## The Science and Art of Gardening

The science of gardening runs from biology and botany to geology and physiology. Horticulture is defined as the art or practice of garden cultivation and management. The focus of this series will be learning enough science to become a more successful and confident gardener and have fun doing it.

These topics will be discussed, one each week.

- Composting and the Benefits of Organic Matter in Soil
- Becoming a Garden Detective
- Managing Pests and Diseases
- Building a Bee-Friendly Backyard
- Lawns: Past, Present and Future
- Invasive Species and Ornamental Alternatives
- Deer Defense: How to Co-exist with the Willest of Wildlife
- Growing Orchids at Home (Without Killing Too Many)

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Handouts will be posted after each class.

Session summaries:

### 1. Composting and the Benefits of Organic Matter in Soil

Composting not only produces a rich soil amendment, but also plays an important role in organic recycling. Explore a number of easy ways to get started, or learn ways to fine-tune your current composting methods. Learn how organic matter improves soil and enables plants to take up nutrients. This presentation looks at soil from a geology, biology and chemistry perspective, and simply explains the science.

## 2. Becoming a Gardening Detective

(What, where, when, who and why). Successfully treating a plant problem first requires identifying exactly what the problem is. Learn how to be a good detective: define the problem, collect clues, determine the cause, synthesize the information, research the management and control... then go help your plant.

#### 3. Managing Pests and Diseases

(aka Plague and Pestilence) Good bugs, bad bugs, insect id, common indoor pests, IPM. Includes a brief review of new pests - jumping worms, spotted lanternfly and Asian longhorned tick

## 4. Building a Bee-Friendly Backyard

Gardening for Pollinators - A "bee-friendly" backyard can support a lot of pollinators and beneficial insects, which can only make your garden more beautiful! Learn how to design your

gardens to give pollinators the shelter and variety of foods they need, and gain a perspective on the "when, why and how" of pesticide use.

# 5. Lawns: Past, Present and Future

Learn fun facts about lawns and today's Turfgrass industry, and the history of lawns in Europe and America. We contrast common home lawn care myths with some simple steps for homeowners to help "Love A Good Lawn" including using meadows to replace lawn.

## 6. Invasive Species and Ornamental Alternatives

Invasive species are harmful plants or insects that have been introduced into our landscapes from other places which then thrive in our environment. Learn what makes things "invasive" and how they cause harm, look at some of the common invasive species found in Dutchess County, and discover ornamental alternatives to plant instead.

# 7. Deer Defense: How to Co-exist with the Willest of Wildlife

There are lots of ways to garden in Dutchess County without sacrificing all your hard work to marauding deer. This presentation uses Cornell research-proven methods in three categories: Barriers, Repellents and Alternative Landscape Choices. You will be given several resources and the best ideas available for deer-resistant landscape plants and perennials.

# 8. Growing Orchids at Home (Without Killing Too Many)

Have you ever received an orchid and wondered how to care for it? This presentation looks at several types of orchids, their native growing environment, and a discussion about those most suited to a home environment and how to care for them.