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FEATURE

Utilities Find Successful Alternatives To Poisons



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Louisville, KY

Utilities Find Successful Alternatives to Poisons

By Bob Green

With the cost and risks of poison usage being what they are, it only makes sense to keep an open mind toward non-lethal solutions – provided they actually work and don't increase operating expenses. This article reviews how several power and communications utility companies have reportedly found cost-effective, safe ways to protect their systems against mice, rats, squirrels, woodpeckers, fire ants, spiders, snakes, porcupines, skunks, bears, etc., without harming the wildlife or the environment.

Blue Ridge Electrical Cooperative, SC: Squirrels

Aside from tree trimming and right-of-way issues, one of the foremost problems that most utilities have to deal with are squirrels and the damage and outages they cause on overhead and underground infrastructure. Such was the case with an electrical coop in the Southeast. "The squirrels would chew through everything - through the service wire, entrance cable, neutrals, everything down to the steel." That was the comment Eric McCollum of the Blue Ridge Electrical Coop located in the northwest part of South Carolina made last year during an interview for a *Utility Products* story about woodpecker damage. He was talking about an exceptionally troublesome area and that squirrels were causing the trouble. He explained how they applied a new scent-based paste to the problem areas and it appeared to be working, but at that time it was too early to tell for sure. It's been over a year since that interview and in a recent follow-up he was asked if the product was still working in that area. "It's been steady now for over a year. No return, no revisiting as far as the squirrel criteria," stated Mr. McCollum. He continued, "We've been down there and revisited, just checking on it, and we haven't seen any activity since then – since the application. Prior

to that, the squirrels had eaten the subscriber's neutrals up, all the subscriber's gutters up; you name it, they ate it."

The Technology

Thanks to the work of research scientists and naturalists, a non-toxic solution has been developed, trade named Sniff 'N' Stop, that appears to keep unwanted critters off of and out of electrical and communications equipment. The initial breakthrough to find a non-lethal solution came with the discovery of an odor that the majority of wildlife find repulsive. With wildlife's primary sense being their sense of smell, this odorant is designed to immediately get their attention. One of the major challenges towards effectively using this in the outside plant environment has been finding ways to maintain the odor at a sufficient concentration to remain effective. To solve that problem, a patented process was developed to capture and store the odorant in tiny capsules about the size of grains of sand. By mixing the granules into weatherproof foams and pastes, the odorant can be spread, pasted or painted on anything. While continually releasing its odor at a very low level, the odorant is held in suspension for years in all weather conditions until disturbed by wildlife. A scratch, a bite and sometimes just a mere touch will break one or more of the microcapsules of odorant to fend off even the most determined critter. It doesn't hurt wildlife, but does protect the infrastructure.

The Applications

By working directly with line crews and engineers around the country, research scientists are tailoring specific solutions for specific problems. Earlier articles in this magazine (September 2006 and January 2007 issues) reviewed the effectiveness of this technology in deterring woodpeckers from wood utility structures. This article highlights specific utility experiences with this technology and the new products that are evolving. These scientific discoveries are rapidly evolving into an expanding line of products.

Blue Ridge Electric is now working with the research scientists to refine the way the odorant is packaged and applied. Eric went on to say, "Because of our work environ-

ment, our guys are required to work with rubber gloves and sleeves, so application of the (self-hardening) paste is a little difficult. One of the new products that they are coming out with is the odorant in an electrical tape format, so that's kind of what we are waiting for. Every product that I have tested from them has been fabulous. It does exactly what they say it will do."

Black Widows, Brown Recluses & Snakes

When queried about "other products" he commented, "With the underground cabinet enclosure, we are using a sponge (in a canister) basically that contains the odorant and the idea behind it is to set it on the bottom, roll the lid off, close the lid on the enclosure, walk away and leave it. What we have also noticed is that if you tilt the canister to the side and lay it on the side - it then becomes effective against spiders and snakes – I mean, that's what we have noticed. We have black widows and brown recluses and all sorts of snakes (black snakes, copperheads, timber rattlers). Regarding the spiders, there are now no cobwebs, nothing in the areas we are using the canisters. There's nothing, no activity, no nothing."

City of Concord, NC: Fire Ants

In addition to having problems with squirrels, the City of Concord, North Carolina is testing the odorant on yet another problem creature – fire ants. "We are currently testing with the canisters to see if they will be effective against the fire ants. They are starting to be a very large nuisance now. They are building in our transformers and eating the jacket off the cable and shorting out transformers," said David Mauldin, City of Concord, NC. He went on to say, "In the cabinets and areas where we have used the Sniff 'N' Stop Canister (trade name for the canister), we have had no rodents, snakes,



"... since we've applied Sniff 'N' Stop there has been no more squirrel damage ..." Eric McCollum, Blue Ridge Electrical Coop, SC

fire ants or anything else. In our business, you have to have something that's reliable because outages affect a lot of different people. The Sniff 'N' Stop has proven to be the best and safest way to control the pests that cause the outages." About the nastiest problem they have ever experienced was when a family of skunks made their home in one of the cabinets. Since using the canisters it has even run off the skunks.

Ocala Electric Utility, FL: More Squirrel Problems

About 500 miles south of Concord in the center of Florida at Ocala Electric Utility, Mike Fanelli was having a problem with squirrels traveling down through electric pole risers and into the underground conduit where they would chew the jacketing off the cable. According to Mr. Fanelli, "Generally it doesn't kill them (squirrels) because they are so well isolated. They are not creating a ground because they're not ground themselves when they are touching the wire - being in the PVC pipe and all the other wires being insulated." So they can just continue to create lots of damage. Mike commented, "If the damage is right outside the pipe and a splice would be quicker, then we would do



"... since we have used the Sniff 'N' Stop Canisters, we have had no rodents, snakes, fire ants or anything else ..." David Mauldin, City of Concord, NC.

that, but if it's underground, then we would just replace the cable. That would typically be 200' to 300' of cable. It may cost two or three dollars a foot." Concerning other costs he continued, "Repairing damage above ground is bad enough but that can usually be fixed pretty quickly with



"... we put Sniff 'N' Stop on the tops of crossarms and since then there hasn't been a single bird on it ..." Mike Nix, Greenwood Utilities, MS.

a splice. When squirrels go underground the fix gets a lot more expensive and time-consuming. If we've got four or five people out there it can cost two to three hundred dollars an hour for labor, not to mention the cost of the equipment that we charge, so it could easily add up to a thousand dollars an hour."

To solve the problem they have tried two of the different odorant solutions; the first was a two-part paste that was applied about two years ago. Mike said, "You would mix the stuff and once it's mixed together you can apply it by wiping it onto a cable and that would also create a barrier that is a deterrent to the squirrels." More recently "they (ICORP-IFOAM Specialty Products Corporation) worked with us on a new product where you could put a piece of foam in the top of the pipe. The odorant was already on the foam and it was cut to the diameter of the pipe you were working with. It also has perforations in it for the wire to come up through." When asked how it is working, Mr. Fanelli stated, "We haven't had any problems with those cables yet, but [the coated sponge] hasn't been there but maybe six months or so - maybe a little bit longer." So far, so good.

Greenwood Utilities, MS: Birds

About 600 miles to the west of Ocala, Greenwood Utilities serves about 10,000 subscribers in Greenwood, MS. In an interview with Mike Nix, electric distribution superintendent, he told about how they had also used various Sniff 'N' Stop products to solve their problems with mice and squirrels. In each application it worked, so they decided to see if it would work to solve their bird problem. Mike explained, "We have had a problem with birds ... they are bad to build nests" at locations where primary meters are attached to the utility poles. They applied the odorant "all around

the primary metering and so far, since we've put it in, I haven't found them hanging around the poles or building nests," said Mike. In another problem area he had noted a large number of birds around one of the poles. Mike commented, "I had one of my service truck crews to mix up one of the bags of stuff (Sniff 'N' Stop) and put it on the cross arms and the top of the pole. I've been by there two or three times since and there hasn't been a single bird on it. More and more it's looking like it is working. Now, if I see an area where birds or squirrels are congregating, we're going to put some of the Sniff 'N' Stop on it." As Mr. Nix stated, "This day and age with all the solid state computers, customers don't even like a blink in their service."

Summary

This write-up has tracked how some utilities are eliminating poison, reducing costs, and reducing outages while at the same time protecting the wildlife and the environment. At least two new products are in development resulting from specific requests from utilities - an electrical tape with impregnated odorant, and cable wrap for use over cables - these should prove to be extremely valuable to the industry if they work as well as the other products. According to Phil Landers, the leading research scientist and one of the owners of ICORP, they plan to have the products ready to introduce at this year's ICUEE show in Louisville, KY (Booth #2227). If a utility can opt for effective non-lethal defense barriers, it's worth taking a closer look. □

About the Author:

Bob Green is a freelance writer specializing in utility construction marketplace stories. He has been involved in the utility construction world since 1986.

... successful alternatives to poisons

squirrels mice **BEARS**

skunks

fire ants horses

woodpeckers

CATS DOGS

STOP
the CRITTERS

spiders snakes

RATS PORCUPINES

Effectively Stops Critters!!

"Sniff 'n' Stop has proven to be the best and safest way to control the pests that cause the outages."

David Mauldin - City of Concord (NC)

Woodpeckers

"...it does not affect the bird other than deterring them to go somewhere else to look for food and find a home."

George Patrick, Santee Cooper, NC

Santee Cooper achieved an impressive 99.99% reliability on a primarily wood pole transmission system with IPOLE repair and Sniff'n'Stop products.

Spiders, Snakes

"Regarding the spiders, there's now no cobwebs, nothing in the areas we are using the (Sniff'n' Stop) canisters. There's nothing, no activity, no nothing."

Eric McCollum, Blue Ridge Elec., SC

Sniff'n'Stop™

• **No Poison**

- No Harm To Wildlife
- No Harm To The Environment

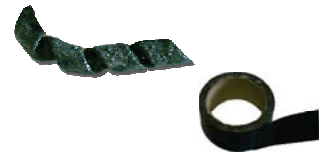


Sniff'n'Stop is a patented odorant that has been proven effective by utilities to fend off wildlife-caused outages.

ICORP scientists and field personnel are committed to work with utility personnel in the development of user-friendly products to protect their infrastructure against critter attacks.



Two of the newest products will be introduced at this year's ICUEE show in Louisville, KY – Booth #2227: An animal chewing deterrent tape and cable wrap that will simplify applications.



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