# RESEARCH LABORATORY TECHNICAL REPORT



## Sapsucker Damage and Management

By E. Thomas Smiley, Ph.D. and Beth Brantley, Ph.D.

Sapsuckers (*Sphyrapicus*) are species of woodpeckers that feed primarily on the sap of trees and shrubs. The yellow-bellied sapsucker is found in the eastern United States and Canada while the red-breasted, red-naped, and Williamson's sapsuckers are found in the western United States (Figure 1). Many sapsuckers are migratory, spending summer in the north and winter in the south. Sapsuckers feed on over 1,000 species of trees and shrubs. In the eastern United States, thin-barked species with high sugar content in the sap, such as birch and maple, are preferred hosts.

### Damage

Sapsuckers produce sap flow by excavating small holes in the trunks and branches of woody plants, creating sapwells in the phloem and xylem (Figure 2). Each sapwell is about 0.25 inches (4-6 mm) in diameter. Sapsucker damage is characterized by horizontal rows of sapwells. The sap may attract insects on which sapsuckers and other birds feed. Fungi growing on the sugary liquid frequently stain bark below sapwells. If the sapwells are left unattended by the woodpecker for a few days, sap flow may slow or stop.

Figure 2: Sapwells on a sugar maple. Light colored sapwood can be seen at the bottom of the well. Some sapwells are flowing.



Figure 1: Yellow-bellied sapsucker attacking a red maple



A few scattered rows of sapwells will not typically cause significant damage. However, trees repeatedly and heavily attacked may be damaged, resulting in reduced growth, increased likelihood for tree failure, or death (Figure 3 and 4).

Figure 3: Rhododendron killed by heavy sapsucker damage



Figure 4: Trees with heavy sapsucker injury



#### **Treatment**

The Bartlett Tree Research Laboratories and other institutions have investigated ways to reduce tree damage from sapsuckers. Desirable treatments would be easy to apply and not visible to the casual observer, such as a spray-on bird repellent. Bartlett research trials have not found any treatment with these characteristics that will satisfactorily deter sapsuckers.

Physical barriers, however, are effective treatments. These include thick paint products and wraps made of burlap, asphalt impregnated fiberglass, or other fibers. The Bartlett-preferred product is fiberglass impregnated with asphalt which is sold as "roof repair fabric" (Figure 5). Burlap and polypropylene trunk wraps were equally effective in our research, but were considered conspicuous or difficult to install (Figure 6).

Figure 5: Fiberglass impregnated with asphalt is highly effective, relatively easy to install, less visible than polypropylene, and durable.



Figure 6: Polypropylene and burlap trunk wraps are effective, but can be too conspicuous (left photo) or difficult to install and short-lived (right photo).





#### Management

For unprotected trees attacked by sapsuckers, promoting tree health can help recovery and minimize damage. Treatments include fertilizing according to soil nutrient analysis results, irrigating during periods of drought, de-compacting heavy soil with Root Invigoration™, and managing insects and diseases.



Founded in 1926, The Bartlett Tree Research Laboratories is the research wing of Bartlett Tree Experts. Scientists here develop guidelines for all of the Company's services. The Lab also houses a state-of-the-art plant diagnostic clinic and provides vital technical support for the benefit of our clients.