

PESTICIDES, THE REST OF THE STORY

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Public awareness of the dangers of pesticides has been elevated to new heights since the Rachel Carson book "The Silent Spring". Yet in spite of her dire predictions of the elimination of wild life if pesticide continued to be used, birds and other forms of wild life are still abundant.

The turf industry, perhaps because of its high visibility or venerability because it does not produce any food, has been the target of anti-pesticide groups. In response to these attacks, the turfgrass community has responded by being proactive. Groups like the GCSAA have tried to work with the EPA and groups like the USGA have cooperated with the New York Audubon Society to protect the environment by the wise use of pesticides and by leaving natural areas on golf courses for wild life habitat. Unfortunately, even these efforts have not pleased everyone. The National Audubon Society has refused to support the efforts of the New York Chapter in cooperating with the USGA.

The reality is if groups like the Audubon Society cooperate with golf courses and prove that pesticides are not really harming the environment, or that golf courses are not the toxic dumps, and that they actually provide food and habitat for wild life, they are perceived to be aiding the "enemy". This could well result in the loss of funding from their support groups, many of whom are more interested in promoting their beliefs than in finding out the truth.

It is certainly necessary that the turf industry continue to work with these people; it is also important that the truth about pesticides be told. This will not be easy because of the liberal bias of the main stream media in this country that tends to support the anti-pesticide views expressed by the environmentalists. The main stream media only report the evils of pesticides often based on half-truths and articulated by celebrities who know little more about the pesticide in question than the reporter doing the story.

The Alar story was one such case. No problem occurred in the laboratory mice that were fed Alar at normal expected percentages of diet. Tumors only occurred when the animals were fed maximum tolerated dose which consisted of .5 to 1 % of the diet. That would be the equivalent of a person eating 28,000 pounds of apples a day for ten years.

Since pesticides can not be registered if they are carcinogens we need to look at other products to see how the media distorts the story. A good example is the sugar substitute saccharin and the rest of the story you didn't hear. In the cases of testing for the carcinogenic effects of Saccharin, as well as for pesticides, maximum tolerated doses used are often ridiculously high as seen in the case of Alar. Instead of feeding the laboratory animals more reasonable rates similar to what could be expected in the human diet, maximum tolerated doses are used.

The cancer response in male rats to maximum tolerated doses of saccharin may not be the direct response of the chemical, but the result of the formation of irritating crystals in the bladder. Scientists believe it is the irritation caused by these crystals that leads to bladder cancer. For example, when the level of saccharin is dropped from 5 to 7 % of the total diet to 1 to 2 %, male rats don't develop irritating crystals and consequently don't develop excess tumors. Even more interesting is the fact that saccharin, at any dose, doesn't cause an increase in tumors in female rats. This is because female rats do not produce irritating crystals in their bladders. No crystals, no cancer. The enzyme that causes crystals to form in male rat bladders does not play a major role in human biochemistry.

LD 50 are another way to measure the toxicity of a chemical. The LD 50 are given in mg/ kg of body weight. These are based on technical grade full strength concentration of the chemical. Since most chemicals are sold as less than 100 % active ingredient they are less toxic than the indicated LD 50. Whereas mg/kg have significance in themselves they are more meaningful when compared to product we use every day. For example caffeine has an LD 50 of 250 mg/kg of body weight which is more toxic than any fungicide currently being sold.

Likewise, aspirin, salt, and ethyl alcohol all have LD 50's lower than all but 5 fungicides available today. Unlike pesticides, where contact is incidental, these materials are put directly into one's body.

In addition cigarettes, ethyl alcohol, and fatty foods all have been strongly correlated to the development of cancer in humans and are consumed every day. Because of political pressure, not to mention tax revenues, these potential carcinogens are allowed to be purchased and ingested into our bodies every day.

Whereas turf and agricultural pesticides are under constant pressure from the liberal media, scarcely a word is mentioned about human pesticides. Yes, human pesticides often referred to as antibiotics that are used to control bacterial pathogens of humans like strep throat, pneumonia, blood poisoning, TB etc. Though commonly referred to as medicine, they are none the less pesticides that kill bacterial human pathogens. Some of the early human pesticides like streptomycin and oxytetracycline were also used as plant antibiotics to control bacterial plant diseases. They are still used today as seed treatments and on non-bearing fruit trees to control bacterial plant diseases.

How many people are afraid to go out on their front lawn after it has been treated with a pesticide by a lawn care company because of what they have heard or read about the danger of pesticides? Yet they think nothing of spraying fungicide on their feet to control athletes foot. That is what the "medicine" in athletes foot treatments actually are, fungicides. Or people are afraid to let their pet out on the lawn after it has been treated by a lawn care company, only to douse the dog or cat with an insecticide to control its fleas?

The complete story about pesticides will never get equal time in the mainstream media, because they are more interested in pushing their anti-pesticide agenda, but at least you now know THE REST OF THE STORY.