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BCF™ #1 SOMETHING OLD, SOMETHING NEW

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Environmental Sanitation

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In the past eighteen years, while working in structural pest bird control, I have noticed a definite need for more and better tools for use in the war against pest birds. There have been few new developments in the field, mainly, I feel, due to the extreme public relations sensitivity in this area. Large firms who have the means to develop new products have been reluctant to do so, and small firms that have been interested have not had the financial means to develop their ideas.

The Queletox (fenthion) formulation, which was developed and tested by Mobay, was of great interest to me; but the Mobay people would have nothing to do with its further development, citing significant environmental hazards, especially to birds of prey, as the main reason. However, the old Queletox formulation was used very successfully for many years, prior to the establishment of EPA, for bird control within the U.S. There are problems with Queletox, of course, the most significant being the secondary hazard for birds of prey; the LD50 for raptors is actually less than for target species. So you do have a hazardous situation with the indiscriminate use of fenthion for bird control.

I felt, however, after many discussions with others in the field of bird control, that further development of this type of product with stringent restrictions for its use was not only possible but definitely needed. After more than six years of research and testing, we have developed a new formulation, which maintains many of the advantages of the old Queletox formulation, but, I believe, has made provision in the formulation and labeling to compensate for many of its drawbacks.

What we have done is modified the labeling. This is for use in Hawaii only. BCF™#1, as this new product is called, was issued a State Registration in Hawaii under section 24C of FIFRA in April 1983.

Specific and unique problems exist within the environment of Hawaii. There are more endangered species there than anywhere else in the country. If you want to go out and kill one pigeon in Hawaii, you go get a permit from the state. You specify what the bird is, the problem it is causing, and the control methods you are going to use. You get a specific permit written up for that specific target species. It is extremely restrictive; and it’s within the confines of this restrictive atmosphere that we have developed this labeling, which we feel will give Hawaii another tool. We have the Federal registration application in with EPA in Washington for approval; final details still need to be completed, and probably it will be several years before it will be finished.

Efficacy studies have shown that this product will indeed provide an excellent tool for use in a comprehensive program of pest bird management. This product cannot be viewed as a cure-all for all pest bird problems, but in areas where other methods are impractical or economically impossible, it will prove to very be valuable.

The product is 9% fenthion formulation in an unique carrier. It flows like a heavy oil. It is very easy to mix and handle. When applied through the tip of a sprayer, it jells. You can use it on a sloped surface, and it stays right where you put it; it is unique in that sense. It can be applied over tape, where necessary, to allow it to be removed easily. This provides an extra margin of safety in sensitive areas. It will give birds a good coating on their feet when they land on it, yet they don’t pick up enough that they are going to track it to other areas and pose potential hazards to birds landing in these
areas. (This was one of the drawbacks with Queletox; birds could pick up big globs of it on their feet and track it over to other areas, creating a hazard to other birds in that area.)

We have one species on the label that is not common to the continental U.S. The efficacy study that we did was directed at this particular species, the common Indian Myna. It is a small bird, first cousin to one of our little pests here, the starling. It is a cute little bird that has all the qualities of a starling and about ten times the noise. When you get a group of mynas in a hangar or on a tree, you better wear ear plugs, because they do get loud.

What does BCF stand for? Well, it was a bird control formulation; that is why we came up with the lettering; we had to have some kind of name. The restrictions on this are extreme; there are more restrictions on the use of this pesticide than anything else other than 1080. Of course, it is limited, as a standard restricted-use pesticide, to those who are certified in bird control. In the additional restrictions, it is to be used only by the SLN registrant, that is, me. Those under the supervision or direction of the SLN registrant or who have been trained and designated competent in the use of this product by the SLN registrant, or his agent, are also included.

This material will not be available to any pest control operators until they have been thoroughly trained in bird control and the specific use of this product. That includes all the survey techniques, the need for monitoring the target area, and the understanding that toxicants are not the first but last choice in a bird control job. You must look at the possibility of mechanical exclusion, roost alteration, and flock dispersal techniques first. If these are unacceptable, then we will have another toxicant available for use in some very limited situations.

Each area under consideration for treatment has to be surveyed, and we must be assured that there will be no non-target hazards. In Hawaii you have to get a permit from the Department of Land and Natural Resources; in some cases a Fish and Wildlife Service permit may be required. You must double check to make sure that the flock is not being preyed upon by birds of prey because of the secondary hazard. If you get a hawk or owl eating a dead or dying myna, you are going to get a dead or dying hawk. So if this is the case, this material is prohibited. We want this label to last; therefore, we are going to require specific training with these restrictions.

Disposal of bird carcasses is mandated in Hawaii; it is under the direction of the State Department of Health. The standard restriction also exists: it is not to be used anywhere it can contaminate feed and food stuffs. Areas where people may come in contact with it are to be posted and/or sealed off to prevent unauthorized contact. Strict record keeping is required.

We suggest application over masking tape wherever possible. If the application is made properly, the material only has to be out for 24-48 hours; then you can remove it. Prophylactic retreatment is prohibited. If you don't have roosting birds, you don't apply the treatment.

In Hawaii, and hopefully later in the continental U.S., I do believe that BCF™1 will be a tool for the pest control industry that will work in areas where existing tools give you problems. But in many areas of the country you are just not going to be able to use it because of the presence of raptors. In other areas, I do believe, it will be an effective tool.

The efficacy study was conducted at the Kaneohe Marine Corps Air Station on the island of Oahu. The area is a wildlife refuge, and there are many roosting waterfowl. We were dealing with an environmentally sensitive area. This study was monitored by SSgt. John Howard, USMC, and Mr. Thomas Lauret, Environmental Branch, Pacific Division Naval Facilities Engineering Command, Pearl Harbor, Hawaii.

Hangar 105 was our target. There were birds in all hangars, but 105 was used because it was used for helicopter maintenance. The damage from bird droppings to equipment there was most severe. Aircraft parts also were affected by contaminants.
The Indian myna was the target species. They were feeding throughout the residential area and out along the seashore. It was imported into the island, much like the starling was imported here into the continental U.S. Barred doves, about half the size of a pigeon, sometimes intermingle with the myna in roosting areas. There are actually 15-20 species that occasionally cause minor problems in Hawaii; but these two, plus pigeons and sparrows, were the main target species. We only had one pair of barred doves in the hangar. We had a few pigeons, about 50-60 sparrows, and between 2000 and 5000 myna, depending on whose count you wanted to believe.

We didn’t get total elimination of birds in the hangar with a single application. We used only four gallons of material, and it was a huge aircraft hangar. But in five days we took the population from 2000-5000 down to less than 300. So we are very well pleased with the results.

There was a staging area a long the roof ridge and another on a roof ventilator. The birds would come in from across the station, stage here for 15-20 minutes, hopping around, and then they dive in through the hangar doors.

If we can ever get the people to keep the doors closed, it would eliminate much of the problem. I've done a lot of military hangars, and getting them to keep the doors closed is almost impossible. Hurricane Eva came through here just a few months before; and there were whole areas of roof torn away, so in this case closing the doors actually wouldn’t have excluded the birds. So we had a situation where leaving the doors open was actually the best thing, because it did provide a staging area for the birds.

The applications were made along the edge of their outdoor staging areas and on one staging area inside. They didn’t roost in lower areas but right up against the ceiling along the beams; and there was no way to get to them. The birds liked to stage on the lower beams when they went out, and we got two lines of material on those beams. That, plus our outside application, was the only application made. Frequently, we had the material tracked off, because there had been so many birds on it; and no material was left to effect total elimination. During the day we found some dead birds in a little park behind the hangar where they loafed during the day.

The application was made with a B&G sprayer. We applied a line of material a little bigger than the size of the lead in a pencil, just a very small line of it. If you apply big globs of it, it will run; if you put just a thin line of it, that is all you need. If I had been doing this as a basic pest control job, we would have done a first application, waited a day to see what kind of population we had, and then the third day reapplied in the areas where the birds were still staging. Then we would go inside, getting main staging areas that birds were still using, waiting another day, and on the fifth day going in after the actual roosting sites of birds that were not hitting these areas.

All in all, I think we have shown the State of Hawaii and the Navy that we now have the tool that will solve many of their problems when nothing else had worked.

**DISCUSSION**

**Question:** Did you put up a strip of tape?

**Areson:** Not on the hangar; this was an outside job. We have shown on an outside application in the Hawaiian sun and humidity that the material will be broken down in five days to the point that it is non-toxic, even to the smallest sparrow.

**Question:** How long does it take birds to die?

**Areson:** About 24 hours. They contact the chemical in the evening and die the next day. We got a few mortalities during the night. We had pick-up crews that went throughout the Marine Corps station to pick up birds, which were placed in plastic bags and buried in a landfill.
**Question:** In secondary poisoning of raptors, do they get the toxicant from the flesh of affected birds or by coming in contact with the feet of the bird?

**Areson:** I don’t have that answer.

**Jackson:** It is primarily in the tissues at the time of ingestion by the hawk.

**Areson:** That’s why we have to restrict this material so much. It never will be a commercially profitable material for me as a manufacturer; but for me as a user it will provide a tool that I need in structural bird control.

**Question:** Have they tried Rid-A-Bird Perches there?

**Areson:** Yes, but there is just so much area that it’s not practical — you’d need 25,000 perches in each hangar. Also, perches have a natural repellent effect.

**Question:** How can a single product be registered in the U.S. for sole use by the owner?

**Areson:** The restrictions are that it is to be used by me or someone trained by me or someone certified as competent. What I am trying to do is to make sure that no one gets hold of this material that doesn’t know what he’s doing. For someone already doing conscientious bird control work, the training will be next to nothing. You’re already keeping the proper records, doing the proper surveys, maintaining the proper public relations; you’re not going to have any problems. I hope every PCO doing bird control work that feels this is an efficacious tool will get behind it, and we could get a federal registration.