

PEX is a support and advisory service for anyone whose health has been affected by exposure to pesticides.

PEX is a PAN UK project.

Quarterly September 2003

PEX

Action on Pesticide Exposure

Newsletter 20

News

A woman whose son was born with microphthalmia, a rare birth defect involving severely underdeveloped eyes, has won her legal case in the USA against DuPont, to whose product Benlate (containing benomyl) she was exposed when she was seven weeks pregnant. The case will be covered in depth in the next issue of Pesticides News. See Opinion, www.law.fsu.edu/library/flsupct/sc00-490/sc00-490.html



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NEWS

URGENT There is still time!

If you have not yet had a chance to put in a submission to the Pesticides Safety Directorate for their public consultation, you still can. The PSD has extended the deadline to the 30th September.

These proposals would oblige farmers and other pesticide-users to 1) keep a register of what pesticides they have used which is open to the public; 2) notify those in surrounding houses of when they are going to spray, and what they are using.

It is one of two consultations and is entitled: *Consultation on plans for greater access to information about crop spraying*. The deadline for the second consultation, on a new right to have a no-spray buffer zone around your home, is the end of October. Copies of the documents and full details are available from PAN, and are on our website.

This is an extremely important moment in the history of pesticide use. If these measures are implemented, we would gain the right to know about the chemicals being sprayed on our food and in our environment. There would have to be public declarations and contact details in every field. Instead of the secrecy with which the twenty-five thousand tonnes of pesticides are applied in the UK every year, we would have openness. Without transparency there can be no accountability. We would gain the right to no-spray zones around our homes and gardens. It would no longer be legal to spray right up to the windows of homes where children, the elderly, and the sick may be living.

Nonetheless there is major opposition to the proposals from supporters of industrial agribusiness, notably the National Farmers Union. The Crop Protection Association, representing the agrochemical companies, has also argued that current regulations do enough to protect the public. Therefore every response from members of the public is crucial.

Please write in to the PSD with a consultation response if you can. If you would like to discuss it first, contact Alison Craig 020 7274 6611 alisoncraig@pan-uk.org

The PEX project provides information about pesticides, and puts exposure sufferers in contact with one another and with sympathetic professionals

SHAPE latest

The report of the Survey of Health and Pesticide Exposure study on organophosphate exposure has been written and is out for peer review. The provisional publication date is November. For further information contact Dr Tony Fletcher on 020 7927 2449.

Prevention of cancer

This year's Britain Against Cancer conference, organised by the All Party Parliamentary Group on Cancer, and sponsored by a number of pharmaceutical companies in London, is on 22 October 03. For details contact Dr Uta Boger-Brown, BioMedEx, tel 01360 551082 or uta@biomedex.co.uk

Rachel Carson Memorial Lecture

The ecologist, writer and cancer survivor Sandra Steingraber is delivering the first of these new PAN *UK* lectures in London on 3rd December, the anniversary of the Bhopal disaster and Day of No Pesticides. *Contaminated without consent - why our exposure to chemicals in air, food and water violates human rights*, tickets £25 or £20, if booked by 31 October. Contact Kate Bootle at PAN.

United States pesticide health initiative

Pesticide-related symptoms and disease are often missed by doctors who receive almost no training in this area. A new scheme in America aims to make sure primary healthcare providers - who are most likely to see pesticide poisoning in patients firsthand - are trained to diagnose and treat the effects of pesticide poisoning.

Developed by the US Environmental Protection Agency and the National Environmental Education and Training Foundation, in collaboration with the Department of Health and Human Services, the Department of Agriculture, and the Department of Labor, the Pesticide Initiative is to run for ten years. It will help bring basic training in environmental health into medical and nursing education.

Recent figures of the American Association of Poison Control Centers Toxic Exposure Surveillance System indicate that pesticides are one of the substances **most frequently** involved in poisonings, with more than 90,000 incidents reported for 2001. This is in marked contrast to reports from the UK National Poisons Information Service, who estimate that pesticide poisonings account for less than two per cent of the enquiries they deal with, almost

all of which concern pharmaceutical drugs.

The US scheme has published two booklets: National Pesticide Competency Guidelines for Medical and Nursing Education, and National Pesticide Practice Skills Guidelines for Medical and Nursing Practice, published in January 2003 by the National Environmental Education and Training Foundation.

Environmental Health Perspectives, Volume 111, Number 10, August 2003

Date for your diary: public health conference

The 12th annual public health forum conference, Sustaining Public Health in a Changing World, will be held in Brighton, 19-22 April 2004. It is organised in conjunction with the World Federation of Public Health Associations (which includes the UK Public Health Association, see www.ukpha.org.uk). PAN *UK* aims to be at the conference.

Recent papers

Exposure at home

Traditionally pesticide exposure has been assessed in relation to its use in agriculture. However, an increasing body of evidence indicates that urban residential exposure may be equally or more significant. Of particular concern are potential effects on the developing foetus or newborn child. A recent study has found unusually high levels of pesticide metabolites (breakdown products) in urban dwellers.

This study measured exposure of 386 pregnant women to three pesticides, chlorpyrifos, pyrethroids and pentachlorophenol. The group was multi-ethnic and mainly from Harlem, New York City. The respective average values were found were 11.3 micrograms per gram creatine for TCP (a measure of chlorpyrifos exposure), 19.3 micrograms per gram creatine for PBA (a measure of exposure to certain pyrethroids), 7.3 micrograms per gram creatine for pentachlorophenol (creatinine is used to correct for daily variability in the concentration of urine). These levels were higher than those found in children in an agricultural community in Washington.

Gertrud S. Berkowitz, Josephine Obel, Elena Deych, Robert Lapinski, James Godbold, Zhisong Liu, Phillip J. Landrigan, Mary S. Wolff, 'Exposure to Indoor Pesticides during Pregnancy in a Multiethnic, Urban Cohort' Environmental Health Perspectives 111, 79-84, 2003.

OPs and chronic fatigue

A new paper reports the first scientific study documenting an association between organophosphate exposure and the development of chronic fatigue.

The UK Department of Health recently published a report from the CFS/ME Working Group concluding that chronic fatigue syndrome (CFS) is a chronic illness and should be recognised as such. They suggested a number of possible triggers for CFS including exposure to environmental toxins such as organophosphate pesticides. To investigate this link the authors examined self-reported cases of ill health submitted to the government's Veterinary Medicine Directive under the Suspected Adverse Reaction Surveillance Scheme (SARSS). Most of these reports have been submitted by sheep farmers who regularly dip their animals in organophosphates. Analysis of the results showed an association between organophosphate exposure and chronic fatigue. Higher and more prolonged exposures to organophosphates were more likely to lead to development of chronic fatigue.

The link between chronic fatigue and organophosphate exposure has been anecdotal up until now. This paper is the first scientific study to confirm this link. A number of organophosphate pesticides are still in use by professionals and chlorpyrifos is still available to both professional and amateur users. Given the number of people suffering from chronic fatigue the government should act to reduce environmental exposure to this group of pesticides.

N. Tahmas, A. Soutar, J.W. Cherrie 'Chronic Fatigue and Organophosphate Pesticides in Sheep Farming: A Retrospective Study Amongst People Reporting to a UK Pharmacovigilance Scheme' Ann. Occup. Hyg. 47, 261-267, 2003.

Toll from US spray-drift

Nearly 500 pesticide poisonings were reported for California farmworkers every year from 1997 to 2000. The actual extent of pesticide-related disease is unknown, since many poisonings go unreported. Most poisonings occurred as a result of soil fumigation and pesticide applications to grapes, oranges and cotton. Pesticide drift accounted for 51 per cent of the cases, and another 25 per cent resulted from exposure to residues.

M Reeves, K S Schafer 'Greater risks, fewer rights: US farmworkers and pesticides' International Journal of Occupational Health, Volume 9, Number 1, January/March, 2003.

Deadly legacy of persistent pesticides

Mother's exposure to chlordane pesticides and other persistent organic pollutants could increase the chance that their sons will develop testicular cancer.

Testicular cancer is on the increase in several western countries. Two other conditions of the human male reproductive system, cryptorchidism (undescended testes) and hypospadias (the urethra does not come out of the tip of the penis but somewhere between tip and base), are also increasing. Additionally, declines in sperm count have been observed in recent years.

All four of these conditions of the human male reproductive system may have a similar cause. One possible explanation is increased exposure to the female hormone oestrogen during the first three months of pregnancy. According to this theory testicular cancer has its origin in prenatal exposures of the male foetus.

Environmental chemicals either mimicking the action of oestrogen, or blocking the action of the male hormone androgen, could lead to such high oestrogen levels. This study examined blood concentrations of 38 polychlorinated biphenyls, *p,p'*-dichlorodiphenyl-dichloroethylene (DDE), hexachlorobenzene (HCB), and chlordanes in 61 cases of testicular cancer and 58 controls. The concentration of these compounds was also measured in blood samples from their mothers.

Men with testicular cancer showed a significant increase in the level of cis-nonachlordane compared with the control group. Mothers of sons with testicular cancer showed increased levels of PCBs, HCB and chlordanes compared with mothers of the control group.

These results provide further support for the view that a mother's exposure to endocrine-disrupting chemicals may lead to defects of the male reproductive tract, most seriously to testicular cancer. Although the chemicals used in this study are now banned for use in western countries they are still pervasive in our environment due to their extreme persistence. In addition, many chemicals in current use are also suspected endocrine disruptors and may have similar health impacts particularly during sensitive stages of human development.

L. Hardell, B. van Bavel, G. Lindstrom, M. Carlberg, A. C. Dreifaldt, H. Wijkstrom, H. Starkhammer, M. Eriksson, A. Hallquist, T. Kolmert 'Increased Concentrations of Polychlorinated Biphenyls, Hexachlorobenzene, and Chlordanes in Mothers of Men with Testicular Cancer' Environmental Health Perspectives, 111, 930-934, 2003.

Personal EXchange

Confidentiality: we never publish, or give out, anyone's name or contact details without their express written consent. If you wish to respond to any of these messages, write to PEX, and include your permission to forward your letter to the contributor concerned.

Sulphuric acid has come into our garden from the next door field and both my wife and I have suffered poisoning symptoms. On Sunday, 7th September, a windy day, I was in our garden mid-morning, playing with my two dogs. In the adjacent field, which abuts the hedgerow, I could hear the tractor, but couldn't see him, as the hedges are high. The next thing I knew I was covered in a mist of what I thought were the usual pesticides the farmer sprays on a regular basis. Almost immediately, my eyes, lips and throat were burning so I came into the house and sat down feeling ill. My wife was less directly affected as she was working in the study at the back of the house, but she has also felt unwell and lethargic.

We were given no warnings or notification. The contractor closed off the public right of way with a small sign saying 'Do not enter this field for 96 hours - corrosive substance.' They then returned on Saturday to spray another lot of sulphuric acid over the potatoes, leaving the tractor and tank containing acid out in the field overnight. A Health & Safety Executive inspector is visiting this week

We moved into this property, which is surrounded by arable land, three years ago. I have lived in the countryside all my life and this experience has left me feeling very disillusioned. We do not feel that a substance which is so aggressive and debilitating to humans should be sprayed within such a close proximity to our property.

Write to: Sulphuric acid (20), c/o PAN or duncan@vintagenuts.fsnet.co.uk, copying to alisoncraig@pan-uk.org if you wish.

PEX Note: Sulphuric acid is used as a 'dessicant' on potatoes, accelerating the drying process before harvesting. It is a highly toxic and listed under the Poisons Law, which means its sale is restricted. It has a devastating impact on wildlife for obvious reasons and is hazardous to people. In the UK it is the only substance for which advance notification of people nearby is mandatory. Regulations also specify, uniquely for sulphuric acid, that it must not be sprayed within one metre of a right of way. This leads to a highly dangerous situation in which people can still use rights

of way, because it is illegal to close them, as was done in this case, even though exposure of walkers is likely from the sprayed crop and the poison which hangs in the air.

There has been a recent attempt to create public acceptance for the use of this substance: You can check if a contractor is on the National Association of Agricultural Contractor's new register of operators who undertake to comply with its Code of Best Practice on the Safe Use of Sulphuric Acid as a Desiccant www.naac.co.uk/Codes/acidcode.asp on their website. This code is however, advisory only, and has no legal status.

If you experience exposure to sulphuric acid, or any other pesticides used near your home, PAN UK advises you to: **remove yourself from the exposed area, contact your doctor urgently** if you feel ill (or write to him or her afterwards recording the incident if your symptoms are transitory), **contact the Health & Safety Executive**, gather the evidence: **take photographs and collect samples** (of oversprayed vegetation and soil, for example in a clean, well-sealed jam jar; contaminated clothing should be stored in a clean plastic bag). Full details are available in the PEX Briefing: contact PAN UK.



I was working in building restoration for thirty years, and was using pesticides, volatile organic compounds, paint and solvents almost every week since the 1970s. I was diagnosed as having ME after an injury from a fall in 1980. I experience hypersensitivity to chemicals and severe pain - it is so bad in my spine that it is difficult to sit or lie down.

My doctors tell me my symptoms are all in my mind. I was put on antidepressants by my GP which I stopped in January this year, when I became progressively very ill after weight loss. When I opted to have a blood test recently at the Biolab Medical Unit, my doctor didn't want to know. I receive no decent advice from anyone. I can't even find out if I should be taking painkillers with my condition., and I don't know how to interpret the Biolab result. If anyone can advise me from experience please email

paul-polo@fsmail.net (copying to alisoncraig@pan-uk.org if you wish).