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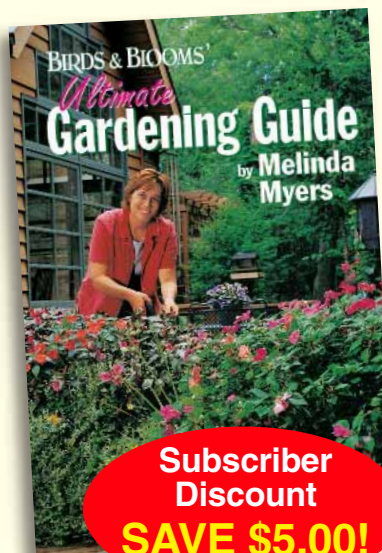
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BIRDS & BLOOMS' *Create Your Own* Bird and Butterfly Haven



**Step-by-step
tips and plans
to attract more
winged wonders
to your backyard.**

Welcome Colorful Winged Wonders to Your Backyard

EVER WISH more birds and butterflies would paint your backyard with a flurry of lively color?

Wish no more. *Birds and Blooms' Create Your Own Bird and Butterfly Haven* is packed with unique, practical and easy suggestions and advice, plus step-by-step projects for setting out the welcome mat for winged wonders.

Better yet, you'll find the tips and hints in this book are already backyard tested—supplied by readers of *Birds & Blooms* and the project pros at our new “brother magazine”, *The Family Handyman*.

You'll quickly learn what to plant, feed and how to attract more flying wonders to your place. Page after page is filled with clever ideas that really work...and projects that are a cinch to complete, thanks to helpful how-to photos that guide you from start to finish.

This guide will save you hours of research or years of experimenting through trial and error. The solutions, ideas and expertise are right here at your fingertips.

That means you'll have more time to sit back, relax and watch the birds and butterflies that will now call your backyard home sweet home.

Editor Jeff Nowak
Art Director Bonnie Ziolecki
Proofreader Susan Uphill
Photo Coordinator Trudi Bellin
Projects and Plans *The Family Handyman*

For more reader stories, ideas and projects, visit us at
www.birdsandblooms.com
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Planting a Bird Sanctuary

By Robert Ralston
Punta Gorda, Florida

Choosing the right trees and shrubs can make your backyard a birder's paradise.

When visitors see the large variety of birds in my backyard, they begin to rattle off questions about my bird feeders and the type of seed I offer.

Sure, the feeders help bring these feathered friends closer to my win-

dows. But before I answer any questions, I'll suggest taking a stroll through the backyard. That way I can point out some of the many trees and shrubs I credit with my backyard birding success.

To attract a good number of area

birds to your backyard, it's important to provide shelter from the elements, protection from natural predators, water and a natural food source. The best part is that when you plant for the birds, you'll also benefit. The result is a beautifully landscaped yard you can enjoy throughout the year.

Cover and Canopies

No single tree or shrub will increase the bird population in your yard. But backyards with an abundance of trees, shrubs and ground cover are sure to be winners.

That said, no "birdscaped" backyard is complete without evergreens.

Birds roost in them (below) because their dense branches provide protection. In the North, they provide shelter from cold, cutting winds and—as a bonus—offer homeowners winter color.

Then there are flowering trees.



American Cranberrybush
Viburnum

Richard Day/Daybreak Imagery

These are the backbone of my plantings. They rise above the shrubbery, adding contrast with a profusion of blooms, brilliant berries and striking fall foliage.

I also add other deciduous trees and shrubs that create seasonal interest in a backyard. These are the plantings that will lose their leaves in winter when they are dormant.

Since trees are slow to mature, they should be the first plantings in a birdscaped yard. Select the largest trees that fit your budget because from the time they are planted, they will dominate your landscape.

Next, add smaller plantings to complete the overall picture. In my area, those plants include azaleas, low-growing junipers, cotoneasters and colorful perennials.

Berry Good Trees

Trees with berries that hang on bare branches throughout the long winters are especially important to many birds.

Flowering crabs are among the best. They bloom in a va-



Rick and Donna Means



Virginia Creeper

Rick and Donna Means

riety of colors, from white to red, but the fruits are what attract birds. In spring, it is not uncommon to see robins feeding on fermented fruits. In a late-winter snowstorm, these berries can be lifesavers for birds.

Dogwoods have colorful spring blossoms, striking fall foliage and brilliant fruits. I've added two types to my yard—the flowering dogwood and the Korean dogwood. (The gray dogwood, below right, is also an excellent berry-producing shrub.)

They are a nice blend because they bloom at different times—flowering dogwoods put on their show in early spring, while Korean dogwoods bloom in late June.

Some other berry-producing trees to consider are hawthorns, mountain ash, cherries and hackberries.

Low-growing plants and horizontal shrub groupings are also an important layer to a birdscaped yard. They create thickets that protect the birds and provide food.

One of my favorite all-pur-

pose shrubs is American cranberry viburnum (opposite top).

In spring, delightful blossoms cover the entire plant. They later mature into masses of orange-red fruit that attract several bird species.

I also plant holly. Some are evergreen varieties and others are deciduous, but all bear attractive red fruits, provided male and female plants are present. (Insects will carry pollen from one holly plant to the other, pollinating the flowers that produce berries.)

I've found that honeysuckle vine and Virginia creeper (above left) create a tangle suitable for nesting in a very short time, and its summer fruits are relished by many birds.

Feeders, birdbaths or ground-level pools near shrubbery are excellent additions to bring your visitors into the open.

Food and water will invite more birds to your yard. But remember, adding trees and shrubs that provide the essentials for survival is a great incentive for the birds to stay. 🐦



Gray Dogwood

Richard Day/Daybreak Imagery

Just Add Water

What's one thing that will draw birds to your backyard like a magnet? Water!

It's just as important as food, and wild birds need water to drink and bathe. If you provide it, winged activity will surely follow.

Turn a leaky outdoor faucet into an effective birdbath dripper. I set a baking pan below the faucet, and a large variety of birds quickly found the water source.

—*Kelly Davis*
Prescott Valley, Arizona

Most birds prefer shallow water. So we modified our deep bath by placing rocks and stones in the bottom.

—*Bob and June Kibler*
Middletown, Ohio



RF Photo

Birds were more interested in my birdbath after I moved it near a fence in my backyard. They land on a post, survey the yard, then hop to the bath. The fence provides a great spot for them to preen after they bathe, too.

—*Betty Deaver, Dell, Montana*

I connected my winter birdbath heater to an outdoor timer. It comes on each morning to thaw the ice.

—*Chuck Straub, Barrie, Ontario*

Tips for a Busy Birdbath

- Look for a basin that can be easily cleaned and has a gentle slope.
- In winter, use plastic birdbaths. They're less likely to break if the water freezes.
- When temperatures fall below freezing, use a birdbath heater.
- Try to make the birdbath resemble a

natural puddle by positioning it close to the ground.

- Birds can't fly well when they're wet. Place birdbaths near shrubs and trees in case they need to escape from predators.
- Clean your birdbath every couple of days.

Source: Cornell Lab of Ornithology, Ithaca, New York

Birds and Their Favorite Foods

	Niger (thistle) seed	Cracked corn	White proso millet	Black-oil sunflower seed	Hulled sunflower seed	Beef suet	Fruit	* Sugar water/nectar
Rose-breasted grosbeak				●	●			
Black-headed grosbeak				●	●			
Evening grosbeak		●	●	●	●			
Northern cardinal		●	●	●	●		●	
Indigo bunting	●				●			
Eastern towhee	●	●	●	●	●			
Dark-eyed junco	●	●	●	●	●			
White-crowned sparrow	●	●	●	●	●			
White-throated sparrow	●	●	●	●	●			
American tree sparrow	●	●	●		●			
Chipping sparrow	●	●	●		●			
Song sparrow	●	●	●		●			
House sparrow	●	●	●	●	●			
House finch	●	●	●	●	●			
Purple finch	●	●	●	●	●			
American goldfinch	●	●	●	●	●			
Pine siskin	●	●	●	●	●			
Scarlet tanager							●	●
Western tanager							●	●
Baltimore oriole							●	●
Red-winged blackbird		●		●	●			
Eastern bluebird							●	
Wood thrush							●	
American robin							●	
Gray catbird							●	
Northern mockingbird							●	
Brown thrasher							●	
Ruby-throated hummingbird								●
Anna's hummingbird								●
Broad-tailed hummingbird								●
Tufted titmouse	●			●	●	●		
Black-capped chickadee	●			●	●	●		
White-breasted nuthatch				●	●	●		
Carolina wren							●	
Cedar waxwing							●	
Woodpecker				●	●	●	●	
Scrub jay		●		●	●	●	●	
Blue jay		●		●	●	●	●	
Mourning dove	●	●	●	●	●			
Northern bobwhite		●	●		●			
Ring-necked pheasant		●	●		●			
Canada goose		●						
Mallard		●						

* To make sugar water for hummingbirds, mix 4 parts water with 1 part sugar. Boil, cool and serve. Store leftovers in the refrigerator for up to a week. Change feeder nectar every 3 to 5 days.

Source: *Garden Birds of America* by George H. Harrison. Willow Creek Press, 1996.

The Welcome Mat Is Out for Wildlife

You can turn your backyard into a haven for birds and other animals—and have a certificate to prove it!



Melowski/Photo

It's true. A bit of effort in your yard can earn you recognition from the National Wildlife Federation through its Backyard Wildlife Habitat Program.

We thought you would like to know about this certification process, and how easy it is to create a place where the welcome mat is always out.

The Backyard Wildlife Habitat Program was started by the federation to encourage people to plan their landscaping with wildlife in mind.

You may already have a yard that qualifies, or you can develop one. There are only four basic requirements: food, water, protective cover and a place for the wildlife to raise their young (see details on the next page).

Over 34,000 families have been recognized with certificates so far, according to Craig Tufts, the federation's chief naturalist and manager of this program. The leading state is South Carolina, followed by Pennsylvania, Georgia, California and Ohio.

"We get applications from all over the country, including rural areas, suburbs and cities—for properties ranging from farms to condominiums," Craig says.

Other Reasons

"People like the recognition for their good work, of course, but there's more motivation than that," he explains.

"We see a growing national interest in preserving wildlife—and the certification process gives people a structure to plan their yard landscapes.

"It's important to give people, especially children, the experiences and enjoyment of dealing firsthand with plants and backyard wildlife. It's a lot more effective—and memorable—than trying to learn about it through television," Craig informs.



Sharon Le Beau

"Whether you have several acres of rolling hillside in the countryside or a small apartment balcony or condominium (or perhaps the develop-

"We see a growing national interest in preserving wildlife—and the certification process gives people a structure to plan their yard landscapes."

ment's common area), you can help by creating a backyard wildlife habitat," he explains.

"You'll be proud to be someone who's providing spaces for wildlife and beautifying homes at the same time."

How It Works

The federation suggests that the first step is to see what you have now, to identify the habitat elements that already exist for wildlife in your yard. This is what to look for or add to your backyard:

- **Food Sources**—Plants that provide seed, fruits, nuts, acorns, buds or nectar, for example, are important to birds, squirrels and other forms of wildlife. They can come from trees, shrubs, flowers and feeders you have in the yard.

- **Water**—Wild creatures need water all year for drinking and bathing. It can be provided through birdbaths (with heater if needed in winter), a small pool or pond, a shallow water dish on the ground or simply a natural spring or existing stream on your property.

- **Cover**—This refers to places for wild critters to hide for protection from wind, weather and predators. This could be a dense area of shrubbery, a stand of evergreen trees or some brush, log or rock piles that blend into the landscape.

- **Places to Raise Young**—Wildlife, from birds to fish to butterflies, need space to raise their families. This might include a full range of possibili-



ties—a dead tree with knot-holes or other cavities, other trees or shrubs, nesting boxes or shelves, dens in the ground, brush piles or a pool or pond.

Can Be Anywhere

Wildlife habitats can be anywhere in your yard...front, back or all of it.


To find out more about the Backyard Wildlife Habitat Program, visit the National Wild-

“Whether you have several acres of rolling hillside or a small apartment or condominium, you can help by creating a backyard wildlife habitat.”

life Federation’s Web site at www.nwf.org/backyardwildlife_habitat or call 1-800/822-9919.

There is a \$15 processing fee if you decide to apply for certification of your backyard habitat.

Who knows? You may be the next one to get a personalized certificate inscribed with your individual Backyard Wildlife Habitat number.

Craig adds that if you’re in the Washington, D.C. area, the federation has a demonstration habitat at its headquarters in Reston, Virginia. It features over 50 kinds of wildlife-attracting flowers, trees and shrubs. 



Birdhouse Building Guidelines

SPECIES	DIMENSIONS	HOLE	PLACEMENT	COLOR	NOTES
Eastern bluebird	5" x 5" x 8" h	1-1/2" centered 6" above floor	5-10' high in the open; sunny area	light earth tones	likes open areas, especially facing a field
Tree swallow	5" x 5" x 6" h	1-1/2" centered 4" above floor	5-8' high in the open; 50-100% sun	light earth tones or gray	within 2 miles of pond or lake
Purple martin	multiple apts. 6" x 6" x 6" ea.	2-1/2" hole 2-1/4" above floor	15-20' high in the open	white	open yard without tall trees; near water
Tufted titmouse	4" x 4" x 8" h	1-1/4"	4-10' high	light earth tones	prefers to live in or near woods
Chickadee	4" x 4" x 8" h or 5" x 5" base	1-1/8" centered 6" above floor	4-8' high	light earth tones	small tree thicket
Nuthatch	4" x 4" x 10" h	1-1/4" centered 7-1/2" above floor	12-25' high on tree trunk	bark-covered or natural	
House wren	4" x 4" x 8" h or 4" x 6" base	1" centered 6" above floor	5-10' high on post or hung in tree	light earth tones or white	may fill nest boxes with “dummy” nests
Northern flicker	7" x 7" x 18" h	2-1/2" centered 14" above floor	8-20' high	light earth tones	put 4" sawdust inside for nesting
Downy woodpecker	4" x 4" x 10" h	1-1/4" centered 7-1/2" above floor	12-25' high on tree trunk	simulate natural cavity	prefers own excavation; provide sawdust
Red-headed woodpecker	6" x 6" x 15" h	2" centered 6-8" above floor	8-20' high on post or tree trunk	simulate natural cavity	needs sawdust for nesting
Wood duck	10" x 10" x 24" h	4" x 3" elliptical 20" above floor	2-5' high on post over water, or 12-40' high on tree facing water	light earth tones or natural	needs 3-4" of sawdust or shavings for nesting
American kestrel	10" x 10" x 24" h	4" x 3" elliptical 20" above floor	12-40' high on post or tree trunk	light earth tones or natural	needs open approach on edge of woodlot or in isolated tree
Screech owl	10" x 10" x 24" h	4" x 3" elliptical 20" above floor	2-5' high on post over water, or on tree 12-40' high	light earth tones or natural	prefers open woods or edge of woodlot
NESTING SHELVES					
American robin	6" x 6" x 8" h	none—needs roof for rain protection	on side of building or arbor or in tree	light earth tones or wood	use is irregular
Barn swallow	6" x 6" x 8" h	none—does not need roof	under eaves of building	light earth tones or wood	prefers barns or outbuildings
Phoebe	6" x 6" x 8" h	none—does not need roof	under eaves of building	light earth tones or wood	prefers water nearby

Note: With the exception of wrens, birds do not tolerate swaying birdhouses. Birdhouses should be firmly anchored to a post, a tree or the side of a building.

Source: *Garden Birds of America* by George H. Harrison. Willow Creek Press, 1996.

Project facts

- Cost: \$15 (house only)
- Time: 3 to 4 hours
- Skills: Simple carpentry
- Tools: Drill, jigsaw, hand miter saw, hammer and clamps



Build a Backyard Birdhouse

This is a fun project—so fun that it's hard to say who benefits more from it: the bird or the builder. You can let your imagination run wild and experiment with a variety of materials, shapes and designs. You only need to follow a few dimensions (see chart on page 11) that are specific to the bird species you're trying to attract. Follow the clear how-to photos and study the

drawing and the cutting list on pages 14-15 to build our project exactly, or personalize it with the details you want: a stone chimney, some shutters or cedar shingles.

Most any softwood (pine, cedar, cypress, redwood, fir) will work for your birdhouse. We used pine for the walls and base, exterior fir plywood for the roof, and birch square dowels (available at home centers or hobby

shops) as well as birch dowel pins for porch balusters.

We used simple tools to build this project. You'll notice the 1x8 pine boards are actually 7-1/4 in. wide but need to be 7 in. wide for this project. If you don't have a table saw to rip them to this narrower width, have the lumberyard rip them for you and then cut the lengths at home with the simple tools listed.

Attracting the Right Birds

Just as with people, one house doesn't fit all. In fact, many bird species don't use houses at all but nest on branches or ground cover. Birds that use hollowed-out cliffs, tree trunks or birdhouses, however, are called cavity dwellers. They come in all sizes.

The size of the entry hole and interior room can make a huge difference in the type of bird your house will attract (see page 11 for specific dimensions). We've sized this birdhouse to fit a variety of smaller bird species. To attract very small birds like nuthatches, bluebirds or chickadees, you may want to make the floor area a bit smaller by gluing an extra piece of wood to the front interior wall of the birdhouse and another on one side (see page 17, fig. 4). A smaller interior is not as hard for a bird to fill with nesting material.

Keep in mind that you'll also need to maintain your birdhouse by cleaning it after the nesting season. To make this as easy as possible, we've included a sliding rear door held in place with small hook-and-eye latches. Just lift the latch and slide the door to the side to remove the nest and wipe out the inside.



Tree swallow



White-breasted nuthatch



Red-bellied woodpecker



Eastern bluebird

Shopping List

ITEM	QTY.	ITEM	QTY.
1x8 x 4' pine	1	7/8" x 6-6/4" corner castle block (specialty trim)	1
1x4 x2' pine	1	4d galvanized finish nails	1/4 lb.
3/8" exterior fir plywood	1/4 sheet	6d galvanized finish nails	1/4 lb.
1-5/8" x 36" square dowel	1	Outdoor carpenter's glue	1/2 pint bottle
3/8" x 36" square dowel	1		
1/4" x 1" spiral dowels	1 pkg.		

FIG. A

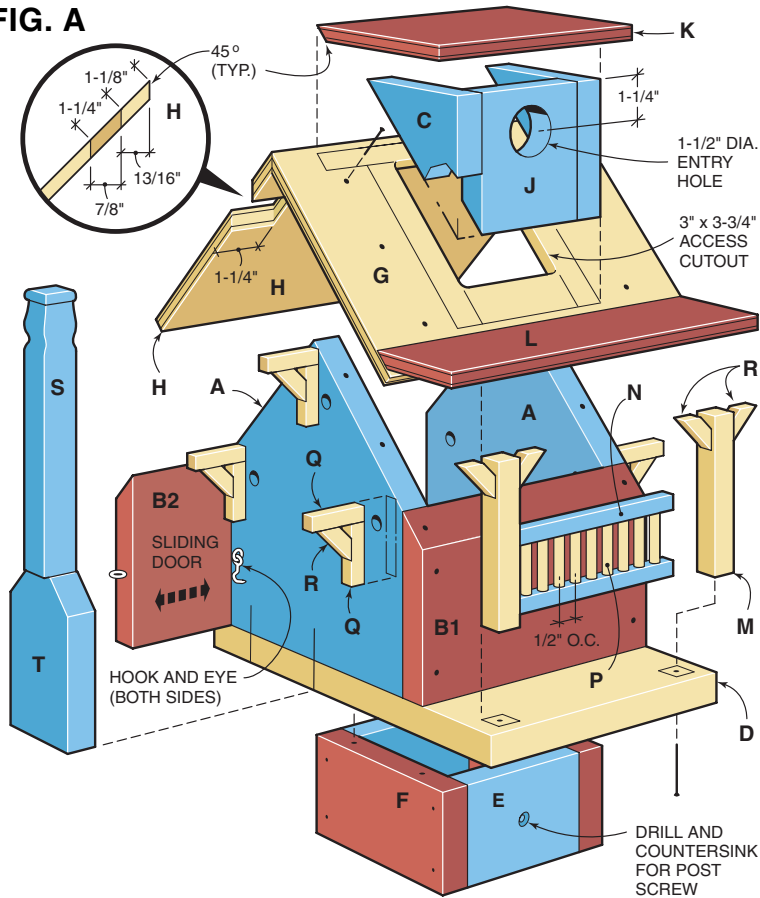


FIG. B

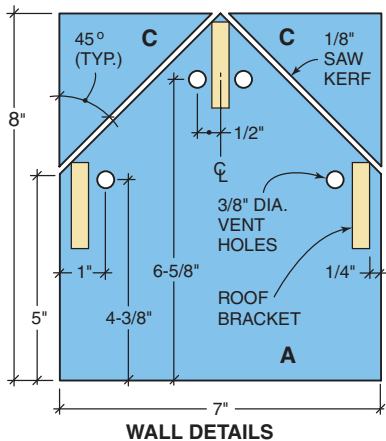
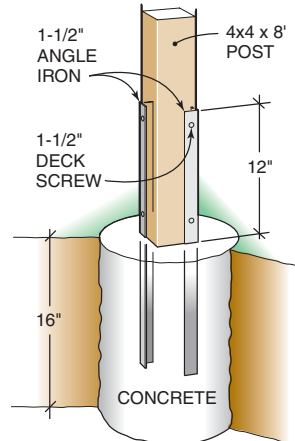


FIG. C

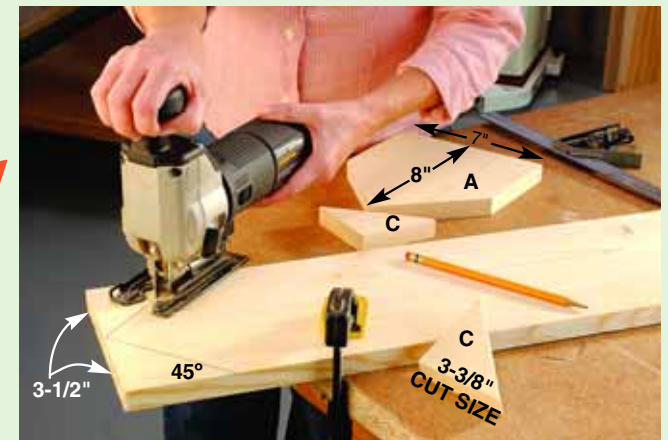


Cutting List

KEY	QTY.	SIZE & DESCRIPTION	KEY	QTY.	SIZE & DESCRIPTION
A	2	3/4" x 7" x 8" gable end wall (rough cut)	K	1	3/8" x 6" x 4-3/4" dormer roof
B1	1	3/4" x 7" x 4-1/2" front wall	L	1	3/8" x 9-1/2" x 2-3/4" plywood porch roof*
B2	1	3/4" x 7" x 4-3/8" back wall	M	2	5/8" x 5/8" x 4" porch columns
C	2	3/4" x 3-3/8" x 3-3/8" dormer side wall	N	2	3/8" x 3/8" x 4-7/8" porch railings
D	1	3/4" x 7" x 11" floor	P	9	1/4" x 1-1/4" wood dowel balusters
E	2	3/4" x 2-1/2" x 3-1/2" front flange pieces	Q	12	3/8" x 3/8" x 1-1/2" roof brackets
F	2	3/4" x 2-1/2" x 5" side flange pieces	R	10	3/8" x 3/8" x 1-1/8" diagonal roof brackets
G	1	3/8" x 9-1/2" x 6-1/4" front roof plywood*	S	1	7/8" x 7/8" x 6-3/4" chimney (castle block; purchase at home center in specialty trim)
H	1	3/8" x 9-1/2" x 6-3/4" rear roof plywood*	T	1	3/4" x 2-1/2" x 4" chimney base
J	1	3/4" x 3" x 3-3/8" front dormer wall			

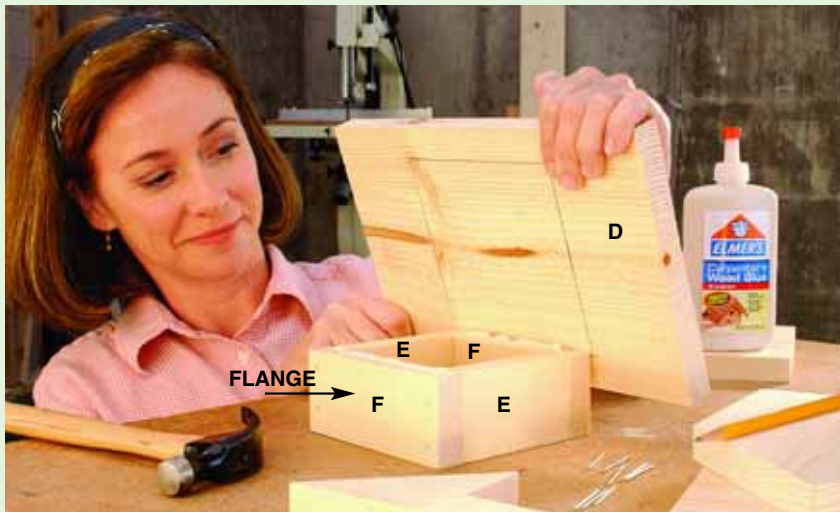
*Buy a quarter sheet of plywood instead of a whole sheet.

Let's Get Started!



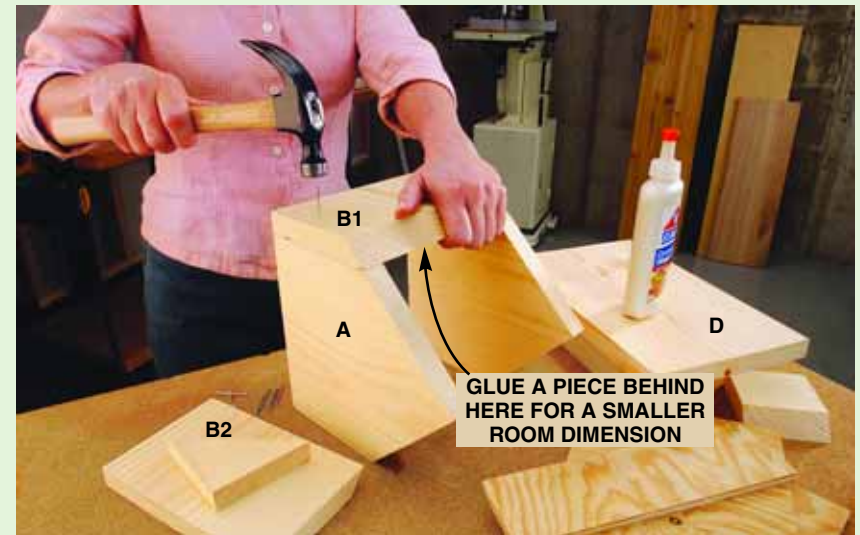
1 CUT all the pieces with a jigsaw. Rip the solid board to 7 in. wide (see hint on p. 13) before cutting parts A, B and D.





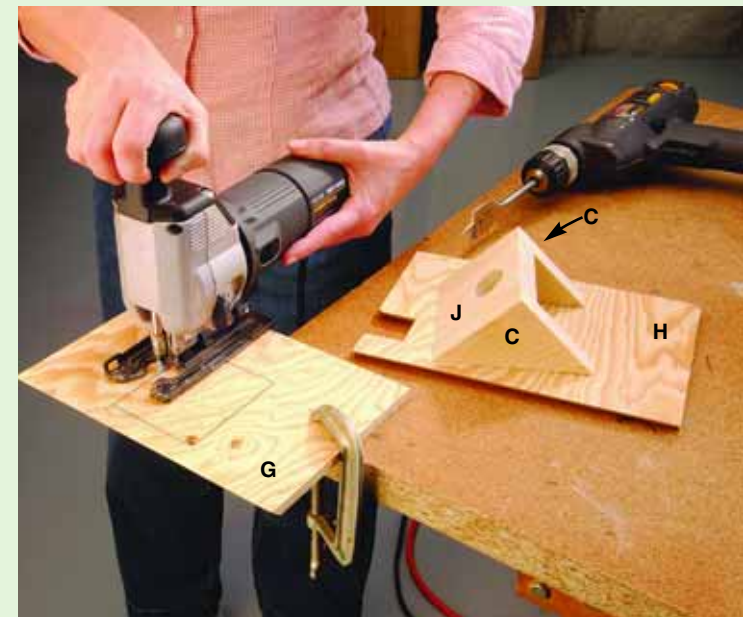
2 NAIL the wood flange assembly together with 6d galvanized finish nails. Next, glue and nail the base to this assembly. Use outdoor carpenter's glue for a stable, water-resistant bond.

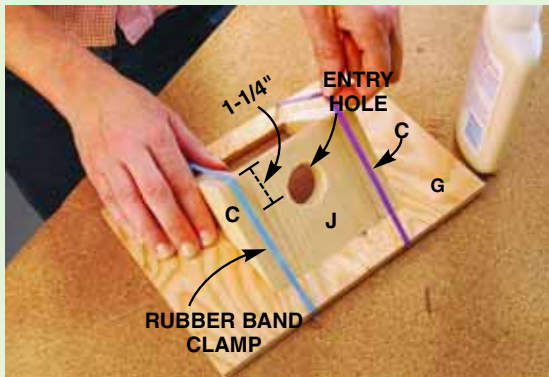
3 SET your jigsaw base at 45 degrees and cut miter joints for the roof pieces G and H. Use a straightedge clamped to the workpiece as a guide for a perfectly even cut.



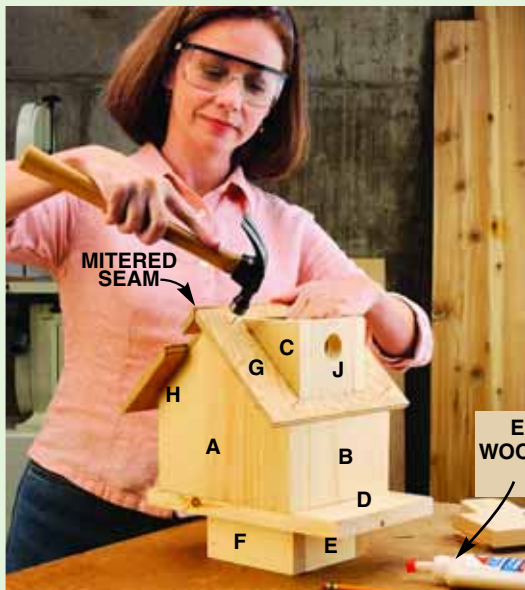
4 GLUE AND NAIL the front piece (B1) to the side pieces (A). Use 4d galvanized finish nails. Don't glue and nail the backside (B2). The back piece is 1/8 in. shorter so it can slide in place once the roof is in place. This back panel is removable for cleaning.

5 CUT an opening into the front roof panel (G) for access through the dormer. Drill a 3/8-in. starter hole in two opposite corners to start the cut easily. Cut the chimney opening in the rear roof panel with the blade set at a 45-degree angle.



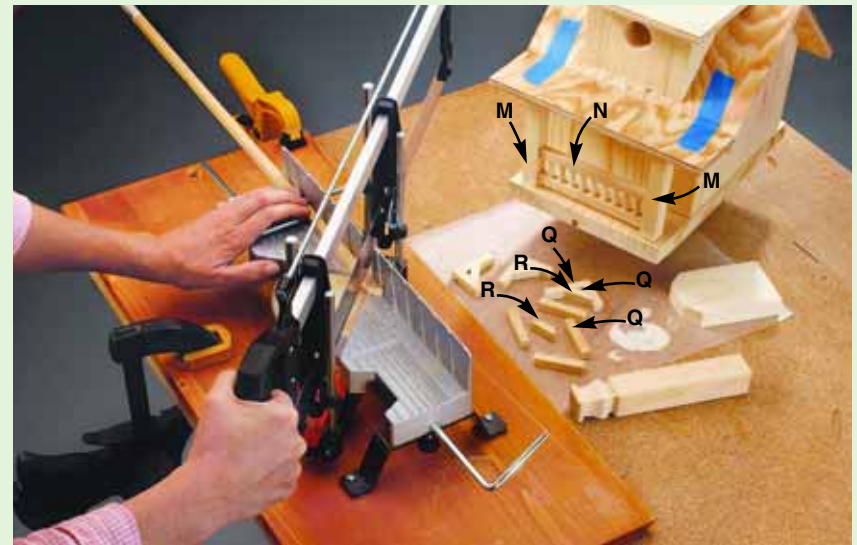


6 GLUE AND NAIL parts C to the center entry panel (J) once you've drilled the entry hole. Glue this assembly to the front plywood roof panel. Use rubber bands as clamps to hold the dormer assembly in place until the glue dries.



7 NAIL the roof panels to the side walls with 4d galvanized nails. Use glue along the mitered seam at the top.

8 ASSEMBLE the porch railing and nail it to the posts. Then nail the porch roof (L) to the posts. Glue the seam along the roof and hold it in place with masking tape. Once the glue is dry, nail (use 4d finish nails and predrill a pilot hole) up from the underside of the base into each column.



9 CUT the small roof bracket pieces (Q and R) and assemble them using exterior wood glue. Tip: Use wax paper under the pieces during assembly to keep them from sticking to the workbench. Once they're assembled, glue them to the sides of the birdhouse. Next, drill the vent holes to keep the birdhouse cool, and finally, select and apply an exterior finish.

Protect Your Birdhouse with an Exterior Oil Finish

Birds would just as soon not have a finish on the exterior, but to make it last you'll need a coat of oil finish every few years. You can also paint your birdhouse, but keep in mind that birds are color sensitive and may be repelled by certain colors. Try using colors found in natural surroundings and avoid bright and flashy colors. Never stain or paint the inside of the birdhouse. The odor may keep them from moving in. Let the exterior stain dry thoroughly (2 to 3 weeks) before mounting the birdhouse outside.

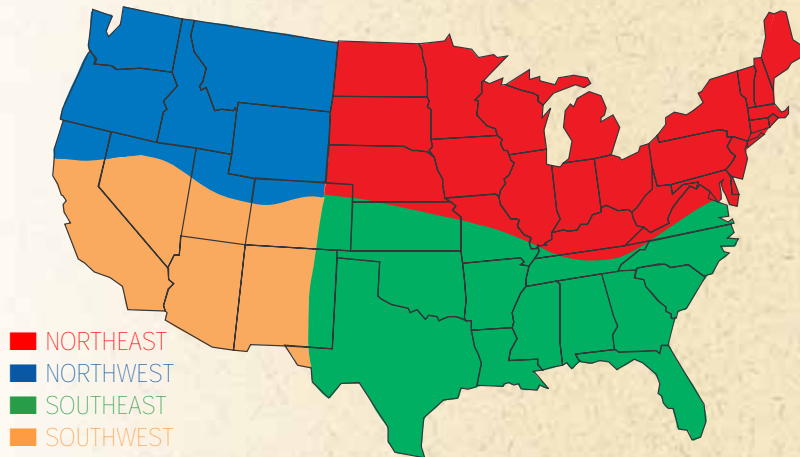
Mount Your Birdhouse to a 4x4 Post or a Tree Limb

We made a wood flange (photo 2, page 16) to secure the birdhouse to a 4x4 fence post or decorative porch post anchored to a concrete base (see fig. C, page 14). You can also mount your birdhouse in a tree; just eliminate the mounting flange and put screw eyes through the roof into the wall, then attach a chain hung from a tree limb.

Keep in mind that some bird species like to nest in houses in the open, while others feel more protected near buildings or in a wooded area.

Photography (pages 12-19) • MIKE KRIVIT
 Bird Photography (page 13) • L' AIGRETTTE PHOTOGRAPHY
 Art Direction • MARCIA WRIGHT ROEPKE
 Illustration (pages 14) • EUGENE THOMPSON
 Project Design • DAVID RADTKE

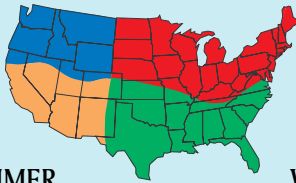
Birds in Your Region



BIRD	SUMMER				WINTER			
	NE	NW	SE	SW	NE	NW	SE	SW
BLACKBIRDS								
Brewer's blackbird		•				•	•	•
Brown-headed cowbird	•	•	•	•	•		•	•
Common grackle	•		•				•	
Red-winged blackbird	•	•	•	•	•	•	•	•
BLUEBIRDS								
Eastern bluebird	•		•		•		•	
Mountain bluebird		•		•				•
Western bluebird		•		•		•		•
BUNTINGS								
Indigo bunting	•		•					
Lazuli bunting		•						
Painted bunting			•				•	
BUSHTIT								
Bushtit		•		•		•		•
CARDINAL								
Northern cardinal	•		•	•	•		•	•
CHICKADEES								
Black-capped chickadee	•	•			•	•	•	
Carolina chickadee			•				•	
Mountain chickadee		•		•		•		•

BIRD	SUMMER				WINTER			
	NE	NW	SE	SW	NE	NW	SE	SW
CREEPER								
Brown creeper	•	•		•	•	•	•	•
CROSSBILL								
Red crossbill	•	•		•	•	•		•
FINCHES								
American goldfinch	•	•	•		•	•	•	•
Common redpoll					•	•		
House finch	•	•	•	•	•	•	•	•
Pine siskin		•		•	•	•	•	•
Purple finch	•	•			•	•	•	•
GROSBEAKS								
Black-headed grosbeak		•		•				
Blue grosbeak			•	•				
Evening grosbeak	•	•		•	•	•	•	•
Pine grosbeak		•			•	•		
HUMMINGBIRDS								
Anna's hummingbird		•		•		•		•
Black-chinned hummingbird		•		•				
Broad-tailed hummingbird				•				
Calliope hummingbird		•						
Ruby-throated hummingbird	•		•					
Rufous hummingbird		•						
JAYS								
Blue jay	•		•		•		•	
Gray jay		•						
Pinyon jay		•		•				•
Scrub jay		•		•		•		•
Steller's jay		•		•		•		•
JUNCO								
Dark-eyed junco	•	•		•	•	•	•	•
KINGLETS								
Golden kinglet		•		•	•	•	•	•
Ruby-crowned kinglet		•			•	•	•	•
MIMIC THRUSHES								
Brown thrasher	•		•				•	
Gray catbird	•	•	•				•	
Northern mockingbird	•		•	•	•		•	•

Birds in Your Region

BIRD	SUMMER				WINTER			
	NE	NW	SE	SW	NE	NW	SE	SW
								
NUTHATCHES								
Brown-headed nuthatch			●				●	
Pygmy nuthatch		●		●		●		●
Red-breasted nuthatch	●	●		●	●	●	●	●
White-breasted nuthatch	●	●	●	●	●	●	●	●
ORIOLES								
Baltimore oriole	●		●				●	
Bullock's oriole		●		●				●
Orchard oriole	●		●					
Scott's oriole				●				
PIGEONS								
Mourning dove	●	●	●	●	●	●	●	●
Rock dove	●	●	●	●	●	●	●	●
SPARROWS								
American tree sparrow					●	●		
Chipping sparrow	●	●	●	●			●	●
Field sparrow	●		●				●	
Fox sparrow		●					●	●
House sparrow	●	●	●	●	●	●	●	●
Song sparrow	●	●	●	●			●	●
Swamp sparrow	●				●		●	
White-crowned sparrow		●					●	●
White-throated sparrow	●						●	●
STARLING								
European starling	●	●	●	●	●	●	●	●
TANAGERS								
Scarlet tanager	●							
Summer tanager			●	●				
Western tanager		●		●				
THRUSHES								
American robin	●	●	●	●		●	●	●
Hermit thrush	●	●		●			●	●
Wood thrush	●		●					

BIRD	SUMMER				WINTER			
	NE	NW	SE	SW	NE	NW	SE	SW
TITMICE								
Plain titmouse				●				●
Tufted titmouse	●		●		●		●	
TOWHEES								
Brown towhee				●				●
Eastern towhee	●		●				●	
VIREOS								
Red-eyed vireo	●	●	●					
Warbling vireo	●	●	●	●				
White-eyed vireo			●				●	
WARBLERS								
American redstart	●	●	●					
Black and white warbler	●		●					
Black-throated blue warbler	●							
Common yellow throat	●	●	●	●			●	
Hooded warbler			●					
Ovenbird	●	●						
Wilson's warbler	●	●						
Yellow warbler	●	●	●	●				
Yellow-rumped warbler	●	●				●	●	●
WAXWINGS								
Bohemian waxwing						●		
Cedar waxwing	●	●					●	●
WOODPECKERS								
Downy woodpecker	●	●	●	●	●	●	●	●
Gilded flicker				●				●
Hairy woodpecker	●	●	●	●	●	●	●	●
Ladder-backed woodpecker				●				●
Lewis woodpecker		●		●		●		●
Northern flicker	●	●	●	●	●	●	●	●
Red-bellied woodpecker	●		●		●		●	
Red-breasted sapsucker		●				●		●
Red-headed woodpecker	●		●		●		●	
Yellow-bellied sapsucker	●		●				●	●
WRENS								
Cactus wren				●				●
Carolina wren	●		●		●		●	
House wren	●	●	●	●			●	●
Winter wren	●	●					●	●

Let's Plant a Butterfly Garden!

By Irene Helen Zundel
Carmichaels, Pennsylvania



Here's a bevy of tips to attract and keep flying flowers in your backyard.

Picture yourself as a butterfly. Free to find your own place to spend your days. What you want most is food, water, shelter and protection from predators.

If you happen to find a garden that suits all these needs, odds are you're going to stay there a bit longer, and probably make frequent visits.

So, now that you know what a butterfly wants, follow these tips to provide for them:

- **Location, location, location.**

A butterfly garden doesn't require much space, but the butterflies and plants will need a spot that gets at least 6 hours of sun a day.

- **Give 'em a break.** A wind break, that is. Make sure the planting area is near trees, shrubs or a building. This offers these gentle creatures some protection from wind. It also keeps taller plants from blowing over.

- **Plant a variety of flowers.** Offer both butterflies and caterpillars a tempting buffet (see the plant list on pages 27 and 31-33). In so doing, you'll attract more species to your back yard.

- **No space for a large garden?** Plant some of the shorter butterfly favorites, like marigolds and dwarf zinnias, in a



window box or container on your patio, porch or balcony.

- **Start with small plants.**

Children eager for quick results won't want to wait for seeds to grow and flower. Bedding plants ready to bloom will lure fluttering friends in no time.

- **Can the chemicals.** Avoid using insecticides on your plants. Products designed to eliminate harmful insects will kill butterflies and caterpillars, too.

- **Water, water everywhere.**

Puddles or other damp soil areas attract male butterflies that collect salts and other minerals needed for mating. The common term for this behavior is "puddling".

No natural puddles in your garden? Sink a shallow container or bucket in the ground, add sand and moisten—you have an instant butterfly watering hole.

- **Heat things up.**

Place dark stones in your garden to absorb heat and provide a place for the butterflies to warm their wings. This gives you a fantastic chance to see these winged wonders up close and bask in the joy of creating your own butterfly haven.





Contributing Editor • SPIKE CARLSEN
Project Design and Construction • BRUCE KIEFFER
Project Art Direction • BILL FABER and BARB PEDERSON
Photography (pages 26-30) • MIKE KRIVIT
Illustration • RON CHAMBERLAIN

A Butterfly High-Rise

Want an interesting conversation starter for your flower garden?

Over the years, *Birds & Blooms* has received a lot of reader mail about butterfly houses. Do they really work? How do you attract butterflies to them? What should be placed inside?

So, we set out to do our own research on these “flying flower” abodes to find some answers. We discovered butterfly houses are primarily for decoration because the kinds of butterflies that frequent gardens don’t use houses for shelter or roosting.

However, there are some woodland species of butterflies that might use houses like this one, such as mourning cloaks and common wood nymphs, which spend their winters in the protective cover of wood piles and tree cavities.

If you place a butterfly house like this in a woodland habitat, be sure to put a piece

of tree bark or some long twigs inside for the butterflies to use as a roost.

The best material for your butterfly house is smooth or rough-sawn cedar; it’s rot-resistant and weathers to a mellow gray. For durability, assemble the house using moisture-proof glue (like Titebond II) and galvanized nails.

A jigsaw, drill and common hand tools are all you need, although a table saw (to cut angles and the wood to size) speeds up the work greatly.



Feeding Time

A COMPLETE butterfly garden needs two types of plants—“host plants” that caterpillars feed on, and nectar plants for the adult butterflies. Here are some common plants that will attract butterflies to your backyard:

Plants for Caterpillars

- Clover
- Dill
- Fennel
- Hollyhock
- Milkweed
- Nettle
- Parsley
- Passionflower
- Willow
- Asters
- Bee balm
- Black-eyed Susans

Plants for Butterflies

- Butterfly bush
- Butterfly weed
- Cosmos
- Goldenrod
- Lantana
- Lavender
- Marigolds
- Mexican sunflower
- Pentas
- Phlox
- Purple coneflowers
- Salvia
- Zinnias

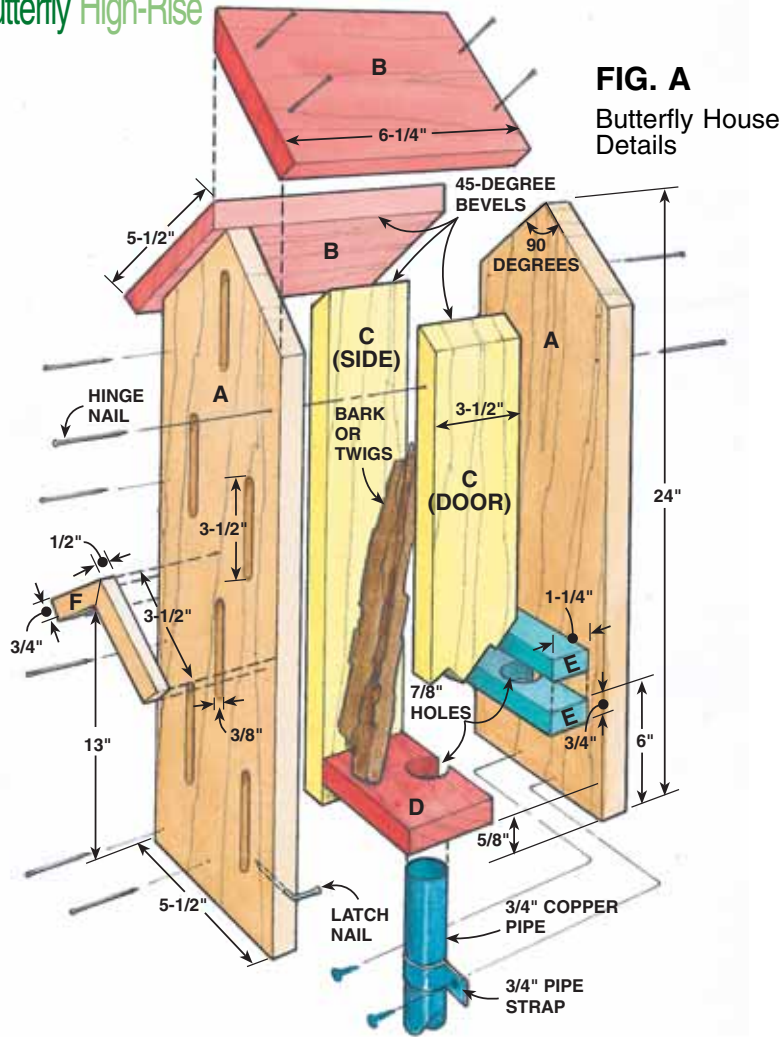


FIG. A
Butterfly House
Details

*Let's
Get
Started!*

Cutting List

KEY	QTY.	SIZE & DESCRIPTION
A	2	3/4" x 5-1/2" x 24" cedar (front and back)
B	2	3/4" x 5-1/2" x 6-1/4" cedar (roof boards)
C	2	3/4" x 3-1/2" x 22-1/4" cedar (side and door)
D	1	3/4" x 4" x 3-1/2" cedar (bottom)
E	2	3/4" x 1-1/4" x 4" cedar (support pipe stop)
F	2	1/2" x 3/4" x 3-1/2" cedar (false-front roof)



1 CREATE the entry slots. Drill 3/8-in. holes for the top and bottom of each slot, then connect the holes using a jigsaw.

Shopping List

QTY.	SIZE & DESCRIPTION
1	1x6 x 10' cedar
25	4d galvanized casing nails
1	3/4" dia. type L copper pipe*
1	3/4" copper pipe strap*
2	No. 8 x 1/2" pan head screws
1	Titebond II moisture-proof glue (small bottle)

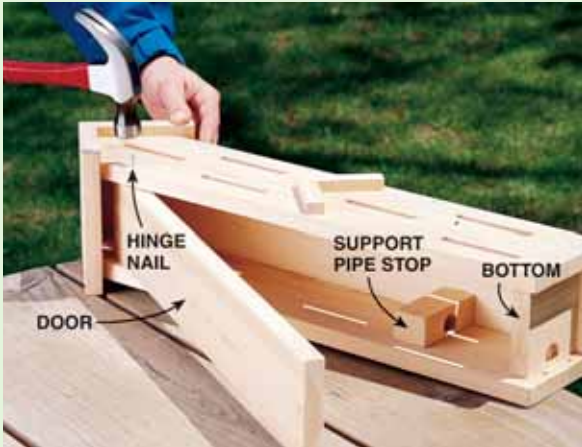
*Available at home centers

Project facts

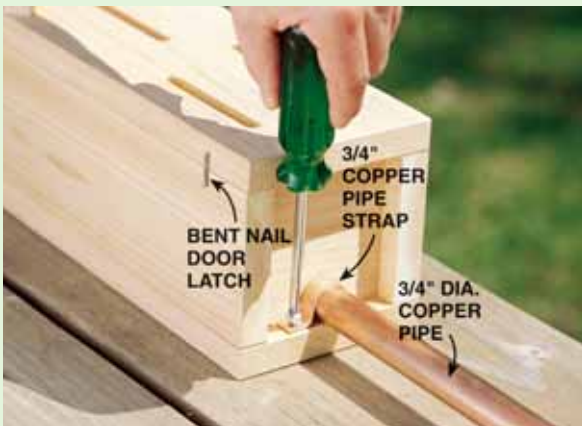
- Cost: \$15 (house only)
- Time: 3 to 4 hours
- Skills: Simple carpentry
- Tools: Drill, jigsaw, hand miter saw, hammer and clamps

STEP-BY-STEP INSTRUCTIONS

- 1 Cut the parts to the sizes indicated in the Cutting List, top, and the angles shown in the photos.
- 2 Lay out the entry slots on the front piece (A), drill the ends with a 3/8-in. dia. bit, then cut the slots the rest of the way with a jigsaw (photo 1). Smooth the sides of the slots with sandpaper.
- 3 Use a 7/8-in. spade bit to drill holes for the support pipe in the bottom (D), and the bottom pipe stop (E).
- 4 Glue and nail the back (A) to the side (C). Glue and clamp the two support pipe stops together, then glue and clamp them to the back. Glue and nail the bottom (D) to the assembled back and side.



2 ASSEMBLE the house. Use straight nails for the door hinges and a bent one for the latch. (Note: Here the door is open so you can see the inside, but it's easier to align everything with the door closed.)



3 LOOSELY SCREW the pipe strap to the back, using the support pipe as a guide. Remove the pipe, pound it into the ground, then securely tighten the clamp around the pipe to prevent the house from spinning in the wind.

5 Glue and nail the false-front roof pieces (F) to the front (A), then glue and nail the front in place and attach the roof boards (B). Use the door (C) as a spacer between the front and back when you attach the roof.

6 Trim the door, if necessary, so it fits loosely between the front and back. Align the door, and hammer in the two hinge pivot nails (photo 2).

7 Use two pliers to bend a nail in half. Drill a pilot hole, then tap in this latch.

8 Insert the support pipe through the bottom and into the pipe stop. Drill pilot holes for the pipe strap screws, attach the strap (photo 3), then loosen it and remove the support pipe.

9 Determine the best location and height for the house (keep it low). Hammer the pipe into the ground (protect the end of the pipe with a piece of scrap wood), then slide the house on the pipe and tighten the pipe strap. Your garden conversation piece is now complete



James A. Zisch

Plants That Attract *Birds and Butterflies*

Bird (B) • Hummingbird (HB) • Butterfly (BT) • Butterfly Larvae (L)

Trees

Beech (<i>Fagus</i>)	B
Birch (<i>Betula</i>)	BT, L
Black cherry (<i>Prunus serotina</i>)	B, L
Black gum (<i>Nyssa sylvatica</i>)	B
Crabapple (<i>Malus</i>)	B, L
Dogwood (<i>Cornus</i>)	B
Elm (<i>Ulmus</i>)	L
Fir (<i>Abies</i>)	B
Hawthorn (<i>Crataegus</i>)	B, L
Hickory (<i>Carya</i>)	B, L
Holly (<i>Ilex</i>)	B
Mulberry (<i>Morus</i>)	B
Willow (<i>Salix species</i>)	L

Botanical Photos: Reader's Digest Assoc. Inc./GID



Birch



Dogwood



Willow



Butterfly bush



Sumac



American bittersweet



Coneflower



Phlox

Plants That Attract *Birds and Butterflies*

Shrubs

Azalea (<i>Rhododendron species</i>)	HB, BT
Blueberry (<i>Vaccinium</i>)	B
Blue mist spirea (<i>Caryopteris</i>)	HB, BT
Butterfly bush (<i>Buddleja species</i>)	HB, BT
Firethorn (<i>Pyracantha</i>)	B
Holly (<i>Ilex</i>)	B
Juniper (<i>Juniperus</i>)	B, L
Lilac (<i>Syringa species</i>)	BT
Mock orange (<i>Philadelphus</i>)	BT
Serviceberry (<i>Amelanchier</i>)	B
Spicebush (<i>Lindera</i>)	B
Spirea (<i>Spiraea</i>)	BT
Sumac (<i>Rhus</i>)	B
Viburnum (<i>Viburnum</i>)	B, BT
Weigela (<i>Weigela</i>)	HB, BT

Vines

American bittersweet (<i>Celastrus scandens</i>)	B
Grape (<i>Vitis</i>)	B
Honeysuckle vines (<i>Lonicera</i>)	B, HB, BT
Trumpet vine (<i>Campsis radicans</i>)	B, HB, BT
Virginia creeper (<i>Parthenocissus quinquefolia</i>)	B

Perennials

Aster (<i>Aster</i>)	HB, BT
Bee balm (<i>Monarda</i>)	HB, BT
Butterfly weed (<i>Asclepias tuberosa</i>)	BT, L
Cardinal flower (<i>Lobelia cardinalis</i>)	HB, BT
Columbine (<i>Aquilegia</i>)	HB, BT

Coneflower (<i>Echinacea</i>)	B, HB, BT
Delphinium (<i>Delphinium</i>)	HB, BT
Lupine (<i>Lupinus</i>)	HB, BT
Penstemon (<i>Penstemon</i>)	HB, BT
Phlox (<i>Phlox</i>)	HB, BT
Salvia (<i>Salvia</i>)	HB, BT

Annuals

Cosmos (<i>Cosmos</i>)	BT
Dill (<i>Anethum</i>)	L
Fuchsia (<i>Fuchsia species</i>)	HB, BT
Licorice vine (<i>Helichrysum petiolare</i>)	L
Lobelia (<i>Lobelia species</i>)	HB, BT
Marigold (<i>Tagetes species</i>)	BT
Parsley (<i>Petroselinum</i>)	L
Pot marigold (<i>Calendula officinalis</i>)	BT, L
Salvia (<i>Salvia</i>)	HB, BT
Snapdragon (<i>Antirrhinum</i>)	BT, L
Stock (<i>Matthiola</i>)	BT
Sunflower (<i>Helianthus annuus</i>)	B, HB, BT
Verbena (<i>Verbena bonariensis</i>)	HB, BT
Zinnia (<i>Zinnia species</i>)	BT

Bees—They're Keepers

YOU'VE TAKEN CARE of the birds and the butterflies, now don't forget the bees!

They're important pollinators in your garden and pretty docile companions. Attracting bees to your garden will increase seed and fruit production.

If you have some untreated scrap lumber, turn it into a bee house. Use a piece at least 3 to 5 inches thick. Drill holes 1/8 to 5/16 inch in diameter, going 90% of the way into the wood. Space the holes 1/2 to 3/4 inch apart. Add a roof if you like, and hang the bee house in a protected site out of direct sun and rain.



Snapdragon



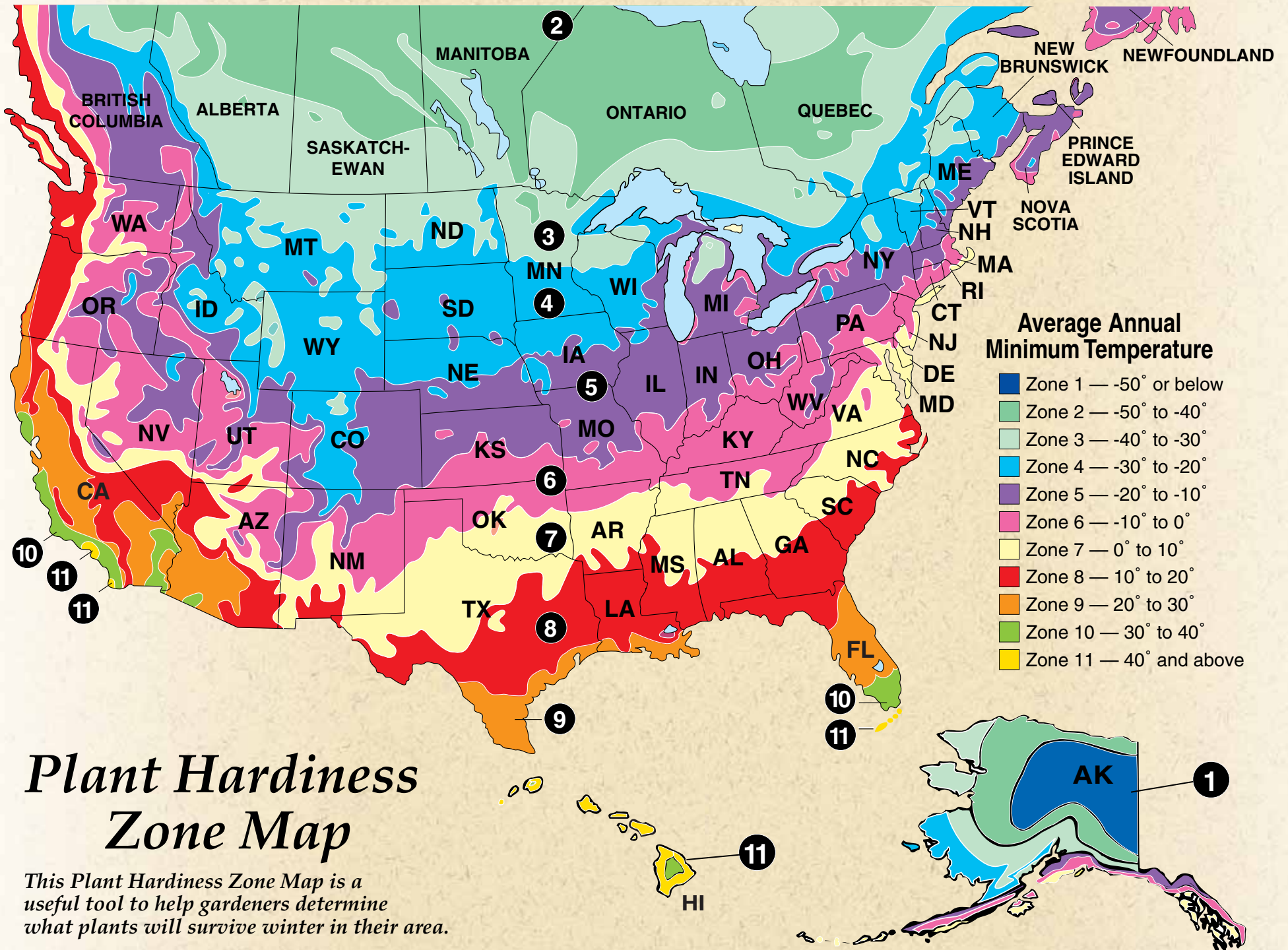
Verbena



Fuchsia



Sunflowers



Plant Hardiness Zone Map

This Plant Hardiness Zone Map is a useful tool to help gardeners determine what plants will survive winter in their area.