

Parrots, Produce & Pesticides

By Carolyn Swicegood

It is a well-known fact that parrots are especially sensitive to environmental toxins. Chemicals that normally are only irritating to humans and other animals can be acutely toxic to parrots. The inhalation of carbon monoxide exhaust or fumes from overheated Teflon products, which would cause no apparent damage to humans or other animals, can be fatal to parrots. Their immune systems constantly are challenged by air pollution, exposure to heavy metals, water contamination and the adulteration of their foods by pesticides. A shocking four million tons of pesticides, numbering 20,000 different products, are fogged into the air in the United States each year! We must control additional exposure of our birds to these products by not using any fumigants in their presence. Similarly we must educate ourselves as to the level of contamination of the foods that they consume.

Many of us like to provide a bountiful harvest of vegetables and fruits along with the other staples of our parrots' diets. Yet, produce is the food group with the highest incidence of pesticide and chemical residue, linked with potential **cancer, neurological problems, hormonal imbalances, and immune system disruptions**. The likelihood of toxicity is more serious for birds than for humans because of their smaller size and their increased sensitivity.

Due to all the unanswered questions that parrot breeders have concerning infertility, dead in shell chicks, neurological problems, and even feather plucking, I currently am researching the possible contribution of pesticides and their "endocrine disruptors" to all or any of these problems. We all remember the devastating effects of DDT on wildbird populations, including Bald Eagles that laid soft-shelled eggs until they almost became extinct. Endocrine disruptors in wildlife populations have caused increased mortality, failure to mature sexually, and inability to reproduce. I believe that the hormonal disruption caused by pesticides may prove to be just as devastating to our domestic parrot population as DDT to wildlife.

Hormones are chemical messengers working in near infinitesimal amounts, molecular keys that fit into molecular locks at receptor sites, carrying signals that trigger and regulate processes ranging from formation of a fetus to development of gender, from behavioral bias to the formation of reproductive organs. When these receptor sites encounter synthetic chemicals that are enough like the hormones it was expecting, the organism responds to the signal it thinks it has gotten, with sometimes disastrous effects! Research on wildlife populations, especially in the Great Lakes, has demonstrated that endocrine disrupting chemicals profoundly impair animal reproduction and development. Birds with deformed beaks, female birds that nest with females, and fish eggs that do not develop all have high levels of endocrine disruptors, PCB's, dioxins and DDE's. Effects on wildlife cited by researchers include thyroid dysfunction in birds and fish, decreased fertility in birds, fish, and mammals, decreased hatching success and gross birth deformities in birds, fish, and turtles, behavioral abnormalities in birds, and compromised immune systems in birds and mammals.

Why, when the foods that we give our parrots contain toxic levels of pesticides with endocrine disruptors, should we be surprised at all the reproductive and other problems they exhibit?

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If you were asked to list a dozen of the fruits and vegetables that you offer your parrots most often, how many of these would be included?

1. Strawberries
2. Bell peppers (green and red)
3. Spinach (tied with 2)
4. U.S. grown cherries
5. Peaches
6. Mexican grown cantaloupe
7. Celery
8. Apples
9. Apricots
10. Green beans
11. Chilean-grown grapes
12. Cucumbers

The above list contains many of the foods that that we feed our parrots daily. Unfortunately, according to a study by the non-profit Environmental Working Group, **they are the most toxic conventionally grown fruits and vegetables!** This report, *Shopper's Guide to Pesticides in Produce*, is based on data from the U.S. Food and Drug Administration studies. It found that more than half of the health risks associated with pesticides are concentrated in these twelve fruits and vegetables! Of the 42 fruits and vegetables tested, strawberries were by far the most toxic. They were given a toxicity score of 189 of a possible 200 points, far greater than bell peppers and spinach, which tied at a score of 155. U.S. grown cherries rated 154 and peaches 150. The least contaminated food in this group, cucumbers, scored a disturbing 117 of 200 possible points.

Strawberry growers everywhere use large amounts of pesticides, particularly fungicides. The FDA detected *thirty different pesticides* on strawberries, second only to apples with thirty-six. Based on a two year sampling, strawberries were found to contain *captan, benomyl, vinclozolin, iprodione, and endosulfan*. These pesticides not only are carcinogenic in humans, but disrupt the endocrine system as well. Unless one is lucky enough to locate a source of organically grown strawberries, in my opinion, they never should be fed to parrots! Other fruits with far lower pesticide residues can be offered. **Substitute blueberries, raspberries, oranges, grapefruit, watermelon and kiwis.**

Bell peppers are more heavily contaminated with neurotoxic insecticides than all other crops analyzed. Although green peppers are high in vitamin C, and red peppers add vitamin A and carotenoids, there are several less toxic alternatives. **Substitute broccoli, romaine lettuce, green peas, asparagus, brussel sprouts or carrots.**

Spinach contains DDT, permethrin, chlorthalonil and other carcinogenic pesticides. Because of

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this and its calcium binding properties, *Popeye the Parrot* would not be a very healthy specimen! **Substitute broccoli, brussel sprouts, asparagus and romaine lettuce.**

Cherries from the U.S. are three times more contaminated with pesticides than their imported counterparts, which are among the cleanest fruits and vegetables analyzed. Domestic cherries were found to contain twenty-six different pesticides! Except for their marginal amounts of vitamin C and their value as a treatment for gout, they are not as nutritious as many other fruits. *However cherries DO contain a powerful compound known as ellagic acid* that counteracts carcinogens, so it is worthwhile to seek out imported cherries. **Substitute oranges, watermelon, blueberries, raspberries and kiwi.**

Peaches are heavily contaminated with cancer causing fungicides and neuro-toxic pesticides. Peaches contain low amounts of vitamins A and C, but many other less contaminated fruits provide as many or more nutritional benefits. **Substitute nectarines, watermelon, tangerines, grapefruits, oranges and kiwis.**

Cantaloupes from Mexico tested positive for two or more pesticides in forty-eight percent of the samples, more than any other crop analyzed. Avoid offering this food to parrots during January through April, when Mexican imports are at their peak. **Substitute U.S. cantaloupe in season, papaya, nectarines and watermelon.**

Celery is a major source of exposure to neurotoxic pesticides. Eighty-one percent of samples tested contained detectable residues. This could mean that eight out of ten bites of celery that a parrot takes are bites of pesticides. Considering the minimal amounts of nutrition in celery, it is not worth the risk. **Substitute carrots, romaine lettuce, broccoli and radishes.**

Apples contain *thirty-six different pesticides*, more than any other fruit or vegetable, according to FDA data! Who said an apple a day keeps the vet away? **Substitute pears, U.S. cantaloupe, kiwi, watermelon, nectarines, bananas or citrus fruit.**

Apricots contain such high levels of pesticides, fourteen different kinds to be exact, that it is better to feed our parrots other fruits that are equally high in vitamins A and C and potassium. **Substitute nectarines, tangerines, U.S. cantaloupes, watermelon, oranges and grapefruit.**

Green beans are a major source of carcinogenic fungicides, neurotoxins, and endocrine disruptors. They provide only modest amounts of nutrients anyway so unless we can find organically grown greens beans, better leave them off our parrots' plates. **Substitute green peas, broccoli, cauliflower, brussel sprouts, asparagus and potatoes.**

Grapes from Chile add a load of cancer causing and endocrine-disrupting fungicides to our parrots' diets. From January through April, a whopping ninety percent of the grapes sold in the U.S. are from Chile, where growers use less sophisticated pest control techniques than U.S. growers. **Substitute domestic grapes in season.**

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Cucumbers contain unacceptable levels of Dieldrin, an extremely carcinogenic pesticide that was banned in the U.S. over twenty years ago. Unfortunately it is persistent in the soil and is taken up by cucumbers. One of every fourteen cucumber samples from across the U.S. and Mexico contained this highly toxic compound. **Substitute carrots, romaine lettuce, broccoli or radishes.**

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Now that we know the twelve most contaminated foods, here are some foods that are low in pesticides and high in vitamins, minerals, and carotenoids. **Sweet potatoes, broccoli, watermelon and brussel sprouts** provide lots of vitamins, carotenoids, and minerals, along with relatively few pesticides.

To complement the twelve most contaminated crops, The Environmental Working Group compiled a list of the twelve cleanest crops. Ironically, avocados which are poisonous to parrots, are the very cleanest food that was tested! Onions, and green onions are not generally considered suitable parrot foods either, so these three foods are not included in the list below. These nine foods rank from only 14 of a possible 200 points in toxicity for corn, to 49 for broccoli. These are the *lowest* contamination scores of the fruits and vegetables commonly fed to parrots.

1. Corn
2. Sweet potatoes
3. Cauliflower
4. Brussel sprouts
5. Grapes (U.S.)
6. Bananas
7. Plums
8. Watermelon
9. Broccoli

We are fortunate indeed that corn, a big favorite of many species of parrots, is one of the least toxic foods available. Sweet potatoes are one of the most nutritious foods on earth, sometimes referred to as the perfect food, and it too is a favorite of many parrot species. Broccoli is another super food and if our birds don't like it raw, often they will enjoy it lightly steamed. We also can feed grapes and cantaloupes safely if we give them in season, from May through December.

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As disturbing as the news is of widespread toxicity in our fresh foods, according to the Environmental Working Group, the picture is actually much bleaker than painted by the FDA data. Some of the foods listed as the least contaminated have incredibly high contamination rates if they come from certain countries. Examples are pears from Korea, blackberries and

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green peas from Guatemala, peas from China, kiwis from Chile, carrots and leaf lettuce from Mexico, and green onions and tomatoes from the United States. Farmers must contend with some 80,000 plant diseases, 30,000 species of weeds, 1,000 species of nematodes and more than 10,000 species of insects, so the problem of pesticide residues is not likely to end soon. Every year 100-150 million pounds of pesticides that cannot be used in the United States are exported for use in other countries. The foods that are treated with these banned chemicals are then imported back into the United States, to be sold at grocery stores nationwide. **It is the recommendation of the EWG that we buy organic produce whenever possible!**

Common sense practices can somewhat reduce pesticide residues on fresh fruits and vegetables. The USDA recommends that produce be washed under tap water before serving. Consumers should peel away and discard outer leaves, skin or rinds. Certain hardy vegetables, like potatoes and carrots, should be scrubbed if the fiber-rich skins are to be given to parrots.

The twelve most contaminated fruits and vegetables represent the majority of the health risks from pesticides that cause cancer, neurotoxic, and endocrine effects. We should minimize or eliminate these foods, and maximize the amount of foods with the least toxicity. By so doing, and by using organically-grown produce whenever possible, we can vastly reduce the amount of dangerous pesticides that we feed our parrots.

One way to provide inexpensive, organically-grown foods to our parrots is to start SPROUTING! Sprouts are live food which our parrots are biologically adapted to consume, high in enzymes, extremely nutritious, easy to grow, and best of all, uncontaminated by pesticides and other chemicals! When we grow them ourselves, we can be certain that they are pesticide free. By becoming informed and by diminishing this very real threat to our parrots, we can help them to achieve the level of health and longevity that they so richly deserve!

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