

Volunteer Electric Cooperative, as well as the Tennessee Valley Authority spray with herbicides as a way to control trees from touching powerlines which can cause power outages. Recent inappropriate spraying in Cumberland County by a contract crew has brought renewed interest in the practice. This fact sheet is designed to help the public understand the pros and cons of the practice.

Why Spray?

Reliability is a key expectation that people have of their power company. Trees touching or breaking powerlines are a major cause of power outages. Keeping trees and tree branches away from powerlines is a preventive measure designed to minimize these occurrences. Crews that trim trees back or remove them entirely are effective in protecting the powerline but are more expensive and time consuming than killing young trees before they get to the height where they have to be trimmed or removed. This is particularly true for sections of powerlines that are not easily accessible with the bucket trucks used for trimming.

Is Spraying Safe?

Herbicides are regulated by the Environmental Protection Agency (EPA), and in Tennessee by the Pesticide Division of the Tennessee Department of Agriculture (TDA). Herbicides and other pesticides are labeled according to their danger to humans as well as other animals, including those who live in streams. Over the years, a number of the most powerful herbicides that have been found to caused health damage over time have been removed from the market and are not in use. Others with significant health effects are considered “restricted” and can only be used in very specific circumstances. The herbicides that VEC uses are all unrestricted and could be purchased by a homeowner without special licensing or training. That does not mean that there are no possible adverse effects and the applicators should take precautions not to breathe or have skin contact with these chemicals. It is important to note, however, that herbicides are not “poisons” in the normal use of that word. The active ingredients are plant hormones which interfere with the normal growth of the plant. Sometimes it is the ingredients that do not act on the plants that are the most hazardous to humans.

What Herbicides does VEC use?

VEC uses a mixture of three herbicides and a surfactant when they spray. The herbicides and their desired concentration are: Rodeo 3.10%, Polaris 0.50%, Milestone VM 0.33%, and Aquafact (a surfactant) 1.00%. They buy the herbicides as a pre-mixed concentrate in 7.5 gallon jugs and dilute it in 100 gallons of water to get the concentrations listed. Aquafact, the surfactant, is designed to increase the ability of the herbicides to stick to the leaves rather than run off. All three of these herbicides are considered of low toxicity to both animals and aquatic species at the concentrations used. None are considered carcinogens. Milestone has the most dramatic impact on plants and the greatest persistence in soils - up to five months in some cases. It is also water soluble so it may move within the soil as well.

What Negative Impacts were observed from recent spraying?

There were three major negative impacts observed and reported from the spraying in early July. The first was the loss of ornamental and/or food crops. There were many reports of killed

dogwoods, sassafras, blackberries, red buds, and other plants that were not a threat to the power lines but of value to the homeowner. The second was the killing of all vegetation. VEC's notice in the July newsletter talked about the importance of maintaining vegetation such as grass or small plants, yet the spraying was done on the grass and killed everything. The third was the spraying of stream or drainage crossings as well as streambanks. Not only does this have the potential for harming aquatic species and/or amphibians that may live in these habitats, the killing of all vegetation opens the area to erosion when the streams are running. Without vegetation, stream banks erode. Sediment kills aquatic life.

Is there a Better Way?

Yes, in fact VEC has adopted much of what is now industry standards for herbicide spraying. They have not yet adopted a full species management approach which is the best practice out there. It requires field people to be able to identify common species of trees and shrubs and to categorize them in two ways. First, they are as categorized based on mature height. Plants that will never reach power lines are never sprayed or cut except to allow access roads for remote power lines. Second, plants are categorized as fast-growing or slow-growing. Fast growing plants that are likely to reach the power line within the spraying or cutting rotation period are cut or sprayed. Slow-growing plants that will not reach the lines during that period are ignored. This strategy greatly speeds up the time it takes to maintain the powerline right of ways and reduces the amount of spraying and cutting done on an annual basis.

Other industry standards that VEC has adopted include: leaving buffers near streams and wetlands, only spraying low concentrations during the summer with low dosages so there is no drip onto lower plants and the ground, only spraying small trees - large trees are always cut, or bark injection is used on larger trees to kill the tree rather than trying to spray a large tree, avoiding spraying areas where pets and children might play, not killing the grasses and other low plant that can help shade out and prevent the establishment of problem trees, and allowing property owners to opt-out of a spraying program. The opt out feature only works well when homeowners are notified ahead of time, which didn't happen this time.

Thoughts for the Future?

Volunteer Electric Cooperative is a membership owned cooperative with each of its customers being not only a customer, but a member as well. For this reason, it should be more sensitive to the needs and desires of the people in its service area than a normal utility, and in fact on a wide range of matters over the years, it has been very responsive, ranging from its policies towards low income customers and the elderly, alternative energy, and its local grants program. In this case, the system of oversight broke down. While there is no completely fool proof administrative system, specifying a higher standard of oversight in their contracts may well make sense. Current law no longer requires a license applicator to be actively supervising, just accessible by phone. VEC should not accept that lowered standard and should specify a licensed applicator be in direct supervision. Becoming licensed is not difficult. It requires studying the regulations and taking a test.

This fact sheet was assembled by Dennis Gregg, the Executive Director of the Obed Watershed Community Association as a service to our members and the community in promoting an appreciation for the natural and cultural heritage of the Obed River watershed. Those wanting to join this membership organization or more information may call 484-9033 or write OWCA at 185 Hood Dr., Crossville, TN 38555.