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Re3eX-iTT"' AG-36 THE GENTLE WAY TO REPEL GEESE FROM GOLF COURSES AND OTHER TURF AREAS

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Birds have always been a problem in agriculture, specially for berries and fruits. Farmers and home owners have been fighting these problems with limited success for centuries. However, the problems with birds on turf are relatively new and are not even known by many people. The "Complete Guide to Pest Control" (Ware 1988) does not even mention geese as a pest, or golf courses as an area of bird problems.

Birds, and particular Canada geese (Bnmta *canadensis)* are becoming an increasing problem and concern to the golfing community (Conover 1992). Most golf courses initially transplanted, or had encouraged the presence of geese, to stress the positive impact with nature. Meanwhile, the geese have adapted to this near-perfect environment and have multiplied in large numbers, becoming a nuisance and pest. There is no need to migrate anymore. The "sanctuaries" of the suburban & urban lawns, parks and golf course provide ideal living conditions year round, while creating an ever increasing health and nuisance problem, unimaginable a few years ago.

This altered environment of the golf course, and of our parks and corporate headquarters have provided an improved habitat for geese. The grass is kept short and it is fertilized to provide a nutritional food source. Also, there are enough people wound that supplement their feed when the weather gets bad.

Controlling birds by lethal methods, such as shooting, while very effective, is no more an acceptable solution to society and the public at large. Poisonous repellents pose a problem not only to the geese, but also to the golfers and the environment. Netting or stringing wires is not feasible for golf courses or public parks. Long term control can only be achieved by habitat manipulation.

Most existing bird repellents have been withdrawn from the market or have not been re-registered due to toxic side effects.

Several requirements must be met for a bird aversion agent to be successful in todays environment:

1. Effective delivery system
2. Availability in sufficient quantity
3. Results to satisfy the customer
4. Cost-effective
5. Humane & nontoxic
6. Environmentally friendly

Methyl anthranilate (MA), dimethyl anthranilste (DMA) ortho-amino acetophenone (OAAP) and similar compounds have long been effective as bird repellent in laboratory tests (Clark 1991). Of these

compounds, most data are known for methyl anthranilate, which is also widely used in food and fragrances. However, application to plants, such as turf and shrubs in sufficient quantities to be effective have posed problems due to their phytotoxic properties and no known commercial application has been developed so far.

Earlier formulations (Cummings 1991 & 1993, Mason 1986) were hard to handle and did not last sufficiently long enough to be effective. It is well known that MA has the desired properties and is biodegradable in the environment and, if not properly formulated, the concentration decreases rapidly to levels were the repellent properties are lost.

ReJeX-iT® AG-36 has been formulated from special naturally occurring biochemicals that show no toxicity to birds. The grade of MA used in the formulations did not show any adverse effects at levels in excess of 5000 ppm on tuts with mallards (Anus *platyrhynchos).* At concentrations above 290 mg/kg the birds (mallards) regurgitate their food without any harm. The special formulation does not cause phytotoxicity even in its concentrated form. Therefore, it can be sprayed at concentrations that are very effective. The formulation also protects the compound from premature biodegradation.

Once the sprayed turf area is allowed to dry, the product does not wash off the grass, even in heavy rain. Generally, it will last about three weeks, before degradation starts, depending on weather conditions. On cutting, a part of the treated grass blades is removed and it naturally will reduce the effectiveness, should the geese decide to come back.

Initial tests on turf against Canadian geese (Cummings 1993, Fig 1. & 2.) and Snow geese *(Chen Caerwlescens)* (Clark 1993, Fig. 3) are very encouraging. Unfortunately, the test with Canadian geese had to be terminated due to continued snow cover on the test site. Further scientific tests are in progress. Tests on private lawns and golf courses gave astonishing results and all are exited by the ability to relocate the geese to other habitats. It still needs to be seen how long it will take for them to return.

Generally, most golf course and turf owners do not even require complete removal of the geese, which might allow application at lower rates or at increased times between applications.

While much still needs to be learned, the present formulation ReJeX-iTm AG-36, developed over several years, represents a considerable improvement over any formulation available to earlier investigators. EPA registration is expected by the end of the year. Until then only experimental samples are available.

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Developing Risk Communication Skills: More Than Damage Management

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Risk communication provides a methodology that enables an organization to respond effectively to issues or situations of a controversial nature. It is one important aspect of risk management.

Important Concepts

The concept of risk management, risk communication and risk assessment are related and overlapping.

Risk Management: The process of deciding what to do where risk has been determined to exist. It involves figuring out how to reduce risk in light of values-political, social, economic, philosophical and psychological. It may also mean planning for the negative consequences of any decision, process or action. (Often referred to as "structured commons sense.")

Risk Assessment: A quantitative process to estimate the probability of some harm coming to an individual or population as a result of exposure to a substance or situation. It is a process whereby decisions are made in risk management in the face of uncertainty.

Risk Communication: Risk communication is what is conveyed to the public about the existence, nature, severity or acceptability of risks. In a proactive, democratic mode, risk communication is a means for facilitating informed voice. Risk communication is most effective as as interaction among government agencies, industry, mass media practitioners and lay citizens.

Dealing With Controversy

When you work with the public, you are likely to encounter s controversy of some issue. A variety of options for dealing with controversial situations are open to you.

One is to bury your head in the sand and hope controversy passes you by. Of course, when you are in that position, a certain part of your anatomy is extremely vulnerable to shack–and you may never know what kicked you.

Another option is to charge into the fray, intimidating the opposition. The main problem with that tactic, however, is that you are likely to get shout out of the saddle as a "Lone Ranger."

We often handle highly charged conflict by discounting the credibility of others and *thinking in* terms of black and white: "mad-dog" media, "redneck" producers, "crazy" consumers.

This is a human reaction to controversy and most of us soon get a grip on ourselves and look for more effective approaches to dealing with a problem.

Risk Business

When an organization is swept into a controversial situation, an incredible amount of time and energy suddenly has to be focused on "damage control."

Attempts to limit the scope of damage that can occur *to* an organization's reputation and effectiveness usually focus on media management. It is critical, however, for decision-makers to understand the difference between media management and risk communication.

Leaders especially need to understand that it doesn't pay to manipulate the media. The fact is, the days of controlling the release of damaging information probably are gone. Horror stories about from situations where supposedly "controlled" information was leaked out of an organization.

Risk Communication Model

What today's public relations environment demands is an interactive process of communication which can be planned from a risk communication model.

Risk communication is not a panacea for resolving controversial issues, but in its most effective application, it is an opportunity for an organization to attain increased respect from the public. Even an *organization under* duress can retain respect it has earned through the yeas if it dials with it multiple publics forthrightly.

More Than Crisis Management

Many workshops about risk communication focus solely on managing a crisis situation. Certainly it is important *to* know the guidelines for dealing with a crisis. Those guidelines are available in the EPA publication, "The Seven Cardinal Rules of Risk Communication."

More Than Media Management

If however, you know your organization is likely to have to deal with controversial situations, then it is important to do more than be trained in "managing the media."

A Comprehensive Communication Plan

It is important *to* develop a communication plan for your organization which creates and supports an attitudinal shift among administrators sad employees. The crux of a risk communication plan is this: Involve early-on all groups that have a stake in the outcome of a risk or controversial situation.

This process often seems too time consuming and too messy, but in the long run you invariably save time and energy, and you usually enhance your credibility. Nothing costs more than a lengthy cleanup of public outrage.

Barbers to Attitudinal Shut

There are many natural barriers which prevent administrators and employees, however, from dealing proactively with all its public. Publics may include lay citizens, other governmental agencies, industry representatives, and mass media practitioners. One of the biggest barriers to attitudinal change is this: "How do you listen to stakeholders when you can't stand to hear what they're saying?"

In her presentation on risk communication, Deanne Wright merges principles of mass communication and interpersonal communication and analyzes the intersecting point where risk communication occurs.