

Chapter 3

Gardening for Families

Gardening is a living process—a part of the natural cycle. Each garden is a tiny ecosystem that will succeed if you watch and take your cues from the natural world. Ecological gardening is a simplified form of how nature maintains itself.

Do not worry about being a perfect gardener. Gardening is not complicated and does not require you to be an expert. You can grow as a gardener simply by learning from what you are doing and what you have done in the past.

There are, however, some important things to know before you plan and grow your Native garden. This chapter is an overview of the basic steps that experienced modern gardeners take to prepare and grow an ecological garden that works *with* the cycles of nature. Chapters 1 and 4 immerse you in the important ideas and ways of growing by which you become a part of Native gardening and the Circles of Life. *The basic gardening tips and information in this chapter will help you prepare for planting a specific garden design from Chapter 4—either the Wampanoag or the Hidatsa Three Sisters Garden.*

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Children are gardeners at heart. They possess a natural enthusiasm for working with plants. There is little that needs to be done to adapt the day-to-day gardening tasks for children, but it is valuable to consider the approach to take when sharing the activities. Here are a few simple tips:

- Take one step at a time. Explain things clearly and simply and the experience will carry itself.
- Watch for the tasks that each child prefers doing. Encourage children to participate in each of the different gardening experiences to keep their interest, but allow them to do what they most enjoy whenever possible.
- Invite children to take charge of particular crops or parts of the garden to encourage responsible caring.

- Allow a reasonable amount of snacking from the garden and keep a variety of other healthy foods on hand for snack times.
- Allow children to mix short periods of work doing different tasks interspersed with playtime. Gardening is an organic experience that is more effective if children learn that it can also be fun.
- Allow for lots of beginners' mistakes and approach them lightheartedly. Discuss how things could be handled better next time.
- Teach the children that a garden is an attempt to create a temporary natural community or *ecosystem*. Use the garden as a way of teaching about natural cycles, such as the water cycle, nutrient cycle, life cycle, gas cycle, lunar cycle and the cycles of night and day, the seasons and the years. During the gas cycle, for example, people exhale carbon dioxide, which green plants need to grow. Green plants, in turn, give off the life-sustaining oxygen that animals breathe in.
- Use only natural fertilizers and methods of pest control as described in this book. This is important for placing a high priority on the children's health and for teaching wise Earth stewardship.
- Help children to see the garden as a learning laboratory, with lots of opportunities to experiment and observe results.
- Promote the idea that everyone can find their own approach to gardening—there is no one right way.
- Share in the sense of wonder, learning and adventure with the children.

Keeping a Garden Journal

Schedule quiet time at the end of each gardening day for entries in your *garden journal*. Record the interesting and important things you experienced that day. Be sure to include the date, weather and time of day of your observations. Write down the lessons you learn. This way your knowledge will grow from year to year. Journal entries can also include illustrations and photographs. Try to understand what you are seeing in the garden by asking questions such as who, what, when, where, how and why. What kinds of connections have you noticed between garden plants, animals, soil and so on? Read more about those subjects that interest you. Make copies of the page called "My Garden Journal" and use one page for each day's observations.

My Garden Journal

Date: _____ Time: _____

Weather: general conditions (sunny, cloudy, windy and so on) _____

temperature _____ general wind strength and direction wind is
coming from _____

What I did in the garden: _____

What I saw in the garden: _____

Lessons I learned today: _____

Illustration or photograph:



Garden Journal. Use a separate page to record each day's experiences in the garden.

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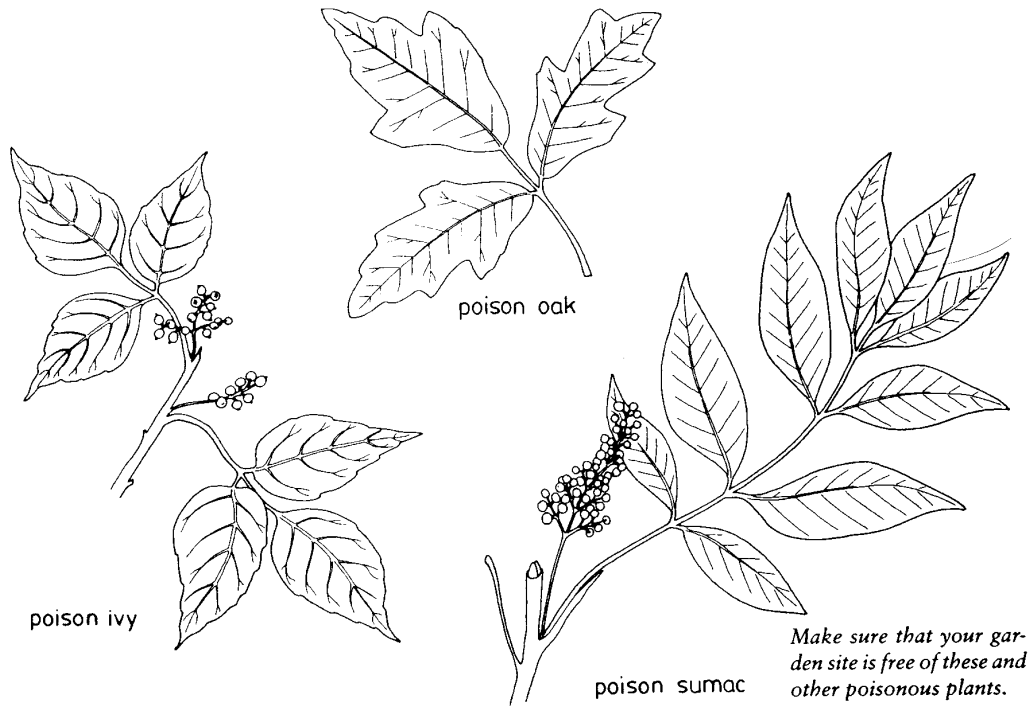
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- *Plenty of distance from pollutants.* Gardens need to be at least 200 to 300 feet (61 to 91 meters) from the nearest highway because lead (from exhaust fumes), cadmium (from tire wear) and other heavy metals can become part of the growing plant tissues. This makes the plants unfit for eating, especially by children. A 6- to 8-foot (2- to 2.5-meter) evergreen hedge is a good buffer against some highway pollution. Beware of lead from old paint and plaster, sources of asbestos (which also comes from wearing brake linings in vehicles), smokestack emissions from upwind of the site and toxic-waste sites upwind or upstream.
- *Easy, secure access* so that you will not have to carry tools, water and other supplies long distances and so that you will be safe when working in the garden. Locate the site close to human activity if possible to discourage crows, pigeons, raccoons, deer and other plant predators.
- *A manageable size*, large enough to grow your crops but small enough to allow you to grow a satisfying, well-managed garden. Consider how you will water your garden when deciding how big it will be. The specific sizes for the Wampanoag and Hidatsa Three Sisters Gardens are given in the description of the “*Three Sisters Garden*” activity in Chapter 4. It is best if you can use these sizes for your garden, although they can be adapted if your garden space is limited.
- *Soil free of all debris that could hurt you*, such as broken glass, discarded cans and tops, nails, etc.
- *A site free of poisonous plants*, such as poison ivy, oak and sumac.
- *A secure location away from busy traffic and close to the watchful eyes of friendly neighbors* to discourage vandalism.

Planning and Preparing the Garden Site

Measure the size of your site and plan the entire garden on paper. Later, you will create this garden outdoors. The garden plans offered in this book are included in the “*Three Sisters Garden*” activity in Chapter 4. Whichever garden plan you



choose, plant the tallest plants on the north side of the garden so they will not cast shade on the shorter plants.

Feel free to plant your own creative garden next to the Three Sisters Garden. We use flowers, herbs and vegetables as an artist uses paints—to create circles, swirls, color combinations and other patterns. As you plan, keep in mind the colors, scents, heights and textures of the plants and their flowers.

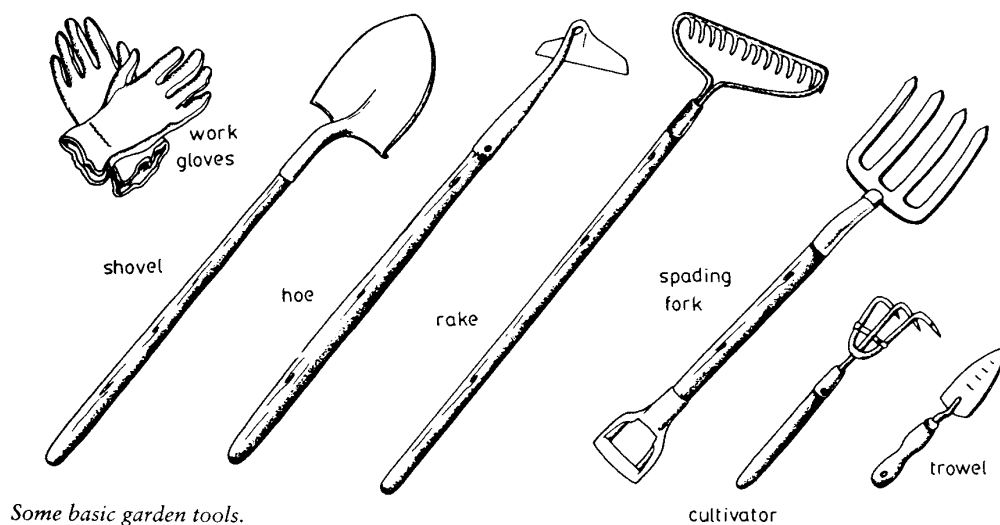
Plan a special place in the garden. Once the plants grow, this will be a quiet, sheltered spot where you can spend some time reading, drawing, playing a musical instrument, listening to music or getting involved in some other creative pursuit. We like to have our special spot near the corn or some other tall plants with flowers nearby. Use stones to decorate your spot. Many Native cultures consider stones to be wise because they are the oldest things on Earth.

Collecting and Caring for Garden Tools and Supplies

Gather the tools and supplies you will need. You can do many things in the garden simply by using your hands. In addition, the basic tools and supplies listed below will allow you to

accomplish the garden tasks—from site selection to harvesting—that are described in this chapter. You probably do not need to purchase all of these tools. Start out with a few basic tools and make creative use of whatever you already have at home. Additional supplies you will need are listed in the “Materials” section of each activity.

- work gloves for adults and children
- shovel
- hoe
- metal rake
- spading fork
- three-pronged cultivators
- small trowels for planting and transplanting
- garden cart (best) or wheelbarrow
- hose and nozzle
- watering can
- lawn sprinkler
- compost and/or slow-release organic fertilizer
- tape measure
- ruler



- stakes and strings to help mark the garden rows, corn mounds and so on
- wooden markers or Popsicle® sticks to identify plants
- indelible black marker with a fine enough point to write on wooden markers
- stakes to support plants
- string for tying plants to stakes
- pruning shears
- milk crates or baskets for harvesting
- cooler and crushed ice for harvesting
- containers with lids
- 5-gallon (19-liter) bucket of water and manure
- wide-mouthed jar with lid to measure rainfall (use with ruler)
- bag of cracked corn to put out for raccoons, crows and other pests

You may want to purchase special small tools for children less than eight years old. True Temper makes a line of children's tools called Little Giant. Also, you can obtain a high-quality set of children's garden tools, gloves and other accessories from:

Smith & Hawken	Gardener's Supply
2 Arbor Lane, Box 6900	128 Intervale Road
Florence, KY 41022-6900	Burlington, VT 05401
(800) 776-3336	(800) 876-5520

You can also call the following numbers to request the name of a local dealer of quality children's garden tools from these distributors:

Ames Lawn & Garden Tools	Brio
(800) 725-9500	(800) 433-4363
	This company sells gardening tools in specialty toy stores only. Call for the location of stores in your area.

Organize the tool storage area and make sure everyone knows how and where the tools are arranged. Set up a rotating

schedule of times at which different people will be responsible for gathering, cleaning and replacing all tools neatly after each gardening session. Each time you garden, it is important to wash dirty tools, wipe them clean and dry them. Clean metal tools with a wire brush every few weeks.

When working, be careful to lay metal rakes and spading forks on the ground with the tines pointing *down*. That way, no one will step on the tines and get hit when the handle flies up. Believe us, it happens!

Testing, Preparing and Maintaining the Soil

Soil is alive—it is the thin skin of Earth that makes life possible. Plants need soil to grow. Animals eat plants to live. When we feed the soil, we are feeding ourselves and other life on Earth.

Soil is made of three basic parts: minerals, organic matter and



Fungi, like these shaggy mane mushrooms, are an important part of the nutrient cycle that enriches the soil, the Circle of Life and Death.

living things. The *minerals* in the soil are found in sand, silt and clay. *Organic matter* is made up of the dead remains of plants and animals. There are hundreds of different kinds of *living things* in your soil, including earthworms, slugs, mites, nematode worms, beetles, ants and many kinds of insect larvae. (For more information and activities involving soil and the nutrient cycle, see Chapters 8 and 16 of *Keepers of the Earth* [Fulcrum, 1988] and Chapter 6 of both *Keepers of the Animals* [Fulcrum, 1991] and *Keepers of Life* [Fulcrum, 1994].)

Soil is where the *nutrient cycle* takes place. Organic matter is the food for the tiny *soil microbes*, mostly fungi and bacteria, which in turn break down the dead remains of once-living plants and animals into food for living plants. This completes the Circle of Life and Death that makes life possible for both the plants that use sunlight to grow and the animals that eat them.