



Position Paper
of
Pesticide Action Network (PAN)
International
on
Paraquat

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Paraquat – a widely used, wildly toxic pesticide

Paraquat is the most highly toxic herbicide to be marketed over the last 60 years. Yet it is the third most widely used herbicide in the world, and in most countries where it is registered it can be used without restriction. Internationally, and especially in the South, workers and farmers who are regularly exposed to paraquat experience serious problems with their health.

Gramoxone^(TN), manufactured by Syngenta, is the most common trade name for paraquat, but the herbicide is also sold under many different names by many different manufacturers. Paraquat is used on over 50 crops in over 120 countries, with Syngenta being the main supplier. Global sales of paraquat are estimated to be about 25,000 tonnes, as much as 70 % of this amount being used in developing countries.

Paraquat is a quick acting, non-selective herbicide used on large and small farms, plantations and estates, which destroys green plant tissue on contact and by translocation within the plant. Paraquat is used for controlling broadleaf weeds and grasses in more than 50 different crops. Main crop uses are for maize, orchards, soybeans, vegetables and rice, but it is also extensively used in cotton and oil palm.

Due to its high toxicity paraquat is part of the Dirty Dozen List. PAN International launched the Dirty Dozen campaign in 1985 to target a list of extremely hazardous pesticides for strict controls, bans, and ultimately elimination, and to advocate their replacement with safer and more sustainable pest control methods. In order to accelerate the phase-out of paraquat, several non-governmental organisations (NGOs) from Asia, North and South America, and Europe (including PAN regional centres) launched the “Stop Paraquat” campaign in 2002.

This campaign, which urges Syngenta to stop paraquat production, has already achieved some remarkable results, Malaysia banned paraquat in August 2002 – the first Asian country to do so – and Chiquita decided to ban paraquat from all its plantations.

Paraquat – a threat to health and the environment

Paraquat is highly acutely toxic and enters the body mainly by swallowing, or through damaged skin, but may also be inhaled. The World Health Organisation’s Classification is Class II (moderately hazardous) based on acute oral LD50 in rats of 157 mg/kg (Company data). Yet, as little as 17 mg/kg has been known to kill a human. As little as a teaspoon of concentrated paraquat can result in death. Death is by respiratory failure and may occur within a few days after poisoning or as long as a month later. There is no antidote. Paraquat

damages the lungs, heart, kidneys, adrenal glands, central nervous system, liver, muscles and spleen, causing multi-organ failure.

The herbicide causes severe acute and long-term health problems such as severe dermatitis, second degree burns, nosebleeds, rapid heart rate, kidney failure, and respiratory failure. Some chronic effects have been identified: an association with developmental and reproductive effects, as well as links to skin cancer and there is mounting evidence linking it to Parkinson's disease.

In addition to the effects on human health, paraquat is of environmental concern. Studies indicate that paraquat has lethal effects on hares and birds, and is embryotoxic and teratogenic to frogs. It poses a risk to non-target terrestrial and aquatic plants. Paraquat does not seem to accumulate in animals, although it does in aquatic vegetation. It readily binds to soil particles and hence accumulates in soils.

Paraquat – workers and farmers poisoned

Internationally, workers and farmers regularly exposed to the herbicide paraquat experience serious problems with their health. The greatest risk to workers of fatal and serious accidents is during mixing and loading of paraquat. A number of deaths have been recorded from contact with the spray solution.

Conditions of use in many developing countries mean it is difficult to follow label instructions and recommendations for use. These conditions include high temperature and humidity, lack of protective clothing, leaking knapsack sprayers, illiteracy, lack of facilities for washing, or medical treatment, and repeated exposure.

Sprayers generally have no appropriate or inadequate protective clothing, lack training and have little knowledge of the specific effects of pesticide products they use. Exposure to paraquat can be especially high for plantation workers who are employed as sprayers. On estates, workers often spray for 10 months of the year, six days a week.

For more than forty years, the companies producing paraquat have failed to provide protective equipment appropriate to the conditions of use and realities in developing countries. This compounds the concern that safe use of paraquat is not possible in these countries, in spite of 'safe use' claims by the industry.

Workers in paraquat formulation factories are also at risk, with 78% of workers in a UK survey having experienced symptoms.

Paraquat – Need for tougher legislation

A number of governments in industrialised and developing countries, primarily concerned with health risks, have already banned or restricted the use of paraquat. The hazardous herbicide is banned in seven countries including Austria (1993), Denmark (1995), Finland (1986), Kuwait (1985), Slovenia (1997) and Sweden (1983). The most recent ban was put into action in Malaysia (2002), as the first Asian country to do so. Paraquat is also severely restricted or restricted in seven other countries, that is Chile (2001), Germany (1993), Hungary (1991), Indonesia (1990), South Korea (1991), Togo (1999) and the United States of America (1997).

Unfortunately, the EU decided in October 2003 not to ban Paraquat. This decision has put the fate of such pre-existing national bans in question, raising serious concerns by EU member states about their ability to protect the health of their citizens and environment from pesticide damage on the national level. The European Commission is aware of the dangers of Paraquat, but nevertheless had approved its use, ignoring growing number of member states who openly rejected an EU-wide approval of paraquat, postponing a vote at the last four committee meetings.

Therefore, PAN along with environmental NGOs and Trade Unions, demand that the Commission takes note of the growing opposition to the approval of paraquat and reverse the decision, prioritising the protection of human health and environment. Furthermore, PAN emphasises that this controversial decision was made in the European context, and therefore cannot have any implication for other regions, especially developing countries.

At the international level, most recently at the Intergovernmental Forum on Chemical Safety (IFCS IV) in Thailand, October 2003, PAN further asserted that under-reporting and subsequent lack of data should not be used to underestimate the problem of acute poisonings. PAN also upheld calls to restrict the availability of acutely toxic pesticides such as paraquat, and promote research on alternatives.

There is sufficient scientific evidence that paraquat is highly toxic and causes severe adverse health effects on humans. Regulatory authorities still in doubt should at least apply the **Precautionary Principle**, as embodied in Agenda 21 of the RIO Summit 1992, and the Treaty on Persistent Organic Pollutants (POPs) in 2001, also known as the Stockholm Convention. Preventive measures to protect health and the environment should be undertaken even when risks are not fully understood, or where there are gaps in knowledge either on the precise effects of the pesticides or on the mechanisms for toxicity. Application of the Precautionary Principle to paraquat would require that it be removed from the market, on the basis of the existing body of evidence of significant adverse effect.

STOP Paraquat!

According to the Rotterdam Convention on Prior Informed Consent (PIC) and the International Code of Conduct on the Distribution and Use of Pesticides (FAO Code), the conditions of use in developing countries are an important indication of the potential health risks to workers posed by the use and exposure to pesticides.

Under current conditions of use in developing countries safe use of paraquat is not possible, and poses an unacceptable threat to the health of workers and small scale farmers.

On the occasion of the “Global No Pesticide Use Day”, December 3, and in the interest of protecting health and environment, PAN international demands that:

- **Syngenta, the main producer of paraquat, stops the production of paraquat**
- **Syngenta takes full responsibility and assumes liability for the severe health effects on communities resulting from paraquat use**
- **The authorities in all countries ban the use of paraquat**
- **Paraquat be replaced with safer and more sustainable pest control methods**