KEEPERS OF THE LAND

THE GARDEN CLUB OF BARRINGTON
BARRINGTON, ILLINOIS

Foreword

KEEPERS OF THE LAND

"We have to be careful what we do to the land.
The fact is, we don't really own the land.
We're only here as keepers of it.
Our use of the land is but for a moment in time.
Yet the alterations we make may affect everything permanently."

Bunny Horne, resident 1931-1991
From a speech when presented with
The William H. Miller
Citizens for Conservation Award

This conservation-minded book is published by The Garden Club of Barrington as a public service for new and current residents of the Barrington area. We hope you will find it a helpful and informative introduction to a community we care deeply about and hope to preserve for generations to come.

Printed on recycled paper

KEEPERS OF THE LAND

Table of Contents

KEEPERS OF THE LAND

Table of Contents

Notes

1. WHO IS RESPONSIBLE FOR RESPONSIBLE LAND USE?

If you are a landowner, the answer to that question is YOU. You are responsible as the keeper of the land today, for this moment in time. You must be careful. Any alterations you make to the land can affect generations to come. You must take this huge responsibility as seriously as you do the most precious things in your life, as have generations before you.

In the words of Jens Jensen, preeminent American landscape designer,

> "*Our native landscape is our home, the little world we live in, where we are born and where we play, where we grow up and finally where we are ...laid to eternal rest. It speaks of the distant past and carries our life into the tomorrow. To keep this pure and unadulterated is a sacred heritage, a noble task of the highest cultural value."*

Long before us, and until 1834, the Barrington area was home to the Potawatomi and Macoutin Indians. For generations, these Indians, then 19th century settlers, 20th century landowners and now us, all came to savor the beauty of the area and the abundance of nature's morainic resources created by Wisconsin glaciation. The rolling topography was characterized by glacial lakes and wetlands, oak-hickory woodlands, hill and alkaline fen prairies. In this unique rural area, far outside the city of Chicago, a special relationship existed between man and nature.

The rich prairie soil and the ample water supply made the area particularly attractive to the farming migrants. In 1865 a town government was organized and the Village of Barrington was incorporated and established as the business/community center. But the countryside environment that surrounded the village in all directions remained of paramount importance to the early residents. These people became stewards of the land, preserving the rural area's natural resources and living in harmony with her flora and fauna.

By the middle of the 20th century, the Barrington community, which was once removed from the mainstream of Chicago suburban development, was gradually becoming surrounded by it. In 1970, in response to developmental trends in the area, and pursuant to the goal of conserving countryside resources, the Barrington Area Council of Governments was formed. This groundbreaking, seven-village body provided a forum in which heterogeneous growth could be accommodated in the 90 square-mile area in harmony with natural resources. For example, the Village of Barrington was designated as the service, employment, transportation and multi-family residence center of the area. The Village of Barrington Hills was designated as the most rural of the countryside environments, typified by five-acre minimum zoning.

In the years that followed, each of the seven Barrington villages adopted the BACOG Area Land-Use Policies Map and the BACOG Area Environmental Analyses and Policies Map. In addition, each of the villages created its own Comprehensive Plan, stating the goals and objectives of its separate community.

In large part, the effectiveness of these Comprehensive Plans depended on the private initiative of each village's residents and included making new residents aware of their obligation of personal stewardship.

<u>The ecological goals for the Village of Barrington Hills,</u> as stated in their Comprehensive Plan, are typical and in keeping with their semi-rural, more remote character:

+ Preserve scenic open spaces
+ Respect and conserve the natural topography, soils and geology
+ Protect lakes, rivers, streams and wetlands
  from pollution, erosion and degradation;
  encourage a natural character for lakes and shorelines
+ Maintain adequate stormwater drainage capacities of drainage basins, floodplains and waterways
+ Conserve groundwater supplies and protect underground aquifers from contamination, overuse and misuse
+ Conserve, protect and encourage the use of native trees and plants, especially in sensitive woodlands, prairies and wetlands

The ecological goals for the Village of Barrington Hills, continued

+ Nurture desirable and endangered wildlife and aquatic species, especially waterfowl and enhance their habitats
+ Mitigate the adverse impact of air pollutants, pesticides and fertilizers, odors, sounds and artificial lights
+ Encourage the conservation of energy in site planning and building design
+ Respect and protect the heritage of historical, architectural and archeological landmarks
+ Respect the balance of indigenous wildlife population with suitable management techniques and protection of their habitat
+ Encourage safe and attractive systems of equestrian trails for horseback riding and pathways for walking, biking and cross-country skiing
+ Encourage recycling of household waste products including reuse of landscape and construction debris

Why Protect Nature?

Natural areas enhance the quality of life for people and they help define a community by connecting residents to the natural landscape. A recent national survey of homebuyers found that natural open space, walking and bicycle paths and gardens with native plants were the three most desirable amenities for residential areas.

Environmental benefits alone are significant. Naturally vegetated landscapes, including prairies, woodlands and wetlands, provide a number of services that are highly beneficial to humans and ecosystems. They control erosion, help retain stormwater, help clean the air of pollutants, mitigate global warming by absorbing carbon dioxide and help shelter and cool our homes. Research has shown that these beneficial services depend on properly functioning ecosystems, which in turn depend on the diversity of plants and animals, biodiversity, that make up those ecosystems.

Why replace natural ecosystems with manicured substitutes which can never attain the efficiency of natural environments?

What Can I Do On My Own Property?

- ✓ Recognize the importance of biodiversity. Protecting a variety of plants and animals is essentially a matter of preserving and protecting their many different land and water habitats.
- ✓ Know what is growing naturally on your property. Know what you should protect from eradication and what is of no natural value and should be eliminated.
- ✓ Be involved with your surveyor, your architect, your builder and your landscape designer. Let them know you care deeply about your land! The Village of Barrington, for instance, has strict rules regarding trees, requiring developers to hire an arborist to study a site's trees and help the village determine what percentage of the trees, and which trees, should be preserved.
- ✓ Be aware that the turf grass lawn is the predominant landscaping material of the Barrington area. Despite the popularity of today's heavily manicured landscapes, ecologists have described them as virtual deserts with respect to biodiversity. Turf grass requires irrigation, frequent mowing, fertilizer, pesticides and herbicides and precludes native plant species. This maintenance is not only expensive but also contributes to adverse environmental impacts, including air and water pollution.
- ✓ Consider natural landscaping, at least as a partial alternative. It has none of this downside. In the words of renowned conservationist Lorrie Otto:

  "If suburbia were landscaped with meadows, prairies, thickets or forest, or with combinations of these, then the water would sparkle, fish would be good to eat again, birds would sing and human spirits would soar."

The future of our native landscapes depends upon the support and involvement of YOU, our Barrington area residents. It depends upon the degree to which YOU are educated about your property and your community. The Garden Club of Barrington hopes that *"Keepers of The Land"* proves a useful, educational tool to introduce you to your role as a responsible keeper of your land.

Material for this article has been drawn from "The Comprehensive Plan for The Village of Barrington Hills" and "Protecting Nature in Your Community" prepared by the Northeastern Illinois Planning Commission, in collaboration with Chicago Wilderness and many other area organizations.

2. THE LAND

The Barrington area has a variety of topographical features and ecological regions, all as a result of glaciation, which ended 13,000 years ago. A remarkable biodiversity exists in its natural communities: tall grass prairie, oak savanna, woodlands, fens, bogs and marshes. Each harbors a unique flora and fauna and each depends on fire to some extent for its perpetuation. Unfortunately, only remnants of this natural heritage remain.

Prairie was once the dominant feature of the Illinois landscape. The tallgrass prairie consisted primarily of grasses and flowering species. In our area we are fortunate that some remnants have been preserved or are being restored, including the prairies at Flint Creek Savanna, Grigsby Prairie, Shoe Factory Road Prairie, Sands Main Street Prairie, Palatine Prairie, Ela Road Prairie and Citizens Park.

Our Midwest prairie was not treeless, but had woodlands and groves where red oak and black maple predominated. From such groves originated the names of the towns of Fox River Grove, Buffalo Grove and Prairie Grove.

Scattered about the prairie were oak and hickory savannas where the fire-resistant bur oak was a prairie indicator tree. An excellent local example is Citizens for Conservation's Flint Creek Savanna where controlled burns have been an important part of the restoration process.

Each of our prairie wetlands (bogs, fens, marshes and sedge meadows) is unique in its manner of formation and as a result the vegetation differs in each wetland type, although all types of wetlands share some species.

Bogs are the result of a glacial depression left without an outlet. Typically, we find an open area of water surrounded by tamaracks on a quaking base where sphagnum moss, pitcher plants and sundews thrive in an acid substrata. This is what we find at Volo Bog.

Fens occur on hillsides where there is a constant seepage of underground calciferous water. In addition to harboring alkaline-loving plant species, the fens share many of the mesic prairie species. Nearby examples are Trout Park and Bluff Spring Fen in Elgin, as well as CFC's Wagner Fen in Tower Lakes.

Marshes require standing water at least for a portion of the year. Here plants such as cattails and arrowhead and sedges are rooted in the bottom and extend above the surface of the water. Later in the season, marshes are often covered with algae. Examples in our area are the marshes at Ela Road and Cuba Road in the Cuba Marsh Forest Preserve.

Sedge meadows are found in low flat ground where the soil is saturated much of the time. They may be flooded only in the spring when they are easily recognized by the peat tussocks topped with sedges. The most common sedge is *Carex stricta.* Grassy Lake Forest Preserve has an extensive sedge meadow.

Many of our preserved or restored habitats contain more than one ecosystem. For instance, the Flint Creek Savanna has not only an oak savanna, but also marsh and prairie ecosystems.

As concerned residents, our help is needed to preserve and to prevent further destruction of these rare natural communities.

Special Land Areas Mentioned in This Article and Where They Are:

+Citizens Park

Entrance off Northwest Highway #14 between Highway #59 and Main Street, Barrington
847-381-0687 www.barringtonparkdistrict.org

+ Flint Creek Savanna

South side of IL Route #22, between Harbor and Kelsey roads, Lake Barrington

+ Grigsby Prairie

Northeast corner of the intersection of Buckley and Oak Knoll roads, Barrington Hills
Access by appointment by calling 847-382-SAVE

+ Shoe Factory Road Prairie

Access from Shoefactory Road 1/4 mile west of Highway #59, or from Poplar Creek Forest Preserve
Call Crabtree Nature Center for information: 847-381-6592

+ Sands Main Street Prairie

.6 mile east of intersection of Highway #14 and Main Street, Cary
For more information call Cary Park District: 847-639-6100

+Palatine Prairie

Access by path from the Margreth Reimer Reservoir parking lot on Wood Street off Quentin Road south of Highway #14, Palatine
For information call Palatine Park District: 847-705-5140

+ Ela Road Prairie

A segment of the Cuba Marsh Forest Preserve
Access from Ela Road entrance to Cuba Marsh Forest Preserve

Special Land Areas Mentioned in This Article and Where They Are *continued*

+ Volo Bog State Natural Area
IL Route #12 north to Brandenburg Road, then west to
28478 W. Brandenburg Road, north of Volo
For information call 815-344-1294

+ Trout Park
On Trout Park Boulevard between Duncan Avenue and Highway #25 (Dundee Avenue) just south of Interstate 90, Elgin

+ Bluff Spring Fen
Access from Bluff City Cemetery on Bluff City Boulevard;
From Highway #59, go west on Highway #20 and left on Bluff City Boulevard, Elgin

+ Wagner Fen
On River Road, north of Miller Road
Tower Lakes
Escorted tours only by contacting 847-382-SAVE

+ Cuba Marsh Forest Preserve
Entrance off Cuba Road just west of Ela Road and
on Ela Road, south of Cuba Road

+ Grassy Lake Forest Preserve
South side of Miller Road, west of Highway #59, Lake Barrington
For access information, call Lake County Forest Preserve District:
847-367-6640

In addition:
+ Crabtree Forest Preserve
On Palatine Road between Barrington Road and Algonquin Road
Staffed interpretive nature center with trails to Crabtree Lake, marshes, woodlands and restored tallgrass prairie 847-381-6592

3. A 21st Century Conversation

Between The Creator and Saint Francis

God: Hey St. Francis, you know all about gardens and nature. What in the world is going on down there in the Midwest? What has happened to the prairie flowers and stuff I started eons ago? I had a perfect "no-maintenance" garden plan. Those plants grow in any type of soil, withstand drought and multiply with abandon. The nectar from the long-lasting blossoms attracts butterflies, honey bees and flocks of songbirds. I expected to see a vast garden of colors by now.

But all I see are these green rectangles.

St. Francis: It's the tribes that settled there, Lord. The Suburbanites. They started calling your flowers "weeds" and went to great lengths to kill them and replace them with grass.

God: Grass? But it's so boring. It doesn't attract butterflies, birds and bees, only grubs and sod worms. It's temperamental with temperatures. Do these Suburbanites really want all that grass growing there?

St. Francis: Apparently so, Lord. They go to great pains to grow it and keep it green. They begin each spring by fertilizing grass and poisoning any other plant that crops up in the lawn.

God: The spring rains and warm weather probably make grass grow really fast. That must make the Suburbanites happy.

St. Francis: Apparently not, Lord. As soon as it grows a little, they cut it ... sometimes twice a week.

God: They cut it? Do they then bale it like hay?

St. Francis: Not exactly, Lord. Most rake it and put it in bags.

God: They bag it? Why? Is it a cash crop? Do they sell it?

St. Francis: No, Sir. Just the opposite. They pay to throw it away.

God: Now let me get this straight. They fertilize grass so when it does grow, they cut it off and pay to throw it away?

St. Francis: Yes, Sir.

God: These Suburbanites must be relieved in the summer when we cut back on the rain and turn up the heat. That surely slows the growth.

St. Francis: You are not going to believe this, Lord. When the grass stops growing so fast, they drag out hoses and pay more money to water it so they can continue to mow it and pay to get rid of it.

God: What nonsense. At least they kept some of the trees. That was a sheer stroke of genius, if I do say so myself. The trees grow leaves in the spring to provide beauty and shade in the summer. In the autumn, they fall to the ground and form a natural blanket to keep moisture in the soil. Plus, as they rot, the leaves form compost to enhance the soil. It's a natural circle of life.

St. Francis: You had better sit down, Lord. The Suburbanites have drawn a new circle. As soon as the leaves fall, they rake them into great piles and pay to have them hauled away.

God: No. What do they do to protect the shrub and tree roots in the winter?

St. Francis: After throwing away the leaves, they go out and buy something they call mulch. They haul it home and spread it in place of the leaves.

God: And where do they get this mulch?

St. Francis: They cut down trees and grind them up to make the mulch.

God: Enough. I don't want to think about this anymore. Sister Catherine, you're in charge of the arts. What movie have you scheduled for us tonight?

Sister Catherine: "Dumb and Dumber," Lord. It's a real stupid movie about ...

God: Never mind. I think I just heard the whole story from St. Francis.

-Maggie van Ostrand

4. THE NEW AMERICAN LAWN

An attractive lawn is an asset to the total landscape. Although a common misconception is that only intensive management achieves a beautiful lawn, actually lawns need very little care to be attractive and healthy. Practicing sound lawn care is an important part of creating a viable ecosystem. Being informed about lawn and plant management and acting on that knowledge, can reduce the risks of water and wetlands pollution, can reduce the creation of health hazards for people and wildlife and can reduce the threats to biodiversity and the environment.

Fertilizers

Every year, three million tons of fertilizer keep American lawns greener than normal or necessary. Incorrect or excessive fertilizer application contributes to surface and ground water pollution. Excessive fertilizer causes rapid, lush growth that makes grass more susceptible to diseases. The New American Lawn may not require any fertilizer at all. If you feel you must apply fertilizer, an organic choice from the list below is recommended. The nitrogen in the fertilizer used should be a slow release source that is water insoluble. This provides nitrogen over a longer period and results in more uniform growth and a deeper root system. **Grass clippings contain about 4% nitrogen; if left on the lawn, they will provide one-third to one-half of your lawn's nutrient needs.** Test the soil every three to five years. It is a simple, inexpensive way to eliminate guesswork and unneeded fertilizer.

Sources of organic fertilizer

Nitrogen (N): Blood meal, cottonseed meal, fish emulsion, grass clippings and compost
Phosphorus (P): Rock phosphate, compost and bone meal
Potassium (K): Green sand, fireplace wood ashes, compost, aged manure and seaweed
Minerals (magnesium, zinc, iron, sulfur): Kelp meal and dolomitic limestone

Pesticides

The New American Lawn uses no pesticides. Every year, 67 million pounds of pesticides are used on American lawns. Pesticides include insecticides, herbicides, fungicides and rodenticides. There are risks to human health, domestic animals and the environment in the use of pesticides. Natural controls, pest-resistant varieties of seed, biological products, and herbicidal and insecticidal soaps lower the risks, as does the introduction of beneficial insects.

Insect Pests

Some pests need to be kept in check in the New American Lawn. Chinch bugs are usually found on lawns stressed by drought and excessive thatch. Solutions are to aerate and dethatch the lawn and drench with an insecticidal soap solution. Before Japanese beetles hatch, they are present under the grass in the soil as grubs. They feed on grass roots and encourage resultant, further damage from skunks, moles and raccoons as they dig in search of the grubs. Apply milky spore in April and August. Success may take several years. The New American Lawn, once established, won't create an environment conducive to insect pests.

Weeds

Not all weeds are bad. Weeds are merely plants growing where they are not wanted. A healthy lawn, properly mowed, crowds out many weeds such as crabgrass. The New American Lawn does not eliminate all weeds for years to come. It means choosing which battles to fight, how many prisoners to take and which of the enemy to leave alone.

Mowing

A lawn should be mowed with a sharpened mower blade/s to a preferred height of 2-1/2 to 3 inches. Mow often enough so no more than one-third of the grass height is removed with each cutting. The lawn will cut better if the grass is dry. A mulching mower with recycling blades will further cut the grass into finer slivers to remain on the lawn as a readily available source of nutrients. Since lawns are labor intensive and environmentally expensive, every effort should be made to reduce lawn size.

Seed

Where you have lawns, or want to have lawns, reseed or seed with first-class certified grass seed. This helps produce a healthy, vigorous, well-adapted lawn with few weeds. Seed should include a variety of grass types (including clover) selected for our area. Look for seed containing endophytic fungi, which are repellent to certain pests such as chinch bugs. You should seed in the fall. The cooler days provide an ideal environment for grass seed germination and deeper root growth.

Natives

Use native trees, shrubs and ground covers, or native grasses and wildflowers that are already well adapted to the environment, to replace vast expanses of lawn. They will require less fertilizer and fewer pesticides (probably none at all), less watering and less maintenance. Birds and wildlife will benefit from the berries and seeds of native plants. You will be saving money and your property will become a model of sound ecology. Loss of biodiversity has become a major biospheric issue – an issue that can be addressed by moving away from monocultures, such as landscaped areas of only mowed grass.

Safe Alternatives to Pesticides

The best and safest alternative for the New American Lawn is to use nothing. Go cold turkey! The sooner you eliminate harsh chemicals, the faster your soil will recover. Recognize that the past use of toxic chemicals may have destroyed the microbiotic life, which exists in healthy soil. Miracles do not happen overnight. It will take at least a season for treated soil to begin to recover. If necessary, organic fertilizers, IPM (Integrated Pest Management) and natural controls are safe alternatives to using pesticides.

Watering

Watering harms the grass if improperly done. When you water, do so early in the morning to cut down on evaporation. Water deeply to encourage deep roots and water infrequently. Remember that the more you water, the faster the grass grows and the more mowing is needed. Summer dormancy is a natural rest period for grass in hot weather. If a hot, dry summer turns your lawn brown, it is probably dormant and will recover when it rains. It means less mowing, less gasoline burned, less air pollution and overall less work. If you have replaced a part of your landscape with native plants for borders, ground cover and gardens, there will be less need for water.

Conclusion

Changing from a lawn that uses oil, gas, water and pesticides to a New American Lawn with all its benefits demonstrates *"Thinking Globally, Acting Locally."* Your New American Lawn will demonstrate a commitment to a more ecologically sound world.

Remember, patience is required. It may take several seasons for all the benefits to become apparent!

For more information on natural land in harmony with nature, contact Wild Ones, a not-for-profit organization, at www.for-wild.org or phone 500-FOR-WILD (a pay call).

The material for this article is adapted from
The Garden Club of America publication, "The New American Lawn."

5. MANAGING WETLANDS ON YOUR PROPERTY

Bog, Fen, Swamp, Marsh, Creek, Pond and Lake

"Healthy wetlands need neighbors who are good managers of these ecosystems." * Before beginning any wetland renovation on your property, check with the U.S. Army Corps of Engineers for the necessary permits. Permits are needed for some activities that involve filling, grading, clearing and installing rock riprap or seawalls. The U.S. Fish and Wildlife Service is a valuable resource for any questions regarding wetlands. In most Barrington area villages, it is also necessary to contact the municipal office regarding local ordinances before you proceed.

Basic Wetland Management

Clear debris and non-native vegetation such as purple loosestrife, reed canary grass, garlic mustard, buckthorn, box elder, bush honeysuckle and multiflora rose. Manage or eliminate native cattails as they also may choke out more desirable native plants. Hand pulling, digging or cutting are the best methods for clearing, but herbicides or a controlled burn may be necessary. A permit is required for burning in most Barrington area villages. Grade the shoreline to a gradual slope to reduce the velocity of runoff. **Natural plantings offer the best solution for stabilizing a bank or shoreline.**

Use pesticides and fertilizers sparingly. Use low or non-phosphorus fertilizer only if a soil test indicates a need. Avoid dumping or burning yard waste near the wetland area. Keep septic fields maintained and far away from wetlands to avoid water contamination.

Chemicals, dyes, harvesting (of nuisance plant growth) and stocking with game and forage species fish are possible controls of nuisance plant growth, including algae. Algae may indicate an unnatural balance of nutrients. Many types of controls are questionable and offer only temporary solutions. Dredging may be needed for restoration.

Instead of mowing to the edge of the bank, **plant a buffer zone (Ten feet is ideal.) of native wetland vegetation such as tall grasses, reeds, rushes and wild flowers along the shoreline.** These plants have long roots to

hold banks in place, guard against erosion, reduce sediment and help filter pollutants. Choose plants over seeds, which may wash away quickly.
Group similar plants together. Fiber blankets and stone may be used to hold new plants in place.

Native Wetland Plants

Red Maple	*Acer rubum*	Cardinal Flower	*Lobelia cardinalis*
Swamp White Oak	*Querus bicolor*	Arrowhead	*Sagittaria latifolia*
Bur Oak	*Querus macrocarpa*	Water Plantain	*Alisma subcordatum*
Basswood	*Tilia americana*	Sweet Flag	*Acorus calamus*
Buttonbush	*Cephalanthus occidentalis*	Pickerel Weed	*Pontederia cordata*
Red Osier Dogwood	*Cornus sericea*	Spike Rush	*Eleocharis sp.*
Elderberry	*Sambucus canadenis*	Fox Sedge	*Carex vulpinoidea*
Arrowwood Viburnum	*Viburnum detatum*	Wool Grass	*Scirpus cyperinus*
Yellow Coneflower	*Ratibida pinnata*	Black Eyed Susan	*Rudbeckia hirta*
Giant Bur Reed	*Sparganium eurycarpum*	Rice Cut Grass	*Leersia oryzoides*
Blue Flag Iris	*Iris virginica*	Swamp Milkweed	*Asclepias incamata*
Switch Grass	*Panicum virgatum*	Marsh Blazing Star	*Liatris spicata*
Joe Pye Weed	*Eupatorium maculatum*	Prairie Cord Grass	*Spartina pectinata*
Bluejoint Grass	*Calamagrostis canadensis*	Rushes	*Juncus sp.*
Big Bluestem	*Andorpogon gerardi*		

Wildlife

Planting a mix of native wetland plants will support a biodiverse habitat for desirable wildlife such as sandhill cranes, herons, kingfishers, blackbirds, owls, purple martins, ducks, fish, frogs, turtles, salamanders, dragonflies and butterflies. Some of these may also help to control mosquitoes that frequent wetlands. Floating the environmentally safe "Mosquito Dunks," found in local garden centers, may help control mosquitoes in small ponds. Tall native vegetation on the shoreline will discourage unwanted geese who love short grass lawns. If beavers are a problem, wrap wire mesh around tree trunks for protection and plant conifers instead of their favorite softwoods.

Recommended Reading

- **Living with Wetlands, A Handbook for Homeowners in Northeastern Illinois –* The Wetlands Initiative
- *Riparian Area Management, A Citizen's Guide –* Lake County Stormwater Management Commission
- *A Guide to Illinois Lake Management –* Robert J. Kirschner, Northeastern Illinois Planning Commission

More Information

Citizens for Conservation
459 W. Highway 22
Barrington, IL 60010
847-382-7283
www.citizensforconservation.org

Barrington Area Conservation Trust
17 Oakdene East
Barrington Hills, IL 60010
847-381-4291
www.bactrust.org

Lake County Stormwater Management Commission
333B Peterson Road
Libertyville, IL 60048
847-918-5260 www.co.lake.il.us/smc/publications.asp

Chicago Metropolitan Agency for Planning
233 S. Wacker Drive, Suite 800
Chicago, IL 60606
312-454-0400 www.cmap.illinois.gov

U.S. Army Corps of Engineers
111 N. Canal Street, 6th Floor
Chicago, IL 60606
312-353-6428 www.lrc.usace.army.mil/co-r/index.htm

U.S. EPA, Region 5
77 W. Jackson Boulevard
Chicago, IL 60604
312-353-2000 www.epa.gov/r5water/

U.S. Fish and Wildlife Service
1250 South Grove Avenue, Suite 103
Barrington, IL 60010
847-381-2253
www.fws.gov/midwest/Eco_Serv/index.html

The Wetlands Initiative
53 W. Jackson Boulevard #1015
Chicago, IL 60604
312-922-0777
www.wetlands-initiative.org

Flint Creek Watershed Partnership
459 West Highway 22
Barrington, IL 60010
847-382-7283
www.flintcreekwatershed.org

Notes

6. Some Important Native Trees

Why should you consider planting native trees in your home landscape?

Any native plant species has evolved over thousands of years with specific climate, moisture and soil conditions and each has become the best suited for its respective American ecosystem. A native species is easier to maintain, more resistant to damage caused by weather, insects and diseases and ultimately will provide better habitat for animals. The use of native plants, as opposed to imports from foreign countries, is an exciting upward trend. American gardeners are discovering that our own natives are far better at coping with our widely variable Northern Illinois climatic conditions. They need less fertilizer and insect protection. They can survive extremes of rain and drought. Natives only have two people-supplied major requirements: that a good mulch be applied over their roots and that they are given adequate watering. By planting native trees on your property, you are creating living monuments to the beauty this land used to possess.

Below is a short list of some very exciting native trees, which would welcome a home in your landscape:

The Oaks - The State Tree of Illinois
The grandest family of Illinois native trees is the oaks, with nineteen originally occurring species in our state. Oaks are usually separated into two groups: the White Oak Group and the Red/Black Oak Group.
In Northern Illinois, the major species are the Black Oak, Bur Oak, Hill's Oak, Pin Oak, Red Oak, Shingle Oak, Swamp White Oak, White Oak and Yellow Chestnut Oak.

Many of these majestic lords of the forest form deep root systems. All Illinois oaks eventually lose their leaves during a season, although many retain lifeless brown leaves well into the winter. The fruit of the oak, the acorn, may take one or two years to mature. The nut is partially or nearly entirely enclosed by a scaly cap.

An outstanding, local oak nursery source is Possibility Place Nursery, 7548 W. Monee-Manhattan Road, Monee, IL 60449
www.possibilityplace.com

Bur Oak (*Quercus macrocarpa)*
This signature tree of the Illinois prairie is fire, drought and pollution resistant. The Bur Oak is slow growing, has a deep root system, thick and grooved bark and may reach a height of 80 feet. Its acorn has a mossy, fringed cup and is a favorite of wildlife. A huge 375 year old specimen can be seen at Crabtree Nature Center on a path named for it: *"The Giant's Hollow Trail."*

White Oak *(Quercus alba)*
This stately oak can in its lifetime of 400-500 years reach a height and breadth of 100 feet and a trunk diameter of four feet. Acorns are about an inch long. The White Oak will benefit from some shade and good drainage. Like all oaks, this tree is very sensitive to construction and compaction over its root zone. For this reason, before any construction begins, temporary fencing should be installed which encircles the tree to a width equal to, or slightly larger than, the breadth of the tree's crown.

Red Oak *(Quercus rubra)*
Also known as the Northern Red Oak, this species is recognized by its large acorn, which has a shallow cap. The upper bark is smooth with gray patches while the lower bark is firmly ridged. Leaves are between 5-9 inches long. At maturity, this large, columnar tree of 100 feet in height**,** three feet in diameter, usually has a rounded top with several long, large extended branches. The Red Oak is at home in rich woodlands, near riverbanks and on well-drained slopes. Its autumn color varies from amber to crimson.

Shingle Oak *(Quercus imbricaria)*
More common in central and southern parts of Illinois, the Shingle Oak is nonetheless native to Cook and Lake Counties. Unlike other oaks, the Shingle Oak is fairly easy to transplant in a larger size and is moderately fast growing, eventually reaching a height of 50 feet. It adapts well to suburban landscapes, making an effective winter screen or windbreak as its leaves persist through the winter. The leaf edge is smooth with no teeth or lobes. The lustrous leaf is lance-shaped, about six inches long and two inches across, dark green and glossy on top. Its name comes from the French word for shingle because the wood could be split into thin pieces that were used for roofing material.

Shagbark Hickory *(Carya ovata)*
Native to the savannas of Northern Illinois, mature Shagbark Hickories are easily identified by their shaggy bark. A Shagbark Hickory can grow up to 80 feet tall and up to two feet in diameter with a life span of 250-300 years. The Shagbark develops thick-shelled nuts that are loved by animals that can crack them. It also has a monster taproot, is moderately tolerant of shade and can grow either with other trees or in open, well-drained areas. Of all the natives, Shagbark Hickories are the first to show stress when they are disturbed by excavation, so they also need a protective fence during construction. When planting anew, it is best to site this tree away from the house because it produces considerable debris from leafstalks, bark plates and nut husks. Buying a smaller tree, up to a 2-inch caliper, makes transplanting more successful. Cage young trees to protect from deer.

American Elm *(Ulmus americana 'Liberty')*
There is new hope for the lost native American Elm. Seventy-five years ago, the American Elm was the most widely planted tree in the urban landscape, but because of Dutch Elm Disease fungus which appeared in 1930 from Asia, millions of elms died. The Elm Research Institute of New Hampshire began experimenting by making seedling selections from elm trees that showed a high degree of resistance to the disease. *'Liberty'* is the oldest variety of those research successes. This cultivar grows rapidly, has an upright spreading form, is tolerant of air pollution and poor soil conditions. Should an elm on your own property develop Dutch Elm Disease, have it removed immediately and do not store the logs or chips on your land as this will only spread the disease.

Red Maple *(Acer rubrum)*
The Red Maple is one of the finest ornamentals, a shade tree for all seasons. It develops into an attractive specimen in a great range of soils. It grows fairly quickly in forests, along shorelines, in full sun or shade. When selecting a Red Maple cultivar, such as *'Autumn Spire'* or *'September Song,'* also consider other newer varieties that are hardy in our Zone 5. Consider those that have best flower color in early spring, contrasting leaf surfaces that add summer interest and magnificent scarlet fall color. Newer varieties of Red Maples are less brittle than predecessors and are considered superior to the faster growing Silver Maple *(Acer saccharinum).*

Sugar Maple *(Acer saccharum)*
The Sugar Maple's foliage sets the standard by which all other trees are measured in the autumn. This slow-growing, dense shade species, is a "hard maple" which thrives in moist, well-drained soil. The shape of the tree is oval, taller than it is wide, with a mature height over 40 feet. Its dense shade and shallow roots may preclude growing lush grass under its canopy. Affected by road pollution and road salt, the Sugar Maple is not a good street tree. Buy one of the many locally grown and established cultivars for hardiness.

Ohio Buckeye *(Aesculus glabra)*
The palmately compound leaf arrangement of Ohio Buckeye gives it an almost tropical appearance. This medium-sized tree leafs out early in the spring and is also one of the first to turn color, to yellow, orange and tan in the autumn. Showy, yellowish-green flower panicles, up to 12 inches long, appear in late spring. These trees prefer moist, well-drained soil. The Buckeye is not affected significantly by insects or disease. Growth rate is 10-20 inches a year, with a greater than 50 year life expectancy. Buckeyes are named for their nuts, brown with a light eyespot like the eyes of deer. Aesculin, the toxic substance in Buckeye nuts, makes them inedible for humans. Ironically, deer relish eating the leaves.
Smaller, with a slower growth rate, is the **Red Buckeye** (*A. pavia)* that has showy crimson panicles in the spring. In full sun, in full bloom, this woodland star is one of our most beautiful Southern Illinois natives.

Downy Serviceberry/Shadblow *(Amelanchier arborea)*
Serviceberries can be grown as multi-trunk or single trunk ornamental trees. At a height of from 20-40 feet, they are understory trees. Its early spring profusion of delicate white flowers is spectacular. In summer, birds battle for its showy small fruit, and in autumn, its leaves turn purple, orange, red and yellow. All Serviceberries prefer well-drained soil, but tolerate a wide variety of conditions. They will thrive in full sun to fairly dense shade. There is much confusion with the species and identification is hit and miss unless you're dealing with a very knowledgeable tree nursery.

Apple Serviceberry *(Amelanchier x grandiflora)*, a natural cross between downy and smooth Serviceberries, has produced many exceptional hardy northern cultivars, such as *'Strata.'*

American Hornbeam or Blue Beech *(Carpinus caroliniana)*
The Hornbeam is a slender tree, sporting an unusual smooth bark. It is basically disease and pest free and will tolerate shade and moist soil conditions. An ideal small understory shade tree, less than 25 feet in height, its interesting architectural shape is attractive in winter and its leaves are stunning in autumn in reds, oranges and yellows. Because of shallow roots, mulching is important as is protection when surrounding land is being disturbed. Hornbeams will not tolerate grade changes or land fill.
Transplant young specimens that are under two years of age.
Protect from deer browsing.

Northern Catalpa *(Catalpa speciosa)*
Much of the Barrington area could probably be re-named "Catalpa-Ville." Maybe it is so prevalent in our area because it is a survivor, tolerant of poor and rich soils, floods and droughts, full sun to partial shade, and basic and acidic soils. It is even very easy to transplant. Its litter problems suggest it is best located away from the cultivated yard. The Catalpa brings delightful memories of childhood with its showy white, trumpet-shaped flowers big enough to cover thumbs, long seedpods or Catalpa beans for mock sword fights and leaves large enough to wear as hats. Growing 20 inches/year to a mature height of over 40 feet, the Catalpa is an investment for future generations.

Redbud *(Cercis canadensis)*
The Redbud is one of the most picturesque, small ornamental trees. In spite of its misnomer, it does not have red buds, but is unforgettable nonetheless when in spring bloom. On its very black branches, rose-pink flowers push through the bark on each limb. Most landscapes can accommodate this stunning selection which grows to only 20 feet. The Redbud's cold hardiness varies tremendously and its success is directly linked to its geographical heritage, so be certain to buy stock locally grown. Redbuds need well-drained soil with adequate moisture. They will tolerate fairly dense shade, but will bloom more heavily in full sun.

Fringe Tree *(Chionanthus virginicus)*
Fringe Trees can be grown as single or multi-trunk spreading specimens, ranging from 12-20 feet in height. Preferring loose, moist, sandy soil and full sun, Fringe Trees can tolerate most urban conditions except drought. Its scientific name means "snow flower" and its cloud-like, pure white and brilliant wispy flowers are truly magical. Male plants are the more impressive bloomers while females bear clusters of date-like dark blue fruits. Transplant in spring. Protect from deer browsing.

Sycamore/Plane Tree *(Platanus occidentalis)*
Once so commonly planted as a street tree, the Sycamore did not appear on a suggested list since everyone knew this tree. For some reason, that is no longer true. When the French gave America the Statue of Liberty, the English adorned Ellis Island with London Plane Trees (*Platanus acerifolia). Plantanus occidentalis*, its American cousin, is adaptable to all soil conditions, even clay soils. Being reasonably fast growing, even in heat and pollution, this tree reaches about 80 feet at maturity and is one of the easiest trees to grow. Its mottled peeling bark is pleasing, particularly in winter. Falling leaves can be toxic to turf and the roots can be invasive, so the Sycamore should be grown on the edge of the lawn, away from buildings and pavement.

Hemlock *(Tsuga canadensis)*
The Hemlock is long-lived, full of character and really has no off-season. The evergreen needles of Hemlock are a dark olive green and about 1/2 inch in length. In spring, the new light green foliage creates a charming two-tone effect with the older growth. A regal, welcome addition to a deciduous planting, Hemlocks need moderate conditions with moist soil and good drainage and protection from wind. As with many sensitive natives, find a locally grown specimen for good results. Once planted, don't move it. It doesn't like any kind of change. Protect it from deer who adore it.

Other dependable and recommendable native trees hardy in our Zone 5:

American Beech	*Fagus grandifolia*
American Hop Hornbeam/Ironwood	*Ostrya virginiana*
American Linden	*Tilia americana*
American Smoke Tree	*Cotinus obovatus*
Autumn Witch Hazel	*Hamamelis virginiana*
Bald Cypress	*Taxodium distichum*
Black Gum/Tupelo	*Nyssa sylvatica*
Black Walnut	*Juglans nigra*
Honey Locust	*Gleditsia triacanthos*
Kentucky Coffee Tree	*Gymnocladus dioica*
Limber Pine	*Pinus flexilis*
Cucumber Tree	*Magnolia acuminata*
Pagoda Dogwood	*Cornus alternifolia*
Pawpaw	*Asimina triloba*
Persimmon	*Diospyros virginiana*
Quaking Aspen	*Populus tremuloides*
Red Pine	*Pinus resinosa*
Sourwood/Sorrel Tree	*Oxydendrum arboreum*
Tamarack	*Larix laricina*
White Ash	*Fraxinus americana*
White Pine	*Pinus strobus*
White Spruce	*Picea glauca*
Yellowwood	*Cladrastis lutea*

6. Some Important Native Trees *continued*

A Few Memorable Tree Facts

1. Help the atmosphere. One average tree in one year absorbs 26 pounds of carbon dioxide and airborne pollutants and replaces them with oxygen.

2. Increase the value of your home by planting trees. One well-chosen tree can measurably increase the value of your property.

3. Cut your air-conditioning bill 10-50% with properly placed trees.

4. Develop natural sound, wind and privacy barriers with trees.
For a winter wind barrier, plant trees on the north and west of your house and on the south and west for cooling shade in summer.

5. Create a natural woodland look by planting different varieties of trees a minimum of 8 feet apart with irregular spacing. Don't rake up the leaves.

6. Consider the site characteristics before you select the tree: sun/shade, soil type, wet/dry, sheltered/exposed, drainage. For example, forcing a sun-loving tree into a shady spot will only cause frustration and problems.

A Few Memorable Tree Facts

7. Take a trip to Morton Arboretum, 4100 Illinois Route 53, Lisle, to visit mature native tree specimens. This is the best second step in your selection process.

8. Plant or transplant trees in spring or autumn.

9. Protect the soil surface around new trees from all compacting or damaging traffic. Most tree roots are located very near the surface, concentrated within the top foot of soil.

10. Take extra care when planting a tree that has been balled in burlap because 85% - 90% of its root system has been left behind. However, trees grown in root bags have 60% to 70% of their roots intact which increases their chances of survival.

11. Dig the tree hole three times the diameter of the width of the root ball and the same depth as the ball's height. If tied with string, or encased in wire or burlap, cut it and remove it once the ball is in the hole. Flood the hole with water. You cannot use too much water in the hole. Do not fertilize when planting. Finally, untie all branches and remove all string.

12. Supervise tree planters, if you don't plant the tree yourself. Most nurseries guarantee trees for a year, but you generally won't know if the tree is having transplanting problems until the second or third year.

13. Water slowly and soak thoroughly. Proper watering is the single most important aspect of maintenance of newly transplanted trees.

14. Mulch 2-4 inches high around all trees to retain moisture and to protect from lawn mowers, but keep mulch 3-4 inches away from the trunk.

15. Refer to these two wonderful books for more information:
- + Landscaping With Native Trees, Guy Sternberg and Jim Wilson, Chapters Publishing Ltd.
- + Plants That Merit Attention: Trees, The Garden Club of America, Janet M. Poor, Editor, Timber Press

16. Find Illinois' best plants featured online at www.chicagobotanic.org

Notes

7. NOXIOUS NON-NATIVE PLANTS

The Situation

In the countryside landscapes of the Barrington area, not all things that are green and growing are good. A weed, of course, is any plant that is growing where it is not wanted, but there are some plants that are just plain pestiferous and need to be rooted out assiduously. This article does not deal with the dandelions or the quack grass of the lawn variety of pesky plants, or even the obvious and common burdock, cockleburs, or beggar ticks, but rather with some of the really nasty invaders that can take over your entire property if you are not aware.

There are two types of noxious, troublesome plant species in natural areas. Members of the first group are called "aliens" or "exotics." These are non-American plants that were imported accidentally, or for horticultural, health, food, or other reasons. The second group is native plants called "opportunists." They have become overly abundant or even aggressive due to post-settlement environmental changes that have disturbed or degraded a natural system. In many cases, native opportunistic species can be managed and should not be totally eliminated.

Of the two species, this article will focus on the "alien/exotic" plants - the major foreign troublemakers in the Barrington area - which ideally should be eliminated. The most important thing to know is that a healthy, well-managed property usually will not experience problems with these species. However, if you do have non-natives on your property, and if you just concentrate solely on control of problem species without restoring health to your property, you are just treating the symptoms of the ecosystem disease.

In general, aggressive, non-native, alien plants have no enemies or natural controls to limit their spread. As they move in, native ecosystems, with hundreds of different plant species supporting wildlife, are converted to an alien monoculture. This means the community of plants and animals, the biological diversity, is destroyed. Eventually, the native plant species disappear, leaving only the non-native plant population.

Management/Controls in General

Proper identification of noxious plants is the crucial first step in gaining knowledge about them, followed by developing an informed strategy to control them. The method of control varies with the species, the extent of the infestation and the spread rate of the species. Natural control measures are always environmentally superior to herbicides for management of non-natives. These could include fire, cutting, pulling, girdling and mowing.

If these prove unsuccessful, then herbicides (chemical plant killers) may be your only solution. By law, herbicides must be applied only in accordance with label instructions and precautions. When using herbicides, read the label carefully, follow the instructions exactly and call the manufacturer if you have any questions before use. If possible, choose a chemical that is specific to your weed problem. With the use of these chemicals, there is always a risk to the environment, other desirable plants and living creatures. Choosing to use a herbicide is a big decision! Act responsibly and don't use them as a first resort.

Ten Particularly Noxious Non-Natives

A. Chinese Yam or Cinnamon Vine - (*Dioscorea oppositifolia)*

Description: Perhaps the original insurgence of Chinese yam plantings can best be explained by the medical miracles associated with this herb. For hundreds of years, Huang Yao Tzu (Chinese yam) has been used in the treatment of arthritis, asthma, eczema, fertility, chronic cough, colic, diarrhea and diabetes. With so many medical promises, it is no wonder that it was so widely planted in America on private properties.

Now the problem is the hardy Chinese yam (formerly *D. batatas*) is escaping from home cultivation and rapidly spreading. The highly invasive perennial yam forms dense, mat-like colonies, carpeting the natural plant understory with vines up to 15 feet in length. The Chinese yam is a herbaceous (dies to the ground), tall, twining vine with up to 3 feet edible tubers which are actually swollen, underground stems. Bulbils are produced in the leaf axils and resemble miniature potatoes. This plant is sold in nurseries as a versatile ornamental that will grow in direct sun or shade. It is not a sweet potato, which is a different genus entirely.

Chinese Yam or Cinnamon Vine *continued*
Management: Apply Garlon 4™ or Garlon 3A™ as a 2% solution in water (8 ounces in a 3-gallon sprayer) with a surfactant to wet all leaves thoroughly. This should be done between July 1-17 in Illinois, prior to bulbil formation. An alternative is to cut the vines just above the soil surface and immediately apply Garlon 3A™ undiluted to the freshly cut stem. Collect and destroy the cut vines to prevent re-sprouting.

B. Purple Loosestrife *(Lythrum salicaria)*

Description: This aggressive perennial weed of sunny wetlands, ditches and some drier disturbed habitats, has showy purple spikes of flowers which grow up to 5 or 6 feet tall. The stiff stems have four distinct sides. This deceptive beauty blooms from mid-July to late August. It is so aggressive, producing up to 300,000 seeds per plant, that it replaces diverse native marsh vegetation with a monoculture of weeds. Many nurseries outside Illinois sell it, even claiming it's sterile; but don't buy it! In Illinois it is illegal to sell purple loosestrife. Many infestations have resulted from the escape of ornamental plantings. In contrast, our own native loosestrife *(Lythrum alatum)* grows only two feet tall.

Management: Plowing and mowing are ineffective as they weaken the adjoining native vegetation and create the disturbed soil in which loosestrife thrives. Small infestations can be eliminated by hand pulling as much as possible of the woody root system. Plants simply broken off at the soil surface will sprout new stems. Pull plants early in the flowering season to avoid scattering seeds. Remove all stems from the wetland area and burn to prevent discarded stems from sprouting and creating new plants.

Large infestations are best controlled with RoundUp™ on terrestrial sites and Rodeo™ in wetlands. Both are US EPA approved for these uses. Herbicides cannot control the seeds loosestrife produces.

Citizens for Conservation is experimenting with golden loosestrife beetles *(Galerucella pusilla)* which it says is a "last resort" to control it. The beetle biological control is steady, but slow, as the beetle eats different parts of the plant during its own life cycle. The potential impact of these beetles on native species ecosystems is low. The USDA in 1997 tested and approved their use as biological controls since golden loosestrife beetles survive

Purple Loosestrife *continued*
exclusively on this plant. It is expected that this insect population will decline as the purple loosestrife declines.

For more information, visit the Illinois Natural History Survey web-site at www.inhs.uiuc.edu/cbd/loosestrife/bclp.html

C. Garlic Mustard *(Alliaria petiolata, formerly A. officinalis)*

Description: Unlike most weeds which invade disturbed habitats, garlic mustard readily spreads into high quality, shaded old growth forests. When it invades, garlic mustard usually starts on the edge of the woods or along streams and paths. It is very aggressive and can completely dominate the forest floor, shading out and replacing all native woodland herbaceous species in just a few seasons. Garlic mustard is a biennial plant, producing abundant seed only two years after sprouting from seed itself. Deer, dog and other animal fur, flowing water, wind and people spread the seeds.

All parts of the plant give off a strong garlic/onion fragrance in spring and summer. Adult plants grow 2 to 48 inches tall with a cluster of 3 or 4 rounded to kidney-shaped leaves at the soil surface. In early spring, these ground-level leaves can be confused with woodland violets.

In May in northern Illinois, garlic mustard is the only tall, four-petal, white-flowered plant that blooms in the wild. Flowers are followed by black seeds, which are encased in slender capsules. Second year plants die after producing seed.

In winter, first year garlic mustard plants remain green, making them especially easy to locate.

Management: Fall or early spring burning is an effective control in oak woods. Repeated burns over several years may be necessary to achieve adequate control and to eliminate plants produced from the seed bank. Prescribed burns must be of sufficient intensity to burn the affected site thoroughly. Low intensity fires that do not burn through the leaf litter have no effect on garlic mustard. Any unburned plants should be removed by hand prior to May flower production. Plants can be toxic to sensitive skin.

Garlic Mustard *continued*

Another option is to cut flowering stems at ground level in May, ideally with a scythe, which results in 99% mortality. Cut stems should be raked up and burned. Burning and cutting are both preferred to hand pulling which is only effective if the entire root is removed and if the disturbed soil does not bring garlic mustard seed to the surface.

D. Bush Honeysuckles *(Lonicera maackii and Lonicera tatarica)*

Description: These alien bush honeysuckles were introduced as ornamental shrubs and for use by wildlife. Both species are upright (as *L. maackii* matures, stems arch), multi-stemmed, 8-15 feet in height. The Amur (*L. maackii*) species flowers with white trumpet-shaped blossoms in May-June that yellow with age. *L. tatarica* generally has pink flowers, varying from white to red. Abundant crops of fleshy, red berries follow. Leaves develop before those of native plants and both honeysuckles hold their leaves after native shrubs have lost theirs, permitting them to severely dominate the forest shrub layer. As a result, "It would be difficult to exaggerate the pernicious weedy potential of *L. maackii"* (Swink and Wilhelm).

Management: Careful identification of honeysuckle species is necessary before attempting control measures. Native bush honeysuckles have smooth flower styles; styles are hairy in exotics (See drawing.). While disturbance of the land usually precedes invasion, the exotic bush honeysuckles are adapted to a wide variety of habitats and germination opportunities. Prescribed burns will kill seedlings and top-kill mature plants. Mechanical controls include pulling seedlings and repeated clipping of mature shrubs, over a three to five year period. Glyphosate (Round-Up™ or Rodeo™) and triclopyr (Garlon™ or Pathfinder™) may be used as foliar sprays (2%), or to paint cut stumps (20-25%) from late summer through the dormant season.

E. Japanese Honeysuckle Vine *(Lonicera japonica Thunb.)*

Description: A semi-evergreen vine, often holding its leaves late into winter, Japanese honeysuckle can be confused with three native species. White to yellow tubular flowers form in pairs in the leaf axils and occur from May to June. The two to three seeded fruits are small and black.

This pernicious weed aggressively invades open sunny natural communities, mature forests and open woodlands. Climbing and draping over native vegetation, it shades out everything else. Being semi-evergreen allows for growth both prior to and after dormancy of other deciduous plants.

Japanese Honeysuckle Vine *continued*

Management: While grazing and mowing reduces the length of vegetative stems, both will increase the number of stems produced. Prescribed burns or a combination of spring burns and refined herbicide spraying, using a minimum amount of chemical, appear to be the best way to eradicate this vine. Foliage spraying is best done when other vegetation is dormant, preferably in late fall before a hard freeze. Glyphosate herbicide (trade name RoundUp™) is the recommended treatment and is less persistent in the environment. Please note that Glyphosate is non-selective, so extreme care must be taken to avoid contacting non-target plants.

F. Multiflora Rose *(Rosa multiflora)*

Description: Multiflora rose is a dense spreading shrub with wide, arching canes and stiff curved thorns, which can reach a height of 15 feet. This rose blossoms in late spring with numerous white flowers, while the true native rose usually has pink flowers. The flowers develop into small, hard, nearly round red fruits called hips that are 1/4 inch in size and these remain on the plant throughout winter.

Multiflora rose was once imported and encouraged by the U.S. Soil Conservation Service to curb soil erosion, to act as a "living fence" to control livestock, to create snow barriers along highways and to provide cover for wildlife. The multiflora rose liked it here so much that it consumed and replaced all surrounding vegetation. As a naturalized, invasive shrub, it is now legally regarded as a nuisance weed and cannot be sold or propagated.

Management: Biological controls from mites to insects exist, but they are not practical for the home gardener since cultivated roses, apple trees and some berries can also be affected. If it is just beginning to invade, fire can limit its establishment. Plants can also be dug up, but all roots must be removed as new plants can grow from left-behind severed roots.

The best method seems to be cutting the stems/canes to the ground, followed by painting with Glyphosate 10-20% solution between July and September, or during dormancy. A foliar spray can also be effective in these months if the foliage is well covered by the spray. Fosamine™ is the preferred foliar

Multiflora Rose *continued*
spray treatment because it is non-volatile and will affect only woody species. A handful of water softener salt placed at the base of the plant has also been proven effective, but the salt will remain in the soil for many years.

G. Poison Ivy *(Rhus toxicodendron radicans)*

Description: Poison Ivy is a perennial native, our one American exception, which can be a low, straggling shrub or a stout, weedy climbing vine. The leaf spray consists of three leaflets that may be glossy, or dull green. ("*Leaflets three, let it be.*") Other leaf characteristics are highly variable. All parts of the plant are poisonous at all times of the year. This shrub will clamber over rocks and often will climb high in trees by means of aerial rootlets. It can appear along roadsides and even in your garden.

Poison Ivy, as a native American species, should not be considered for eradication except in those instances where it is a hazard to individuals on private property.

Management: Because of the toxicity of poison ivy, cutting and burning are dangerous methods of eradication. Instead, spot treat by spraying individual plants with any brush-killing herbicide containing triclopyr, such as Ortho's Brush-B-Gon™. Treatment is most effective in late summer to early autumn and will probably have to be repeated two or three times. Do not attempt to remove the plants. After treatment, they will eventually die, shrivel up and decompose. When treating Poison Ivy, wear a pair of serious garden gloves and use extreme care to avoid contact with any parts of the plant. Throw out the gloves and wash your clothes separately from other laundry.

H. Canada Thistle *(Cirsium arvense)*

Description: If you're looking for the king of the painful, common, nasty, hard-to-eradicate weeds, the Canada thistle would probably get the crown. Originally native to Europe and the Mediterranean, but not Canada, this perennial herb easily grows to 4 feet in height. Its root system is also majestic, first developing a fibrous taproot, then spreading horizontal roots as much as 15 feet long and finally another vertical root which then grows down to the water table.

Canada Thistle *continued*

It is found in open, sunny disturbed areas where it is a renowned agricultural pest. Rose-purple to pink to white flowers appear from mid-June to August. Ripe flower heads contain seeds and a single plant can produce up to 5200 seeds. The seed can remain viable for up to 21 years. Canada thistle produces phytotoxins that inhibit the growth of other plants, decreases moisture and nutrients, and because of its size, competes for light with other plants growing near it.

Management: Tackling this plant is discouraging when you consider that any root piece left behind from digging it out can produce aerial shoots within 5 days. Mowing is an effective control, which should eliminate the thistle in about 4 years. Late spring burns in May/June are effective, but might be necessary over several years.

The major problem in the use of herbicides has been the failure of the chemicals to move from the above ground parts receiving the spray to the deep root system. However, an effective herbicide technique dribbles RoundUp™ on the top of the stem prior to bud stage. Where infestation is extensive, a competitive smother crop, such as alfalfa, which develops before the thistle in the spring, is effective.

I. Reed Canary Grass *(Phalaris arundinacea)*

Description: Reed canary grass is a large, coarse grass reaching 2 to 9 feet in height. Leaf blades are flat and have a rough texture on the bottom side. This grass is one of the first to sprout in spring and forms a thick rhizome (a root-like subterranean stem) system that dominates the subsurface of the soil.

Both Eurasian and native ecotypes of reed canary grass are thought to exist in the U.S. The Eurasian variety is more aggressive, but no reliable method exists to tell the ecotypes apart. It must be noted that agricultural cultivars of this grass are widely planted and those do have merit.

The nuisance variety of reed canary grass is a vigorous, perennial, wetland grass, originally introduced in the 1800's for forage and erosion control.

Reed Canary Grass *continued*
Where wetland banks have been disturbed, it will aggressively invade the area. In mid to late summer, the shoots collapse and form a dense, impenetrable mat of stems and leaves locking out any other plant species from existing with it.

Management: Because reed canary grass resembles some fine native grasses, positive identification is necessary before attempting control. The real thing is difficult to eradicate. Hand-pulling, or digging may work on small stands in the early stages of invasion.

A late mowing in mid-September, followed by the application of 5% glyphosate (October) when native grasses are dormant, can help to control reed canary grass. After mowing, the stems should be removed from the area before applying herbicide in order to maximize the cut shoot exposure and to minimize herbicide use. Several herbicidal applications may be necessary to inhibit seed bank recolonization.

An alternative method involves wick application of glyphosate in the first to third weeks of June, followed by a late June to mid-July burn. This technique reduces the reed canary grass cover, depletes the seed bank and stimulates native seed banks.

Any control technique to reduce or eliminate reed canary grass should be followed by planting native species adapted to the site.

J. Common/European Buckthorn (*Rhamnus cathartica*)
Glossy Buckthorn *(Frangula alnus* formerly *Rhamnus frangula)*
Description: Buckthorn has been nicknamed "The Curse of Barrington" by Citizens for Conservation. This vigorous and invasive plant has a multi-branching habit and every little twig ends in a thorn. Common or European buckthorn generally grows in uplands, while Glossy varieties thrive in moist and wet soils. The plant invades an area after disturbances, such as horse grazing, or a formerly cultivated area that has been allowed to go wild. Where buckthorn develops, hundreds of species of plants and animals disappear, resulting in a destruction of biodiversity. Allelopathic chemicals in the fruits and leaves inhibit germination and growth of natives in its vicinity.

Buckthorn *continued*

Buckthorn also promotes erosion because its shade kills the ground layer of plants, causing a loss of topsoil in upland areas and siltation pollution in wetlands.

Buckthorn starts out as a single smooth-barked whip, sticking straight out of the ground. When you pull out the whip, you will notice a sharp bend in the root just below the surface. The bark gets rough and peel-y around the ground level as it gets a few years older. The tree will grow to 20-25 feet, get very messy looking and then it will die. However in the meantime, it will have had hundreds of offshoots from that curved root, each of which will grow up and cause you problems.

Buckthorn berries are glossy black and tend to be messy. Some birds like to eat them and they are responsible for distributing this ubiquitous invader of gardens, fencerows, pastures and woodlands. To humans, the berries are extremely toxic and will cause severe stomach cramps and other medical problems. Beware of some nurserymen who will try to sell you buckthorn as a good, hardy hedge plant. It can take years to eliminate it everywhere you don't want it. In some states, it is illegal to sell buckthorn.

Management: Reducing buckthorn allows native ecosystems to re-appear and prosper once again. Management involves cutting buckthorn off above the ground and then painting each stump, the top, the bark on the sides, and any exposed root flares, with a brush-killing herbicide that contains triclopyr, within 24 hours of the cut. If the stump is left untreated, buckthorn's Medusa-like re-growth starts appearing in a week. Chemicals work best from late September through November, when buckthorn is easiest to identify because its leaves remain green and attached while other trees and shrubs are going dormant.

After the large plants are eliminated, thousands of seeds germinate and seedlings must be pulled before buckthorn is eradicated from your property. Pulling buckthorn whips is easiest in the spring when the ground is soft and moist. You can get the maximum amount of root by pulling at the base of the plant. Use caution. Thorns on twig ends make handling dangerous and even toxic to the skin of many individuals.

A Footnote on Open Burning

If your Barrington area village allows open burning for recognized silvicultural, prairie, range, or wildlife management practices, you should realize that this may be regulated by village ordinances. Burning may require notification in advance to the village and some villages may require permits. Some Barrington villages do not allow any type of open burning.

To learn the proper way to conduct a controlled prairie-type burn, volunteer to assist Citizens for Conservation with a burn on one of their properties. Another alternative is to hire a professional to conduct a controlled burn on your land. Be sure to ask for and contact the professional company's references before hiring them.

Contact the Illinois Environmental Protection Agency, Division of Air Pollution Control, Open-Burn Coordinator at 217-782-2113 for rules, regulations, EPA permits and questions regarding open burning. www.epa.state.il.us/air/permits/openburn

Resources

+ *"Vegetation Management Guideline"*
  www.inhs.uiuc.edu/edu/VMG/VMG.html
+ Weed Science Society of America
  www.wssa.net for photo herbarium and herbicide control information

The following illustrations of non-native plants have been created by Laura Arndt.

A. Chinese Yam/Cinnamon Vine

Dioscorea oppositifolia

B. Purple Loosestrife

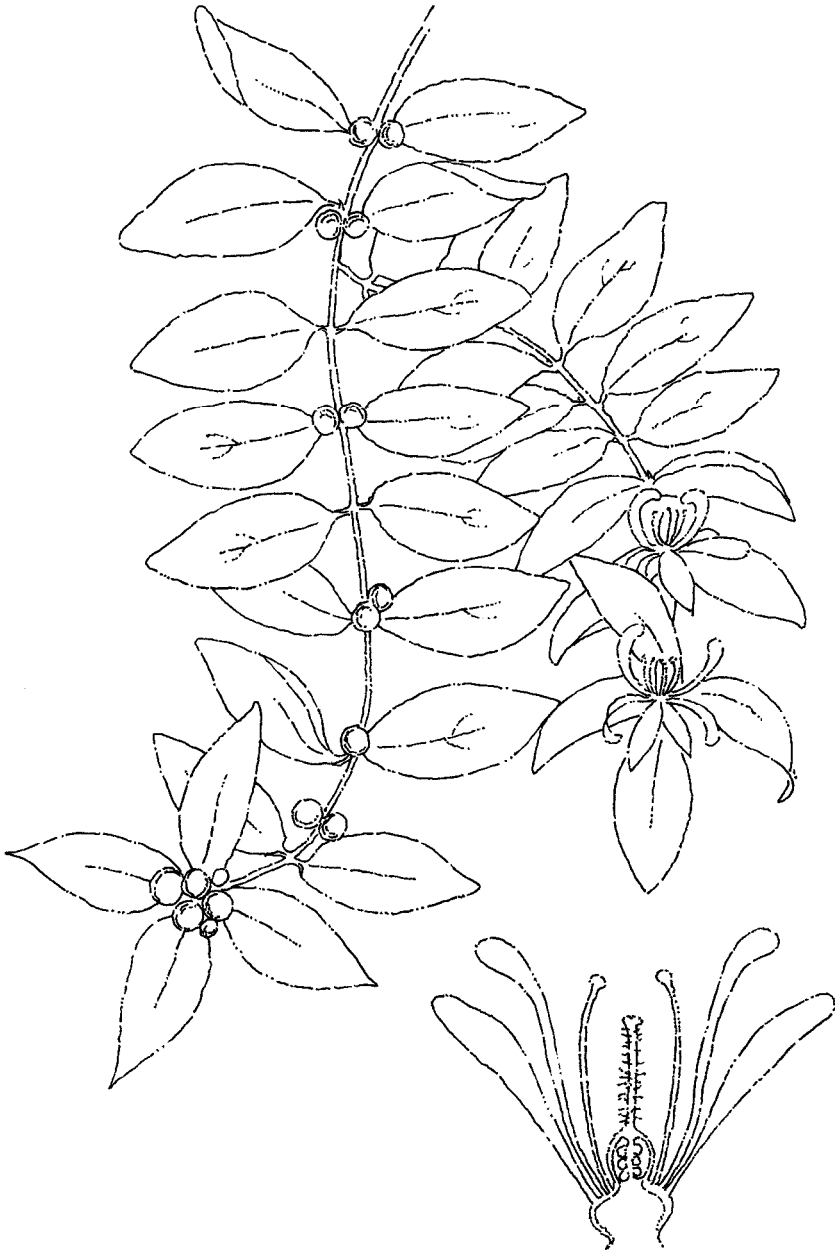
Lythrum salicaria

C. Garlic Mustard

Alliaria petiolata

D. Bush Honeysuckles

Lonicera maackii and Lonicera tatarica

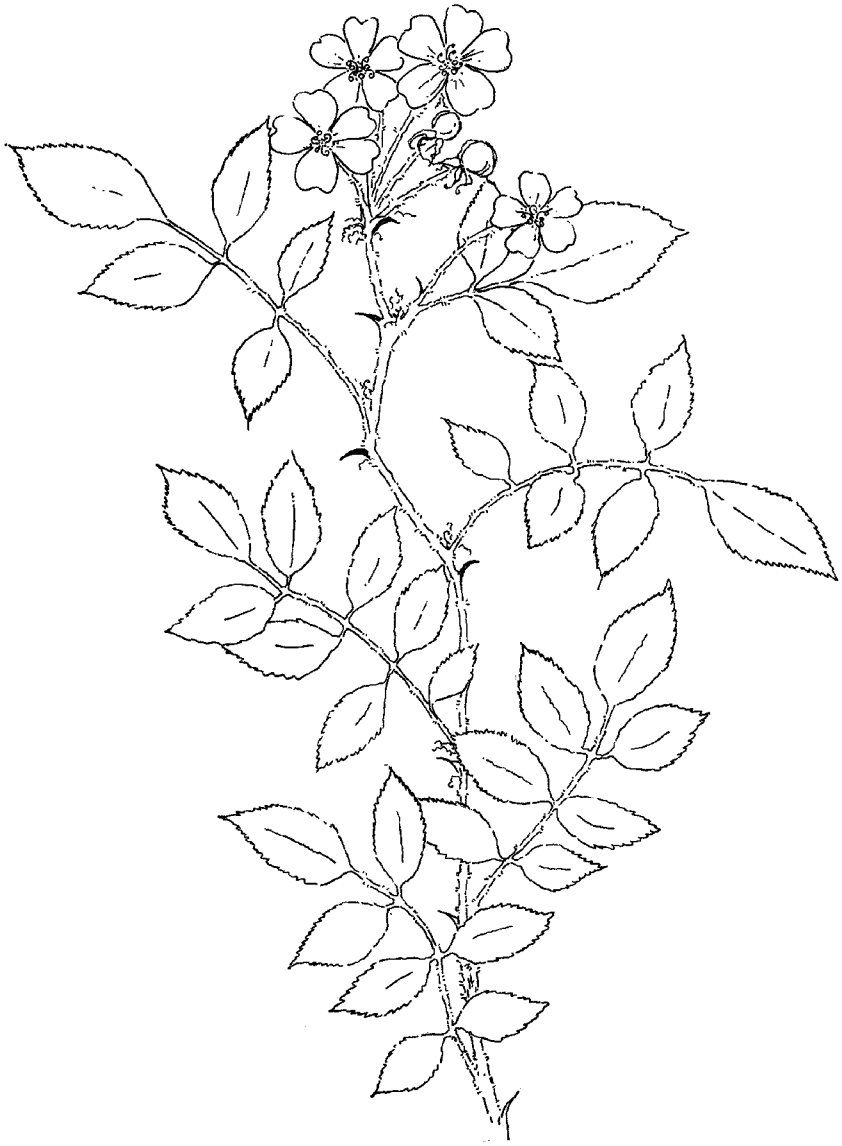


E. Japanese Honeysuckle Vine

Lonicera japonica Thunb.

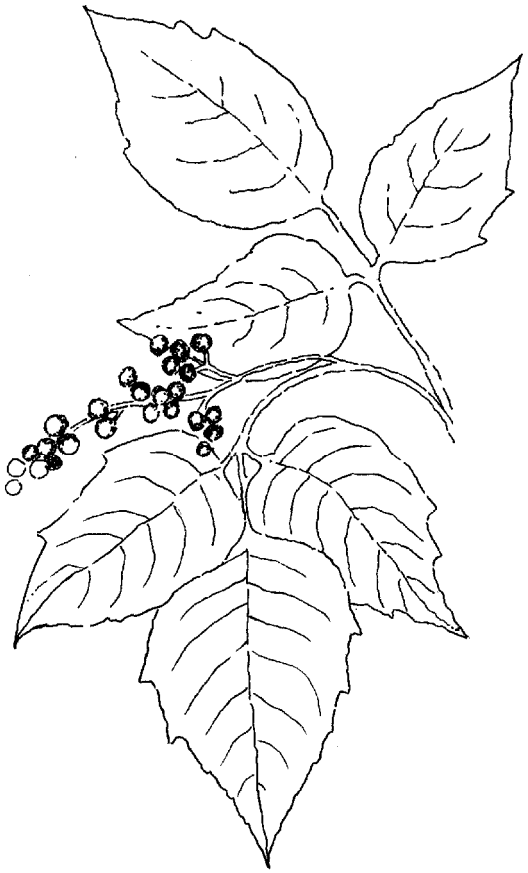
F. Multiflora Rose

Rosa multiflora



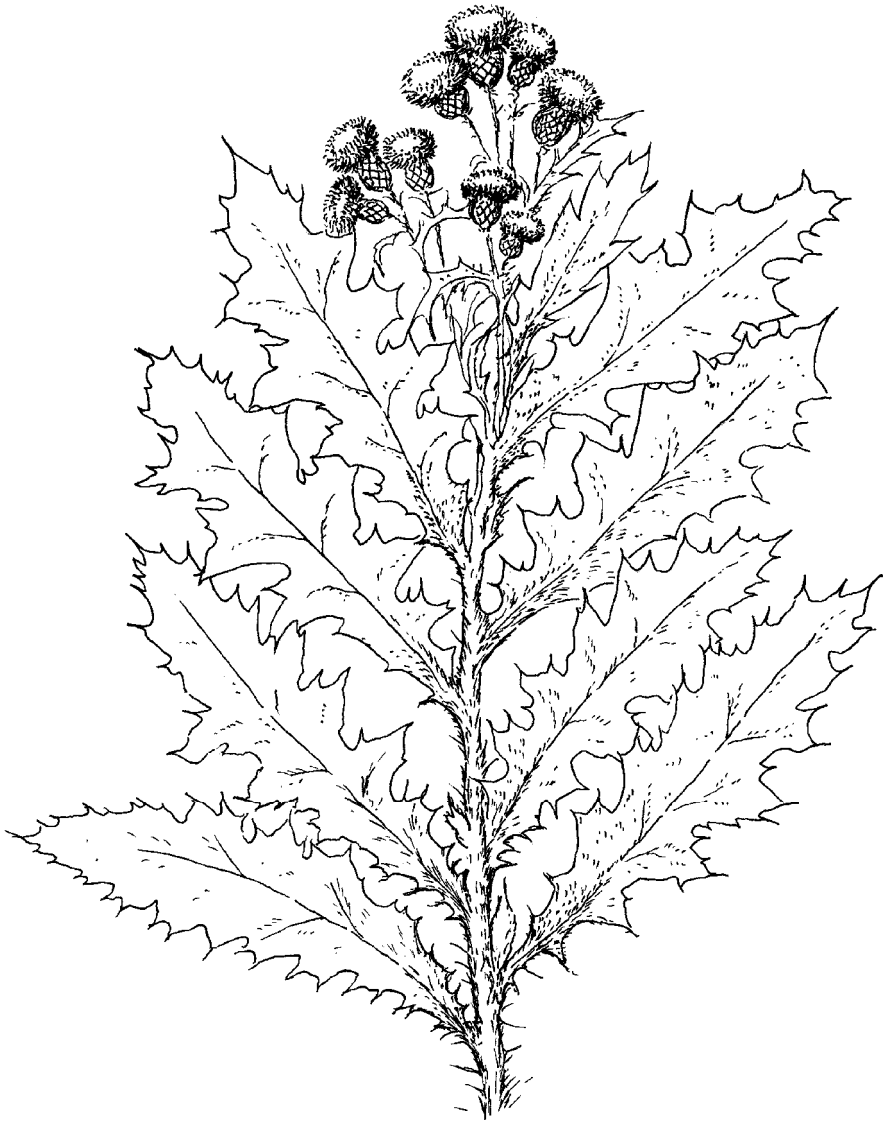
G. Poison Ivy

Rhus toxicodendron radicans



H. Canada Thistle

Cirsium arvense

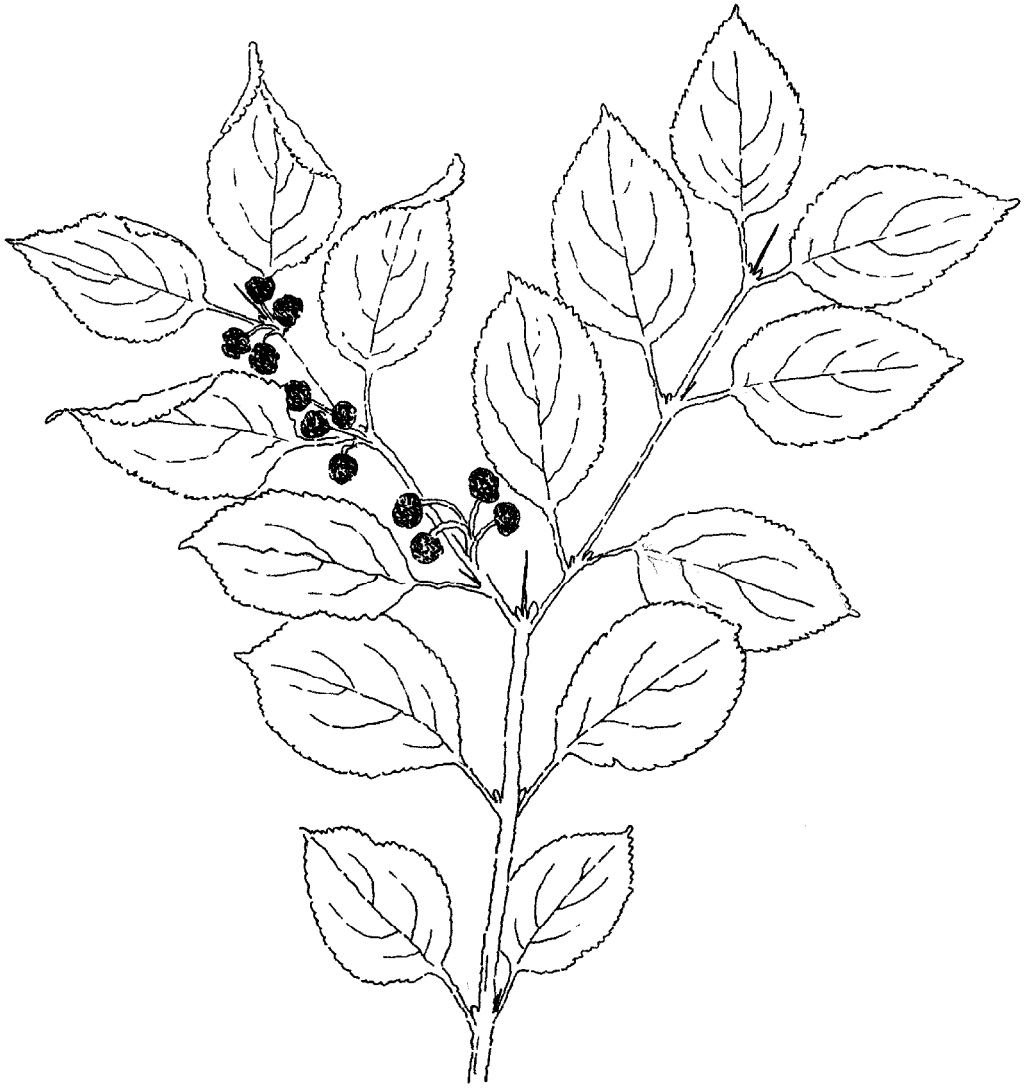


I. Reed Canary Grass

Phalaris arundinacea

J. Common Buckthorn

Rhamnus cathartica



NOTES

8. WATER-THE LIQUID OF LIFE

Unless you are moving into or live in the Village of Barrington, which has its own municipal water and waste system, chances are you are acquiring an existing well and septic system, or putting in a new one.

If you plan to build a new home, or remodel an old one, hiring a reputable contractor who knows the area and who knows the requirements of your village and your county is vital to the success of your water system design and installation.

Barrington Hills, Deer Park, Inverness, Lake Barrington, North Barrington, South Barrington, and Tower Lakes each have village well and septic ordinances that specify private sewage disposal factors such as pipe size, slope, soil type, drainage, water tables, limestone formation and percolation rates.

If you have an existing well, ideally, the water should be tested once a year for purity. You can take your own water sample to the County Health Department (see list below) which has facilities for testing. Call to find out how to collect your sample properly.

If you want to filter or condition your water, some common methods are:

1. Carbon Filter - Removes many organic chemicals and chlorine and radon. The carbon filters must be of good quality and changed frequently.
2. Reverse Osmosis Unit - Removes most toxic minerals and organic chemicals, but generally does not remove chlorine or radon. This process is slow. Do not use this type of unit with pipes or faucets made of lead or lead components.
3. Water Softener - Removes calcium and magnesium, which are both considered beneficial human nutrients.
4. Additional Special Filtration Equipment - Removes iron and sulfur which are often found in this area's groundwater.

If you have an existing septic system, have it inspected and pumped out regularly. There are several ways to prolong the life of your septic system:

1. Pump out the septic tank(s) every 2 to 3 years.
2. Reduce the amount of water your system must treat and dispose of by installing water conserving plumbing fixtures.
3. Make sure that toilets do not run constantly.
4. Have aerobic units inspected by a licensed septic contractor twice per year to insure that aerator and filter(s) are functioning properly.
5. Avoid dumping grease down the drain.
6. Use your garbage disposal sparingly.
7. Do not discharge water softeners, sump pumps, downspouts or footing drains into your septic system. This additional water can overload your system.
8. Do not flush paper toweling, disposable diapers, cigarettes, facial tissue and non-degradable products down the toilet.

County Health Departments:

(Lake County has a particularly good pamphlet on wells and septic systems.)

Cook County, Environmental Health Division
1010 Lake Street, Suite #300
Oak Park, IL 60301
708-492-2000

Kane County, Environmental Division
719 S. Batavia Avenue, Bldg. A
Geneva, IL 60134
630-208-5118 www.co.kane.il.us/Environment/index.asp

Lake County, Environmental Health Services
3010 Grand Avenue
Waukegan, IL 60085
847-377-8020 www.co.lake.il.us/health/ehs/

McHenry County, Environmental Health Services
2200 North Seminary Avenue
Woodstock, IL 60098
815-334-4000 www.co.mchenry.il.us/

Additional Water Resources:

Illinois Association of Groundwater Professionals
P.O. Box 5378
River Forest, IL 60305
800-990-2209 www.iagp.org

Illinois Department of Public Health - Division of Environmental Health
525 West Jefferson Street
Springfield, IL 62761
217-782-5830 www.idph.state.il.us/envhealth/enhome.htm

University of Illinois Cooperative Extension Service
Land and Water Publication #17
214 Mumford Hall, MC-710, 1301 West Gregory Drive
Urbana, IL 61801
217-333-5900 www.extension.uiuc.edu/state

NOTES

9. THE BARRINGTON AREA RECYCLING PROGRAM

Reduce, Reuse, Recycle and Recover are the 4R's of waste minimization. Over the past few years, regrettably, recycling has not kept pace with the amount of waste we generate. The amount of garbage has gone up while the amount of recyclables collected has remained the same. Ideally, it would be hoped that recyclables would exceed the rate of growth of garbage. And it can, with your participation. *"Think before you throw!"* If it can be recycled, make sure it ends up in a recycling container, not your garbage can. Then close the 4R loop by buying products made from recycled materials.

The basic refuse and recycling programs vary considerably by village and by contractor/hauler. In the Village of North Barrington, for instance, basic refuse and recycling participation are required of each resident.

Each village contracts with a waste management hauling company, but because these contractors may change from time to time, it is best to contact your Village Deputy Clerk, or if there is none, then other village administrator for current information about enrolling in a program. In some villages, such as the Village of Barrington, the village invoices you for refuse removal as part of your water-sewer bill. In other villages, the refuse company bills you directly. In some villages you pay extra for recycling service. In others, it is included in the refuse charges. At the end of this article is a list of the seven Barrington villages with addresses and phone numbers for enlisting their assistance in locating your area recycling company.

After contacting the refuse company, you will be given a number of options: curb or backdoor/garage pick-up; whether they provide or you provide containers for refuse; how to secure new, more or replacement recycling bins - recycling generally requires specific designated bins so the collection crew knows to stop; what they will and will not accept; which items require a special collection; yard waste collection costs and policies, which includes branches, grass cuttings and leaves; day(s) of scheduled pick-ups for regular garbage and recycling.

The chart which follows this article should be helpful with your basic recycling questions.

Special Collections

Household Hazardous Waste

Household hazardous wastes are leftover or unwanted household hazardous products which contain toxic ingredients. To identify these hazardous products, look for these words on the product labels: *caution, warning, danger, poison, flammable, combustible and corrosive.* Common examples are paint, paint thinner, pesticides, herbicides, insecticides, mothballs, metal polishes, solvents, mildew removers, swimming pool chemicals, drain cleaners and automotive products. None of these items should ever be put out for regular waste or recycling collection!

While oil paint is accepted, latex paint is not accepted at hazardous waste collections because of the vast expense of disposing of it. It is the paint, not the can that is the problem, so use up the paint. Paint something else, give the paint away, or dry the paint out by mixing kitty litter with it until the liquid is absorbed. Then both the dried out paint and the empty can are safe to dispose of through normal garbage channels.

What to do with hazardous waste leftovers or their empty containers?
The Illinois Environmental Protection Agency (at 217-785-8604) hosts no-cost household hazardous waste collection events each spring and fall. Contact the Solid Waste Agency of Cook County at 847-296-9205, or the Solid Waste Agency of Lake County at 847-336-9340 for a list of upcoming times and places. Citizens for Conservation publishes these hazardous waste collection events in its newsletter.

If you can't wait for the special hazardous waste dates, two regional long-term facilities are available. Phone ahead for availability and hours:
in Naperville at 630-420-6700 x7559 and in Rockford at 815-967-6737.

Other Special Collections

Large appliances, white goods (such as stoves, washers, dryers), oversize bulk items and large volumes of construction material require a special collection by the hauler, or you may deliver the items yourself to specified sites. Call your waste contractor for information.

Dealing with Special Recycling Cases

Recycle Computers and Electronics/Brown Goods
Residents only, not businesses or schools, can recycle out-of-date computers and electronics at special collection events usually held once a year. All computers and peripherals are accepted, as well as office equipment such as typewriters, telephones, fax machines, etc. Also included are small home appliances, entertainment and visual equipment and power tools.
Contact the Solid Waste Agency of Northern Cook County at 847-296-9205.

Recycle Branches, Leaves, Grass
When disposing of natural garden materials, always place them in paper bags, not plastic. In the landfill, the paper and garden waste will all eventually decompose. Some haulers take these materials directly to compost sites, instead of adding them to landfills.

Recycle Plastic Grocery Bags
All major chain area grocery stores have recycling bins for the collection of plastic grocery bags. Do not throw them in the garbage. Take them back.

Recycle Hangers
Most Barrington area dry-cleaners will accept used hangers.

Recycle Live Christmas Trees, Wreaths and Garlands
Some waste haulers will accept live Christmas decorations from January 1 to January 15th. For other residents, there is an annual drop site in Barrington with disposal dates that are published in our area newspapers. Do not place any formerly-live Christmas materials in a plastic bag.

Recycle Tires and Lead Acid Batteries
These can be recycled at any retail store or outlet which sells them.

Recycle Clothes
Recycle clothes through various community organizations' special events, or almost daily at The Catchpenny Shop, 118 E. Main Street, Barrington.

Recycle Books
Friends of The Barrington Area Library holds three used book sales annually. Books can be dropped off at the library at any time, 505 N. NW Highway.

Your participation in our area recycling efforts can make all the difference! All recycling is collected at the curb, so on recycling day, notice if your neighbors are participating. If they are not, give them the phone number to call so they too can make a difference.

Village of Barrington
200 S. Hough Street, Barrington, IL 60010
Deputy Village Clerk - 847-304-3403
www.ci.barrington.il.us

Village of Barrington Hills
112 Algonquin Road, Barrington Hills, IL 60010
Deputy Village Clerk - 847-551-3000
www.barringtonhills-il.gov

Village of Deer Park
23680 West Cuba Road, Deer Park, IL 60010
Village Administrator - 847-726-1648
www.village.deer-park.il.us

Village of Lake Barrington
23860 N. Old Barrington Road, Lake Barrington, IL 60010
Deputy Village Clerk - 847-381-6010
www.lakebarrington.org

Village of North Barrington
111 Old Barrington Road, North Barrington, IL 60010
Deputy Village Clerk - 847-381-6000
www.northbarrington.org

Village of South Barrington
30 S. Barrington Road, South Barrington, IL 60010
Recycling information - 847-381-7510
www.southbarrington.org

Village of Tower Lakes
400 N. Route 59, Tower Lakes, IL 60010
Deputy Village Clerk - 847-526-0488
www.villageoftowerlakes.com

In Grayslake, the EduCycle Center offers a free tour of a 150 tons/8 hours recycling facility. Call 847-548-1755 x 415 for information.

9. The Barrington Area Recycling Program *continued*

RECYCLING

VILLAGE WASTE HAULER ACCEPTS [YES / NO]	NEWSPAPER	CORRUGATED	GLASS BOTTLES	ALUMINUM CANS	POLYPROPLENE &	CONTAINERS e.g.	BROWN GOODS e.g.	GARDEN AND LAWN
	MAGAZINES	BOXES	CLEAR / AMBER	FOIL & TRAYS	POLYSTYRENE e.g.	MOTOR OIL	TELEVISION SETS	DEBRIS
	CATALOGS	BROWN PAPER	GREEN / BROWN	TIN CANS	HEALTH & BEAUTY	ANATIFREEZE	COMPUTER EQUIPMENT	
	PHONE BOOKS	CLIPBOARD		PLASTIC	CONTAINERS	POOL CHEMICALS	HOT WATER TANKS	
	JUNK MAIL	BOXBOARD	WINDOW GLASS	CONTAINERS -	MARGARINE TUBS	PAINT THINNER	WHITE GOODS e.g.	
	COMPUTER PAPER	MILK JUICE CARTONS	LIGHT BULBS	#1 - #7	ICE CREAM TUBS	DRIVEWAY SEALANTS	REFRIGERATORS	
	PACKING PAPER	DRINK BOXES	MIRRORS	PLASTIC 6 & 12 -	YOGURT & COTTAGE -	BATTERIES	FREEZERS / STOVES	
	GROCEDRY BAGS	WAXED PAPERS	CRYSTAL	PACK RINGS	CHEESE TUBS	WOODWORKING	FURNITURE	
	GIFT WRAPPING	PLASTIC LINED -	CLAY POTS		PACKING PEANUTS	PRODUCTS	RECREATIONAL EQUIPMENT	
		CONTAINERS	CERAMICS		PLASTIC BAGS	SCRAP STEEL		
BARRINGTON							CHECK WITH VILLAGE WASTE	CHECK WITH VILLAGE WASTE
YES	**ALL - EXCEPT**	**ALL - EXCEPT**	**GLASS BOTTLES**	**ALL**	**ALL - EXCEPT**		HAULER ON SPECIFICS &	HAULER ON SPECIFICS &
NO	GIFT WRAPPING	WAXED / PLASTIC CONTAINERS	NO TO ALL ELSE		PACKING PEANUTS PLASTIC BAGS	NO TO ALL	CONDITIONS FOR REMOVAL	CONDITIONS FOR REMOVAL
BARRINGTON HILLS							CHECK WITH VILLAGE WASTE	CHECK WITH VILLAGE WASTE
YES	**ALL - EXCEPT**	**ALL - EXCEPT**	**GLASS BOTTLES**	**ALL**	**ALL - EXCEPT**		HAULER ON SPECIFICS &	HAULER ON SPECIFICS &
NO	GIFT WRAPPING	WAXED / PLASTIC CONTAINERS	NO TO ALL ELSE		PACKING PEANUTS PLASTIC BAGS	NO TO ALL	CONDITIONS FOR REMOVAL	CONDITIONS FOR REMOVAL
DEER PARK							CHECK WITH VILLAGE WASTE	CHECK WITH VILLAGE WASTE
YES	**ALL - EXCEPT**	**ALL - EXCEPT**	**GLASS BOTTLES**	**ALL**	**ALL - EXCEPT**		HAULER ON SPECIFICS &	HAULER ON SPECIFICS &
NO	GIFT WRAPPING	WAXED / PLASTIC CONTAINERS	NO TO ALL ELSE		PACKING PEANUTS PLASTIC BAGS	NO TO ALL	CONDITIONS FOR REMOVAL	CONDITIONS FOR REMOVAL
LAKE BARRINGTON							CHECK WITH VILLAGE WASTE	CHECK WITH VILLAGE WASTE
YES	**ALL - EXCEPT**	**ALL - EXCEPT**	**GLASS BOTTLES**	**ALL**	**ALL - EXCEPT**		HAULER ON SPECIFICS &	HAULER ON SPECIFICS &
NO	GIFT WRAPPING	WAXED / PLASTIC CONTINERS	NO TO ALL ELSE		PACKING PEANUTS PLASTIC BAGS	NO TO ALL	CONDITIONS FOR REMOVAL	CONDITIONS FOR REMOVAL
NORTH BARRINGTON							CHECK WITH VILLAGE WASTE	CHECK WITH VILLAGE WASTE
YES	**ALL - EXCEPT**	**ALL - EXCEPT**	**GLASS BOTTLES**	**ALL**	**ALL - EXCEPT**		HAULER ON SPECIFICS &	HAULER ON SPECIFICS &
NO	GIFT WRAPPING	WAXED / PLASTIC CONTAINERS	NO TO ALL ELSE		PACKING PEANUTS PLASTIC BAGS	NO TO ALL	CONDITIONS FOR REMOVAL	CONDITIONS FOR REMOVAL
SOUTH BARRINGTON							CHECK WITH VILLAGE WASTE	CHECK WITH VILLAGE WASTE
YES	**ALL - EXCEPT**	**ALL - EXCEPT**	**GLASS BOTTLES**	**ALL**	**ALL - EXCEPT**		HAULER ON SPECIFICS &	HAULER ON SPECIFICS &
NO	GIFT WRAPPING	WAXED / PLASTIC CONTAINERS	NO TO ALL ELSE		PACKING PEANUTS PLASTIC BAGS	NO TO ALL	CONDITIONS FOR REMOVAL	CONDITIONS FOR REMOVAL
TOWER LAKES							CHECK WITH VILLAGE WASTE	CHECK WITH VILLAGE WASTE
YES	**ALL - EXCEPT**	**ALL - EXCEPT**	**GLASS BOTTLES**	**ALL**	**ALL - EXCEPT**		HAULER ON SPECIFICS &	HAULER ON SPECIFICS &
NO	GIFT WRAPPING	WAXED / PLASTIC CONTAINERS	NO TO ALL ELSE		PACKING PEANUTS PLASTIC BAGS	NO TO ALL	CONDITIONS FOR REMOVAL	CONDITIONS FOR REMOVAL

NOTES

10. EXTERIOR RESIDENTIAL LIGHTING

Much of the private property in the Barrington area is taking on the appearance of Hollywood Boulevard because of the installation of excessive outdoor lighting systems. The logic of installing minimal lighting for safety, security, directional and aesthetic reasons has been superceded by landscape and lighting contractors who have been given free rein.

These contractors romanticize their products with such aphorisms as "night-scaping" - "landscape illumination" - "night-lighting" - "moonscaping" - "night time elegance" and more.

These lighting systems are customized to meet every homeowner's possible need from lighting the way to the garbage cans to lighting the borders between the homeowner and his neighbors. The sensible front porch light has been "dramatically enhanced" with paths of lights from the road, up the driveway, around the parking area, down the front sidewalk, up the steps and finally to the front door. Then for good measure, the lighting contractor continues around the sides and rear of the property and off each roof peak corner, adding even more unsightly, artificial light. Night is turned into day and the natural beauty of the out-of-doors is indiscriminately and illogically illuminated in the name of "personal property aesthetics," to the detriment of the traditional aesthetic values of the village.

Whatever happened to the peaceful enjoyment of the country, the chance to appreciate the stars away from the artificial glow of the city lights? Has the homeowner been sold a bill of lighting goods to accent every tree, silhouette each shrub, create shadows on walls, highlight the bark on trees, make patterns between tree branches and shine lights through the groundcover plantings?

Whatever happened to the uninterrupted tranquility of gazing at the beauty of the setting sun and the rising moon? For some Barrington area homeowners, they have been obscured.

Because of property lighting excesses, many communities have now instituted "Residential Lighting Guideline" ordinances. The list that follows is a compilation of that thinking taken from communities similar to ours.*

Suggested Residential Lighting Guidelines

1. Excessive property lighting systems are the most offensive to your next-door neighbors who have to look at them. Therefore, the direction of all light sources from your property should be aimed inside your property line.

2. No lighting fixtures should be located within side or rear yard setbacks.

3. At all property lines, the level of light should not exceed 0.5 foot-candles.

4. All lights on the property should be incandescent.

5. The total number of exterior lamps located in front of the house (from the front facade and extending outward to the front property line) should be 10 or fewer.

6. No lights should be mounted on trees or on poles as down lighting. Any apparatus attached to a tree will eventually harm or kill the tree. Down lighting itself is the most objectionable to your neighbors as it casts the largest sweeping floodlight patterns.

7. Lighting systems can be controlled on timers which should go on no earlier than at sunset and should be set to go off no later than 11:00 p.m. Another option is a driveway metal sensor that automatically turns outside lights on only when a car is detected. Twenty-four hour/always-on lighting systems are offensive to everyone who sees them.

8. Security lighting should be controlled and activated separately as part of the security alarm system.

9. Light fixtures should be adjustable and capable of being locked into position to prevent annoying random wandering which can be caused by animals, children, weather, vehicles, mowers, etc.

10. Ground level light fixtures should be the recessed types with non-reflective interior walls.

11. All light fixtures should be shielded to prevent the nuisance of light trespass to adjacent property owners.

12. Pest control companies caution homeowners, to turn off unnecessary outdoor lighting and replace necessary lighting with yellow bulbs which are less attractive to pests.

Remember, for each light that is installed on your property, the lens will need to be cleaned, debris will have to be removed from in front of it, light bulbs will have to be changed, plants will have to be pruned away from it and underground utility lines will have to be identified to avoid being cut.

If you are looking for the garish glow of a Hollywood lighting effect, many contractors will be happy to sell you just that. Instead re-think why you moved to the country in the first place. Choose functional lighting that meets your needs and enjoy the natural nighttime canopy overhead instead of the glare of excessive artificial lighting. Your neighbors will thank you as well.

Further information is available at www.darksky.org

* Greenwich, CT; Oconomowoc Lake, WI; Avon-By-The-Sea, NJ; Newport News, VA; Little Compton, RI; Greenville, SC; Lake Forest, IL

NOTES

11. COMPOSTING, MULCHING and DOUBLE-DIGGING

COMPOSTING

Compost is fully decayed plant material. It is also known as humus. It is the ultimate soil conditioner, improving both soil texture and structure which is especially important given the clay soils in the Barrington area.

Adding compost to your garden soil:

- Improves soil moisture capacity. Compost encourages the formation of soil granules that soak up water and hold it.
- Improves soil aeration by increasing the number and size of air spaces. Without air, soil tends to become alkaline and loses nitrogen.
- Improves storage and release of nutrients. Soil amended regularly with compost typically requires very little fertilizer, saving time and money.
- Improves plant resistance to disease. Studies show that 1 to 2 inches of compost applied to plants can increase resistance to a variety of diseases.
- Recycles garden, yard and kitchen waste that eases the burden on landfills and septic fields and returns nutrients to the soil.

Composting is nature's way of recycling dead plant material. Soil microorganisms digest the material. The chemical processes of oxidation, reduction and hydrolysis also work to enhance the breakdown of the organic waste. These processes give off heat, which is why your compost heap gets hot, and may even give off steam when turned.

There are four basic ingredients for making good compost: Microorganisms or "decomposers" that turn raw organic waste into humus, the proper blend of organic waste (carbon and nitrogen/C:N), air and moisture.

Decomposers consume carbon for energy and need nitrogen to grow. They work most efficiently when the carbon-nitrogen ration is between 25:1 and 30:1. Different types of garden, yard and kitchen waste have different C:N ratios. Generally, the "dry browns" (e.g. dry leaves, or even finely shredded paper) have a higher carbon content than "wet greens" (e.g. grass clippings).

COMPOSTING *continued*

Material	C:N Ratio
Vegetable waste	12:1
Grass clippings	19:1
Dry leaves	50:1
Cornstalks	60:1
Straw	80:1

The greater the variety of compost material you use, the more diverse and complete the nutrient value of the resulting humus.

To ensure the best possible final product with the least nuisance and fastest turnaround time, avoid the following materials:

- Branches or stems greater than 1" inch in diameter.
- Meat, bones, oils and other animal products. These ingredients can attract animals and make the heap smell bad.
- Manure from dogs, cats or birds as they may contain parasites. Manure from plant- and grain-eating animals is a good addition.
- Diseased plants and weeds.

The decomposers need air to breathe so you must ensure your heap is well aerated. Use a variety of materials, turn the pile frequently and limit the height of the heap.

The decomposers also need water. Too much or too little water will halt the decomposition process. A good working compost heap will feel like a damp sponge. Locate the heap in a shady, well-drained site. If you use plenty of "wet greens' no additional water may be necessary. As the volume of "dry browns" increases, you may need to add water.

Five steps to making a working compost pile:

1. Shred and chop "wet greens" and "dry browns" as finely as you can.
2. Add a bucket of soil or a few strips of sod (your source of decomposers).
3. Build a layer of greens, then browns, each a few inches thick and then sprinkle a handful of soil or sod. Moisten each layer.
4. Keep creating layers until the pile is at least 3 x 3 x 3 (up to four feet square if you have the space and materials).
5. Periodically turn over the pile or aerate it with a pitchfork.

COMPOSTING *continued*

The microorganisms will go to work and the temperature of the pile will rise. The temperature can go as high as 160 degrees although only 120 degrees is needed for good results. When the pile has cooled and cannot be made to reheat by turning, it is finished. The compost should look dark and crumbly and smell like freshly tilled soil.

Some common problems with compost piles include:

- Wet, slimy compost is usually caused by poor aeration, too much moisture and/or not enough nitrogen-rich materials.
- Dry, dusty compost is usually caused by a lack of moisture. Water the pile with a sprinkler.
- Bad-smelling compost may contain too much nitrogen-rich material or it may be too wet. Add some dry material and turn the pile.
- If only the center of the pile is warm, the pile may be too small.
- The pile generates no heat. The pile may be nitrogen-deficient. Add fertilizer or green materials. Check air and moisture levels as well.

If you wish, you can make compost in a compost bin. You can purchase a commercial bin or make one from wood or wire fencing material.

Once the compost is finished, you may use it as a soil amendment, side dressing or mulch. Compost also may be used as an ingredient in potting mixtures for containers.

References:

Secrets to Great Soil
Elizabeth P. Pell
Storey Communications
Available at the Barrington Area Public Library

Rodale Organic Gardening Basics, Volume 8: Compost
Editors of Rodale Organic Gardening Magazine and Books
Rodale, Inc.

MULCHING

Mulching is the application of organic or inorganic material to gardens, trees and shrubs to moderate temperature, retain moisture, control weed growth, reduce soil erosion, prevent soil crusting after hard rains and minimize stress on new transplants.

The type of mulch selected depends on a variety of characteristics including appearance, insulating value, cost, level of weed control, soil moisture retention capacity and speed of decomposition. Common mulches used in the Barrington area include:

- Shredded hardwood bark
- Compost
- Landscape fabric
- Shredded leaves, especially oak leaves
- Pine needles
- Black plastic film
- Stone or gravel
- Straw
- Wood chips

Organic (derived from once living plant materials) mulches should be applied 2 to 4 inches thick. No mulch should be applied to extremely wet soils; wait until they dry out. Around trees, mulch should not touch the trunk. Be selective when using black plastic as a mulch. In the spring it works well in the vegetable garden to speed soil warming. However, it does not permit water and air exchange between the air and the soil, factors critical to healthy root growth. Refrain from using black plastic around trees and shrubs on a permanent basis. If using landscape fabric, its longevity is improved if it is covered with organic mulch.

Reference:
Secrets to Great Soil
Elizabeth P. Pell
Storey Communications
Available at the Barrington Area Public Library

DOUBLE-DIGGING

Double digging is a technique used to aerate the topsoil and some of the subsoil by digging out the topsoil, loosening the subsoil with a spading fork and replacing the topsoil. Double digging creates an ideal environment for plant root development by "fluffing" compacted soil. Compacted soil limits root growth, especially growth of the fine root hairs that gather most of a plant's food. Inhibited root growth limits plant growth, fruit production and even plant health.

Typically, a plant has as much or more growth underground as aboveground. The roots of a 3-foot tall plant will be forced to grow outward rather than down if the soil is loosened only 6 to 8 inches deep. That means each plant requires more space to grow and cannot be located as closely to other plants. In addition, double digging maintains the structure of the soil unlike rototilling or disking. However, double digging is very hard work and should be undertaken in "small bites." It can be done over a single growing season or even multiple growing seasons. While the initial effort is great, the long-term benefits can be significant in terms of increased yields and less maintenance.

If you are double digging in hard clay, soak it completely and let it dry out for one or two days. That way the soil will retain enough moisture to make the work more manageable.

Before you start, make sure your flat spade is sharp.

Working across the width of the growing bed or garden, dig a trench one spade deep and two spades wide. Carefully place the topsoil in a wheelbarrow or on a tarp. This topsoil will be used to fill the last trench in the garden. Try to keep the edges of the trench as straight and vertical as possible. After the topsoil has been removed, remove any other loose topsoil on the bottom of the trench.

DOUBLE-DIGGING *continued*

Next, take a spading fork and step into the newly dug trench and loosen the soil. Don't dig it up. Insert the fork and wiggle it back and forth and from side to side without disturbing the natural layers of the soil. When you reach the end of the trench and have no more room to stand, step out of the trench and stand on the path or the part of the garden you have not yet dug. Do not step on the soil you just loosened.

Using your flat spade again, dig another trench next to the one just completed, moving each shovel of topsoil from the second trench to the first one. Remember to keep the soil layers intact and gently slide each shovel of soil into place. Continue moving soil from the second trench to the first trench until you are finished. Then fork the subsoil in the second trench. Continue until the garden is finished. Use the topsoil from the first trench to fill the last trench forked.

When you have finished the entire bed, gently break up any clods of dirt with your spading fork and smooth over the top of the bed. Let the garden rest for a few days and then add any needed soil amendments or fertilizer. Spread everything on top of the soil and then use a spading fork to work the materials into the soil about 6 inches.

Ideally, garden beds may be double dug every year. To test whether a bed needs double digging, try to push a metal rod 18-24 inches deep into the soil after a light rain. If the rod goes in, double digging is not needed. Depending on soil type and your abilities, conditioning and strength, it will take from 5 to 15 hours to double dig a 100 square foot bed.

Reference:
Vegetable Gardening in the Midwest
C.E. Voight and J.S. Vandemark
Cooperative Extension Service, University of Illinois at Urbana-Champaign
Available at Barrington Area Public Library

12. VEGETABLE GARDENING

Growing vegetables can be a fun and a rewarding gardening adventure for all members of the family. Many varieties of vegetables can be grown in the Barrington area. Favorites include sweet corn, tomatoes, fresh salad greens, zucchini and herbs although many area residents grow more exotic types. Successful vegetable gardening depends on site selection, planning, design, soil preparation, good planting techniques and ongoing care.

Site Selection

Selecting a good site for your vegetable garden will help ensure your success. What factors should you consider?

1. Soil. The ideal soil for vegetables is fertile, loose and well-drained, characteristics that can be difficult to find in the Barrington area. Much of the native soil has a high clay content. If your home is new, a significant portion of the topsoil may have been removed or compacted during construction.

If you soil is not ideal, you may amend the soil with organic materials. Compost and well-rotted manure are good choices. Digging in shredded leaves in the autumn is another alternative. In the past, peat has been used as an amendment but is no longer recommended. Peat is a limited resource and native bogs are coming under increasing pressure. In addition, peat has little nutrient value and is difficult to wet prior to digging in. If your soil and drainage problems are severe, raised beds may be a good solution (See "Raised Beds" below.).

A soil test will reveal the fertility of your soil and should be performed when you first start your vegetable garden. A basic soil test will measure the level of nitrogen (N), phosphorus (P) and potassium (K) in your soil. Use the results of the soil test to guide your use of fertilizer. The local County extension office can provide you with a list of companies that provide soil testing services.

Soil also may be tested for pH, the level of acidity or alkalinity in the soil. Vegetables prefer a slightly acid soil (6.1 to 7.0 pH). Much of the soil in the Barrington area is slightly alkaline. Adding sulfur to the soil can correct this problem.

2. Sunlight. Sufficient sunlight is critical for your vegetables. Eight to ten hours of direct sunlight is optimal. Leafy vegetables such as lettuce and certain root vegetables such as carrots and beets will grow adequately with less sunlight.

Locate your garden as far away as possible from trees and shrubs. A good rule of thumb is to plant your garden at least as many feet away from the tree or shrub as the tree or shrub is tall. Using this rule will ensure sunlight is not blocked and your vegetables are not competing with the roots of the trees and shrubs for water and nutrients.

3. Water. Vegetable gardens need approximately 1" of water per week, more when the weather is hot and dry. So locate your garden near an easy-to-use water source.

4. Proximity to your house. A location near your home makes caring for your garden and harvesting the produce more convenient.

Raised Beds

A raised bed is just what the name implies: a garden bed raised up above the level of the soil surface. Raised beds can be from 6" to waist-height above ground. The soil may simply be mounded up or sides may be built from landscape timbers or old fence boards. Beds should be built no wider than 3-6 feet to accommodate planting and weeding without having to walk on the bed. Raised beds may or may not be "double-dug." Double-digging refers to a technique of aerating the topsoil and part of the subsoil.

While the initial effort to create raised beds is significant, the long-term benefits can be great. The tops of raised beds warm faster in the spring. Soil compaction is eliminated as no foot traffic occurs on the bed. Drainage is greatly improved. And at waist-height, backs are saved.

Wildlife

With open space comes wildlife. Raccoons, rabbits and deer all will enjoy your vegetable garden as much as you and your family. Fencing can help. It needs to be deep enough to keep the raccoons from digging under it, have holes small enough so rabbits can not get through it and tall enough to keep deer from jumping it. An electrified wire at the top also can help. If your garden is small, individual wire cages may be suitable.

Planning

There are several factors to consider when selecting crops to grow:

1. Enjoyment. What does you family enjoy eating?

2. Freshness. Is there a noticeable difference in the taste of a home grown crop? Perishable vegetables like sweet corn, peas, asparagus and salad greens are best eaten immediately after harvest.

3. Space and time. Do you have enough space for the crop? Some crops, like sweet corn require large amounts of space. Some vegetables are perennials such as asparagus and rhubarb. Do you have the time to care for everything in your garden? Start small and increase the size of your garden as you become more experienced. Be aware of the care requirements for each crop such as trellising and thinning.

4. Disease and pest resistance. Some crops may need regular application of pesticide to produce good yields. Consider selecting hybrids that are disease resistant. For certain crops, floating row covers can be used to keep insects out.

5. Seeds versus plants. Many vegetables are grown in the garden directly from seed such as green beans, peas and lettuce. Others must be transplanted such as tomatoes, eggplant and peppers. Plants may be either grown by you at home or purchased from local garden centers in the spring. The advantage of starting your plants at home is that you get to choose the varieties. Garden centers typically carry only a few types of each vegetable. The do-it-yourself disadvantage, of course, is that it requires more time and effort.

6. Growing season. The growing season in Barrington is not long enough or hot enough to grow certain crops such as large watermelons, some dried beans and okra. Check the days to maturity on the seed and plant labels.

7. Flower and herbs. Consider including flowers and herbs in your vegetable garden. These plants can provide color and fragrance. And some flowers and herbs are actually deterrents or alternates for garden pests. Flowers may be cut or dried for future use. Herbs can be used in cooking or to make flavored oil or vinegar.

Design

Vegetable gardens come in all shapes and sizes. Your design needs to incorporate the site (using raised beds?), the crops (need a trellis?), the spacing scheme (conventional row, square center or equidistant) and whether you will use succession planting, interplanting and crop rotation.

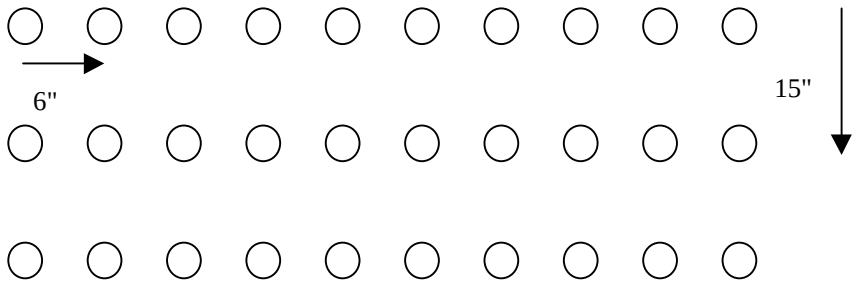
1. Spacing scheme. Decide how you want to space your plants. The scheme you choose depends on the space available and how you want to garden. In conventional row spacing, each plant is spaced the same distance apart (e.g. 6") and each row is the same distance apart (e.g. 15"). In square center planting, the distance between each plant in a row and the distance between rows is the same (e.g. 6"). In equidistant planting (Visualize the plants as circles.), the center of each plant is the same distance apart (e.g. 6") making the rows slightly closer together (e.g. 5").

Conventional rows require more space than the other two spacing schemes, but may be easier to care for by a less experienced gardener. Mechanical weeding (e.g. rototiller) is suitable only for conventional row spacing. Equidistant spacing is the most space efficient, but greater attention to plant growing characteristics is required. If you utilize raised beds, either square center or equidistant spacing is recommended. Depending on the crop, you may wish to mix and match the spacing schemes.

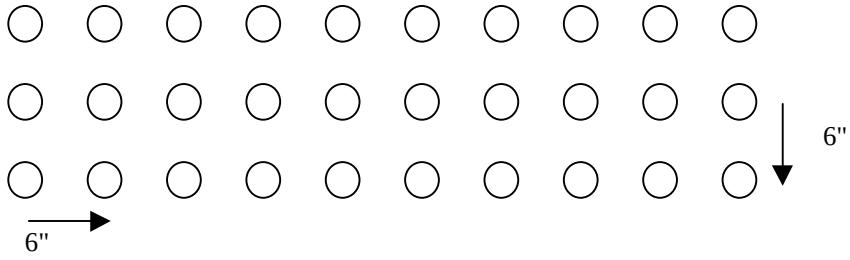
Remember to include any physical structures you may need such as trellises or tomato cages. And don't forget to leave enough space between the rows and beds to water, weed and harvest your vegetables.

THREE SPACING SCHEMES

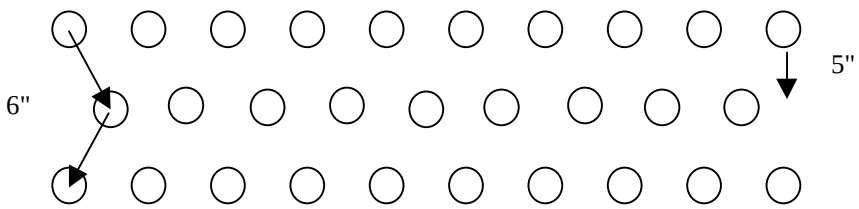
In conventional row spacing, each plant is spaced the same distance apart (e.g. 6”) and each row is the same distance apart (e.g. 15”).



In square center planting, the distance between each plant in a row and the distance between rows is the same (e.g. 6”).



In equidistant planting (visualize the plants as circles), the center of each plant is the same distance apart (e.g. 6”) making the rows slightly closer together (e.g. 5”)



2. Succession planting means planting new crops in spaces vacated by harvested crops so you get several crops from the same space in the same growing season. Green beans may follow spinach. Cole crops (see below) may follow green beans. Or the same crop can be planted in succession (e.g. green beans follow green beans).

3. Interplanting is two or more plants growing together in the same space to take advantage of different plant characteristics including length to maturity, aboveground growth patterns, light and shade tolerance, nutrient needs and root growth patterns. Early/late maturing plant combinations include radishes/carrots, peas/tomatoes and lettuce/beets. Examples of aboveground growth pattern plant combinations include corn/squash, sunflower/cucumber and lettuce/onion.

4. Crop rotation. Crop rotation means moving crops around to different parts of your garden each year. Crop rotation helps maintain soil health and improves insect and disease control. Try not to plant the same plant in the same place each year.

Some plants are heavy feeders, using lots of soil nutrients. These plants include beets, broccoli, cabbage, corn, eggplant, squash and tomatoes. Light feeders include carrots, onions, Swiss chard and turnips. Soil builders include beans and cover crops such as clover and alfalfa. Plan your garden to have heavy feeders follow soil builders.

Groups of plants that are susceptible to similar diseases and pests and should be rotated if space is available are:
- the nightshade family: eggplant, peppers, potatoes, tomatoes
- the cucurbits: cucumbers, melons, squash
- the cole crops: broccoli, cabbage, cauliflower, kale, kohlrabi
- the onion family: garlic, leeks, onions, shallots

Soil Preparation

Autumn is the best time to prepare your garden for planting. The soil is typically drier than in the spring and fall preparation allows the garden to "rest" over the winter. Never work wet soil. It can destroy soil structure. To test for moisture, squeeze a handful of soil. It should not be sticky and should form a ball that crumbles easily.

1. Soil texture. To improve soil texture or tilth, organic material can be dug in by hand or the garden can be plowed or tilled. Approximately 2-3" of compost or well-rotted manure may be added, or 3-4 bushels of leaves for every 100 square feet. If manure is used, a fertilizer higher in phosphate may be needed. If leaves are used in the spring, additional nitrogen should be incorporated.

2. Fertilizer. The principal elements applied via fertilizers are nitrogen (N) for top growth, phosphorus (P) for root establishment and fruit formation and potassium (K) for root development and disease resistance. A fertilizer marked 10-15-20 contains 10 percent nitrogen, 15 percent phosphoric acid and 20 percent potash (the potassium component).

Fertilizer can be applied to the soil in spring or fall. It should be raked into the top 4-6" of soil. Check the application rates on your fertilizer. A typical application rate for 10-10-10 for a vegetable garden is 15 pounds per 1,000 square feet. When transplanting seedlings in the spring, a liquid fertilizer high in phosphorous is beneficial. Late in the season, plants can be side-dressed (apply fertilizer in a band 6" from the plants) with a 10-10-10 fertilizer.

3. Soil pH. If your soil has a pH of 7.5 or higher you may wish to consider adding sulfur to decrease the pH. Read the application label on the sulfur. Typical application rates are 20 pounds per 1,000 square feet for clay soil.

4. A new garden. If you are starting a new garden, remove the sod and till the soil at least 8" deep. If you wish to "double-dig" your garden (See how-to information in that section.), now is the time. Also, determine whether you need to add organic material or fertilizer.

Planting Know-How

When and how to plant your garden depends on the cold hardiness of the vegetables and whether you start with seeds or plants.

1. Cold hardiness. When you plant your vegetable seeds and plants depends on their cold hardiness. Very hardy vegetables withstand freezing temperatures and hard frosts without injury and their seeds may be planted in very early spring. Examples include kale, kohlrabi and spinach.

Frost-tolerant vegetables can withstand light frosts and their seeds will germinate in cool (not cold) soils. Examples include beet, carrot, and radish. These two groups of plants are considered "cool-season" vegetables.

Tender vegetables are injured or killed by frost and their seeds do not germinate well in cool soil. Examples include green beans, sweet corn and summer squash. Warm-loving vegetables are intolerant of cold and frost and require warm soil and air for germination and growth. Examples include cucumbers, okra and eggplant. These two groups of plants are known as "warm-season" vegetables.

The last frost-free date in Barrington is May 5 to May 10 but use May 15 to avoid any possible injury to plants. Always check your seed packets and plant pot labels for additional planting information.

2. Seeding. Rake the rows or beds. Use string or stakes to mark where seeds should be planted, or make a small furrow with a pencil or the end of a hoe. To make sowing small seeds easier, mix them with sand or pulverized soil. Space seeds uniformly and plant at the proper depth. A good general rule is to plant at a depth approximately 3 times the diameter of the seed. Lightly pack the soil over the seeds with your hand, trowel or hoe. Water gently to avoid washing the seeds away. After the seeds have germinated, be sure to thin plants that are too closely spaced to ensure proper growth.

3. Transplants. In our climate some vegetables are better grown from plants, bulbs or tubers. Examples include eggplant, peppers, garlic and potatoes. Plant your transplants on a windless, cloudy day or late in the afternoon to avoid hot sun. About an hour before transplanting water them thoroughly. Dig a hole that is large enough so the plant may be set slightly deeper than it grew in the container. If the plant is leggy or spindly, set it deeper in the hole. Gently remove the plant from the pot, taking care to keep the root ball intact. Never pick up a transplant by the stem as it may cause injury. Set the transplant in the hole and firm the soil around the root and stem. If the plant was grown in a peat pot, be sure to peel back any part of the pot that sticks up above the soil line to avoid it wicking water from the roots. Protect the transplants from excessive heat, cold or wind. Black plastic mulch can help improve soil warming. Floating row covers offer protection from certain insects and cold.

Ongoing Care and Maintenance

Once your vegetable garden is planted, it will need water, cultivation, mulch and pest/disease control.

1. Watering. Consistent, adequate moisture is critical for producing high-quality vegetable crops. Vegetables typically need 1 inch of water per week, more when it is hot and dry. It is best to water deeply once a week. Ideally, water should reach to a depth of at least 6 inches. To measure rainfall and overhead sprinkling, place several straight sided cans in the garden to measure overall moisture. If you use overhead watering, try to water early in the day; it helps reduce the likelihood and spread of certain diseases.

Trickle or drip irrigation is where water is delivered at low pressure and volume to the plant via a hose perforated with tiny holes, often called "leaky hose." The initial cost and effort to install a trickle irrigation system is higher than overhead sprinkling however, it uses less water, delivers it exactly where it is needed and provides a more uniform supply of water.

2. Cultivation. Cultivating removes weeds from the vegetable garden. Begin cultivation as soon as weeds begin to sprout. Be careful around the vegetable plants as their roots are often shallow.

3. Mulch. Applying mulch can reduce the need for cultivation, moderate soil temperature and moisture, improve soil structure and keep plants and fruits clean. Organic mulches include straw, leaves, grass clipping (not too fresh) and compost. Apply the mulch to a depth of 3-4 inches. Organic mulch does slow soil warming in the spring, so apply it after plants are well established.

Black plastic film blocks sunlight from the soil and prevents weed growth. It also warms the soil beneath it by 5 to 10 degrees.

4. Pest and Disease Control. Accurate diagnosis of a plant problem is critical before you take action. A plant's symptoms may be caused by a fungal, bacterial or viral disease; by chewing or sucking insects; by chemical injury from insecticides or fertilizers; mechanical damage from cultivating or weather conditions such as cold, heat or wind. While totally eliminating the use of pesticides and fungicides may not be possible, following good control practices can significantly reduce their use.

A Summary of Recommended Control Practices:

- Grow disease-resistant varieties and hybrids.
- Use treated seed.
- Purchase healthy plants.
- Do not over or under fertilize.
- Keep weeds out.
- Use mulch.
- Do not work in the garden when plants are wet.
- Perform good fall clean up; remove all old plants.
- Practice crop rotation.
- Use bait traps for slugs and snails.
- Use hand picking, floating row covers, a forceful water spray or insecticide soap to control insects.

References:

Vegetable Gardening in the Midwest
C.E. Voight and J.S. Vandemark
Cooperative Extension Service, University of Illinois at Urbana-Champaign
Available at Barrington Area Public Library

The Enabling Garden – A Guide to Lifelong Gardening
Gene Rothert, HTR
Taylor Publishing Company
Dallas, Texas
(A fabulous guide for people with disabilities, older adults, or gardeners seeking further, very useful raised bed gardening information.)

13. FRUIT TREES

Growing one's own fruit is one of the pleasures and privileges of owning property sufficiently large to support a number of fruit trees. There are advantages as well, for one can select varieties not available in the local market and enjoy them at their peak of tree-ripened flavor. The home fruit grower can also limit the use of pesticides because homegrown fruit need not meet the stringent cosmetic standards of the commercial product. The following is a general guide from which to proceed while researching more in-depth information where it is required.

Getting Started - Site Selection

Fruit trees should have at least six hours per day of direct summer sun and a well-drained, moderately fertile soil.

Fruit Selection

Make a list of the fruits you would like to grow. There are innumerable apple varieties available, both heirloom and recently-developed hybrids. One can also find peaches, plums, pears and cherries suitable for our climate. Where possible, try to select varieties that are disease-resistant. Nectarines and apricots are "iffy" fruits here and are subject to nature's vagaries.

You will also need to consider tree size - dwarf, semi-dwarf, or standard - and whether the fruit tree will require cross-pollination. Cross-pollination is the transfer of pollen from one flower to another flower. This can occur on the same tree, but at times two trees of the same type are required for cross-pollination. Some trees may have flowers that are self-pollinating.

Fruiting times should be a consideration. Selecting fruits which ripen early, mid-season and late will give you fruit from early summer into fall.

Order your trees from a reputable nursery that sells clean disease-free stock. (See the list of several nurseries at the end of this article.)

Planting

Most suppliers will include detailed planting instructions, which should be closely followed.

If your site has clay soil, a condition prevalent in the Barrington area, mix humus (mushroom compost, home-made compost, rotted leaves, etc.) into the first 12 inches when digging the holes and follow the rule: "*For a 50 cent plant, dig a $5.00 hole!"*

Soak the roots of a bare-root tree in a tub of water before planting, overnight if possible. Spread the roots over a pyramid of topsoil in the hole. Fill the hole, tamping well to eliminate air pockets, making certain that the graft (generally the swollen union site where two tree parts have been joined) is a good two inches above the soil line. Water well, but do not fertilize.

Mulch with up to six inches of straw, grass clippings, wood chips, being certain to keep the mulch two inches away from the trunk, to help retain moisture and inhibit weed growth.

New trees can be fertilized after several weeks with an organic or balanced (10-10-10) commercial fertilizer in a circle about two feet from the trunk. In successive years, trees should be watered deeply and fertilized when needed and pruned while dormant in early spring. Trees are pruned to remove vertically growing water sprouts and to redirect growth. The goal is to maintain all fruit trees of a kind in your orchard at the same size and with an open structure which allows air circulation.

Insect and Disease Control

The grower will need to make a decision about the method of insect and disease control: natural or chemical or a combination of both. With just a few trees, you can keep a close watch for pest problems, remembering that it is healthier for you and your orchard to tolerate a few blemishes. If pests appear, you can employ mechanical methods such as traps, handpicking, etc. There are also further non-chemical controls such as horticultural soaps and oils. Whether one opts for natural or chemical controls, a dormant oil spray should be applied in early spring before the leaves appear. This helps to control over-wintering insects and mites.

If using chemical control, spraying with an all-purpose complete orchard spray (fungicide and insecticide) is recommended at the following times:

1. Before blooms appear
2. When petals fall - NEVER spray on open petals!
3. Two weeks after petals fall
4. Three weeks after petals fall
5. Six weeks after petals fall

Fruit Tree Suppliers

Stark Bro's Nurseries & Orchards Co.
20947 Highway 54 West
Louisiana, MO 63353
573-754-5111 - www.starkbros.com

Miller Nurseries
5060 W. Lake Road
Canandaigua, NY 14424
800-836-9630 - www.millernurseries.com

St. Lawrence Nurseries
Route #345
Potsdam, NY 13676
315-265-6739 - www.sln.potsdam.ny.us

Raintree Nursery
391 Butts Road
Morton, WA 98356
360-496-6400 - www.raintreenursery.com

Southmeadow Fruit Gardens
P.O. Box 211
Baroda, MI 49101
616-422-2411 - www.southmeadowfruitgardens.com

Adams County Nursery, Inc.
P.O. Box 108
Aspers, PA 17304
717-677-8105 - www.acnursery.com

Information Sources

The Chicago Botanic Garden
1000 Lake Cook Road
Glencoe, IL 60022
Contact their Plant Information Service: 847-835-0972 or
www.chicagobotanic.org/plantinfor.index.html
Ask for *"Plant Facts #49 - Fruit Trees."* P.I.S. will make a copy.

The Brooklyn Botanic Garden
1000 Washington Avenue
Brooklyn, NY 11225
718-623-7280 (gift shop) or www.bbg.org
Publishes a series of gardening handbooks, which are available through the shop:

Handbook #147 - "Growing Fruits"
Handbook #139 - "Natural Insect Control"
Handbook #126 - "Pruning Techniques"

University of Illinois [Co-operative] Extension Service
AW-101 Turner Hall, 1102 S. Goodwin Avenue
Urbana, IL 61801
217-333-6651 or www.extension.uiuc.edu/welcome.html
(This web-site will connect you to specific counties of interest.)
Also available is an on-line newsletter at:
www.aces.uiuc.edu\~ipm\news\fvnews.html

Earth On Her Hands - The American Woman in Her Garden
Starr Ockenga
Clarkson N. Potter, Inc.
201 E. 50th Street, New York, NY 10022
See particularly the chapter entitled "*The Fruits of Her Labors*" from which first-hand material for this article was drawn.
The chapter includes an abundant list of fruit tree varieties for Barrington orchards.

14. GARDEN CHEMICALS AND IPM

Integrated Pest Management

Each garden, each landscape is a small-scale ecological system with its own special set of characteristics: soil, plant life, wildlife (from annelids to mammals) and environmental conditions. The challenge for the gardener is to encourage the growth of desirable plants without causing undue harm to the other denizens of the landscape, to keep the garden life cycle in balance for all seasons.

To that end, integrated pest management ("IPM") is the preferred approach to managing unwelcome visitors to the garden, lawn and orchard. IPM may be defined as a sustainable approach to managing pests by combining cultural, physical, biological and chemical controls in a way that minimizes economic, health and environmental risks. A shorter version is "chemical control should be the last resort, not the first line of attack."

Cultural Controls

1. Build the Soil. One of the best tools to prevent unwanted pest, disease and weed infestations is to build and maintain good soil. Soil provides the foundation for all plant growth. If plants cannot obtain the nutrients, water and air they need from the soil, they will become stressed and a stressed plant is much more susceptible to disease and pest attack.

Test soil fertility and pH on a regular basis. Add soil amendments as needed. To reduce soil compaction, aerate your lawn regularly and double dig garden beds when possible.

2. Compost. Make your own compost. It recycles garden, yard and kitchen waste and creates the best possible soil amendment. Compost also can be used as a mulch and as a side dressing.

3. Keep the Garden Clean. Good sanitation practices are essential to garden health. Prune dead, dying or diseased leaves, twigs and branches immediately and dispose of them properly. Keep all garden tools clean and sharp (including lawn mower blades). Sterilize your tools, especially pruning shears, with rubbing alcohol or a mild bleach solution to prevent transmitting diseases from one plant to another.

Cultivate your gardens regularly. Keep them as weed free as possible. Mulch your gardens, trees and shrubs to reduce weeds and moderate soil temperature and moisture. In the fall, clean up your gardens, removing all dead plant materials. This practice will limit the number of insect and diseases that can overwinter in the garden

Don't work in the yard when plants are wet. Some diseases can be spread from an infected plant to a healthy plant.

4. Plant Selection/Plant Diversity. As you plan your landscape, be sure to site plant material in suitable habitats. Plants that need full sun will struggle in full shade. Plants that require constant moisture will not thrive if planted on the top of a hill. Acid loving plants will have a tough time in alkaline soil. Remember, plants that are stressed due to adverse environmental conditions (e.g. sunlight, moisture, soil compaction, wind) are more likely to suffer health problems.

When possible, select trees, shrubs, plants and bulbs for your home landscape that are resistant to common pests and diseases. This practice can significantly reduce the time and effort spent on pest control. Select the healthiest plant material you can. Before you bring home new purchases, inspect them for pests and disease.

Avoid monoculture of plants, trees and shrubs. As plant diversity increases, the chance of severe pest or disease infestation decreases and your landscape is at considerably less risk.

5. Plant Care. Take good care of the plants you have. Provide them with the water and food they need. Make sure they have good drainage. Inspect your gardens, lawns, trees and shrubs regularly. Look for plants that appear stressed or show signs of disease or pest infestation. To maintain shape, dormant prune trees and shrubs. Deadhead spent flowers on annuals and perennials.

<u>- Guidelines for Effectively Monitoring Your Garden</u>

A. Tour your garden early in the day when insects are less likely to be active.
B. Take a hand-magnifying lens with you to identify pests (and beneficials!)

C. Check all parts of your plants. Lift up leaves and look at the base of the stem.
D. Carry a small notebook to record you observations.
E. Check soil moisture.
F. Bring a pair of pruning shears and a bucket or bag. You'll be prepared to spot prune and pull weeds.
G. Take a few empty pill bottles to capture unknown insects for future identification.

6. Keep Records. It may require a bit of effort to take notes during the year as you garden but accurate, complete records are an invaluable tool to make your landscape flourish.
- Maintain soil records including soil tests, soil amendments used and fertilizer applied.
- Track crop rotations in your vegetable garden.
- Keep a weather diary. These notes can assist you in diagnosing environmental disorders.
- Record growth progress of new plants.
- List pest controls methods used and your success rate.

Physical Controls

1. Barriers. There are several barriers that can be used to keep pests out of the yard. They include:
- Floating row covers are lengths of lightweight synthetic material that are placed over plants. They are particularly effective in protecting seedlings from a variety of pests.
- Paper collars protect plants from most species of cutworms.
- Tree guards are perforated plastic bands that are placed around young trees to prevent animals from chewing the bark.

2. Traps. Traps take advantage of how insects find food, mate or seek shelter. They consist of a lure component to attract the insect and a trapping component to capture the insect. Traps may be used to reduce insect populations or monitor their arrival in your landscape.
- Yellow sticky traps may be homemade or purchased commercially. They capitalize on the fact that many insect species are attracted to yellow.
- Apple maggot traps are red spheres coated with a sticky substance and hung in apple trees.

- Slug and snail traps use fermenting material (e.g. stale beer) to attract the pests which then die in the liquid.

3. Hand picking. If pest infestations are limited, handpicking and destroying the pest can be effective.

4. Water spray. If pest infestations are limited, a strong water spray from a hose can dislodge the pests from the affected plants and kill them through physical injury. This method is particularly effective for control of aphids and spider mites.

Biological Controls

1. Beneficial insects and animals. There are numerous beneficial insects and other organisms in the home landscape which can help control unwanted pests. They include ladybugs, centipedes, praying mantis, solitary wasps, parasitic wasps, predatory mites, wolf spiders and lacewings. In addition, birds, bats and toads consume quantities of insects.

To encourage these helpful garden dwellers to stay in your yard, design your landscape to provide favorable habitats and employ cultural practices that won't harm them. In reference materials you can find the specific plants that attract various beneficial organisms. In addition, some beneficial insects may be purchased for release in your yard, however, in most instances it is more efficient and cost effective to bolster your native population.

2. Bacterial insecticides: There are two widely used bacterial insecticides, *Bacillus thuringiensis* ("BT") and *Bacillus posilliae/ B.lentimorbus* ("milky spore disease"). BT offers protection against a variety of caterpillars including cabbage looper, diamondback moth, imported cabbageworm, spruce budworm and tomato hornworm. Milky spore disease controls Japanese beetles, June beetles and May beetles in the grub stage.

Bacterial insecticides are full of living organisms and must be properly applied and stored for maximum effect. Read and follow application directions on the label. Protect the insecticide during storage from excessive heat and cold as well as moisture.

Chemical Controls

Chemical controls include pesticides (for insect control), herbicides (for weed control) and fungicides (for fungal control). They should be used only as a last resort to manage pests and disease. There are risks for people and animals who come in contact with the chemical as well as possible long lasting effects on the soil and water. Remember, it is estimated that less than 1% of all insect species are pests so be sure you have identified the pest correctly before resorting to applying a chemical control.

1. How Chemicals Work. Chemicals work in a variety of ways. Some are toxic when consumed or affect the nervous system. Others kill through suffocation or dehydration. It is important to understand how a chemical works before using it.

2. Application methods. Chemicals may be applied as liquid spray, liquid soil drench, dust, ready-to-use spray, pellets, aerosol and pellets. Understand the advantages and disadvantages of each application type before using.

3. Phototoxicity. The damage caused by chemicals to plants is called phototoxicity. Chemicals should be applied with extra care to plants exposed to bright sunlight, high temperatures and dry roots. Seedlings are more susceptible than mature plants and petals and buds are more likely to be damaged than leaves. Test the chemical on one or two plants before applying to all plants.

4. Resistance. As with antibiotics and humans, insect populations and plant diseases can become resistant to chemicals with prolonged and indiscriminate use.

5. Persistence. Chemicals lose effectiveness and break down into other compounds based on their molecular structure and environmental factors such as temperature and exposure to sunlight. Chemicals may be absorbed and remain in the soil, contaminate groundwater or accumulate in the bodies of other organisms. Persistence varies significantly across chemicals.

6. Toxicity. While the government regulates the sale of chemicals that doesn't mean all chemicals are safe. In fact, some chemicals available to homeowners can be lethal. Labels are required to use the following toxicity classification.

Class	I	II	III	IV
Signal Word	**Danger – Poison**	**Warning**	**Caution**	**Caution**
Description and Probable Lethal Oral Dose for Humans	Super toxic - A taste or a grain	Very toxic - 1 tsp. to 2 TB	Slightly toxic - 1 pt to 1 qt	Practically nontoxic - Greater than 1 qt
Description and Probable Lethal Oral Dose for Humans	Extremely toxic - A pinch to 1 tsp.	Moderately toxic - 1 oz to 1 pt		

Note that the classification rates only oral doses. Chemicals may affect the respiratory system, the eyes and the skin as well.

7. Chemical Use Checklist. Use the following checklist if you decide to use a chemical control:
- Correctly identify the pest/weed/disease problem.
- Ensure the problem you want to control is listed on the label.
- Read and understand the use directions on the label.
- Identify the protection needed (e.g. eye, skin, respiratory).
- Know the exposure limits, the symptoms of exposure and the appropriate first aid measures.
- List the telephone numbers of your local poison control center and the manufacturer's emergency response unit.
- Know how to clean up a spill.
- Know how to clean up clothing and tools when you are finished.
- Know how to store the chemical after use. Is it flammable or reactive? Does it need protection from excessive heat, cold or moisture? Make sure the storage area is inaccessible to children and animals.
- Know how to dispose of empty containers.

8. Horticultural Oils. Petroleum oil sprays kill overwintering eggs and adult pests, primarily scale. The sprays consist of 1 to 3 percent oil mixed in water. Only a thin layer is needed to kill susceptible insects however, direct contact is required. Dormant oils are applied in the spring before growth starts and summer oils are used when leaves are present.

9. Diatomaceous Earth. Diatomaceous earth is made by mining and milling the fossil remains of diatoms. The fine powder contains tiny shards of silica that scratches and absorbs the waxy surface of a bug's surface causing dehydration.

10. Insecticidal Soaps. Soapy water kills insects on contact by paralyzing them, disrupting membranes and interfering with growth and development. Soap sprays may be homemade; however, commercial products are typically less toxic to plants and have a specified fatty acid content (the active ingredient). Soap sprays control soft-bodied insects such as mealybugs, thrips, whiteflies and mites.

11. Botanical Pesticides. These pesticides are made from plant material with the active ingredients extracted from flowers, leaves, bark or roots. They can be very potent toxins and often are non-selective, meaning they kill any insect that eats or comes into contact with them. Some have adverse effects on fish, birds, humans and other mammals. So just because it's plant-based doesn't mean there are no risks. Treat these pesticides with the same respect as you would synthetic chemicals.

The one advantage to botanical pesticides is that they have low persistence; they degrade quickly into harmless compounds in the environment. Examples of these pesticides include:
- Pyrethrum, effective against many chewing and sucking insects.
- Rotenone, effective against chewing insects, especially flea beetles.
- Ryania, effective against codling apple moth and other caterpillars.
- Sabadilla, effective against aphids, cabbage loopers, European corn borers, squash bugs and other insects.
- Neem, effective against Colorado potato beetle, corn earworms, spotted cucumber beetle and other insects.

References:

Rodale's Chemical-Free Yard & Garden
Carr, Smith, Gilkeson, Smillie and Wolf
Rodale Press

American Horticultural Society Pest and Diseases
Greenwood, Halstead, Chase and Gilrein
Dorling Kindersley Publishing, Inc.

Both of the above selections are available at the Barrington Area Public Library.

Warfare on the Home Turf
Village Garden Club of Sewickley
Sewickley, PA 15143

15. BUTTERFLY GARDENING

It is possible to attract many species of butterflies to your garden by providing the specific host plants and nectar flowers which butterflies and their larvae require.

Butterflies lay their eggs on those plants that the larva will eat, but be aware that the butterfly larva will eat these plants as they complete their life cycle. (The life cycle of a butterfly is characterized by four distinct stages: eggs, larva/caterpillar, pupa and adult butterfly.)

Specific requirements to keep in mind are:

+ A sunny garden will attract more butterflies than a shady one and will provide an ideal environment for their eggs and larva (caterpillars).

+ Fragile butterfly wings need the presence of some tall plants to protect them from strong breezes.

+ A variety of flowering plants should be planted in your "butterfly garden." Large clumps of colorful blossoms are more attractive to butterflies than single flowers, especially when contrasting colors are planted side by side.

+ A source of water is important, such as a small pool, a fountain, or just a dripping container.

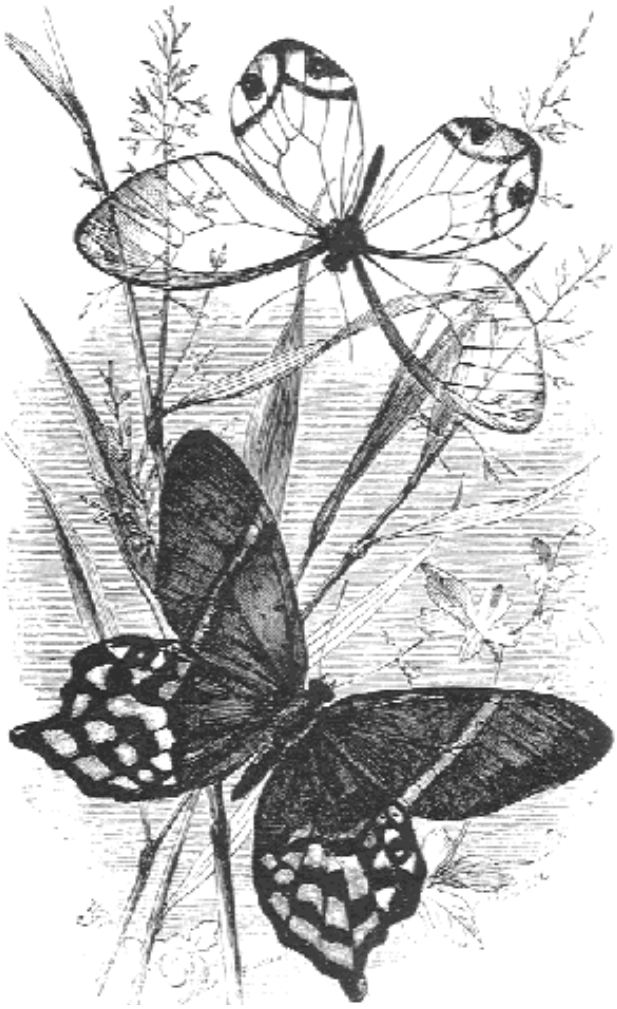
+ Do not use pesticides or herbicides in or near the butterfly garden.

Examples of Butterfly Species	**and Their Host Plants**
Monarch	Milkweed family plants
Fritillaries	Common wood violets, pansies, violas
Red Spotted Purple	Willows, poplars, cherries, hawthorns, apples, hornbeams
Painted Lady	Daisies, hollyhocks, mallows
Common Sulfur	Clovers and other legumes
Pearl Crescent	Asters
Eastern Black Swallowtail	Dill, parsley, carrots, Queen Anne's Lace
Spicebush Swallowtail	Sassafras and spicebush

Some butterfly species require trees, which are not included here.

Nectar Flowers

Alyssum
Asters
Basil
Butterfly Weed
Cleome/Spider Plant
Coneflower
Cosmos
Daisies
Day Lily (not orange)
Forget-me-nots
Joe Pye Weed
Lavender
Liatrus
Marigolds
Mints, assorted types
Petunia
Pink Phlox
Salvia
Zinnia



For more information

Illinois Department of Natural Resources
Natural Heritage Division
One Natural Resources Way
Springfield, IL 62702-1271
217-782-7498 – Clearinghouse for publications

North American Butterfly Association
4 Delaware Road
Morristown, NJ 07960
www.naba.org

Notes

16. PLANTING FOR BIRDS

Over 100 bird species nest regularly in the Chicago region and about 100 others spend some of their migration time here in the spring and fall. An additional 25 bird species are winter residents only.

By including a variety of trees, shrubs and flowers in your landscaping, many of these birds can be attracted to your property for their benefit and your enjoyment. Other enticements include bird feeders, bird baths and bird houses which supply food, water and shelter needs. If you are feeding birds and leave for an extended period of time, the birds will find alternative food sources until you return.

Types of plants important for bird habitat include evergreen conifers, nectar-producing plants, fruiting plants, grasses and legumes, nut and acorn plants.

The **evergreen conifers** provide escape cover, winter shelter, summer nesting sites and sap, as well as buds and seeds for certain bird species.

Nectar-producing trees, shrubs, vines and flowers attract hummingbirds and orioles. **Fruiting plants** include species of cherry, serviceberry, plum and elderberry. Dogwoods, mountain ash, winterberries and cotoneasters ripen later and provide fall fruit, important for building up fat reserves in anticipation of approaching winter for both migratory and non-migratory birds.

Native **grasses and legumes**, if not mowed, provide seed for food as well as cover for ground-nesting birds.

Among the **nut and acorn** trees are the oaks, hickory, walnut, buckeye and hazelnuts. The meats of these nuts and acorns are eaten by a variety of birds and these trees provide good nesting habitat.

Over-wintering birds depend on the fruit of such plant species as crabapple, hawthorn, sumac, highbush cranberry and Virginia creeper.

One over-wintering species that may become undesirable is the non-migratory Canada Goose. These geese are attracted in large numbers to lakes and ponds and well-manicured lawns. Often they can be discouraged from taking over the lawn by maintaining a buffer zone of unmowed or ornamental grasses, or low shrubs along the water's edge.

Once your landscaping has been developed and is maintained, your only requirements will be a pair of binoculars and a good bird field guide.

Suggested Bird Field Guides

Birds of North America
Kenn Kaufman
Houghton Mifflin Co.
An excellent recent field guide

The Sibley Guide to Birds (National Audubon Society)
David Allen Sibley
Knopf
A more advanced birders' guide

National Geographic Field Guide to the Birds of North America
Jon L. Dunn
National Geographic Society
A reliable guide

Peterson's Field Guide to Eastern Birds
Roger Tory Peterson
Houghton Mifflin Co.
Another reliable guide with helpful field marks

17. WILD CREATURES IN THE BARRINGTON AREA

Whether you live in one of the Barrington area villages or in the surrounding countryside, you will encounter wild animals, ranging from small chipmunks to large deer. Creatures have become more apparent as their natural habitats continue to shrink due to real estate development and as their native environs are replaced with people-centered landscapes.

In addition to their unique flora, each of our ecosystems also has its special fauna: mammals, birds, reptiles, amphibians, and insects. **Amphibians** include frogs, toads and salamanders - all welcome inhabitants.
Our only **reptiles** are a few species of turtles and snakes. There are no poisonous snakes in the immediate Barrington area.

Among the myriad of **insects**, those few that are harmful to fruits and vegetables and the stinging and biting insects are of concern. The deer tick is a vector of Lyme Disease and recently the mosquito has become a carrier of the West Nile Virus, which may cause encephalitis.

We have selected some of the more common mammal species for a brief discussion. There are many sources for more information about these and other wild creatures.

Above all, you must remember that these creatures, no matter how appealing, are wild animals and must be treated as such. Even though they may be welcome visitors to your property, some may harbor diseases or parasites, which can be transmitted to humans, and some can be a threat to domestic animals and pets. Do not feed them or attempt to touch them, no matter how tame they may appear to be. Skunks, raccoons and bats may harbor rabies.

The **white-tailed deer** is the largest and perhaps the most endearing mammal that you will encounter. In recent decades, its population has exploded, resulting in the destruction of native plant species to the extent that culling has become a last resort solution. Deer also love your landscape plantings and favor some of our most special native and garden species, including trilliums, lilies, tulips, iris, hydrangea and hosta. Eight-foot-tall chain-link fencing (Black is least objectionable to neighbors.), or three horizontal levels of heavy 16-gauge wire strung across the borders of the area, or electric fencing are the most effective deer deterrent for protecting vegetable gardens or special landscape plantings. Organic plant repellants are another possible solution. Early morning and dusk are the hours when both you and the deer are most likely to become highway causalities.

In recent years, the ubiquitous **coyote** has populated both urban and suburban territories. This dog-like creature is surprisingly common, and frequently seen in the area. Pointed, erect ears and drooping tail help to distinguish it from domestic dogs. The coyote diet is both herbivorous and carnivorous, meaning that your small pets and livestock may be at risk if they are not protected when outside. You may hear coyotes howling at night, but they are also active during the day.

The **Southern Flying Squirrel**'s range covers the entire eastern half of the United States. Because they only come out to feed in late evening, these diminutive aerial performers are seldom seen. They prefer extensive forests with large trees, usually remaining high in the tree and seldom coming to the ground. A folded layer of loose skin along each side of the body extending from foreleg to hindleg when outstretched allows the squirrel to glide considerable distances from tree to tree. Flying squirrels visit bird feeders at night and are particularly fond of peanut butter. On rare occasions they will move into attics.

Two fox species occur in our area. The **red fox** is more common than the **gray fox**, but the populations of both have decreased with the influx of the larger coyote. Both fox species tend to be nocturnal in their meanderings and pose no threat except to small mammals (like mice) and ground-nesting birds.

The adaptable **raccoon** is everywhere. These masked bandits love suburbia where they set up housekeeping in hollow trees, culverts, barns and sometimes in your attic. These nocturnal creatures will raid your vegetable gardens, garbage, bird feeders and birdhouses. Trying to outwit them is a frustrating job, but your local Wild Bird Center can offer suggestions for keeping them out of bird feeders and birdhouses. If cornered, raccoons can be savage fighters.

Cottontail rabbits are one of our most common and easily recognized mammal species. These vegetarians may find some of your garden plantings delectable. In winter they may eat the bark and twigs of young trees and shrubs.

Another rodent herbivore is the husky **groundhog or woodchuck**. It tends to be solitary and remains close to its burrow, which could be under your porch or foundation. Groundhogs/Woodchucks are hibernators, so don't look for them in winter, until February 2nd, of course.

The **muskrat** is a common rodent that requires ponds, marshes, lakes and streams with a reliable minimum depth. Here it constructs domed houses of vegetation or creates a system of shoreline burrows. Usually muskrats are seen swimming, but occasionally they may be spotted on shorelines gathering vegetation, which they carry back to their houses.

Beavers are much larger rodents, which occur sporadically in the Barrington area. Their signature stick and mud dams may cause unwanted flooding. They eat water plants as well as cambium and roots of shoreline hardwoods, including birch, willow and cottonwood. The presence of pointed tree stumps is a good indication that there are beavers nearby. When the food supply has been exhausted, the beaver family will move to a new location.

The **striped skunk** is nocturnal and generally makes its presence known only by its lingering pungent scent. The smell is long lasting and very difficult to eliminate. Tomato juice (lots of it) as a bath helps with dogs that get sprayed. Skunks may harbor rabies. (This is also true of raccoons and bats.) Rabies is transmitted to humans and pets through bites or saliva. All pets should be vaccinated for rabies. Never approach a skunk during daylight hours, especially if it appears ill.

Another nocturnal species is the **opossum**, North America's only marsupial. The opossum is an omnivore, with a diet of both plants and animals. It may raid your garbage cans and bird feeders, particularly in the winter.

The small striped **Eastern chipmunks** are denizens of open woodlands, brushy areas and woodpiles. They are frequently seen racing on the ground from one place to another and they take advantage of any opening in your roof or foundation to make themselves at home. Chipmunks hibernate during the winter.

The two common squirrels of our region are the **Eastern red and Eastern fox squirrels**, which are active the entire year. If given the chance, they will find a home in your attic. Squirrels can be delightful creatures to watch, but not when they eat more birdseed than the finches and chickadees.

Should any of these species become a real problem on your property, do not attempt to solve the dilemma yourself. Contact a reputable local wild animal control specialist. Look in the "Yellow Pages" under *"Animal Removal Service"* or *"Animals, Pest-Trappers."*

18. THE NATURE LADY PROGRAM
in
School District #220 Elementary Schools

The first Nature Lady in Barrington, Illinois was actually a man, Norman McClintock, whom The Garden Club of Barrington hired in 1932 to teach nature subjects to students at Barrington Country Day (later Countryside) School. This tradition continued with a number of female successors until the early 1970's. In 1975, The Little Garden Club of Barrington approached school district officials to propose that the Nature Lady Program be re-established and expanded to include students, grades K-2, in all of Barrington's eight elementary schools and at Barrington's St. Anne's Parochial School. In 1977, Wendy Paulson, a dedicated environmental educator, was selected as the new Nature Lady. Wendy, together with officers of The Little Garden Club and The Garden Club of Barrington, laid the foundation for the continuing success of the program. Since that time, both garden clubs share the annual cost for salaries and materials.

Today, 2500 students are visited five times each year for fall and spring nature walks and three in-class presentations. The nature walks may take place in the schoolyard or at a nearby nature center and emphasize the changing seasons and the importance of looking and listening carefully. Recent topics for these classroom presentations have included bats, butterflies, frogs, fish, sugar maples and snakes. In September, third grade graduates of the Nature Lady Program visit the nearby Grigsby Prairie to experience Illinois, "the Prairie State," as it looked in pre-settlement days. A storyteller also visits each school a few times a year to tell stories, often Native American fables, relevant to the theme of the in-class presentation.

The Nature Lady Coordinator selects the educational materials for each presentation and supervises the training of the Associate Nature Ladies who are responsible for the school visits. There are currently several Associate Nature Ladies. Many Nature Ladies, including members of The Garden Club of Barrington, volunteer their time.

In a typical thirty-minute classroom segment, the Nature Lady presents an overview of the topic, encouraging questions and emphasizing the benefits of the natural environment. She also brings a colorful display board and hands-on materials, such as pelts, scales, fins and claws for the children to touch. Looking through appropriate books from the Barrington Area Library is a popular way to end each session as the children share interesting information and photos with their classmates.

These are the facts about the program. What is difficult to convey is how much fun the Nature Ladies have. The school children look forward so much to the visit of "Mrs. Nature," and it is so rewarding to realize how many children remember each presentation: how they howled like wolves, ran like coyotes, jumped like frogs, hunted spiders in the gym and re-enacted an Aesop Fable to illustrate the intelligence of the crow.

19. THE BARRINGTON COUNTRYSIDE RIDING TRAIL SYSTEM
and
Affiliate Local Organizations

The Riding Club trail system of Barrington Hills is a unique complex of bridle trails which has not only survived over the years, but also which has actually expanded. Equestrian sports have been a Barrington tradition since the turn of the 20th century when gentleman farmers such as Otis, Buckley and Hart cantered down a dirt road called County Line. In the 1920's people came out regularly from the city, many specifically to ride their horses which were boarded here. Although the landscape may have changed, area residents may still enjoy the Barrington countryside from horseback on a unique trail system maintained by the Riding Club of Barrington Hills.

The Riding Club of Barrington Hills

The Riding Club of Barrington Hills (RCBH) had its beginnings in the late 1920's for the purpose of creating and maintaining interest in horseback riding in the Barrington countryside as well as for preserving the traditions of the equestrian community. This, the oldest local equestrian association, was the first to recognize the urgent need for a network of marked bridle trails through this rapidly growing community. The RCBH cooperated with local property owners to designate access through private land by license, easement, or other form of agreement. This cooperation between rider and landowner has continued throughout the years. Today 70 miles of riding trails radiate from the Riding Center on Bateman Road through the countryside and forest preserve.

Strict membership criteria are established by the RCBH Board of Directors to assure local property owners that RCBH riders will be considerate of their land, ride safely, close gates, respect planted fields and observe the green and white RCBH trail signs.

The Riding Club of Barrington Hills *continued*
Annual membership dues support professional trail maintenance, the publication of an up-to-date trail map and the issue of bridle tags for RCBH members to provide valuable information in case of an emergency.

Trail rides and informational programs are held throughout the year. Each summer, the RCBH hosts a party for landowners to say, "thank you" to those Barrington Hills residents who graciously grant riders access to the trails.

Membership inquiries should be directed to the Riding Club of Barrington Hills at www.ridingclubofbarringtonhills.com, or by writing to Box 418, Barrington, IL 60011.

The Fox River Valley Hunt

In the late 1930's a second equestrian group was founded called the Fox River Valley Hunt (FRVH) and in 1940 the group was registered with the national governing Masters of Foxhounds Association. The Fox River Valley Hunt meets in Barrington Hills and in western Illinois from August through December. Information is available through the Riding Club of Barrington Hills.

In 1964, both the RCBH and the FRVH agreed that a permanent equestrian center in Barrington Hills would be of great benefit to the community. Fifteen acres of land were acquired adjacent to the Spring Creek Forest Preserve at Donlea and Bateman Roads. An indoor arena, outdoor riding ring and stabling facilities were privately funded and added to the site. In 1972, these facilities were transferred to the newly-formed Barrington Countryside Park District by the Riding Club of Barrington Hills.

The Fox River Valley Pony Club

The Fox River Valley Pony Club was founded in 1965 to teach horsemanship and riding safety to children from the Barrington area. A member club of the United States Pony Club, the club's purpose is to provide opportunities for instruction and competition in English riding. The Pony Club meets at the Bateman/Donlea Roads Riding Center. For information, please contact www.ponyclub.org/clubs-regions.php

The Spring Creek Basset Hunt

The Spring Creek Basset Hunt is one of 13 registered Basset Hound Packs in the United States. The season begins on the first Sunday in October with the Blessing of the Hounds and ends in the middle of April. This is a wonderful on-foot family sport open to all ages and provides healthy, active exercise in pleasant country surroundings.

For more information, contact the Spring Creek Basset Hunt at www.SCBHrsvp@excite.com or write P.O. Box 1298, Barrington, IL 60011

Trails and Pathways

The Village of Barrington Hills adopted a new, revised Comprehensive Plan in 2005. The Plan includes a section entitled *"Trails and Pathways"* which says in part:

"Nonmotorized circulation continues to be an integral part of the character of Barrington Hills. Bicycling, hiking, horseback riding and cross-country skiing are enjoyed by many residents, taking advantage of the scenic qualities and open space throughout the community....It is recommended that this system of trails and pathways be preserved, enhanced and extended and that it remain a permanent asset of the community ... requiring that all subdivision developers maintain and enhance existing equestrian trails on their properties…It is the Village's policy to encourage private and public efforts to expand the system in a safe and sensitive manner."

Notes

20. Natural Areas Around Barrington

The Alexander Stillman Nature Center

A place to learn

The Alexander Stillman Nature Center is a private, not-for-profit center for environmental education. A former estate in South Barrington, the land was donated by Alexander Stillman for the purpose of establishing a nature center.

On weekdays, the Stillman Center offers programs for school children and adult groups. Fees vary with the amount of staff time provided by Stillman. If your group or class is looking for a new place to schedule a field trip, do not hesitate to call. Bird banding and owl study are among the public programs offered on many weekends. Details of all offerings can be found in the members' newsletter. The public is welcome to explore Stillman's trails, at no charge, on Sunday afternoons.

A place for wildlife

The outstanding feature of the Stillman Nature Center is the variety of habitats that offer food, cover and nest sites for many birds and animals. Stillman is located on 80 acres of woods, lake and meadowland.

The pond community is home to everything from tiny duckweed to the dinosaur-like snapping turtle. Stillman's marsh is thick with cattails and offers a refuge for waterfowl and shorebirds.

The woodlands are home to squirrels, raccoons, woodpeckers and a pair of great horned owls. Some animals like deer and fox can be seen in either the woods or meadow. Parts of the grassland habitat are being converted to native prairie.

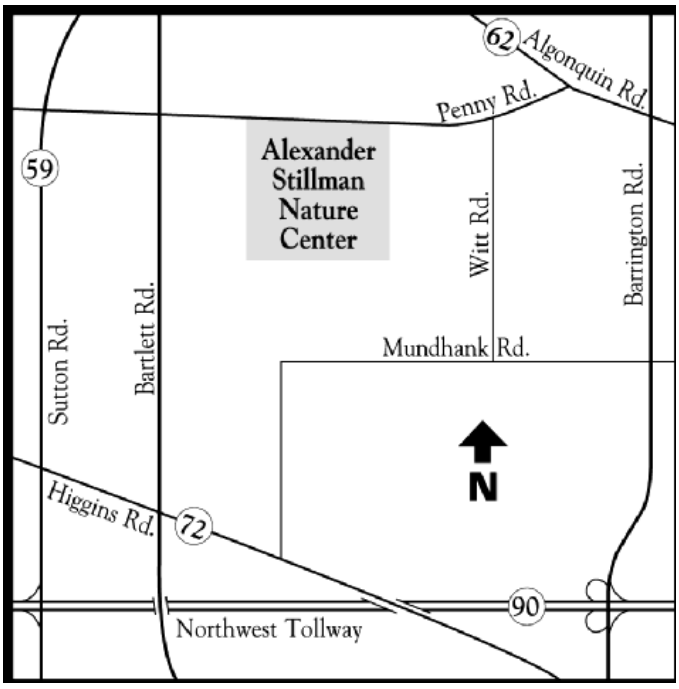
Recently, a Birdscape demonstration area was developed featuring plants that attract birds and wildlife to a residential backyard – a backyard just like yours! This area, located just inside the white wall as you enter from the parking lot, serves as a gathering spot for visiting groups.

A place for wildlife *continued*
The Birdscape was funded in part by The Garden Club of Barrington as its Garden Club of America Millennium Project.

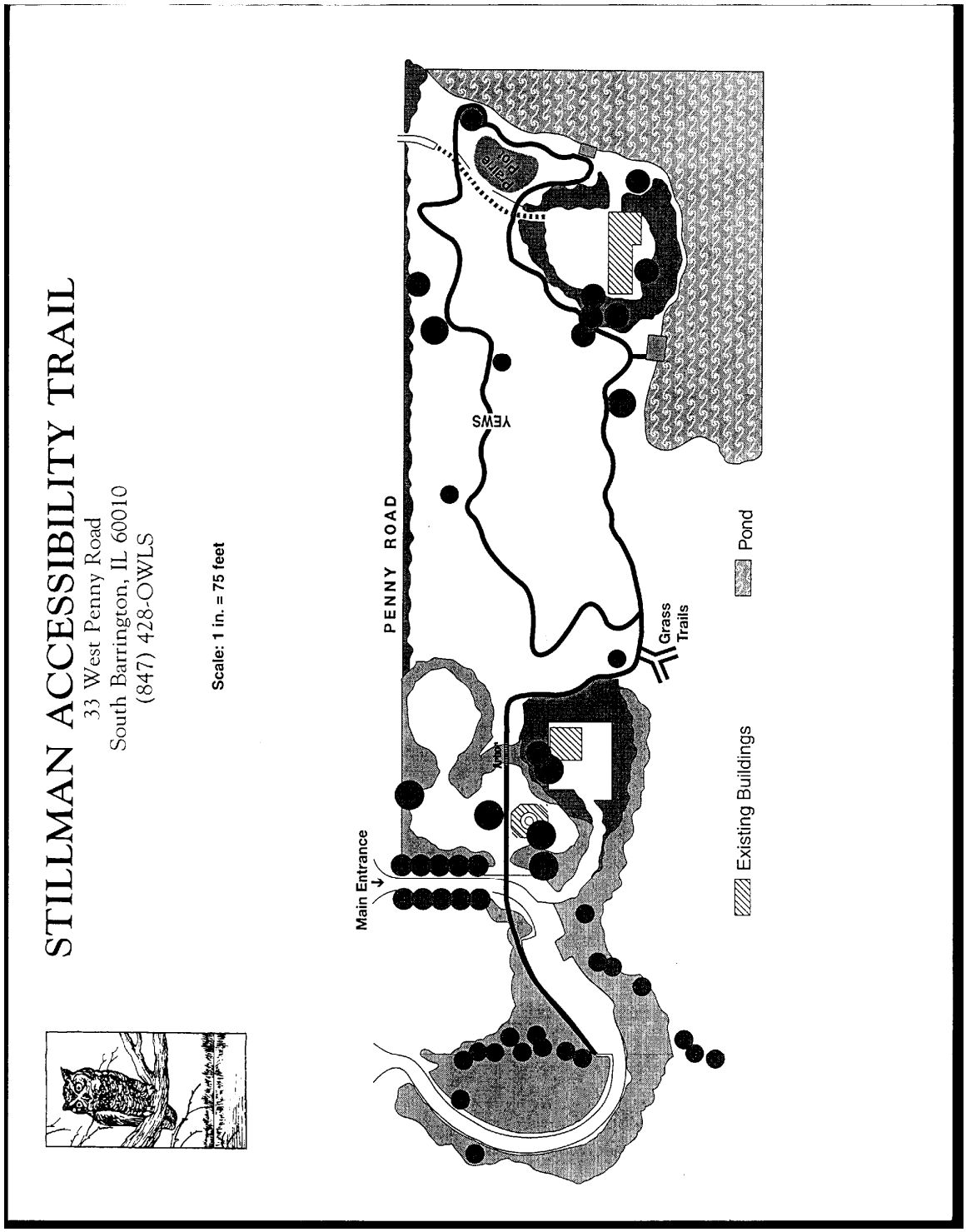
The Accessibility Trail, another Stillman project funded in part by The Garden Club of Barrington, allows the visitor comfortable access through the woods, water and grassland habitats.

A place for you
Stillman is an independent nature center that is privately funded and *receives no tax monies* from any park, forest preserve, or school district. Therefore, it counts on public support. You are invited to become a member of the Stillman Nature Center by contacting the address, phone, or E-mail numbers listed below. Members receive a delightfully informative quarterly newsletter, detailing future events and a feature article highlighting a native Barrington area plant or animal.

The Alexander Stillman Nature Center
33 West Penny Road
South Barrington, IL 60010
Phone/Fax: 847-428-OWLS (6957) www.stillmannc.org
E-mail: stillnc@flash.net



20. NATURAL AREAS AROUND BARRINGTON *continued*



Citizens For Conservation, Inc.

"Like winds and sunsets, wild things were taken for granted until progress began to do away with them." Aldo Leopold

A group of Barrington area residents, recognizing that suburban growth was threatening the natural environment and open spaces, formed Citizens for Conservation (CFC), in 1971. It is a non-profit volunteer organization, strongly supported by a large group of dedicated workers.

CFC now owns 10 preserves totaling 343 acres. It has helped protect over 2,000 acres of public land, including three new forest preserves: Ela Marsh, Fox River and Grassy Lake. Since its creation, The Garden Club of Barrington and its members have been major financial contributors to these efforts.

In the spring, CFC conducts an important native plant sale. In the summer, high school and college students intern on CFC properties to learn what stewardship of natural open spaces entails. Prairie seeds gathered in the fall are sown in areas that CFC is restoring. Native plants are rescued from natural areas scheduled for development and transplanted to CFC properties.

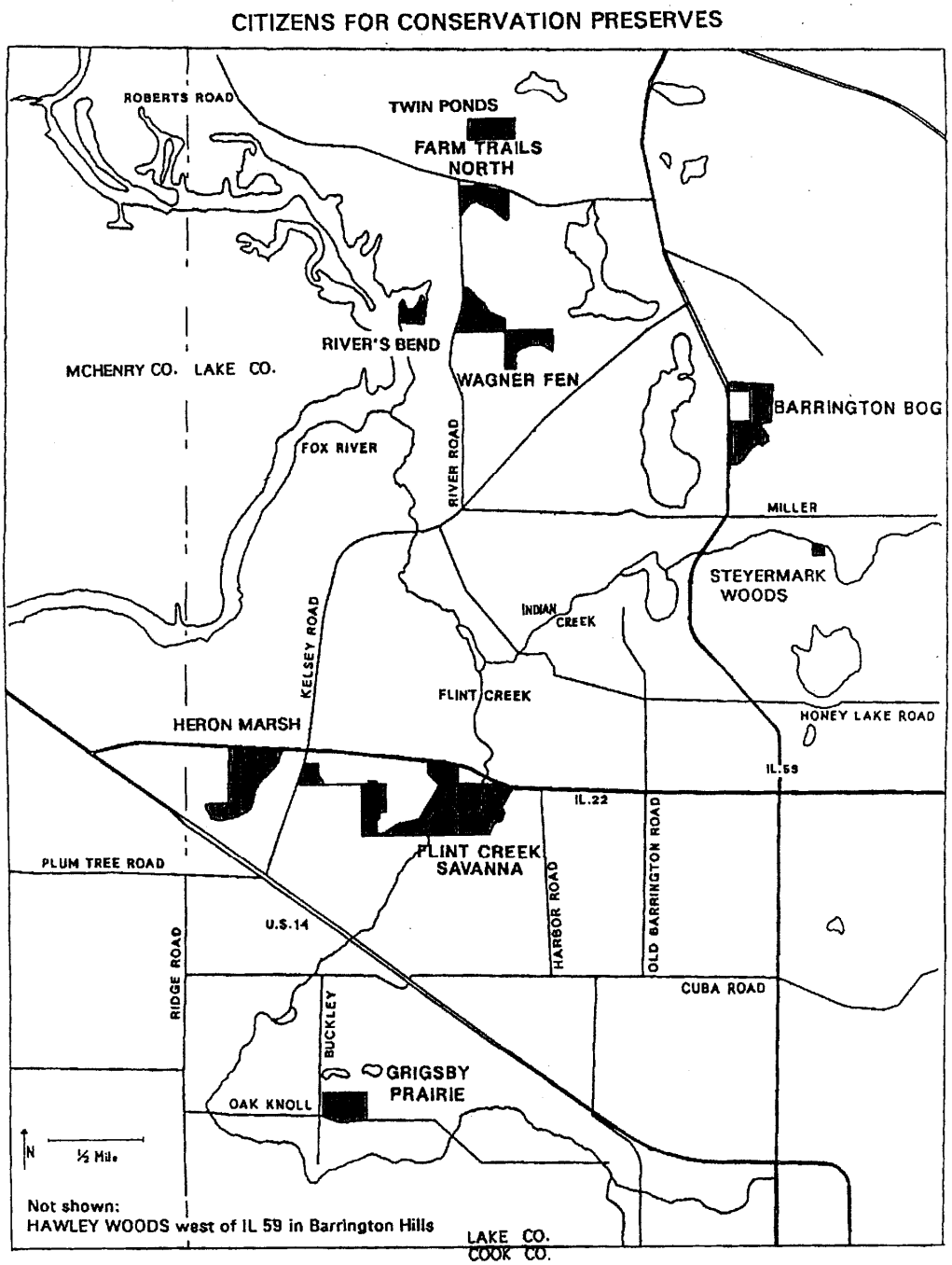
CFC also created the William H. Miller Conservation Award that is presented annually to an area individual or organization for an outstanding contribution to conservation. In 1990, this award was given to The Garden Club of Barrington and The Little Garden Club of Barrington for their joint sponsorship of the Nature Lady Program in District #220 elementary public and private schools. (See related article.)

For hiking and nature walks, visitors are welcome at two CFC preserves: the 42 acre Grigsby Prairie and the 109 acre Flint Creek Savanna. Guided walks are offered occasionally to these and other properties. Please note that some CFC properties are only open to visitors with CFC guides. Call before visiting: 847-382-SAVE.

You can join CFC's volunteer force as a member and/or worker. Your membership includes a subscription to their quarterly newsletter, *CFC News.* CFC is also a vast resource that you can contact for information on all things pertaining to a natural environment, on your own property or elsewhere. Interested people of all ages are welcome to help CFC in its mission of ***"Saving Living Space for Living Things."***

Citizens for Conservation
459 W. Highway 22
Barrington, IL 60010
Phone/Fax: 847-382-SAVE (7283)
www.citizensforconservation.org

20. NATURAL AREAS AROUND BARRINGTON *continued*



21. Barrington Area & Regional Resources

Barrington area residents are fortunate to have nearby two excellent world-class resources for plant and landscaping information. To the south is The Morton Arboretum and to the east is the Chicago Horticultural Society Botanic Garden. Membership in one allows access to the other.

Both have extensive plantings, featuring native and non-native species in spectacular settings. Both engage in scientific plant research, maintain exhaustive botanical libraries and offer classes on a great variety of subjects related to the natural environment. Each has a gift shop and a restaurant.

The Morton Arboretum
4100 Illinois Route 53
Lisle, IL 60532-1293
630-968-0074
www.mortonarb.org

The beautiful 1700-acre Arboretum grounds are open every day of the year. Visitors can view the grounds by car or via the tram tour on more than 11 miles of scenic roads. In addition, more than 12 miles of trails await your discovery. Demonstration plots display landscaping choices of various types. A basic family membership entitles you to unlimited free entry, members' only events such as the Arbor Day Plant Sale, a subscription to the *"Seasons"* newsletter, discounts in the Ginkgo Gift Shop, discounts for education classes and borrowing privileges from The Sterling Morton Library.

Mr. Joy Morton, founder of the Morton Salt Company, transformed his extensive estate into the Morton Arboretum in 1922, when he was 65 years old. Today the Morton Arboretum is a nationally recognized, major scientific and cultural institution.

The Chicago Horticultural Society Botanic Garden

1000 Lake Cook Road
Glencoe, IL 60022
847-835-5440
www.chicagobotanic.org

Owned by the Forest Preserve District of Cook County and managed since its founding in 1965 by the Chicago Horticultural Society, the 385-acre campus of The Chicago Botanic Garden includes 60 acres of lakes. The property is divided into specialized gardens: the Rose Garden, the English Walled Garden, the Fruit and Vegetable Garden, the Dwarf Conifer Garden, the Waterfall Garden, the Japanese Islands and many others. Tram tours around the gardens are popular. The Education Building has a library, various greenhouses and an auditorium for its many general public and professional classes. Family membership allows early admission to three major annual plant sales, sponsored by the Woman's Board. A members' magazine, "*Garden Talk*" is published six times a year.

Municipal Government Building/Zoning Officials

The Barrington area consists of seven villages: Barrington, Barrington Hills, Deer Park, Lake Barrington, North Barrington, South Barrington and Tower Lakes. Four of those seven have full-time Building/Planning/Zoning Departments. In general these departments are responsible for reviewing and approving plans for new construction and/or re-modeling, issuing building permits, inspecting construction, issuing certificates of occupancy and enforcing the Villages' Building Codes.

Barrington - 200 S. Hough Street - 847-304-3460
Barrington Hills - 112 Algonquin Road - 847-551-3000
Lake Barrington - 23860 N. Old Barrington Road - 800-422-5220
South Barrington - 30 South Barrington Road - 847-381-7510

In the other three villages, independent Building Inspectors replace in-village departments:

Deer Park - 23680 Cuba Road - 847-726-1648
Building Inspector - 847-432-6311
North Barrington - 111 Old Barrington Road - 847-381-6000
Building and Zoning Officer - 847-381-6000 x14
Tower Lakes - 400 N. Route 59 - 847-526-0488
Building Officer - 800-422-5220

Barrington Area Soil and Water Conservation Districts

The Barrington area lies in four counties. Each has its own Soil and Water Conservation District. Since 1935, when Congress declared soil and water conservation a national policy and priority, it realized that only active support from landowners would guarantee the success of conservation on private land. Since three-fourths of the land in the U.S. is privately owned, there was a need to educate and help local citizen-homeowners conserve land, water, forests, wildlife and other natural resources. That is the role of the county Soil and Water Conservation Districts. Through newsletters, booklets, videos and personal, expert professional advice, the Soil and Water Conservation staff assists county residents in their "backyard role as thoughtful stewards of America's precious soil and water resources."

Kane-DuPage Counties SWCD
545 South Randall Road
St. Charles, IL 60174
630-584-7961 x 3

Lake County SWCD
100 N. Atkinson Road, Suite 102A
Grayslake, IL 60030
847-223-1056

McHenry County SWCD
1143 N. Seminary Avenue
P.O. Box 168
Woodstock, IL 60098
815-338-0099 x 3

North Cook County SWCD
899 Jay Street
Elgin, IL 60120
847-468-0071

Mailing address:
P.O. Box 407
Streamwood, IL 60107
www.northcookswcd.org

Notes

22. Local Area Groups Making A Difference

A Reference Directory to Conservation-Minded Organizations

Barrington Area Conservation Trust
17 Oakdene East
Barrington Hills, IL 60010
847-381-4291 www.bactrust.org
BACTrust works with local organizations and governments to preserve the open space, rural character, and scenic, historic, recreational, and natural resources of Barrington area communities through advocacy, education and the promotion of responsible land stewardship. BACTrust focuses on private land protection by working with land owners to provide tools for private land protection, primarily through conservation easements which are legally binding agreements that restrict future land uses on qualifying properties in perpetuity.

Barrington Area Development Council
P.O. Box 72, Barrington, IL 60011
847-382-HELP (4357)
Searching out the needs of the Barrington community and organizing to meet those needs either as BADC or with the creation of a new organization, such as Citizens for Conservation.

Barrington Area Historical Society
212 W. Main Street, Barrington, IL 60010
847-381-1730 www.bahsil.org
Keeping the Barrington community history alive through preservation and education. Well worth becoming a member.

Chicago Botanic Garden
1000 Lake Cook Road, Glencoe, IL 60022
847-835-5440 www.chicagobotanic.org
Since 1972, a world-class, 385 acre outdoor botanic museum with 26 specialized gardens, educational exhibits, plant sales and programs.
The land is owned by the Forest Preserve District of Cook County and The Garden is managed by the Chicago Horticultural Society since 1965.
(For details, see related article - #21.)

Chicago Wilderness
8 South Michigan Avenue, Suite 900, Chicago, IL 60603
www.chicagowilderness.org
The Chicago Wilderness coalition is an unprecedented alliance of more than 140 public and private organizations working together to protect, study and manage precious natural ecosystems of the Chicago region for the benefit of the public. No individual memberships.

Citizens for Conservation
459 W. Highway 22, Barrington, IL 60010
847-382-SAVE (7283) www.citizensforconservation.org
"Saving Living Space for Living Things" - through protection, restoration and stewardship of land, conservation of natural resources and education.
(For details, see related article - #20.)

Crabtree Nature Center
On Palatine Road (one mile west of Barrington Road), Barrington, IL 60010
847-381-6592 www.fpdcc.com
A small nature museum, a tallgrass prairie restoration, a duck blind for viewing waterfowl, with short and long hiking trails. Many rare birds visit.
Owned by the Forest Preserve District of Cook County, Crabtree is open all year to visitors.

Flint Creek Watershed Partnership
459 West Highway 22
Barrington, IL 60010
847-382-7283 www.flintcreekwatershed.org
Flint Creek Watershed Partnership's goal is to educate while building partnerships for projects to improve water quality, reduce flooding and restore wetlands, prairies and other natural features for future generations.

Forest Preserve Districts:

Cook County F.P.D.	800-870-3666	www.fpdcc.com
Kane County F.P.D.	630-232-5980	www.co.kane.il.us/forest/index.htm
Lake County F.P.D.	847-367-6640	www.lcfpd.org

Illinois Native Plant Society
Forest Glen Preserve - 20301 E. 900 North Road, Westville, IL 61883
217-662-2142 www.ill-inps.org
Organized in 1981 for members who are interested in all aspects of the flora native to Illinois. Field trips, lecturers, slide shows and a quarterly newsletter, *"The Harbinger"* are included in membership.

The Illinois Nature Conservancy
8 S. Michigan Avenue, Suite 900, Chicago, IL 60603
312-580-2100 www.nature.org/wherewework/northamerica/states/Illinois
Together with members and conservation partners, The Illinois Nature Conservancy has protected over 76,000 acres of critical natural lands.

"The Illinois Steward" magazine
W-503 Turner Hall, 1102 S. Goodwin Avenue, Urbana, IL 61801
www.ilsteward.nres.uiuc.edu/
Internationally award-winning educational, informative, full-color magazine about Illinois' precious natural resources and heritage, as well as efforts to protect and steward these resources. The goal is to help the reader develop and further sharpen his own personal stewardship philosophies.

Land Conservancy of Lake County
P.O. Box 293, Lake Villa, IL 60046
847-356-6001
The Land Conservancy of Lake County is a group dedicated to preserving wetlands and other natural areas in Lake County through donations, large or small, and in managing and protecting natural areas and ecosystems.

Land Foundation of McHenry County
Box 352, Woodstock, IL 60098
815-455-4618
A not-for-profit conservation agency providing guidance and assistance in establishing conservation easements. They also have instituted natural and cultural resource management techniques on a variety of properties.

McHenry County Conservation District
18410 U.S. Highway 14, Woodstock, IL 60098
815-338-6223 www.mccdistrict.org/
Established in 1971 for the purpose of acquiring and maintaining land as open space for preservation, education and recreation. MCCD sites range in size from 3,000+ acres at Glacial Park to Queen Anne Prairie, a one acre site featuring over 50 native Illinois prairie plants. Eighteen sites are open to the public.

The Morton Arboretum
4100 Illinois Route 53 at I-88, Lisle, IL 60532
630-719-2465 www.mortonarb.org
One of the region's best resources for viewing over 3000 kinds of trees and other plants and native plant communities on a 1700 acre outdoor museum campus. Plant Clinic direct line: 630-719-2424.
(For details, see related article - #21.)

National Audubon Society
www.audubon.org
(See "Prairie Woods Audubon Society" for local area information.)

The Natural History Society of Barrington
c/o The Barrington Area Public Library
505 N. Northwest Highway, Barrington, IL 60010
847-382-1300
Since 1945, the mission of this organization has been to promote knowledge and increase the enjoyment of natural history and help preserve natural areas. Most monthly meetings are held in the evening at The Barrington Area Public Library. Fieldtrips are scheduled at other times for members and guests.

Openlands Project
25 East Washington Street, Suite 1650, Chicago, IL 60602
312-427-4256 www.openlands.org
Since 1963, Openlands has worked to conserve, protect, expand and enhance open space - land and water - to provide a healthy, natural environment, as well as a more livable place for all people of northeastern Illinois.

Park Districts:

Barrington Park District	847-381-0687
Barrington Countryside Park District	847-381-1911
Lake Barrington Countryside Park District	847-381-0927
Inverness Park District	847-934-6300
South Barrington Park District	847-381-7515

Prairie Woods Audubon Society
(a chapter of the National Audubon Society)
P.O. Box 1065, Arlington Heights, IL 60006
847-622-5321
Their mission is to conserve the environment, to preserve wildlife and natural habitats, and to provide opportunities for education, nature appreciation and fellowship. The organization maintains a seven-acre prairie in Palatine, funds a teacher for elementary school environmental and conservation classes, and conducts birding and nature study field trips**.**

Edward L. Ryerson Conservation Area/Ryerson Woods
21950 Riverwoods Road, Deerfield, IL 60015
847-968-3321 www.ryersonwoods.org
A 552 acre preserve on the Des Plaines River near Deerfield features walking trails with rare native wildflowers and occasional rare species of fauna and birds which were present at the time of settlement of our area.
In the Visitors Center is an extensive natural science library. Nature programs and special events are held throughout the year.

Save The Prairie Society
10327 Elizabeth, Westchester, IL 60154
708-865-8736 www.savetheprairiesociety.org/
The Wolf Road Prairie was the impetus for the beginnings of the STPS in 1970. Today the Society maintains their active role through open space acquisition and ecological recovery of native ecosystems. A wide range of monthly educational programs, with prominent speakers, takes place at the Prairie House.

Soil and Water Conservation Districts by county
(See section #21 entitled "Barrington Area and Regional Resources.")

Stillman Nature Center
33 West Penny Road, South Barrington, IL 60010
847-428-OWLS (6957) www.stillmannc.org/
(For details, see related article - #20.)

U.S. Department of the Interior - Field Office
1250 S. Grove, Suite 103, Barrington, IL 60010
847-381-2253 www.fws.gov/Midwest/Chicago/

Volo Bog State Natural Area
28478 W. Brandenburg Road, Ingleside, IL 60041
815-344-1294 dnr.state.il.us/lands/landmgt/PARKS/R2/VOLOBOG.HTM
Year round educational and conservation programs and exhibits in the Visitor Center and outdoors on two marked trails, featuring birds, reptiles, bats and star-gazing on the site of the only quaking bog in Illinois to have an open water center.

The Wetlands Initiative
53 West Jackson Boulevard, Suite 1015, Chicago, IL 60604
312-922-0777 www.wetlands-initiative.org
The mission of The Wetlands Initiative is to reestablish wetlands in ways that provide environmental and economic benefits to society and landowners in the upper Midwest and the Great Lakes region through restoration and research. Membership assistance has been critical in supporting their environmental stewardship of the Upper Illinois River Valley water chain.

Editor's Note:
In a publication of this scope, there is always the possibility that some fine organizations were inadvertently omitted. Any appropriate, conservation-minded area organizations that would like to be included in the next edition, can mail relevant information to:

"Keepers of The Land" - The Garden Club of Barrington
P.O. Box 1108, Barrington, IL 60011

Awards:
2004 The Garden Clubs of Illinois Inc Publications Award
2004 The National Garden Clubs, Inc Tommy Donnan Publications Award
2004 The Garden Club of America Zone XI Conservation Award
2005 Citizens for Conservation "Thank You" Award

Second Edition February 2003
Third Edition April 2004
Fourth Edition March 2010

The Garden Club of Barrington
"Keepers of The Land"
P.O. Box 1108
Barrington, IL 60011

Library of Congress # TX5-951-275
U.S. Copyright: April 20, 2004

The Garden Club of Barrington
organized 1925

is a member of

The Garden Club of America
+
National Garden Clubs, Inc.
+
The Garden Clubs of Illinois, Inc.
+
The Council of Barrington Garden Clubs