PROMOTING ECONOMIC JUSTICE FOR FAMILY-SCALE FARMING

THE CULTIVATOR

News from The Cornucopia Institute
Winter 2011

School Snacktime: Toxic Exposure?

Dietary Pesticide Residues Linked to ADHD, Other Illnesses

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Neurotoxic pesticides are commonly sprayed on foods fed to youngsters in preschools and daycare centers. Researchers have found pesticide concentrations in children who consume conventional foods to be six times higher than in those who eat an organic diet.

Nuts, and any foods containing them, have been banned in my son's preschool. A child with a nut allergy could suffer a severe reaction if accidentally exposed.

But foods likely containing traces of toxic pesticides are served generously during daily snacktime. These include non-organic fruits, non-organic raisins, non-organic milk. Shouldn't every child be safe in school?

In 1947 *Time* magazine called the pesticide DDT "a benefactor of all humanity." Hindsight is 20/20, as we shake our heads and think that people back then should have known better—if it's toxic to insects, it's probably bad for our children too.

When DDT was banned, and toxic and persistent organochlorine pesticides fell out of favor, a new class of agrichemicals rose to popularity as a replacement. Organophosphates are now the most widely used class of pesticides. Chemical companies promised they would be as effective at killing insects, but without the negative consequences to other life because they quickly degrade in the environment.

Yet organophosphates are neurotoxins. They kill insects by targeting a particular enzyme in the neurological system. The problem is, these enzymes also exist in mammals—including humans. Their metabolites show up in children's urine. Shouldn't we know better?

Organic farmers do. They have jumped off the chemical bandwagon. They intuit that any toxin, even "new and improved" ones, may someday be linked to a neurological disease, or endocrine disruption, or cancer.

Rather than join the chemical companies' ill-fated attempts to conquer nature, and invariably fail after an initial burst of short-term success, organic farmers look to long-term solutions. They work *with* the balancing forces of nature, rather than against them.

In the case of pest control, this primarily entails shunning the combination of monoculture and agrichemicals, and welcoming diversity back on the farm. Rotating crops is the most effective way to prevent insect damage without resorting to toxic chemicals.

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GE Crops in Refuges Challenged

Cornucopia Joins Lawsuit Against U.S. Fish & Wildlife

The Cornucopia Institute has joined a federal lawsuit seeking to end the cultivation of genetically engineered (GE) crops in federal wildlife refuges across the Midwest. The action was initiated by the Center for Food Safety (CFS), Public Employees for Environmental Responsibility (PEER), and Beyond Pesticides.

The lawsuit charges that the U.S. Fish & Wildlife Service unlawfully entered into cooperative farming agreements and approved planting of GE crops in eight Midwestern states. The suit maintains that the agency did so without the environmental review required by the National Environmental Policy Act and in violation of the National Wildlife Refuge System Administration Act and the Fish & Wildlife Service's own policy.

The eight states affected are Illinois, Iowa, Indiana, Michigan, Minnesota, Missouri, Ohio, and Wisconsin.

"For me, a wildlife refuge is an area that is protected in, or has been restored to, its natural state," said Bill Heart, who serves as secretary of Cornucopia's board of directors. The longtime activist is also past-president of the Wisconsin chapter of Trout Unlimited. Asks Heart: "Why on earth would the U.S. Fish & Wildlife Service even allow GE crops on a wildlife refuge, much less encourage this practice?"

Wildlife refuges managed by Fish & Wildlife have converted to GE crops because the agency claims GE seed is the only seed farmers can obtain. These GE crops are mostly engineered for a single purpose: to be resistant to herbicides, principally Monsanto's ubiquitous Roundup.

Their planting leads to more frequent applications and increased amounts of toxic herbicides flowing into natural environments. This has also spawned an epidemic of "superweeds" in the past decade as plant species have mutated to resist Roundup.

The Fish & Wildlife Service estimates there are 2,800 organic farmers in the Midwest Region. The potential for contamination of an organic farmer's fields by the drift of novel genes from GE crops is one reason Cornucopia joined the lawsuit.

Any organic farmer concerned about this issue is urged to contact Cornucopia (cultivate@cornucopia.org) to add their voice to the lawsuit. Attorneys from CFS and PEER will record farmers' concerns and act on their behalf. ■

—Will Fantle

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Organics at a Crossroads

Critical Issues Loom at Year's End

As this issue goes to print, USDA's National Organic Standards Board (NOSB) is holding a momentous meeting in Savannah, Georgia. Votes by the 15-member committee are expected on such contentious issues as the use of genetically modified and synthetic additives with dubious health benefits in organic milk and infant formula, synthetic preservatives in wine, and weak animal welfare standards for laying hens, poultry, hogs, and other animals.

Cornucopia Codirector Mark Kastel aptly notes that this meeting "may well decide the fate of organic food and agriculture in this country." Decisions made could open the barn doors to a stampede of questionable synthetic ingredients into organic food and the enabling of factory farm practices in organic livestock agriculture. The debate will occur among a USDA panel that is deeply divided between corporate agribusiness representatives and organic advocates.

Cornucopia and other allies are working hard to ensure that the voice for organic integrity is heard at the NOSB meeting. You can track and learn of developments via www.cornucopia.org as staff attending the Savannah meeting provide timely updates.

There is a possibility that the entire animal welfare issue may still not be decided at this meeting. The debate over animal density numbers for poultry has been significant at the last few NOSB meetings (other species are part of this broad-ranging discussion as well). "We cannot allow the organic label to signify a weaker animal welfare standard than competing labels, which are gaining traction in the marketplace," says Charlotte Vallaeys, Director of Farm and Food Policy.

Cornucopia has been pushing strongly for a minimum of 5 square feet per bird of outdoor space for laying hens and broilers. It is interesting to note that in Europe, where land is even scarcer, the organic egg market—almost twice the size of that in the U.S.—requires a spacious *43 square feet per bird* for layers and broilers. Yet the NOSB's Livestock Committee has been sliding backwards, recommending a paltry 2 square feet per bird in the U.S.

ISTOCKPHOTO

Will the NOSB recommend meaningful outdoor access that allows poultry to exhibit their natural behaviors, as the law requires? Cornucopia diligently worked on animal welfare issues in 2011.

Vallaeys was also critical of an NOSB working group that met several times this past summer. Participation, by invitation only, primarily came from players in the egg business with large, vertically integrated operations. "There was virtually no discussion of hogs, turkeys, sheep, or goats," Vallaeys noted. "How much outreach was done to encourage organic producers to participate in the process," the analyst asked, "instead of seeking input from those organic marketers with the budget to attend NOSB meetings?"

"The Livestock Committee's recommendation, which is incredibly important to both consumers and livestock producers, clearly is not ready for prime time," added Mark Kastel. "We hope that the NOSB has the foresight to keep working on the matter until they can ensure that organics represents the gold standard for animal welfare."

While these key decisions loom, Cornucopia has remained busy in recent months with a host of other activities aimed at protecting organics. The Fall issue of this newsletter noted our work exposing the laundering of conventional feed grains as organic by the (now decertified) Canadian processor Jirah. Cornucopia staff continues to share additional information with USDA for possible enforcement actions and penalties on this side of the border.

On another note, nearly two dozen of our farmer-members recently filed formal declarations with attorneys representing plaintiffs opposing USDA's approval of Monsanto's controversial GE alfalfa. Their declarations demonstrate the real world impact on organic farmers of USDA's ill-conceived decision.

Cornucopia also has launched a monthly "news wire" for natural food co-op newsletter editors and CSA (Community Supported Agriculture) operators interested in sharing educational information—such as our scorching new *Cereal Crimes* report (see page 5)—with their members and subscribers. Email us to get on the media list.

Cornucopia staff have also been on the road speaking at a variety of events. Several co-op grocers, companies like Eden Foods, the Massachusetts School of Professional Psychology, and the Lewis and Clark annual Animal Welfare Conference were among the organizations that invited us to share our research and speak on issues impacting organic food and agriculture. (If you are interested in hosting a Cornucopia speaker, please write to cultivate@cornucopia.org.)

The year 2012 will be decisive for organics. We stand ready for the challenge. ■

—Will Fantle

Snacktime

Continued from page 1

Numerous studies have shown that organophosphate pesticide exposure in the womb and early childhood is associated with neurological problems in childhood and later in life.

These studies measured exposure in farm workers or people living near farm fields. As a result, chemical companies have argued these studies do not apply to *dietary exposure* from eating conventional foods.

Today's assurances by chemical companies regarding the safety of organophosphates seem to be no different from their 1940s guarantees about DDT. As with DDT, it would only be a matter of time before science caught up with common sense.

Pesticides Linked to ADHD

That time is now. A 2011 article in *Brain Research Bulletin* provides some of the "first evidence for a mechanistic relationship between developmental organophosphate exposure and the genes known to confer Parkinson's Disease risk." The paper cites earlier studies linking these neurotoxins to Parkinson's, a neurological disorder.

CHARLOTTE VALLAEYS

Bodily concentrations of pesticides became "nondetectable" as soon as children were switched to an organic diet, researchers found.

Additionally, a recent study by researchers from the University of Montreal and Harvard suggests that dietary exposure to organophosphate pesticides may lead to other neurological problems that occur earlier in life than Parkinson's.

Disturbingly, but not surprisingly, they linked this class of pesticides to Attention Deficit and Hyperactivity Disorder (ADHD). It is interesting to note that the pesticide works by blocking a product in the nervous system, which causes impulses to continue to be transmitted when they shouldn't be.

The study, published in *Pediatrics* in 2010, analyzed levels of pesticide residues in the urine of more than 1,130 children ages 8 to 15. It found that "children with higher urinary levels of organophosphate metabolites were more likely to meet the diagnostic criteria" for ADHD.

The Organic Alternative

In 2001 scientists studying pesticide residues discovered that all of the 96 children in their research group had measurable levels of organophosphate metabolites in their urine, except for one child, as reported in *Environmental Health Perspectives*. Upon questioning this child's parents, they discovered that the family bought exclusively organic produce.

Two years later, these same researchers found that pesticide concentrations in urine

Pesticide Residues Exceed Safe Levels in Kids' Foods

Residues of organophosphate pesticides are unlikely to show up in any of the foods my son eats at home. I choose to support organic farmers and limit my family's exposure to unnecessary chemical toxins. Therefore, I rarely buy anything without the word *organic* on the label.

But at school, I wondered how likely it was that one of the fruit snacks my son is served would contain organophosphate residues. I turned to the USDA's Pesticide Data Program to find out.

I chose to look up the numbers for chlorpyrifos, a commonly used pesticide mentioned in the University of Montreal/Harvard study (see story above) because its presence in children's bodies is linked with two times the likelihood of developing ADHD.

First, I investigated one of the most popular preschool snacks: sliced apples. A full 30% of domestically produced apples and 80% of imported ones contained chlorpyrifos residues. The average levels were 1.1 micrograms on domestic samples and 2.4 micrograms on imported samples.

The Environmental Protection Agency determined population-adjusted doses of chlorpyrifos residues and set the chronic safe level for children at 0.6 micrograms per 100 gram sample. When I made the calculation, I did a double take. With 80% of imported apples containing residues, that's an average of **three times the safe level**.

But my jaw dropped when I looked at the next column of numbers. The highest levels of residues found on a single domestically produced sample was 54 micrograms. Not only does this surpass the *chronic* safe level for children **90 times**, it exceeds the *acute* safe level **five-fold**.

My son's teacher also mentioned grapes and peaches as a popular snack. Checking these fruits' chlorpyrifos levels, I discovered that nearly a quarter of imported grapes contained residues, with one sample containing **32 times** the chronic safe level for children. Over half of imported peach samples had such residues, with an average slightly above the chronic safe level. One peach sample contained **18 times** the level considered safe for a child. *—C.V.*

samples of children on conventional diets were approximately six times higher than in children on organic diets.

"Consumption of organic produce appears to provide a relatively simple way for parents to reduce their children's exposure to organophosphate pesticides," the researchers concluded.

Publishing in the same journal, another team found similar results. Median concentrations of metabolites for two neurotoxic pesticides, one of them chlorpyrifos, decreased to "nondetectable" levels immediately after the children were switched to an organic diet.

More research on the links between neurotoxin residues on foods and neurological diseases is needed. But while we wait for science to catch up with common sense, we have a healthy alternative, thanks to the farmers who choose organic production.

USDA certified organic foods repeatedly show up "clean," except for the long-living breakdown products of organochlorines like DDT, which have even been found in the tissue of mammals in Antarctica.

This is a reminder that we are still paying for the mistakes made by our parents and grandparents who, decades ago, trusted the chemical companies' promises. We do not yet know how my son's generation will pay for today's hubris. We only know that, somehow, they will.

We should think of every conventional food as bearing the label, "Warning: May Contain Traces of Pesticides That Can Harm Your Child," just as food produced near nuts bears a similar warning. If it's not organic, it could lead to long-term health consequences we are only beginning to understand. It is time for preschools, in addition to banning nuts, to start prohibiting the conventional foods that may contain traces of neurological toxins harmful to our children. ■

—Charlotte Vallaeys is Cornucopia's Director of Farm and Food Policy and the mother of two young sons.

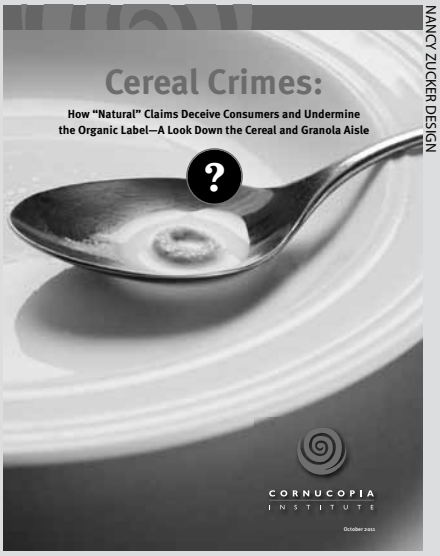
Snap, Crackle, Pop!

Cornucopia's Cereal Report Creates a Stir

I'm hopping mad!" wrote an Illinois mom after reading the report. Said Trisha B. from Pennsylvania,"I believed that the 'natural' statement on the products actually meant something. I will be consulting the cereal scorecard now when I shop!" A California consumer emailed us to say, "I am appalled to learn that my very favorite cereal (Kashi Go Lean) is made from 100% genetically engineered soy." And Dorian G. from Massachusetts wrote: "I consider myself a pretty savvy consumer, and I do read labels, but, silly me, I thought that if something was organic in the past, it would *remain* organic."

These are just a few of the feisty comments Cornucopia has received about our new report. *Cereal Crimes: How "Natural" Claims Deceive Consumers and Undermine the Organic Label* reveals that, contrary to folks' reasonable expectations, many "natural" products secretly contain pesticide residues, neurotoxic solvents, and GMOs, yet cost the same—or *more*—than their organic counterparts. The report's accompanying scorecard rewards the true heroes in the breakfast cereal world and spotlights the scoundrels.

In the few short weeks since its release, *Cereal Crimes* has created quite a stir. Laudatory emails have flooded our inbox. "Health Ranger" Mike Adams did a cover story and sent an eblast to thousands of NaturalNews.com users. He also hosted Codirector Mark Kastel twice on the Alex Jones show. Dozens of blogs and new media outlets featured the report. Local papers coast to coast ran stories and interviewed cereal companies



NANCY ZUCKER DESIGN

To read the report and accompanying brand scorecard, visit www.cornucopia.org.

in their areas. The *New York Times* posted an item. Our Facebook friends jumped from 7,200 to 9,500, and the website saw 7 times the usual traffic—and that was *before* Dr. Joseph Mercola ran a 90-minute interview with Mark Kastel. (Catch it at http://tinyurl.com/84mcf6t; the short version at http://tinyurl.com/7ejgtte.) That day nearly 20,000 people beat a path to our website.

The common thread in all this buzz? People are angry about being deceived by manipulative marketing ploys. As Barbara E. from California put it, "What a deceptive joke on the American public! We consumers spend our hard-earned cash thinking we're getting a healthier product—when in reality this is a total scam."

Together let's recommit to supporting ethical, organic farmers and food companies that put people and the planet first. Find out who they are at http://cornucopia.org/cereal-scorecard/ ■

—Elizabeth Wolf

Update on Raw Almond Sales Ban

Federal Court to Rule on USDA's Authority Early Next Year

USDA adopted a regulation in 2007 requiring California almonds to be processed by pasteurization or chemical sterilization before sale to American consumers. The regulation was adopted at the request of the Almond Board of California, an industry committee representing California's largest almond handlers and grower associations, in reaction to Salmonella contamination of some almonds in 2001 and 2004.

Salmonella, bacteria from animal waste, is very rare in almonds or other nuts, and can be avoided by careful growing practices. Scientific tests can also determine the presence or absence of contamination. The industry board nevertheless wanted to avoid any potential for Salmonella contamination of almonds, so it was best, they thought, to deny American consumers the choice to buy raw, unprocessed almonds, even with a warning label such as found on unpasteurized cider and many other foods.

High quality raw and unprocessed almonds are preferred by many natural food connoisseurs. Consumers' only source of raw almonds today is imports from Europe, or from small (but growing) almond producers in states outside of California.

WIKIMEDIA COMMONS

Today the only sources of raw, unprocessed almonds are Europe and a few states other than California, the main almond producer.

In 2008, some almond growers who lost a large share of their income as a result of the unprocessed almond ban filed suit in federal court in Washington, D.C. The Cornucopia Institute has been helping coordinate this legal action.

The lawsuit claims that the novel processing requirement is beyond the authority granted by Congress to USDA in a 1935 law that allows limitations on the volume or quality of horticulture crops that may be marketed. USDA and the Almond Board, represented by the U.S. Department of Justice, have tried to avoid a hard look at USDA's authority by the federal court. USDA first argued that almond growers had no right to sue over a USDA marketing order rule that hurt them. Last year, the Court of Appeals agreed with almond growers, and held that courthouse doors are not closed to farmers who complain that USDA has exceeded or abused its marketing order authority.

The question of USDA's authority to require almond processing is finally before the federal court in Washington. USDA's Justice Department lawyers have now argued that the court should not consider documentary evidence of Congressional intent, nor 70 years of USDA interpretation of "quality" to mean inherent characteristics of horticulture crops, nor USDA's repeated admissions that authority to regulate the safety of fruits, nuts and vegetables lies with FDA, not USDA.

The case will be ready for a ruling early next year. The court's decision may open or close the door to USDA's attempt to expand its statutory authority to include food safety regulation under the guise of marketing order quality regulation. This case may well decide whether any type of raw, unprocessed horticultural product will be available to consumers in the future; whether the choice should be made by Big Brother or the family grocery shopper. ■

—Attorney John Vetne is representing the almond growers in this lawsuit.

Creative Support, Lasting Legacies

It's easy to support Cornucopia. You can tuck a check in the envelope provided in this newsletter, or go to our website (www.cornucopia.org) and click on "donate." Our members know that we will never share donors' personal information with others, and your contribution will remain confidential.

If you would like to leave a larger legacy, please contact us (cultivate@cornucopia.org) about a gift of appreciated assets (including stock or real estate). For those who are age 70½ or more, until December 31 you can even donate the appreciated value of your IRA.

There might be tax advantages for folks who need to take required minimum distributions. Contributing your IRA to charity will decrease your taxable income and perhaps enable itemized deductions. Please talk to your accountant about how to be generous to your charities of choice, including Cornucopia, by leveraging your money with some of Uncle Sam's. ■

—Mark Kastel

Delivering the Good

This was our best season ever," said Tristan Klesick as he wrapped up the 2011 harvest at the Klesick Family Farm in Stanwood, Washington. "We started out with a horrible spring, endless rain till June. But we kept planting and it worked out fine."

The daunting conditions got Tristan toying with the idea of skipping spring planting and shifting to a fall harvest schedule. "That way we could skirt all the spring drama," he mused. "But then again, when March rolls around and I smell the dirt, I'll probably get motivated to plant as usual."

Tristan, 46, his wife Joelle, and their nine children (ages 2-20) have been motivated to cultivate their farm into prosperity not only by the fragrance of fertile soil, but also by the soul-rooted impulse to live out their faith by doing good. This has led them to develop a sustainable farm on 37 acres as well as a successful local food distribution hub and a charitable food donation program for their region of Washington State, near Port Susan Bay, north of Seattle.

The Klesicks grow about 25 to 30 different crops, vegetables, hay, grass-fed beef, fruit, and perennial herbs, all grown organically, although not certified. Each week the farm delivers about 1,100 boxes of wholesome food to families throughout Snohomish County.

The farm's tagline is *A Box of Good*, says the "Farmer-in-Chief," "because we're committed to delivering good food to the families we serve, providing good value to the farmers we support, and sharing good news about the benefits of organic farming with the community."

KLESICK FAMILY FARM

Klesick Family Farm's charitable program donates hundreds of boxes of fresh produce to the local food bank each year. Above, staff load the delivery van with Thanksgiving bounty.

"Our specialty is organic home delivery," Tristan explains. "In addition to what we grow, we have a distribution business which involves us with and allows us to support probably 20 other farms." Local farmers are paid wholesale prices (greater than typical distributor prices) for the vegetables, meat, bakery products, fruits, and nuts that Klesick Family Farm delivers.

Customers pay weekly, rather than in one lump sum, and they can choose and order what they want online. "The cash flow each week is really nice," says Tristan. "We can pay our bills weekly."

Why home delivery? When customers come to the farm for pickup it's easier and there's no distribution cost, Tristan admits. "But some people just don't want to drive out to the farm a half hour or 45 minutes after work. It just doesn't work for them."

There are other good reasons for home delivery. In 2008 Iowa's Leopold Center for Sustainable Agriculture looked at which transportation option consumed less fuel and emitted less carbon dioxide. They found that it is more efficient for a farmer to distribute products to individual homes, rather than for customers to pick up at a central location.

About 10 years ago the farm started a program called Neighbor Helping Neighbor. Farm customers can purchase online a box of food for home delivery, along with a second one to be delivered to someone they know who needs it or to a local food bank. Klesick Family Farm matches every fourth box that customers donate.

"Because we gave 700 to 800 boxes to food banks last year, farmers make more sales and the local community wins. I know others have the heart to bless people with food," Tristan says. "With our farm staff and products, and our delivery vans, we have the means to help them do it." ■

—Steven McFadden is the author of The Call of the Land: An Agrarian Primer for the 21st Century *(www.thecalloftheland.com) and 11 other books.*

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Into the Wild: GE Crops

ISTOCKPHOTO

Moose, gray wolves, bobcats, and bats are among the animals protected at Agassiz National Wildlife Refuge in Minnesota, one of the parks named in the Fish & Wildlife agreement.

"Why on earth would the U.S. Fish & Wildlife Service even *allow* genetically engineered crops on a wildlife refuge?" asks Cornucopia board member Bill Heart—much less *encourage* the cultivation of Monsanto's Roundup-ready corn and soy on 18 publicly owned lands? Protected wetlands and refuges in eight Midwestern states are at risk. See story on page 2.

FDA to Ban Outdoor Poultry?

Cornucopia has been tracking new FDA regulations for Salmonella in eggs and poultry flocks. Federal organic standards require outdoor access for poultry operations. But the FDA doesn't seem to share this view; instead they worry about the interaction of poultry with the outdoors. Cornucopia has received reports from organic farmers visited by FDA inspectors who question putting birds outside.

Last September, Cornucopia's Mark Kastel and Charlotte Vallaeys met in Washington, D.C. with officials from the FDA's Office of Food Safety. Their purpose was to present scientific research on Salmonella and poultry. "Without exception," said Vallaeys, "multiple European studies analyzing Salmonella prevalence rates show that organic farms with outdoor runs are among the safest while farms with cages are among the most dangerous."

Virtually no U.S. studies exist to justify the FDA's intimidation of organic farmers. Many studies have investigated Salmonella risk factors. Again, without exception, identified risk factors include large flock size, cages, and forced molting—all of which are associated with large-scale, caged operations.

"The livelihoods of hundreds of agricultural producers in this country will be greatly impacted by the decisions the FDA makes with new rulemaking in 2012," observes Kastel. "It is unconscionable for the FDA to attempt to shut down lawful organic egg production without sound science to justify these actions." ■

—Will Fantle