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-----Original Message-----

**From:** Nancy Oden [mailto:cleaneearth@tds.net]  
**Sent:** Tuesday, August 19, 2008 1:40 PM  
**To:** Jadczyk, Anthony M; Jennings, Henry  
**Subject:** important article for you

Mr. Jadczyk and Mr. Jennings - I used to be a beekeeper until Maine Helicopter oversprayed me and my bees with Guthion some years ago. I am also an organic grower who watches for bees of any kind to pollinate my fruit trees and gardens.

This year I have watched especially carefully in light of the evidence about the neonicotinoids in articles previously sent to you and the new one here: <http://www.commondreams.org/archive/2008/08/19/11070/>

My findings this year - throughout the gardening season and continuing I have noted NOT ONE, SINGLE APIS MELLIFERA. And then, yesterday, amongst the varied wild bees (of which there aren't many, either), I did notice one, long Apis Mellifera. One.

When the fierce, Africanized, migrant bees were here pollinating the so-called "wild" blueberries, I did see many of these migrants on my apples and other early-blooming crops, but none since excepting that lone bee yesterday.

Is there any possibility whatsoever that the Pesticide Control Board will EVER do more than "discuss" (with fake concerned frowns on their faces) the problems caused in Maine and all over by pesticides? Is there any chance whatsoever the PCB will ever ACT?

Talk without action is useless. The damage goes on, not only to honeybees but to those of us who live here, including the rest of wildlife and our fisheries.

What will it take - massive human deaths? Oh, wait, that surely can be explained by blaming it on something else, never pesticides.

What has happened to your ability to see the truth in front of you? Or your personal integrity so that you are not demanding an end to the use of KNOWN carcinogens, hormone disrupters, and bee killers?

I suggest, for one tiny thing, that the PCB be supplied with copies of every pesticide's EPA label and its MSDS sheet so they might more intelligently (if you can make them read them) know what harm they're causing.

Mind you, I don't hold out much hope when the Town of Machias, for example, has had Velpar in its Town water supply for many years now - - and the Velpar label states (or it did, unless the warnings have been removed) unequivocally that Velpar causes, in humans, "irreversible eye damage."

Irreversible eye damage. And children taking baths in this water. This is in addition to other effects from the so-called "Inert" ingredients which make up most of the Velpar formula, and which are kept secret from us.

The PCB doesn't even know - does anyone? - the final metabolites of Velpar and its "inert" ingredients. What does it finally turn into? We know it isn't air and water, so what is it? And how long will it be with us?

How can you sit there and let this poisoning of Nature, including us humans, go on year after year without speaking up to demand that the PCB actually ban some of these poisonous chemicals? How can you?

Yours is the self-protective, cowardly way out. Get out of that irresponsible rut and speak what you know to be true - that the sooner all of agriculture goes organic, the more likely we are to survive both economic crises and climate change disasters.

- Nancy Oden, Jonesboro (pesticide spray victim)

8/20/2008

Published on Tuesday, August 19, 2008 by [the San Francisco Chronicle](#)

## Lawsuit Seeks EPA Pesticide Data

by Jane Kay

WASHINGTON — The U.S. Environmental Protection Agency is refusing to disclose records about a new class of pesticides that could be playing a role in the disappearance of millions of honeybees in the United States, a lawsuit filed Monday charges.

The Natural Resources Defense Council wants to see the studies that the EPA required when it approved a pesticide made by Bayer CropScience five years ago.

The environmental group filed the suit as part of an effort to find out how diligently the EPA is protecting honeybees from dangerous pesticides, said Aaron Colangelo, a lawyer for the group in Washington.

In the last two years, beekeepers have reported unexplained losses of hives - 30 percent and upward - leading to a phenomenon called colony collapse disorder. Scientists believe that the decline in bees is linked to an onslaught of pesticides, mites, parasites and viruses, as well as a loss of habitat and food.

### **\$15 billion in crops**

Bees pollinate about one-third of the human diet, \$15 billion worth of U.S. crops, including almonds in California, blueberries in Maine, cucumbers in North Carolina and 85 other commercial crops, according to the U.S. Department of Agriculture. Not finding a cause of the collapse could prove costly, scientists warn.

Representatives of the EPA said they hadn't seen the suit and couldn't comment.

Clothianidin is the pesticide at the center of controversy. It is used to coat corn, sugar beet and sorghum seeds and is part of a class of pesticides called neonicotinoids. The pesticide was blamed for bee deaths in France and Germany, which also is dealing with a colony collapse. Those two countries have suspended its use until further study. An EPA fact sheet from 2003 says clothianidin has the potential for toxic chronic exposure to honey bees, as well as other pollinators, through residues in nectar and pollen.

The EPA granted conditional registration for clothianidin in 2003 and at the same time required that Bayer CropScience submit studies on chronic exposure to honeybees, including a complete worker bee lifecycle study as well as an evaluation of exposure and effects to the queen, the group said. The queen, necessary for a colony, lives a few years; the workers live only six weeks, but there is no honey without them.

"The public has no idea whether those studies have been submitted to the EPA or not and, if so, what they show. Maybe they never came in. Maybe they came in, and they show a real problem for bees. Maybe



The U.S. Environmental Protection Agency is refusing to disclose records about a new class of pesticides that could be playing a role in the disappearance of millions of honeybees in the United States, a lawsuit filed Monday charges.

they're poorly conducted studies that don't satisfy EPA's requirement," Colangelo said.

## Request for records

On July 17, after getting no response from the EPA about securing the studies, the environmental group filed a request under the Freedom of Information Act, which requires the records within 20 business days absent unusual circumstances.

When the federal agency missed the August deadline, the group filed the lawsuit, asking the U.S. District Court in Washington, D.C., to force the EPA to turn over the records.

Greg Coffey, a spokesman for Bayer CropScience in Research Triangle Park, N.C., said controlled field studies have demonstrated that clothianidin, when used correctly, will not harm bees. He added that all of EPA's requirements for conditional registration of clothianidin have been submitted to the agency.

An EPA spokesman, Dale Kemery, said the agency couldn't comment on the documents required under the conditional registration because the matter is the subject of litigation.

## Unusual circumstances

Generally, the EPA has taken the position that the bee deaths occurred under unusual circumstances. In Germany, the corn lacked a seed coating that ensured that the pesticide stuck to the seed, and equipment blew the pesticide into a nearby canola field where bees fed.

The EPA is "reasonably confident" that a bee kill similar to Germany's wouldn't happen in the United States because use is restricted to commercial applicators who use stickier coatings, according to Kemery.

But because the stickier coatings aren't required, Kemery said, the EPA will review its policies on seed-treatment labels.

In California, according to the 2006 Pesticide Use Report Summary, about 3 pounds of clothianidin was used, all on corn. Other members of the neonicotinoid class, registered for a longer period of time, have been used more frequently, including 127,000 pounds on broccoli, grapes, lettuce and oranges. Some pesticides were used in buildings.

"We've been monitoring the bee die-off situation for a couple of years, and it's a complex puzzle that may also involve mites, viruses and other factors," said Glenn Brank, communications director for the state Department of Pesticide Regulation.

The agency is conducting its own review of environmental data from registered neonicotinoid pesticides as well as watching enforcement reports from counties for any unusual environmental incidents involving bees, he said. None was noted, Brank said.

Scientists presenting at the American Chemical Society national meeting Monday reported that dozens of pesticides had been found in samples of adult bees, broods, pollen and wax collected from honeybee colonies suspected to have died from symptoms of colony collapse disorder, including some neonicotinoids.

Entomologist Gabriela Chavarria, director of Natural Resources Defense Council's Science Center, said over the years bees have had to withstand devastating problems.

Bees pick up deadly farm and home chemicals when they visit flowers, or encounter chemical drift from aerial and other applications. Fifteen years ago, queen bees imported from China brought varroa mites that attacked broods of worker bees. Microscopic tracheal mites invade the hives.

And now the new pesticide, clothianidin, is another problem, Chavarria said. Scientists must find out whether the toxicity has been sufficiently studied, she said.

"We want this information now. We cannot continue to wait. Bees are disappearing. Our whole existence depends on them because we eat. The flowers need to be pollinated, and the only ones to do it are the

bees.”

### Colony collapse

Honeybees, which pollinate everything from almonds to apples to avocados, began abandoning their colonies in 2006, destroying about a third of their hives.

Since then, their numbers have not improved. A survey of beekeepers in the fall and winter 2007 by the Bee Research Lab and the Apiary Inspectors of America showed that beekeepers lost about 35 percent of their hives compared with 31 percent in 2006.

Scientists have not pinpointed the cause.

In 2007, Congress recognized colony collapse disorder as a threat and gave the U.S. Department of Agriculture emergency funds to study honeybee disappearances. In addition, the 2008 Farm Bill grants the USDA \$20 million each year to support bee research and related work. And earlier this year, ice cream maker Haagen-Dazs, who relies on honeybees for 40 percent of its flavors, awarded a \$250,000 research grant to UC Davis and Pennsylvania State University to research honeybees.

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-----Original Message-----

**From:** Nancy Oden [mailto:cleaneearth@tds.net]

**Sent:** Wednesday, August 20, 2008 2:28 PM

**To:** Jennings, Henry

**Subject:** Fw: [sprayno] Breast Cancer Link: Common Herbicide Disrupts Human Hormone

The below research was funded by the National Institutes of Health, an arm of the US govt., an entity not known as friendly to people's health or our environment.

How much longer can you and the PCB go on ignoring the poisoning of earth and all extant creatures?

Please respond. Thank you..... - Nancy Oden

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---- Original Message ----

**From:**

**Sent:** Wednesday, August 20, 2008 2:14 PM

**Subject:** [sprayno] Breast Cancer Link: Common Herbicide Disrupts Human Hormone

Breast Cancer Link: Common Herbicide Disrupts Human Hormone  
by Leslee Dru Browning

(NaturalNews) A common weedkiller in the U.S., already suspected of causing sexual abnormalities in frogs and fish, has now been found to alter hormonal signaling in human cells, scientists from the University of California San Francisco (UCSF) report.

The herbicide atrazine is the second most widely used weedkiller in the U.S., applied to corn and sorghum fields throughout the Midwest and also spread on suburban lawns and gardens. It was banned in Europe after studies linked the chemical to endocrine disruptions in fish and amphibians.

The UCSF study is the first to identify the pesticide's full effect on human cells. It was reported in the May 7 issue of the journal "PLoS One."

In studies with human placental cells in culture, the UCSF scientists found that atrazine increased the activity of a gene associated with abnormal human birth weight when over-expressed in the placenta. Atrazine also targeted a second gene that has been found to be amplified in the uterus of women with unexplained infertility.

In parallel studies of zebrafish, a widely used animal in development studies, the research team showed that atrazine "feminized" the fish population -- increasing the proportion of fish that developed into females. In water with atrazine concentrations comparable to those found in runoff from agricultural fields, the proportion of female fish increased two-fold. Environmental factors are known to influence the sex of zebrafish and many other fish and amphibians as they develop.

"These fish are very sensitive to endocrine disrupting chemicals, so one might think of them as 'sentinels' to potential developmental dangers in humans," said Holly Ingraham, PhD, senior author on the study and a UCSF Professor of Cellular and Molecular Pharmacology. "These atrazine-sensitive genes are central to normal reproduction and are found in steroid producing tissues. You have to wonder about the long-term effects of exposing the rapidly developing fetus to atrazine or other endocrine disruptors."

Ingraham intends to determine precisely how atrazine affects human and other mammalian endocrine cells and why these cells are particularly sensitive to it. She notes that bisphenol A, a compound in many hard plastic consumer products, is also an endocrine disrupter and is now under increased study for its safety. In April, Canada announced a decision to ban the sale of consumer products with bisphenol A.

The lead author of the study is Miyuki Suzawa, a postdoctoral fellow in Ingraham's lab.

UCSF researchers exposed sexually immature zebrafish to atrazine and other chemicals for different periods of time. They found that exposure to atrazine for 48 hours at concentrations that might be found in water containing agricultural runoff, produced twice as many female fish.

Through genetic analysis, they found that atrazine preferentially activates a class of receptors in the cell nucleus, including two known as SF-1 and LRH-1. SF-1 regulates production of enzymes involved in the synthesis of steroids in the body and development of many endocrine tissues. One of these enzymes, known as Aromatase, plays a role in determining whether lower vertebrates, such as fish will become male or female. Aromatase is known as a feminizing enzyme.

In the human placental cell culture studies, the scientists found that a 24-hour exposure to atrazine activates a cluster of genes involved in hormone signaling and steroid synthesis.

They report, "Endocrine-related cell types with a capacity for steroid generation appear to be especially sensitive (to Atrazine), as demonstrated by the "exquisite" cellular specificity of the atrazine response."

The finding that a pervasive and persistent environmental chemical appears to significantly change hormone networks means that scientists must take a broader look at this herbicide's potential effect on human health, Ingraham said. Up to now, much of the focus has been on breast cancer, but since proper development of the endocrine system is important for normal reproduction, stress responses and metabolism, early exposure to this chemical in a fetus or infant might alter normal physiology later in life, she said.

The research was funded by the National Institutes of Health.

Journal reference:

Suzawa M, Ingraham HA (2008). The Herbicide Atrazine Activates Endocrine Gene Networks via Non-Steroidal NR5A Nuclear Receptors

8/20/2008

in Fish and Mammalian Cells. PLoS ONE 3(5): e2117 doi:10.1371/journal.pone.0002117. (<http://www.plosone.org/article/info%3Ad...>)

Source:

University of California - San Francisco (2008, May 8). (<http://www.ucsf.edu/>)

[Non-text portions of this message have been removed]

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# The Herbicide Atrazine Activates Endocrine Gene Networks via Non-Steroidal NR5A Nuclear Receptors in Fish and Mammalian Cells

Miyuki Suzawa<sup>1,2</sup>, Holly A. Ingraham<sup>1,2\*</sup>

**1** Department of Cellular and Molecular Pharmacology, University of California San Francisco, San Francisco, California, United States of America, **2** Department of Physiology, University of California San Francisco, San Francisco, California, United States of America

## Abstract

Atrazine (ATR) remains a widely used broadleaf herbicide in the United States despite the fact that this s-chlorotriazine has been linked to reproductive abnormalities in fish and amphibians. Here, using zebrafish we report that environmentally relevant ATR concentrations elevated *zcyp19a1* expression encoding aromatase (2.2  $\mu\text{g/L}$ ), and increased the ratio of female to male fish (22  $\mu\text{g/L}$ ). ATR selectively increased *zcyp19a1*, a known gene target of the nuclear receptor SF-1 (NR5A1), whereas *zcyp19a2*, which is estrogen responsive, remained unchanged. Remarkably, in mammalian cells ATR functions in a cell-specific manner to upregulate SF-1 targets and other genes critical for steroid synthesis and reproduction, including *Cyp19A1*, *StAR*, *Cyp11A1*, *hCG*, *FSTL3*, *LHB*, *INH $\alpha$* ,  *$\alpha$ GSU*, and *11 $\beta$ -HSD2*. Our data appear to eliminate the possibility that ATR directly affects SF-1 DNA- or ligand-binding. Instead, we suggest that the stimulatory effects of ATR on the NR5A receptor subfamily (SF-1, LRH-1, and *zff1d*) are likely mediated by receptor phosphorylation, amplification of cAMP and PI3K signaling, and possibly an increase in the cAMP-responsive cellular kinase SGK-1, which is known to be upregulated in infertile women. Taken together, we propose that this pervasive and persistent environmental chemical alters hormone networks via convergence of NR5A activity and cAMP signaling, to potentially disrupt normal endocrine development and function in lower and higher vertebrates.

**Citation:** Suzawa M, Ingraham HA (2008) The Herbicide Atrazine Activates Endocrine Gene Networks via Non-Steroidal NR5A Nuclear Receptors in Fish and Mammalian Cells. PLoS ONE 3(5): e2117. doi:10.1371/journal.pone.0002117

**Editor:** Andrew Iwaniuk, Smithsonian Institution, United States of America

**Received:** January 7, 2008; **Accepted:** March 10, 2008; **Published:** May 7, 2008

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**Funding:** This work was supported by a Susan B. Komen postdoctoral fellowship to M.S. and NIH-RO1 support to H.A.I.

**Competing Interests:** The authors have declared that no competing interests exist.

\* E-mail: holly.ingraham@ucsf.edu

## Introduction

Endocrine disrupting chemicals (EDCs) affect the reproductive health of fish and amphibious wild life [1], but their impact on mammals and particularly humans is less clear. Synthetic and natural endocrine disruptors fall into several chemical categories and include industrial chemicals, pesticides and herbicides. Some of these EDCs, such as the active chemical found in polycarbonate containers, bisphenol A, exhibit estrogenic effects in cultured cells [2,3,4,5], by binding directly to the estrogen receptors ER $\alpha$  and ER $\beta$  [6,7,8]. However, other EDCs fail to competitively bind ERs, including the widely used chlorotriazine herbicide atrazine (ATR) [8,9].

The prevalent use of ATR as a broadleaf herbicide and its persistence in the environment underscores the importance of understanding the molecular impact of this EDC. Numerous studies in fish, amphibians, reptiles and mammals all suggest that ATR can alter normal endocrine, neuroendocrine and immune responses. For instance, in amphibians, low levels (0.1–25  $\mu\text{g/L}$ ) or short term exposure (48 hrs) to ATR, respectively, increases the number of intersex frogs [10,11,12,13], and impairs normal gonadal development [14,15]. Consistent with these phenotypes, acute exposure to ATR lowers testosterone levels and impairs gonadal development in young fish [16,17], in the developing alligator [18], and in young peripubertal male rats [19]. However,

other studies suggest that reduced serum testosterone after ATR exposure results from a marked drop in body weight and food consumption. These latter effects are observed for both male and female rats and potentially reflect an unknown role of ATR in neuroendocrine signaling [20,21,22]. Still others suggest that independent of body weight and hormone levels, ATR delays mammary gland development [23]. Although there is ample literature documenting the effects of ATR in a variety of species, with the exception of aromatase (*Cyp19A*), other molecular targets of ATR remain poorly defined.

Maintenance of cytochrome p450 aromatase activity, which catalyzes the conversion of androgens to estrogens appears critical for preserving a balanced sex ratio in teleosts. All species lacking sex chromosomes, such as fish [24], are especially sensitive to environmental factors that perturb sex steroid levels. Indeed, increasing estrogen levels in a natural or laboratory setting feminized [25], and greatly altered normal sex ratios in fish [26]. Conversely, treatment with aromatase inhibitors results in gonadal masculinization of female fish [27,28]. This fact positions aromatase as a potentially useful target to examine the in vivo effects of ATR. In mammals, both ER $\alpha$  and the NR5A nuclear receptor, steroidogenic factor 1 (SF-1) influence expression of the single *Cyp19A* gene encoding aromatase. In zebrafish (*Danio rerio*), regulating aromatase expression is more complex because of gene duplication. The gonadal-enriched *zcyp19a1* contains an NR5A

-----Original Message-----

**From:** Nancy Oden [mailto:[cleanearth@tds.net](mailto:cleaneearth@tds.net)]

**Sent:** Monday, August 25, 2008 8:47 AM

**To:** Jennings, Henry; Jadczyk, Anthony M

**Subject:** Fw: Mass Death of Bees: Charge against Bayer's Board of Management

More evidence against neonicotinoids (see below and other article references below this article).....will you recommend banning them in Maine? Or will you continue to "discuss" without any action whatsoever? To do nothing now, with all that's known, would be irresponsible, not to say criminally negligent. What will it take?

As I told you, I have seen ONE *Apis Mellifera* since the migrant bees left the blueberry fields. ONE. And I monitor my gardens every day to see what insects are there. This is a severe blow to plants that bloom later than blueberries, since our primary pollinators simply are no longer here.

What are you going to do about this?

- Nancy Oden, Jonesboro

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----- Original Message -----

**From:** [CBGnetwork](#)

**To:** [c.a.woolfson@socsci.gla.ac.uk](mailto:c.a.woolfson@socsci.gla.ac.uk)

**Sent:** Monday, August 25, 2008 6:01 AM

**Subject:** Mass Death of Bees: Charge against Bayer's Board of Management

Press Release, August 25, 2008

Coalition against BAYER Dangers (Germany)

**Pesticides cause mass death of bees**

## **Germany: Charge against Bayer's Board of Management**

The German *Coalition against Bayer Dangers* today brought a charge against Werner Wenning, chairman of the Bayer Board of Management, with the Public Prosecutor in Freiburg (south-western Germany). The group accuses Bayer of marketing dangerous pesticides and thereby accepting the mass death of bees all over the world. The *Coalition* introduced the charge in cooperation with German beekeepers who lost thousands of hives after poisoning by the pesticide clothianidin in May this year.

Since 1991 Bayer has been producing the insecticide Imidacloprid, which is one of the best selling insecticides in the world, often used as seed-dressing for maize, sunflower, and rape. Bayer exports Imidacloprid to more than 120 countries and the substance is Bayer's best-selling pesticide. Since patent protection for Imidacloprid expired in most countries, Bayer in 2003 brought a similarly functioning successor product, Clothianidin, onto the market. Both substances are systemic chemicals that work their way from the seed through the plant. The substances also get into the pollen and the nectar and can damage beneficial insects such as bees.

The beginning of the marketing of Imidacloprid and Clothianidin coincided with the occurrence of large scale bee deaths in many European and American countries. Up to 70 per cent of all hives have been affected. In France alone approximately 90 billion bees died within ten years, reducing honey production by up to 60%.

Harro Schultze, attorney of the *Coalition against Bayer Dangers* said: "The Public Prosecutor needs to clarify which efforts BAYER undertook to prevent a ban of Imidacloprid and Clothianidin after sales of both substances were stopped in France. We're suspecting that Bayer submitted flawed studies to play down the risks of pesticide residues in treated plants". In France Imidacloprid has been banned as a seed dressing for sunflowers since 1999 and in 2003 was also banned as a sweetcorn treatment. The *Comité Scientifique et Technique*, convened by the French government, declared that the treatment of seeds

8/26/2008

with Imidacloprid leads to significant risks for bees. Bayer's application for Clothianidin was also rejected by French authorities.

"Bayer's Board of Management has to be called to account since the risks of neonicotinoids such as Imidacloprid and Clothianidin have now been known for more than ten years. With an annual turnover of nearly 800 million Euro neonicotinoids are among Bayer's most important products. This is the reason why Bayer, despite serious environmental damage, is fighting against any application prohibitions", says Philipp Mimkes, speaker of the *Coalition against Bayer-dangers*. The Coalition demands that Bayer withdraw all neonicotinoids from the market worldwide.

The accusation of flawed studies is confirmed by the Canadian *Pest Management Regulatory Agency* (PMRA) which judged on Bayer's Clothianidin application: "All of the field/semi-field studies, however, were found to be deficient in design and conduct of the studies and were, therefore, considered as supplemental information only. Clothianidin may pose a risk to honey bees and other pollinators, if exposure occurs via pollen and nectar of crop plants grown from treated seeds". PRMA adds: "It should also be noted that Clothianidin is very persistent in soil, with high carry-over of residues to the next growing season. Clothianidin is also mobile in soil."

In May 2008 German authorities blamed clothianidin for the deaths of millions of honeybees. The German Federal Office of Consumer Protection and Food Safety (BVL) suspended the registration for eight pesticide seed treatment products, including Clothianidin and Imidacloprid, on maize and rape.

*The case is filed by the Public Prosecutor in Freiburg (Tel: +49-(0)761 2050) under the file number 520 UJs 1649/08*

#### more information:

- The Guardian: [Germany bans chemicals linked to bee devastation](http://www.guardian.co.uk/environment/2008/may/23/wildlife.endangeredspecies)  
[www.guardian.co.uk/environment/2008/may/23/wildlife.endangeredspecies](http://www.guardian.co.uk/environment/2008/may/23/wildlife.endangeredspecies)
- Sierra Club urges EPA to suspend nicotinyl insecticides: [http://www.sierraclub.org/biotech/whatsnew/whatsnew\\_2008-07-30.asp](http://www.sierraclub.org/biotech/whatsnew/whatsnew_2008-07-30.asp)
- Press Release of the Research Centre for Cultivated Plants (German):  
[http://www.jki.bund.de/cln\\_044/nn\\_813794/DE/pressestelle/Presseinfos/2008/1605\\_BienensterbenClothianidin.html\\_n](http://www.jki.bund.de/cln_044/nn_813794/DE/pressestelle/Presseinfos/2008/1605_BienensterbenClothianidin.html_n)
- [Bee-keepers and environmental groups demand prohibition of pesticide "Gaucho"](#)
- [French Institutes Finds Imidaproclid Turning Up in Wide Range of Crops](#)
- 2003 report from the "Comité Scientifique et Technique de l'Etude Multifactorielle des Troubles des Abeilles"  
<http://agriculture.gouv.fr/IMG/pdf/rapportfin.pdf>

#### Coalition against BAYER Dangers

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please send an e-mail for receiving the English newsletter Keycode BAYER free of charge

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Prof. Dr. Juergen Rochlitz, chemist, former member of the Bundestag, Burgwald

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-----Original Message-----

From: Nancy Oden [mailto:cleaneearth@tds.net]  
Sent: Tuesday, August 26, 2008 1:55 PM  
To: Jennings, Henry; Jadczyk, Anthony M  
Subject: So what are you going to do?

What actions will you propose in the face of overwhelming evidence that these pesticides (and many others) kill honeybees and other beneficial insects....not to mention shorten the lives of those of us who are exposed?

What will you do?

- Nancy Oden, Jonesboro

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<http://www.commondreams.org/archive/2008/08/26-13>

Published on Tuesday, August 26, 2008 by Environmental News Service (ENS)

German Coalition Sues Bayer Over Pesticide Honey Bee Deaths

FREIBURG, Germany - The German organization Coalition against Bayer Dangers today brought legal action against Werner Wenning, chairman of the Bayer AG Board of Management, by filing a charge against him with the public prosecutor in Freiburg.

In this Aug. 15, 2007 file photo Sven Bassin checks the pill press in the pharmaceutical plant of Bayer in Bitterfeld, Germany. The German organization Coalition against Bayer Dangers today brought legal action against Werner Wenning, chairman of the Bayer AG Board of Management, by filing a charge against him with the public prosecutor in Freiburg. (AP Photo/Eckehard Schulz, File) The group accuses Bayer CropScience of "marketing dangerous pesticides and thereby accepting the mass death of bees all over the world."

The coalition filed the charge in cooperation with German beekeepers who claim they lost thousands of hives after poisoning by the Bayer pesticide clothianidin in May.

Since 1991, Bayer has been producing the insecticide imidacloprid, which is one of the best selling insecticides in the world, often used as seed-dressing for maize, sunflower, and rape. Bayer exports imidacloprid to more than 120 countries and the substance is Bayer's best-selling pesticide.

Since patent protection for imidacloprid has expired in most countries, Bayer in 2003 brought a similarly functioning successor product, clothianidin, onto the market, the coalition alleges.

Both substances are systemic chemicals that work their way from the seed through the plant. The substances get into the pollen and the nectar and can damage beneficial insects such as bees.

The coalition alleges that the start of sales of imidacloprid and clothianidin coincided with the occurrence of large scale bee deaths in many European and American countries.

Up to 70 percent of all hives have been affected. In France, approximately 90 billion bees died over the past 10 years, reducing honey production by up to 60 percent.

Attorney Harro Schultze, who represents the Coalition against Bayer Dangers said, "The

public prosecutor needs to clarify which efforts Bayer undertook to prevent a ban of imidacloprid and clothianidin after sales of both substances were stopped in France. We're suspecting that Bayer submitted flawed studies to play down the risks of pesticide residues in treated plants."

In France, imidacloprid has been banned as a seed dressing for sunflowers since 1999 and in 2003 was also banned as a sweet corn treatment. Convened by the French government, in 2003 the Comité Scientifique et Technique declared that the treatment of seeds with imidacloprid leads to significant risks for bees. Bayer's application for approval of clothianidin was also rejected by French authorities. Clothianidin and imidacloprid are two of a relatively new class of insecticides known as neonicotinoids that impact the central nervous system of insects.

"Bayer's Board of Management has to be called to account since the risks of neonicotinoids such as imidacloprid and clothianidin have now been known for more than 10 years," says Philipp Mimkes, spokesman for the Coalition Against Bayer-Dangers.

The coalition is demanding that Bayer withdraw all neonicotinoids from the market worldwide.

"With an annual turnover of nearly 800 million euro, neonicotinoids are among Bayer's most important products," said Mimkes. "This is the reason why Bayer, despite serious environmental damage, is fighting against any application prohibitions."

The accusation of flawed studies is echoed by the Canadian Pest Management Regulatory Agency which said of Bayer's clothianidin application, "All of the field/semi-field studies, however, were found to be deficient in design and conduct of the studies and were, therefore, considered as supplemental information only.

"Clothianidin may pose a risk to honey bees and other pollinators, if exposure occurs via pollen and nectar of crop plants grown from treated seeds," said the Canadian agency.

The agency said, "It should also be noted that clothianidin is very persistent in soil, with high carry-over of residues to the next growing season. clothianidin is also mobile in soil."

Germany banned neonicotinoids for seed treatment in May 2008, due to negative effects on bee colonies. Beekeepers in the Baden-Württemberg region suffered a severe decline linked to the use of clothianidin.

The German Federal Office of Consumer Protection and Food Safety suspended the registration for eight pesticide seed treatment products on maize and rapeseed, including clothianidin and imidacloprid.

Bayer says the pesticide entered the environment because farmers failed to apply an adhesive agent that affixes the compound to the seed coats. Without the fixative agent, Bayer says, the compound drifted into the environment from sown rapeseed and sweet corn and then affected the honeybees.

"Seed treatments are one of the most targeted and environmentally friendly forms to apply crop protection products. We regret the recent bee losses and the situation they have created for the beekeepers in Baden-Württemberg," said Dr. Hans-Josef Diehl, head of development and registration at Bayer CropScience Deutschland GmbH during an expert hearing on bee losses in Karlsruhe, Germany in June.

Dr. Richard Schmuck, an ecologist at Bayer CropScience, said in June, "All studies available to us confirm that our product is safe to bees if the recommended dressing quality is maintained. This is also shown by the product safety assessments which we have submitted to the registration authorities."

"When used correctly," he said, "this crop protection product is safe for operators, consumers and the environment and fulfills the international criteria with regard to ecological systems."

In the United States, the nonprofit Natural Resources Defense Council filed a lawsuit August 15 in federal court in Washington, DC to force the federal government to disclose

studies it ordered on the effect of clothianidin on honey bees.

Studies on clothianidin were ordered by the U.S. Environmental Protection Agency from Bayer CropScience in 2003 when the EPA granted the company a registration for the chemical.

NRDC attorneys believe that the EPA has evidence of connections between pesticides and the mysterious honey bee die-offs reported across the country called colony collapse disorder that it has not made public.

Colony collapse disorder has claimed more than one-third of honey bees in the United States since it was first identified in 2006.

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-----Original Message-----

**From:** Nancy Oden [mailto:cleaneearth@tds.net]  
**Sent:** Thursday, August 28, 2008 12:46 PM  
**To:** Jennings, Henry; Jadczyk, Anthony M  
**Subject:** more on Bayer's bee-killer pesticide

Henry - When will you bring this to the Board's attention again? I want to be there this time. - Nancy

PITTSBURGH TRIBUNE-REVIEW; *August 28, 2008*

## **EPA sued after allegations Bayer pesticide killing honeybees**

For nearly two years, Jim Doan painstakingly has kept his thousands of bee colonies away from crops treated with a type of pesticide created by Bayer AG.

"We keep bees away as much as we can. I don't want them anywhere near it," said Doan, of Hamlin, N.Y., the state's largest beekeeper.

Doan suspects a connection between pesticides and the mysterious, global bee die-off known as Colony Collapse Disorder. And it's a suspicion shared by most of the commercial keepers who haul their bees in tractor-trailers to pollinate everything from Florida oranges to Pennsylvania pumpkins.

"Lots of beekeepers have done careful observations, and they have pretty good instincts about the way bees behave. And many of them think that CCD is caused by pesticides," said Troy Fore, president of the American Beekeeping Federation in Jessup, Ga. The federation has 1,100 members.

Beekeepers now have some support.

The National Resources Defense Council, a New York environmental advocacy group, last week filed a lawsuit against the federal Environmental Protection Agency. The lawsuit accuses the agency of withholding information about the risks that honeybees face from pesticides.

"I am glad that someone filed suit to find out what's in these products," Doan said. "This information should have been out there when the chemical was released."

Dave Hackenberg, the largest beekeeper in Pennsylvania, said: "I think the noose is tightening. I am convinced that pesticides are a large part of the problem."

In Germany, two top-ranking executives of Bayer AG, including the company's CEO, are being accused by the group Coalition Against Bayer Dangers of "knowingly polluting the environment."

"We are aware that Coalition Against Bayer Dangers has filed allegations against Bayer AG's CEO with regard to bee safety as it relates to the use of Bayer Crop Science pesticides. We are unaware of any investigation being initiated by the prosecutors," said Greg Coffey, a spokesman for Bayer Crop Science Inc. in Research Triangle, N.C.

Bayer AG is the corporate parent of Bayer Corp., which has operations in Robinson. The German company's Medrad Inc. has manufacturing and research facilities in Allegheny and Butler counties.

The U.S. lawsuit was filed after the EPA failed to respond to a request in July made under the Freedom of Information Act, said Josh Mogerman, a Chicago-based spokesman for the National Resources Defense Council.

"This is an aggressive lawsuit. This is potentially a crisis that affects every dinner table in the world. And if there is information of value to the scientific community, they ought to know about it," Mogerman said.

The EPA, which has posted some requested information on its Web site, said it had no intention of withholding information and did not reply to the council's request promptly because the information requested was so vast.

Honeybees add about \$15 billion to U.S. agricultural output each year. The two-year bee die-off has led to sharp price increases for growers. Pumpkin growers, for instance, now are paying \$95 to \$105 to rent a single bee colony, compared with \$55 to \$65 last year.

Even smaller beekeepers, like Jim Fitzroy of Penn Hills, are concerned.

"I have not had problems with CCD, but I know many people who have. I am spending a lot more on supplemental feedings to

8/28/2008

avoid CCD," said Fitzroy, who keeps about 15 hives at home and in the Allegheny National Forest.

The lawsuit seeks information connected with the EPA's 2003 approval of clothianidin -- a pesticide used to treat corn, sugar beet and sorghum seeds.

"This is not an assumption of guilt. We are not going in with the assumption that there is some kind of conspiracy," said Mogerman of the National Resources Defense Council.

The same chemical is under fire in Germany, where there was a large bee die-off this past spring.

Bayer AG says the die-off occurred because the pesticide was used improperly. And the bees in Germany died inside their hives, not -- as in the case with Colony Collapse Disorder -- far from their hives.

"Field studies have demonstrated that when used according to label directions and applied correctly, clothianidin will not harm bees. All of the EPA's study requirements have been conducted and have been submitted to the agency," said Bayer AG's Coffey.

Nearly two years since CCD first was identified, there is no evidence linking the phenomenon exclusively to pesticides, a particular pathogen or virus, said May Berenbaum, chairwoman of the department of entomology at the University of Illinois at Urbana.

"We just don't know," she said. "It is unbelievably complicated. Bees are as complicated as people -- except they don't talk." By Rick Wills

Aug 26, 2008, The News & Observer (Raleigh/USA)

## **Bayer on defensive in bee deaths**

### **German authorities look into allegation that RTP maker's pesticide harms environment**

Bayer CropScience is facing scrutiny because of the effect one of its best-selling pesticides has had on honeybees.

A German prosecutor is investigating Werner Wenning, Bayer's chairman, and Friedrich Berschauer, the head of Bayer CropScience, after critics alleged that they knowingly polluted the environment.

The investigation was triggered by an Aug. 13 complaint filed by German beekeepers and consumer protection advocates, a Coalition against Bayer Dangers spokesman, Philipp Mimkes, said Monday.

The complaint is part of efforts by groups on both sides of the Atlantic to determine how much Bayer CropScience knows about the part that clothianidin may have played in the death of millions of honeybees.

Bayer CropScience, which has its U.S. headquarters in Research Triangle Park, said field studies have shown that bees' exposure to the pesticide is minimal or nonexistent if the chemical is used properly.

Clothianidin and related pesticides generated about \$1 billion of Bayer CropScience's \$8.6 billion in global sales last year. The coalition is demanding that the company withdraw all of the pesticides.

"We're suspecting that Bayer submitted flawed studies to play down the risks of pesticide residues in treated plants," said Harro Schultze, the coalition's attorney.

"Bayer's ..... management has to be called to account, since the risks ... have now been known for more than 10 years."

Under German law, a criminal investigation could lead to a search of Bayer offices, Mimkes said.

On the other side of the Atlantic, the Natural Resources Defense Council is pressing for research information on clothianidin.

The U.S. Environmental Protection Agency approved the pesticide in 2003 under the condition that Bayer submit additional data. A lawsuit, which the environmental group filed Aug. 19 in federal court in Washington, accuses the EPA of hiding the honeybee data.

The group thinks the data might show what role chlothianidine played in the loss of millions of U.S. honeybee colonies.

Researchers have been puzzled by what is causing the bees to disappear at what is considered an alarming rate.

The phenomenon, known as colony collapse disorder, threatens a \$15 billion portion of the U.S. food supply.

In the U.S. diet, about one in three mouthfuls comes from crops that bees pollinate.

Scientists are looking at viruses, parasites and stresses that might compromise bees' immune system. In the past two years, Congress has earmarked about \$20 million to boost research.

Clothianidin, sold under the brand name Poncho, is used to coat corn, sugar beet and sorghum seeds and protect them from pests. A nerve toxin that has the potential to be toxic for bees, it gets into all parts of the plant that grows from the coated seeds.

In 1999, French regulators banned an older relative of Poncho and subsequently declined approval for clothianidin. French researchers found that bees were a lot more sensitive to the pesticides than Bayer CropScience studies had shown.

Three months ago, German regulators suspended sales of chlothianidine and related chemicals after the family of pesticides was blamed for the destruction of more than 11,000 bee colonies.

The Julius Kuehn Institute, a state-run crop research institute in Germany, collected samples of dead honeybees and determined that clothianidin caused the deaths.

Bayer CropScience blamed defective seed corn batches.

The company said that the coating came off as the seeds were sown, which allowed unusually high amounts of toxic dust to spread to adjacent areas where bees collected pollen and nectar.

Bayer paid about \$3 million in damages, Mimkes said. Sabine Vollmer, Staff Writer

**Coalition against BAYER Dangers**

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