In recent years there has been much concern about the many pesticides now suspected of being endocrine disrupters, chemicals that can cause effects such as an increase in birth defects and reproductive failure.

Endocrine disrupting chemicals (EDCs) can interfere in some way with the body’s hormones, or chemical messengers. As yet, there are still many aspects of these substances that we do not currently understand.

For the purposes of this paper, endocrine disruptors are defined as "exogeneous chemicals or mixtures that alter function(s) of the endocrine system and consequently causes health effects in an intact organism, or its progeny, or (sub)populations".

**EU activities**

The European Commission, in their Commission Communication on a Community strategy for Endocrine Disruptors, dated the 17.12.99, has highlighted the need to identify appropriate policy action. As a first step in the process, the Commission produced for discussion a draft priority list of substances for further evaluation, as outlined in a study commissioned by the Environment Directorate (Towards the establishment of a priority list of substances for further evaluation of their role in endocrine disruption.) This prioritisation process showed severe shortcomings, and we therefore ask for a complete review of the study, while still using the results for immediate action.

**PAN Europe's recommendation**

There is widespread concern among public interest groups that pesticide endocrine disruptors are deliberately released into the environment, and that they are capable of interfering with reproduction of humans and other organisms. PAN Europe therefore recommends that a process be initiated to phase out the use and production of endocrine disrupting pesticides in Europe by 2010.

**Endocrine disruption among other toxic effects**

Endocrine disruption is one among the many groups of toxicological effects that the European regulators need to assess more adequately (under the agricultural pesticide approval Directive 91/414/EEC). Other important effects include carcinogenicity, mutagenicity or immunotoxicity. PAN Europe considers that cut-off criteria should be set for all these effects, instead of relying on ineffective risk assessment procedures applied by regulators.

**Experimental testing - open questions**

A crucial question relates to how pesticides are classified as endocrine disruptors. There is a wealth of experimental tests, starting from in-vitro tests up to tests with whole organisms. Some of the test methods are comparable to those which are already required for the approval of pesticide active ingredients. But, some existing tests which search for endocrine activity are not currently part of the approval system. It is also not clear, how endocrine disruption found in in-vitro experimental studies actually relates to exposure to endocrine disruptors for humans and wildlife.
Screening for endocrine disrupting effects is currently being discussed at OECD level, and the adoption of a standard test strategy might take several years. PAN Europe therefore recommends that all currently available scientific and peer-reviewed information should be used to take urgent regulatory precautionary action.

Specific recommendations

PAN Europe recommends that the precautionary principle apply to the approval of pesticides in Europe when considering EDCs. Specifically in relation to pesticides approval under Directive 91/414/EEC, PAN Europe recommends the following:

1. Pesticides which are publicly agreed on as being endocrine disrupting should be banned according to directive 79/117/EEC. This applies to the pesticides identified by OSPAR in addition to those pesticides classified as being of "high concern" according to the draft EU priority list.

   Atrazine, endosulfan and vinclozolin (identified as EDCs by OSPAR) and alachlor, atrazine, fentin-acetate, lindane, linuron, manebe, thiram, vinclozolin, and zineb (classified as being of "high concern" according to the draft EU priority list) should be banned.

2. It is not acceptable that "non- high production volume (HPV)" pesticides were excluded from the toxicological evaluation in the EU study, because pesticides are deliberately released into the environment.

   The low-HPV pesticides mancozeb, metiram, bromoxynil (identified by Stichting Natuur en Milieu or WWF as EDCs) should be banned.

3. The pesticides which have been mentioned in the EU study as "potential" EDCs, or which have been identified as EDCs due to group similarities should be withdrawn until manufacturers provide appropriate studies.

4. Once a test has been agreed on at OECD level, this tests should immediately become part of the data requirements for pesticides approval laid down in Annex II and III of directive 91/414/EEC - without waiting for adoption of a whole test battery at OECD-level. The same should apply for tests that have been agreed on at the US EPA.

5. In order to enable monitoring of endocrine-related effects in humans and wildlife and to undertake epidemiological studies, PAN Europe and the co-signatories call for national and Europe-wide mandatory and publicly-available inventories, including pesticide product registers and inventories of pesticide use by area and crop.

6. National and EU-wide monitoring schemes should pay special attention to crops for which contamination with endocrine disrupting pesticides has already been proven, such as salad and strawberries.

7. PAN Europe calls on the European Crop Protection Association to require their members voluntarily to withdraw the production and trade of endocrine disrupting pesticides.

8. PAN Europe calls for greater information dissemination to the general public.
Signatories

- ÄrztlInnen für eine gesunde Umwelt, ÄGU, ISDE Austria
- Bond Beter Leefmilieu, Belgium
- Center for Environmental Studies, Hungary
- Children of the Earth, Czech Republic
- Comisiones Obreras, CC.OO., Spain
- Danish Society for the Conservation of Nature
- The Ecological Council, Denmark
- European Public Health Alliance, Belgium
- Fundacion 1º de Mayo, Spain
- Fédération SEPANSO, France
- France Nature Environnement
- Friends of the Earth EWNI
- Friends of the Earth Slovakia
- Inter-Environnement Wallonie, Belgium
- Leefmilieu (Human Environment), The Netherlands
- Liga para a protecção de natureza LPN, Portugal
- MAMA TERRA / For Mother Earth, Romania
- Medium et Sanitas Association, Romania
- PAN Belgium
- PAN Germany
- PAN UK
- The Soil Association, UK
- Stichting Natuur en Milieu, NL
- Svenska Lantarbetareförbundet
- Waterpakt, the Netherlands
- WWF European Toxics Programme
- WWF Germany