  - Daffodils because they are poisonous to them
  - *Helleborus orientalis*, Lenten Rose or *H. niger*, Christmas Rose
- Deer will eat anything that grows if they are hungry enough so take that into consideration, plus their taste buds differ with breed and region

**Favorite deer resistant annuals, perennials and bulbs**

**Aster**—perennial or annual is a very hardy fall blooming perennial (there is also an annual, China aster) very valuable in the perennial border. Some shade, fairly drought tolerant, and spreads to a beautiful mound—divide about every 3rd year.

**Penstemon**—Perennial or annual—the picture is of *Penstemon digitalis* ‘Husker Red’ and is a Nebraska cultivar. It is perennial but also reseeds. It has been in my garden for several years and never fails—mid-summer bloomer and drought tolerant—as any plant from that part of the country has to be!

**Echinacea**—perennial or annual
**Coreopsis**—perennial or annual
**Dahlia**—perennial or annual
Centaurea cineraria (dusty miller) perennial or annual
Centaurea cyanus (bachelor’s button) reseeding annual
Centaurea montana (perennial bachelor’s button)

*Helleborus orientalis*—perennial and simply an amazing winter blooming plant—a favorite of mine. Blooms as early as late December and even the seed pods in the early summer are interesting, plus it reseeds and spreads very nicely. Part sun, some shade,

Euphorbia—perennial or annual
Ageratum—perennial or annual
Rudbeckia—perennial or annual
Tagestes (marigold) self-seeding annual
Santolina (lavender-cotton) perennial
Viola (violet) self-seeding annual (deer love pansy but ignore the little Johnny jump-up)
Achillea (yarrow) perennial or annual

Dianthus—perennial or annual *Dianthus* ‘Bath’s Pink’ is a Georgia cultivar—low growing spring blooming perennial with the most heavenly scent imaginable; spreads nicely and is a great border plant for full sun and some shade. The right hand picture is *Dianthus caryophyllus* and is short lived perennial blooms from early spring till late summer if dead headed. Very hardy and good in container gardens as well as bedding plants
Zinnia—self-seeding annual
Larkspur—self-seeding annual

Cleome—self-seeding annual and can be a bit invasive with its self-seeding properties, but is so easy to pull up and so much fun to fill in the back of the border who cares—just don’t use it for a bouquet for the house—not a good aroma! There are a couple of new cultivars for the edge of the border—my luck has not been good with them

Antirrhinum *majus* (snapdragon) short lived perennial
Daffodils
A few Shrubs and Trees
*Spiraea various species* (Spirea)
Prickly needled evergreens such as spruce, juniper, cedar etc.
Boxwood
Sasanqua Camellia
Burford Holly

**Ornamental Grass**—I can’t think of any ornamental grass that deer have eaten—and there are grasses in all size, shape, even color

**Ferns**—most ferns are deer proof

In this list, researched from several ‘on-line’ references, *Southern Living Garden Book*, and my own experience is further edited to not include anything that is invasive. You undoubtedly have had opposite experience with some of the suggestions and a good experience with some not listed, but deer don’t all enjoy exactly the same plant and they will eat anything if hungry enough.

*Always remember each of the Scatter Info—Where you Bloom and Grow editions is written to help you. Please do ask questions or for more information or to share your opinions please email me at* gail.berthe@gmail.com.

*The Happy Gardener, Gail*