TREE Special

Spruce and deciduous trees fill the forest near Summit on the HO scale Milwaukee, Racine & Troy.

Improving commercial trees

With few exceptions, model railroads need trees. If your layout is set in Colorado, you'll have a mixture of aspens and spruce trees. A model railroad that depicts Minnesota might have cottonwood, elm, and other deciduous trees. For the forest scene on our HO scale Milwaukee, Racine & Troy, we used both deciduous and spruce trees.

Tree kits and ready-to-plant trees are available from a variety of manufacturers, including Bachmann, Busch, Grand Central Gems, Noch, Scenic Express, and Woodland Scenics, among others. Most of these firms produce a variety of tree species, so having a realistic forest for your modeling locale is an achievable goal. Some firms, such as Hart of the South Models (www.hartofthesouth.com) and Hand Crafted Palm Trees (14577 Cordon Place, Moreno Valley, CA 92553) specialize in palm trees.

Though many trees are ready to plant, you can further enhance their realism with details. Small items, such as the leaves shown in step 1 and the pine cones described in step 3, make good trees even better. The sheen of injection-molded plastic trunks, often found on commercial trees, can be concealed with acrylic paints and an airbrush, as seen in step 2.

There's more to modeling a forest than just sticking trees on your layout, though. The forest floor is an often overlooked scenic opportunity. Fallen branches, tree stumps, leaves, and tall grass are just some of the things you can add. Read more about this in step 4 on page 40.

For additional information on trees, read Tom Harris' article on modeling an eastern deciduous forest (page 41) and Ron Morse's story on making your own pine trees (page 44). In no time, you'll have a forest that's filled with realistic, highly detailed trees and an authentic floor. **MR**

Step 1 Leafy greens

Part of the forest at Summit features Scenic Express Green Deciduous Trees (nos. 1202 through 1206). The ready-to-plant trees range in height from 2" to 6", which makes it easy to model a forest with some variety.

Though the trees look fine straight from the box, I gave the foliage some additional texture by sprinkling them with Noch Light and Medium Green Leaves (item nos. 7142 and 7144, respectively).

First, I dunked the trees into Woodland Scenics Scenic Cement and shook off the excess liquid. With the trees still wet, I sprinkled on a base coat of Medium Green Leaves, followed by a top coat of Light Green Leaves. My goal was to have the brighter leaves on the outer portions of the tree and darker leaves in the shaded areas. Though the leaves are small, they make the trees look even more realistic.

Noch Light and Medium Green Leaves

Step 2 Trunk weathering

Many commercial trees have injection-molded plastic trunks, and the Busch spruce trees (nos. 6131 through 6138) are no exception. Though molded in realistic colors, the trunks have an unrealistic sheen. I used an airbrush and assorted Polly Scale acrylic paints to remedy this problem.

I started by spraying the trunks with a coat of Union Pacific Harbor Mist Gray mixed 3 parts paint to 2 parts 70 percent isopropyl alcohol. Since the gray is too ashen looking for a tree trunk, I dusted on some Light Freight Car Red, mixed 1 part paint to 4 parts alcohol. I followed that with a light coat of Steam Power Black, mixed to the same ratio as the Light Freight Car Red.

As you can see in the photo at right, the painted trunks make a big difference. Independently, the three colors I used for the trunks wouldn't look very realistic. But when used together, the Harbor Mist Gray, Light Freight Car Red, and Steam Power Black yield a prototypical trunk color.

Unpainted trunk

Painted trunk
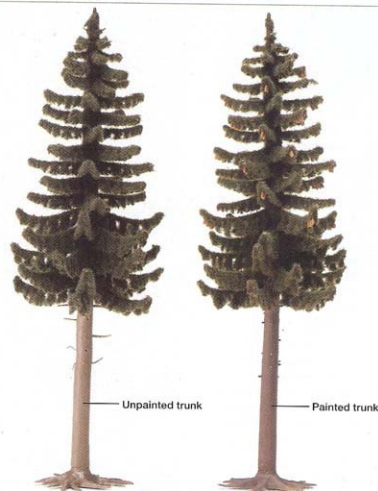
Step 3 Pine cones

No, you don't have to adjust your glasses. Those little details on the spruce tree are indeed pine cones. Busch supplies injection-molded plastic cones with its tall spruce trees. The cones, though small, greatly enhance the realism of the trees.

I used despruing tweezers to cut the cones from the sprue. Next, I applied Woodland Scenics Scenic Accents glue to the top of the cone clusters, as shown in the inset photo. I set the cones aside until the glue turned clear and was tacky. Then I used a pair of tweezers to attach the cones to the armatures, as shown at right.

If you don't like the position of the cones, that's okay. The Scenic Accents glue is designed so objects can be repositioned or removed without damage.

Step 4 Forest floor

Many layouts feature wooded areas that are quite impressive. Too often, though, the forest floor receives little or no detail. However, modeling the forest floor is easier than you might think.

I started by sprinkling Timberline Scenery Co. Deep Forest Floor ground cover throughout the forest. Each bag includes pieces of deadfall that resemble stumps. I randomly placed these in the scene so it would look as though some trees have been cut down.

After I'd applied the ground cover, I wetted it with 70 percent isopropyl alcohol. Then I used a pipette to soak the ground foam and deadfall with matte medium.

With the matte medium still wet, I used the Noch GrasMaster to apply the firm's Ochre Field Grass. The rayon-based static grass stands upright and adds depth to the scenery.

Then I began planting the trees, using full-strength Elmer's white glue to hold them in place. To add texture to the forest floor, I sprinkled Noch Light Brown and Reddish Brown Meadow Flora under the trees to simulate dead leaves.

Noch Brown and Reddish Brown Meadow Flora

Timberline Scenery Co. Deep Forest Floor ground cover and deadfall

Noch Ochre Field Grass
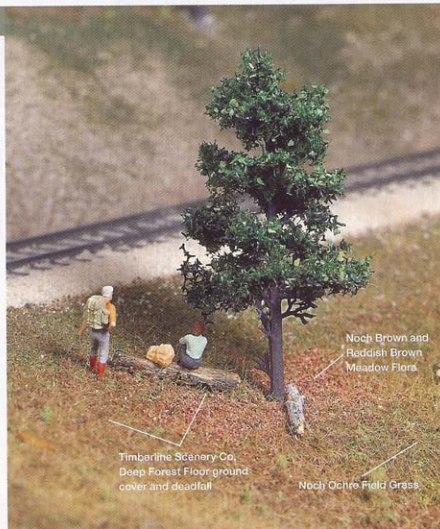
Perfect
scratchbuilt pines

A new twist on an old
technique for realistic
evergreen trees

By Ron Morse
Photos by the author

Making realistic pine trees from
lengths of manila twine and
twisted wire isn't a new idea.
In fact, it's a very old tech-
nique, but a bench vise and a variable-
speed drill make conifer tree produc-
tion simple and swift.

If you've ever seen the "bottle-brush"
evergreen tree models, which are often
sold in craft stores around the holiday
season, you know they aren't very real-
istic. I've a better idea. Let me show you
how to make a simple bottle-brush tree,
and then I'll demonstrate how a few
easy enhancements can turn this basic
tree into a great-looking model.

Wire and rope trees

I've had good results making trunks
from floral wire. A well-stocked craft

Ron Morse modeled this scene on his HO scale Forks Creek & Central RR, which includes a number of his easy-to-make scratchbuilt pines.

Fig. 1 Tree tools. To twist the wire tree armatures, Ron chucks a cup hook into a variable-speed drill (above).

Fig. 2 Additional tools. Other tools and materials (at right) include coarse twine, a hobby knife, and hemostat.

outlet or floral supply store is likely to offer a choice of wire.

For small trees, up to about 3" tall, I prefer to use 24-gauge floral wire (bare, not cloth covered). For medium-size trees (about 3" to 6" tall), I use 22-gauge cloth-covered floral wire. To make larger trees (6" or taller) I purchase 20-gauge cloth-covered wire.

Most floral wire comes in 18" lengths. Folded in half and twisted, this length will produce a 6" or 7" tree. A cup hook in a variable-speed drill, as shown in **fig. 1**, makes short work of twisting the wire. Larger trees are possible by twisting the ends of two lengths of wire.

Coarse manila rope or the manila twine shown **fig. 2**, is the kind to buy. The twine I use is often sold in farm supply stores for baling hay. Note that the nylon twine used in newer balers will not work for this project.

To soften and straighten the strands of the thread, I soak the rope or twine overnight in water with a little dish detergent. After it has soaked, I rinse the twine and hang it to dry. Tightly wound ropes may need to be boiled.

Doing the twist

Begin by bending a length of floral wire in half, leaving a roughly ⁵⁄₁₆" loop in the folded end. Allow one end of the wire to protrude about ½" longer than the other. The single protruding wire will become the top spike of the tree. Secure the loose ends in a vise.

Next, cut enough 2" to 3" pieces of baling twine to complete the tree (about

Materials list

Manila rope
Nos. 18, 20, or 22 cloth-covered
    floral wire (18" lengths)
No. 24 floral wire (not cloth covered)
Unscented hair spray or clear
    acrylic spray
Spray adhesive
Rubber cement
White household glue

Woodland Scenics
T64 Woodland Scenics Coarse
    Turf – Medium Green
T65 Woodland Scenics Coarse
    Turf – Dark Green
T1366 Woodland Scenics Coarse
    Turf – Conifer

Spray paints
1317 Krylon Ruddy Brown Primer
1318 Krylon Gray Primer
7776 Rust-Oleum Flat Black
7924 Rust-Oleum Moss Green

Fig. 3 Twine and wire tree armatures. Ron folds a length of florist wire, inserts 2" to 3" stands of coarse natural-fiber twine in the loop end of the wire, and pushes the strands in random bunches towards the top (vise end) of the tree.

Fig. 4 Trimming to shape. Using scissors, Ron trims the tree to a roughly conical shape, being sure to make the branch structure a bit uneven.

Fig. 5 Adding foliage. After spraying the tree with adhesive, Ron presses the green ground foam foliage into the branch structure by hand.

four pieces). If the twine or rope is very tightly twisted, take the time to untwist it so it will fan out better.

Figure 3 shows how I insert the twine in the loop end of the wire, then push the twine in random bunches towards the top (vise end) of the tree.

If you have trouble keeping the twine in place between the strands of folded wire, coat the inside of the wire with rubber cement.

Once the twine is in place, secure a cup hook in the chuck of a drill. Insert the hook into the looped end of the floral wire, pull the floral wire tight, and slowly (*very* slowly) run the drill to twist the floral wire into a uniformly tight twist from top to bottom. Keeping constant tension on the wire is important – it may take a couple of attempts to get the right feel.

Hack your way to happiness

Using wire cutters, snip off the end of the tree attached to the cup hook, and trim the twine on the tree armature with scissors, as in **fig. 4**, to a conical tree shape.

Proper trimming of the tree is critical to a realistic appearance. I prefer the "random tree hacking" method. The last thing I want is a perfectly shaped conical tree.

As a general rule of thumb, conifers in the high country tend to be tall and thin with an open branch structure. Trees at lower elevations are shorter and fatter with denser branch structures. For trees growing at high elevation, I prefer about a 3 to 1 ratio. For example, a 3" tall tree would be 1" wide at its lowest branches. Depending upon the tree you're modeling, some branches

grow straight outward, other branches angle down, and some branches angle up. I easily change the angle of the tree branches by pulling the tree through my loosely closed fist.

Painting and foliage

To create an impression of depth, first spray the trunk and branches flat black. I use a surgical hemostat to hold the tree for painting. Yes, you'll get a little paint on the hemostat but it can be easily removed using cloth and a little lacquer thinner.

After the paint has dried, add the foliage. Again using my hemostat to hold the tree armature, I give it a liberal coating of Elmer's spray adhesive (though any brand should work). I immediately add the foliage.

I use Woodland Scenics coarse turf-conifer. For variety, I occasionally use Woodland Scenics coarse medium and dark green turf.

Place a quantity of the coarse turf in a shoebox lid and press the foliage into the branch structure by hand, as shown in **fig. 5**. This gets glue and foliage all over your fingers, so you may wish to use disposable gloves. Shake the excess foliage off the branches, then give the tree a liberal coat of cheap hair spray.

To enhance the tops of my trees, I put a dab of rubber cement or white household glue on the top point of the tree and then, using thumb and index finger, squeeze some foliage into the glue and shape it into a point.

The tree is fairly fragile at this point, so carefully set it aside to dry. A wood block with holes drilled in it works well as a holder.

After the tree has dried, I usually come back and give it at least one additional coat of hair spray. If the tree is being used on a module that will be transported, I'll give the tree several coats of hair spray.

Vegetation variation

Some trees, such as the blue spruce, have a distinct layering of branches. I alter my foliage steps to model this branch structure. After painting the tree flat black and letting it dry, I clamp it in a PanaVise set in a shallow box lid. The vise firmly supports the tree, while the lid allows me to collect and reuse excess foliage.

As shown in **fig. 6**, I apply rubber cement to several tiers of branches and press foliage into the branches, starting at the top. **Figure 7** shows how I create a layered effect as I work in foliage.

Next, using a very light green spray paint such as Rust-Oleum no. 7924 Moss Green, I paint the branch tips by

Fig. 6 Natural variation. Blue spruce trees have distinctly layered branches compared to other types of conifers. To model these trees, Ron liberally applies dabs of rubber cement to black-painted twine-and-wire tree armatures.

Fig. 7 Layered effect. To vary the appearance of his trees, Ron presses foliage into the rubber cement, deliberately working the branches into distinct layers.

aiming straight down on the tree. This lighter color on the branch tips resembles new growth.

I add pine cones using sesame seeds painted a rusty brown. Pine cones are usually seen on the top third of the tree.

To model dead trees, spray the twine reddish brown, leaving off the foliage. Another method is to use very little twine and spray the tree gray.

It's much faster to build these trees if you use an assembly-line process,

making a dozen or so evergreens at a time. Remember, not all trees found in nature are perfect, so don't be afraid to experiment. **MR**

Ron Morse is a native of Colorado who now lives in Lenexa, Kan. Ron is a retired plant manager. He and his wife Vicki have two grown sons and two grandchildren with another on the way. Ron's HO Forks Creek & Central RR was published in the June 1998 MR.

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