Tree Borers

by Stanley Rachesky
Extension Entomologist, University of Illinois

All of the many kinds of borers that attack trees and shrubs are the larvae (caterpillars or grubs) of moths and beetles. Holes in the bark oozing sap, or sawdust and frass indicate the presence of borers.

Borers are particularly destructive to newly set trees and to those in a weakened condition. Some of the factors responsible for allowing borers to easily affect trees are listed here.

1. **Drought** — probably the primary factor, causing trees to be the most susceptible to borer attack. Dry roots or injured roots systemically weaken the tree. A few seasons of low rainfall are usually followed by borers. Newly planted trees are attacked before root systems adjust.
2. **Construction** — change of drainage, water tables, mechanical injury, etc., weaken trees considerably.
3. Hurricanes, ice storms, frost, bonfires, etc.
4. **Sunscald** — sudden exposure to the sun from a shady environment (cutting down a nearby tree).
5. **Defoliation** — due to leaf-eating insects, greatly weaken a tree.
6. **Chemical injury** — salt used to melt snow, gasoline, oil, fumes from industry.

Damage may be severe enough to cause the tree to break off (locust borer), or large branches may be killed (lilac borer).

Life History and Habits — The adult insect usually lays eggs on the bark of the tree or shrub. When the eggs hatch, the young borers tunnel through the bark into the tree. Some of them bore deeply into the trunk, while others move around under the bark in an irregular manner. Some borers develop fully in one year; others require two or three years.

Control — Preventing borer attack is better than a cure. Keep established trees healthy and vigorous by fertilizing and watering when needed. Protect newly set trees by wrapping the trunks with burlap or heavy paper for two years to prevent borers from attacking them or spray with DDT, as will be discussed shortly. Use wrapping material about 4 inches wide. Apply the wrapper in spiral form, beginning at the first branch and working downward to the ground. Heap soil around the tree to close the space between the bottom of the wrapping and the ground. Hold the wrapping in place with stout twine spiraled around the tree trunk in the opposite direction.

Borer attack can also be prevented by spraying the tree trunks with DDT up to the level of the first branches. Use 4 pounds of the 50% wettable powder or 4 quarts of the 25% emulsion to 100 gallons of water. For one gallon of spray use 4 tablespoons of powder or 4 teaspoons of emulsion. Apply the spray at monthly intervals from May 1 to early September. Do not apply DDT to the entire tree, as serious infestations of mites and aphids may follow.

It is not easy to rid trees and shrubs of borers. You can probe them out with a wire or knife or kill them by injecting carbon disulphide or nicotine sulfate into the tunnel with an oil can. Make certain the tunnel is plugged with putty afterward, and be vary careful handling carbon disulphide, as it is highly flammable.

Some of the borers found on trees are specific for that tree and easily identified. Following is a list of some of these commonly found borers.
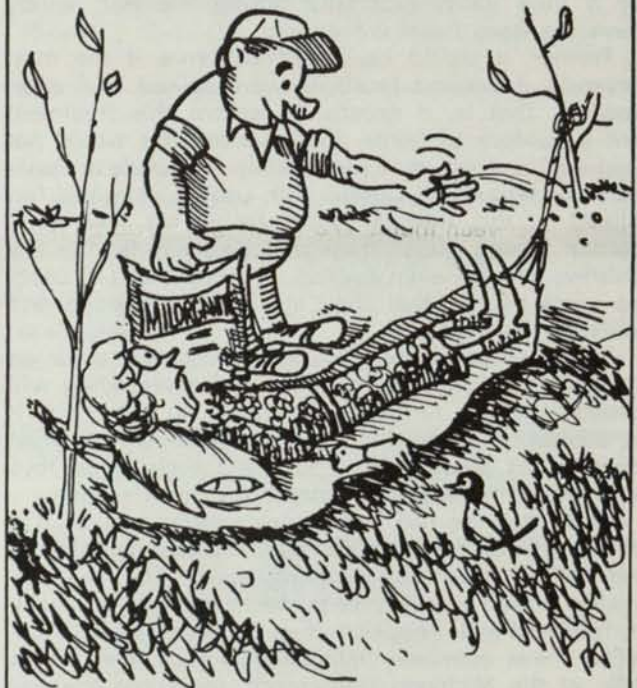
Bronze birch borer
Boxelder twig borer
Azalea stem borer
Ash Borer
Cedar Tree borer
Chestnut bark borer
Cottonwood borer
Dogwood twig borer
Flatheaded Cherry tree borer
Hemlock Borer
Iris Borer
Lilac Borer
Linden Borer
Peach tree borer

CHANGING TIMES

Old Bill he was a gardening man,
　Of skill in high degree;
Few others could produce produce
　Near half as well as he.
The folks around oft asked him why
　Things grew so fast and sure;
To which Bill always would reply:
　"I use racehorse manure."
Bill had a daughter, fussy lass,
　Who sought her Pa to cure,
And make him use a nicer word
　Instead of (ugh) "manure."
So she called her Mother's aid
　To see could she advise her
On any way to get her Pa
　To call it fertilizer.
"You leave your Father be," said she,
　"His way you must endure;
It took me twenty years to make
　Him call that stuff manure.!"