



www.purrfectplay.com

Late Fall 2005

Why Being Pet-Centric May Also Mean Being Eco-Friendly

The U.S grows over 12 million acres of cotton each year, mostly saturated with pesticides and insecticides. The common estimate for this toxic shower is 8.5 million tons annually. If you do the math, this is a heck of a lot of chemicals per acre. Many of these pesticides are EPA toxicity class 1, meaning that these are considered the most dangerous and toxic. Remember, cotton is not considered a food crop and can be treated with chemicals not allowed on, say, a field of corn or wheat.

There is a small but dedicated group which farms cotton organically. Their cotton is grown without the use of synthetic fertilizers, pesticides, or defoliants. Instead, these farmers work with the laws of nature using crop rotation, hand weeding, and beneficial insects to tip the biological balance in their crops' favor. To earn a certified cotton label the current crop must meet organic standards and the soil in the fields must have been synthetic pesticide free for at least three years. The gins which mill the fiber must also be completely cleared of conventional cotton residue before the organic cotton is processed.

As I write this I am acutely aware that for pets, cotton is often the equivalent of a food product. They chew and suck on their toys, bedding, and sometimes your socks. In short, they use their mouths as we might use our hands. Additionally they secrete saliva as they chew. Saliva acts as the first level of digestion, containing chemicals which begin the breakdown of food. Also acidic, saliva dissolves food in a somewhat mechanical fashion, breaking chemical bonds that hold the substance together. On top of all this, our pets' mouths are lined with lovely pink mucous membranes which have a high absorption capacity. In effect, they are often "eating" their toys.

Knowing a bit more about cotton production and its effects help us to see how inter-related the world is. Being better informed helps to clarify that being pet-centric may also mean being eco-friendly.

The Problems With Fabric Dye

Along with using roughly 25% of the world's insecticides, conventionally raised cotton offers another less obvious toxic toll. Processing cotton to produce cloth utilizes large quantities of chlorine bleaching agents, formaldehydes, and phenols. All of these are indicated as sources of cancer, birth defects, allergic and toxic reactions, and primary deaths of third world cotton workers. Fabric dyes may utilize arsenic, lead, cadmium, cobalt, and chromium to assist color components in grabbing on to the cotton fiber. Even given this toxic glue, cotton doesn't hold color well. As much as 50% of the dye will wash away in the primary dyeing baths. This dissolved dye then ends up in the water and soil which has led to the destruction of local water supplies in many third world communities.

For our pets, these dyes represent another level of toxic exposure. Heavy metals such as chromium can act as contact allergens causing red and itchy skin and also accumulate in the body to promote other toxic reactions. Chemicals such as formaldehydes and phenols used in the dyeing process

are known carcinogens and often linger in the fibers, especially in fire resistant and perma press treated cloth. It is because pets use their mouths to explore and enjoy their world that these products effectively become food, although these are not approved by the FDA as food additives.

One of the ways you can protect your pets is to try and know a bit more about the toys and bedding they use. At the minimum avoid any fabrics which have been treated for stain resistance, and/or fire or wrinkle proofed. These have probably been treated with formaldehydes and other undesirable chemicals. Water test dyed toys or bedding. If they bled in your wash, they, without any doubt, bleed in your pets' mouths. As an experiment (you might want to do this in a private location because it could look silly) try "tasting" a new colored shirt or a brand new pet toy. Does it taste like chemicals or metals? Do you feel good about having it in your mouth?

Additional reading:

Chart showing dyes which are carcinogenic:

http://www.oehha.ca.gov/prop65/CRNR_notices/admin_listing/requests_info/referenced_docs/abpkg5rb.html

Article on benzidine carcinogenic effects—especially page 24

<http://ehp.niehs.nih.gov/members/1994/Suppl-2/morgan-full.html#7>

Important list of toxic chemicals found in textiles

<http://66.102.7.104/search?q=cache:UR14LGR31o0J:www.bsr.org/CSRResources/Environment/RSLImplementationResources.pdf+azo+dyes,+carcinogen&hl=en&client=firefox-a>

The Renaissance of Naturally Colored Cotton

Interestingly, pure white cotton was uncommon before the industrial revolution. Prior to this, cotton was milled and woven by hand. Colored traditional cotton has a shorter fiber which the cotton gin (an invention designed to quickly separate the fiber from the seeds) could not process effectively. After the invention and proliferation of the cotton gin, cotton became a much better cash crop and large tracks of land were planted in longer fiber white cotton. This cotton is less resistant to disease, pests, and drought but its ability to be machine processed gave it a great economic advantage, at least in the early years. Because of this, the shorter fiber colored cottons fell out of favor and almost disappeared from social memory.

It took an independent methodical woman to create a renaissance for colored cotton. By crossing long fibered cotton with colored short fiber and personally guiding this process in her own fields, Sally Fox was able to naturally engineer a strong colorful cotton which is both aesthetically and ecologically appealing. Along the way, she rediscovered shades of color our modern approach had all but eliminated from the cotton gene pool. Because of her, we now have pinks, greens, and browns without the effects of dye production. As an added benefit, these cottons are also more disease, pest, and drought resistant.

Now we can purchase pet products that are born with color, bypassing all the chemicals we want our pets to avoid. Look for the labels Fox Fiber and Colorgrown on colored cottons. Search for white cottons which have been processed with Peroxides instead of bleaches and dioxins. Peroxides are safer for your pets and for the environment.

Additional Reading:

<http://www.organicconsumers.org/clothes/color090804.cfm>

http://www.e4s.org.uk/textilesonline/content/6library/report1/textile_fibres/cotton.htm