Goodbye Paraquat

Palm Oil, Banana and Tea Producers Saying No to Hazardous Pesticide

A survey by the International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations (IUF) and the Berne Declaration

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Edited by Alejandra Gochez







The International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations (IUF) is an international trade union federation composed of 353 trade unions in 125 countries with an affiliated membership of over 2.7 million members. It is based in Geneva. Switzerland.

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1. Introduction

Paraguat is one of the most toxic herbicides in use today. It is used in the production of fruits, tea, palm oil, coffee, sugar cane, etc.. It is classified as T+ /very toxic under the Globally Harmonized System Classification and Labelling of Chemicals.¹ Sold in over a hundred countries for more than forty years, the use and misuse of Paraguat has led to thousands of deaths and many more nonfatal poisonings; acute and health consequences chronic such respiratory and kidney damage, ailments, eye injuries, nail loss, dizziness and other adverse effects have been reported all over the world.2

For many years, trade unions and nongovernmental organizations (NGOs) have been asking governments for a global ban on Paraguat and also calling on industry to stop production and sale of the product.3 Although Syngenta, the main seller of Paraquat (75% of world-wide sales),⁴ insists on keeping Paraguat in its portfolio, many companies that have directly or indirectly depended on Paraguat are now ending its use.

In the summer of 2007, the Court of First Instance of the European Union annulled the directive authorising Paraguat as an active plant protection substance. A few months later, the Pesticide Technical and Advisory Committee of Sri Lanka decided to phase out Paraquat in three years. These decisions show that the end of Paraguat will not come as a consequence of action by the producer company (Syngenta). Instead, it will happen through the ongoing global phase-out already commenced by producers and governments⁵ convinced that an end to Paraguat use is the best way to answer to the unacceptable health risk Paraquat poses to farmers and plantation workers.

To gain insight into the decision-making of palm oil, banana, and tea producers with regard to Paraguat, the IUF and the Berne Declaration have conducted this brief survey. According to industry sources, during the period from 1995 to 2001, palm oil, banana, and tea crops were an important market for palm oil with Paraguat, plantations contributing to 3.9% of total Paraquat sales, banana plantations to 3.1%, and tea estates to 2.5%, all together totalling 9.5% of sales.

http://ec.europa.eu/enterprise/reach/docs/ghs/ghs pro p vol iiib en.pdf

http://www.evb.ch/cm data/EvB Paraguat E.pdf or Wesseling, Ineke; Paraquat in developing countries, http://www.evb.ch/en/p8888.html . More information also at http://www.evb.ch/en/p5790.html

For an overview of Paraquat related health problems see, Isenring, Richard; Paraguat unacceptable health risk

³ More on the campaign at <u>www.stop-paraquat.net</u> ⁴ Martin Taylor, Chairman of the board of directors of

Syngenta, during the AGM 2007

⁵ For an overview of the legal status in different countries and voluntary standards of companies see www.evb.ch/en/p5783.html

2. Summary

Forty major producers and traders of palm oil, bananas, and tea, along with industrial buyers of palm oil completed questionnaires sent out by the International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers' Associations (IUF) and the Berne Declaration on their current use of Paraquat in the production of crops. The questionnaires were crop-specific (i.e. they were tailored to each of the crops covered by the project). The replies received were not verified by Berne Declaration, IUF or any other bodies. They were self-assessments by companies.

The results of the questionnaires indicate: Major producers of bananas like Dole and Chiquita and smaller banana producers have stopped using Paraquat in their banana plantations

Major packers of tea like Unilever and Nestlé along with smaller tea producers have moved away from reliance on Paraquat.

Producers of palm oil are about equally divided into Paraquat users and non-users, while palm oil buyers are interested in purchasing palm oil produced without Paraquat.

The Board of the Roundtable on Sustainable Palm Oil (RSPO) failed to meet the

expectations of its members by not identifying safe and cost-effective alternatives to specific hazardous chemicals, such as Paraquat, by the scheduled date of November 2007. Instead, they only started working toward this goal about one year ago in January 2008.

In sum, the results of our questionnaire show that Paraquat-free production of palm oil, banana and tea is not only desirable but is already a reality. The ongoing move away from Paraquat by big companies as well as smallholders shows that Paraquat is not needed for agricultural production.

These findings together with existing knowledge on the detrimental effects of Paraquat should encourage regulators to take action to ban Paraquat immediately.

Section 3 of this report discusses the findings of the survey. Subsections 3.1.1 to 3.1.3 cover findings on palm oil growers, palm oil buyers in the consumer goods and energy sectors, and palm oil buyers in the retail sector. Both palm oil growers and buyers were included due to the variety of uses of palm oil and its byproducts. Subsection 3.1.4 focuses specifically on the RSPO and its failure to control Paraquat use. Subsections 3.2 and 3.3 present results from the banana and tea sectors, respectively.

The Survey

3.1. Paraquat use in the palm oil industry

Eleven palm oil growers, eleven consumer goods and energy companies that use palm oil, and eight retailers that produce and/or sell products with palm oil responded to the questionnaire. Below are the findings.

3.1.1. Palm oil growers

Eleven palm oil growers, with a combined production area of 364,834 ha, all members of the Roundtable for Sustainable Palm Oil (RSPO)⁶, responded to our questionnaire. Seven of these growers (three based in Indonesia and one each based in Brazil, Papua New Guinea, Ecuador and Guatemala) were not using Paraquat or were committed to stop using it by the end of 2008. Instead, they reported using a mix of chemical (mostly Glyphosate) and non-chemical (mower, legume cover crops, manual weeding) weed control. Two had used Paraguat in the past, but stopped using it due to its health hazards and also to comply with RSPO guidelines⁷. Two growers that had never used Paraguat listed its health hazards as a reason for not using it. Other reasons mentioned by growers for not using Paraguat were that it is "too expensive", "not useful", and/or that they have an "environmental friendly production policy".

The four growers that were still using Paraquat (three of them in combination with other herbicides) reported that they were doing so because they had found it to be effective and cheap, and/or because tested alternatives were more costly or ineffective.

All of the growers that responded indicated that pesticide sprayers received training on the correct use of pesticides. In all of the plantations herbicides were sprayed with knapsack sprayers. Nearly all growers indicated that sprayers wore goggles, gloves

⁶ For a general introduction to the RSPO: www.rspo.org.

and respiratory masks (mostly with filter) for the handling and application of pesticides.

3.1.2 Palm oil buyers - consumer good manufacturers and energy suppliers

It is important to know the attitude of major palm oil buyers to properly predict a trend for the use of Paraquat in palm oil production. The IUF and the Berne Declaration therefore sent questionnaires to consumer good manufacturers, energy suppliers, and retailers that rely on palm oil.

The biggest buyers that participated in our survey were Neste Oil (a Finnish company involved in renewable fuel production) and AAK (the world's leading manufacturer of high value-added speciality vegetable fats). Each of these two companies buys over 100,000 tonnes of palm oil per year.

Palm oil handled by these two companies was, at least partly, produced with the use of Paraquat, although both companies valued the goal of Paraquat-free oil production. AAK commented: "If possible, AAK chooses suppliers which can guarantee Paraguat-free palm oil, but as long as it is allowed in producing countries, we have limited possibilities to fulfil such demands". Neste Oil commented that it shared the goal of Paraguat-free palm oil production, but their supplier was still using Paraquat. Neste Oil explained: "[Paraquat] is permitted by the Malaysian government. However it is not used as a general herbicide but for specific purposes only. The use is limited to immature palms only and they have also been increasing its dilution over time".

In contrast, Premier Foods and DSM Food Specialties, two other important buyers from the food sector had already switched to palm oil produced without Paraquat. Premier Foods is a UK food company producing brands such as Cadbury chocolate, Hovis bread, Mr Kipling cakes, and many others. As a member of RSPO, Premier Foods has made a commitment to support the Principles and Criteria of RSPO, including the reduction and elimination of the use of Paraquat. The same holds true for DSM Food

⁷ For the specific article relating to Paraquat in the Principles and Criteria of the RSPO guidelines, see chapter 3.1.4.

Specialties, a global supplier of ingredients for the food and beverage industries, headquartered in the Netherlands. DSM Food Specialities has made "clear agreements with suppliers" and now includes these agreements in purchase specifications to ensure Paraquat-free palm oil production on the part of its suppliers.

Finally, moving to the cosmetics industry, L'Oréal reported that a significant part of its crude palm oil comes from a certified organic palm oil producer, and the remainder of its palm oil comes from RSPO members. L'Oréal supports, in accordance with the aim of the RSPO and in close relationship with its palm oil suppliers, the objective of reducing or eliminating the use of Paraquat.

The remaining six out of the eleven consumer good manufacturers that completed the questionnaire did not know whether the palm oil they purchased was produced with the use of Paraquat. Nevertheless, nine out of these eleven shared the goal of Paraquat-free palm oil production and ten out of the eleven would favour suppliers that produce palm oil without the use of Paraquat.

Figure 1 summarises the results of the survey on palm oil.

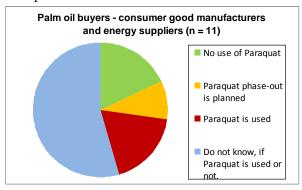


Figure 1: Paraquat use by 11 major industrial palm oil buyers (consumer goods and energy sectors)

3.1.3 Palm oil buyers - retailers

Palm oil and its derived ingredients are used in thousands of products across both the food and cosmetic industries. This means that supply chains are extended, complex and operate with limited transparency.

Several retailers were committed to the goal of Paraquat-free palm oil production and actively favoured suppliers producing palm oil without using Paraquat. At the same time, some retailers of goods containing palm oil mentioned that their capacity to monitor the use of pesticides in palm oil production was limited as they were at the opposite end of the supply chain from growers.

While Tesco, the fifth largest retailer in the world is certainly aware of the problems related to Paraquat and reduced in 2007 and 2008 the number of its fruit and vegetable suppliers using Paraquat by 50%, the company noted in its response to the questionnaire that it had difficulties controlling how plantations produced palm oil.

Only two retailers out of the eight that responded knew if their suppliers were using Paraquat. Migros (Switzerland) knew that some of its suppliers were using Paraquat and some were not. The Body Shop could guarantee that its palm oil supplier for soap noodles was not using Paraquat, as it is an organic producer.

The following retailers have made a commitment to the goal of Paraquat-free palm oil production and thus favour suppliers producing palm oil without the use of Paraquat:

Ahold (Netherlands)
Carrefour (France)
COOP (Switzerland)
Migros Genossenschafts-Bund (Switzerland)
Somerfield Stores Ltd (UK)
SPE (Belgium)
The Body Shop International plc (UK)

Finally, Sainsbury's Supermarkets Ltd (UK) commented that it was entirely committed to the goal of Paraquat-free palm oil production; nevertheless, it was not able to differentiate and select palm oil producers based on their use of Paraquat at the time of the survey. Sainsbury's reported that it would, however, favour suppliers that were also committed to the goal of Paraquat-free palm oil production.

3.1.4 Paraquat use and the Roundtable for Sustainable Palm Oil (RSPO)⁸

The answers we received from palm oil growers and buyers, all of them members of RSPO, revealed a lack of clarity about RSPO criteria on Paraquat. This was not surprising given that the RSPO's Paraquat policy is ambiguous.

and The RSPO's Principles Criteria⁹ specifically address Paraguat. Criterion 4.6 -Indicators and Guidance, provides: "Documentary evidence that use chemicals categorised as World Health Organisation Type 1A or 1B, or listed by the Stockholm or Rotterdam Conventions, and Paraquat, is reduced and/or eliminated." Furthermore, it stipulates: "RSPO will urgently identify safe and cost effective alternatives to replace chemicals that are categorised as World Health Organisation Type 1A or 1B, or listed by the Stockholm or Rotterdam Conventions, and paraquat. Results will be collated and reported by November 2007".

In a later version released in October of 2007, Criterion 4.6 - Indicators and Guidance, remained the same as above, but the RSPO removed the sentence containing the specific time limit of November 2007, as it was obvious that the November 2007 deadline would not be met.

Oddly, within the RSPO's certification system the lack of reduction and/or elimination of hazardous pesticides, such as Paraquat, on the part of member companies is not categorized as an indicator that triggers major non-conformity. ¹⁰

Adding to the ambiguity, the RSPO Principles and Criteria must be adapted to a

⁸ IUF has many other concerns about the role and effectiveness of the RSPO in particular its inability to ensure fair labour conditions. This report is not the place to discuss these concerns, however, further information can be found at

http://www.iuf.org/cgibin/search companies.cgi?
p1=Musim+Mas&p2=English&p3=en

⁹ RSPO Principles and Criteria for Sustainable Palm Oil Production, Guidance Document, format to emphasize Guidance for National Interpretation, March 2006. ¹⁰ Minor nonconformities will be raised to major if they are not addressed by the following surveillance assessment. Major nonconformities raised during surveillance assessments must be addressed within 60 days, or the certificate will be suspended. national interpretation for each producer country. Malaysia's national interpretation adapted the RSPO indicators in a reasonable way: "4.6.7 Documentary evidence that use of chemicals categorised as World Health Organisation Type 1A or 1B, or listed by the Stockholm or Rotterdam Conventions and paraquat, is reduced and/or eliminated. Adoption of suitable economic alternative to paraquat as suggested by the EB pending outcome of the RSPO study on IWM. Minor compliance."

The national interpretation of Indonesia is the same, but without the last sentence regarding alternatives.

Papua New Guinea's interpretation watered down the indicator related to WHO, Stockholm, and Rotterdam pesticides by including the possibility for exceptions, but still included the adoption of a Paraquat alternative: "4.6.3 Documentary evidence that use of chemicals categorised as World Health Organisation Type 1A or 1B, or listed by the Stockholm or Rotterdam Conventions, is reduced and/or eliminated. Except where there are no other suitable means to control severe pest outbreaks and where use is part of an on going IPM program. - Minor compliance issue 4.6.5 Adoption of a suitable, economic alternative to Paraguat as recommended by the RSPO executive board. - Minor compliance issue"12

The problem with Paraquat and the RSPO is threefold:

Our survey shows that many stakeholders do not clearly understand to what extent RSPO certification excludes the use of Paraquat. Many stakeholders have been interpreting the Principles and Criteria as a de facto ban of Paraquat. When palm oil buyers were asked about the steps they wanted to take to ensure a Paraquat-free palm oil supply, they gave answers such as:

"The criteria for Paraquat are provided in RSPO's P&C (criteria 6,4) and all suppliers are members of RSPO. We will ask our suppliers to keep to P&C."

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¹¹ Roundtable on Sustainable Palm Oil (RSPO), Malaysia National Interpretation (MY- NI), Indicators and Guidance to establish the RSPO Principles & Criteria, Final Draft, March 2008.

¹² The Roundtable on Sustainable Palm Oil (RSPO), PNG National Implementation Working Group, Indicators and guidance required to establish the RSPO Principles and Criteria (*Draft June 6 2007*).

- "It is necessary to audit plantations under a strict operations of the RSPO P&C 4.6 including guidance and indicators."
- "As members of RSPO we have committed to supporting P&C of RSPO, including reduction and elimination of the use of Paraquat. We are encouraging all our palm oil suppliers to become RSPO members and support aims of RSPO".
- "We hope that any RSPO certification scheme would disallow use of Paraquat and any non sustainable pesticide. We would rely on the audits and certification bodies appointed to verify compliance with the scheme."
- "Raw material containing palmoil is mainly bought from manufacturers and importers, they are buying from plantations which are part of the RSPO system. RSPO standards do not allow the use of Paraquat."

The lack of clarity concerning the RSPO's attitude toward Paraquat was also reflected in the answers we received from two growers in Indonesia. One grower argued: "Paraquat is not relevant to be addressed in relation to RSPO because it has been deleted from P&C of RSPO". Another grower wrote: "we are converting from Gramoxone to Basta to be in compliance with RSPO".

Other stakeholders seemed to be sidestepping their own responsibility to find solutions to the problem of Paraquat by relying totally on the RSPO's position. Several answers to the survey heavily underscored the RSPO's role in finding alternatives to Paraquat:

- "Direct attention to RSPO programme to define alternative weed management strategies that do not require Paraquat"
- "Support all initiatives within RSPO to solve this issue."
- "Support those of RSPO in finding an effective solution."
- "We are working with RSPO to reduce and possibly eliminate Paraquat. It is our understanding that a working group is addressing this issue. We will monitor the progress in this group."
- "RSPO will set up a project for replacement of critical pesticide (including Paraquat) and the introduction of alternative cultivation methods within palm oil industry."
- "RSPO views tackling this as one of its priorities for the future."

- "We are aware of the concerns about Paraquat and hope that through the RSPO a solution to minimise any adverse impacts can be found."
- 2. The Board of the RSPO has not identified safe and cost-effective alternatives to specific hazardous chemicals by the scheduled date of November 2007. Even now, over one year later, no results have been reported. Clearly, the word "urgently" written in the RSPO's Principles and Criteria has not been taken seriously by the RSPO Board. Three questions arise here. (1) Why has the identification of safe and cost-effective alternatives not been completed? This delay seems unjustified considering that many producers in several countries are already able to produce palm oil in a suitable and cost-effective manner without Paraguat. (2) Is the RSPO study on alternatives mainly an instrument to postpone the elimination of Paraguat on RSPO plantations? (3) Are stakeholders placing too much emphasis on the RSPO to find a solution to the problem of Paraguat; thus avoiding their responsibility to address this issue?
- 3. Finally, many RSPO member palm oil plantations have not eliminated the most toxic pesticides, including Paraquat, to this day. As long as this deficiency exists, these plantations should not be granted certification.

3.2 Paraguat use in the banana industry

Currently, five companies control 84% of the international banana trade: Chiquita, Dole, Del Monte, Noboa and Fyffes. Figure 2 shows that Chiquita and Dole together have a market share of 50% of the global banana trade.

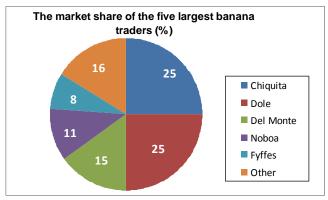


Figure 2: Market shares of the five largest banana companies

All five companies were asked about the use of Paraquat on their own banana plantations and by their suppliers. Del Monte and Noboa have not responded to the questionnaire.

Chiquita and Dole reiterated their policy to prohibit Paraquat on both their own banana plantations and the plantations of supplier farms. For Chiquita, this has been verified through their Rainforest certification. For Dole, compliance will be verified through farm audits. Fyffes indicated that it is not using Paraguat on its own plantations; however, a major part of the bananas sold under its trademark are grown by supplier farms. Fyffes could not answer our questions regarding their supplier farms in due time, but did promise to get back to us on this matter. Neither Del Monte nor Noboa responded to our questionnaire. Until we receive an answer to the contrary we will have to assume that these two companies continue to use Paraguat on their banana plantations.

Other banana growers have also stopped using Paraquat. Both Cooperativas Plataneras de Canarias (Coplaca), the largest producer of bananas in Europe (working together with Fyffes), and the Association of Organization of Canarian banana harvesters (ASPROCAN), of which Coplaca is a member, informed us that they abandoned the use of Paraquat because of its health hazards and due to the

ban in Europe. A smaller producer, Plantations Jean Eglin SA (Ivory Coast, subsidiary of Sipef, Belgium) stated that it is no longer using Paraquat due to possible health hazards.

Banana growers mentioned using other herbicides (Glyphosate, Glufosinate, Oxyfluorfen) and/or non-chemical control methods (cover plants, mulching, mowing) as alternatives to Paraquat. All of the aforementioned plantations and companies have used Paraquat in the past, but stopped doing so last year or several years ago (for example, Chiquita). Coplaca commented that it did not have problems with avoiding the use of Paraquat and other herbicides because it could prevent the growth of weeds by covering the ground with old banana leaves.

On a final note, while the end of Paraquat use on banana plantations (and in general) is greatly welcome, Paraquat should not be simply replaced by other harmful chemicals. Glufosinate for example is a reproductive and developmental toxin classified by the European Food Safety Authority (EFSA) as such¹³. Due to its high, chronic toxicity it has qualified for a European-wide ban. Oxyfluorfen is classified by the US Environmental Protection Agency (US EPA) as a possible human carcinogen¹⁴.

¹³ EFSA Scientific Report (2005): Conclusion regarding the peer review of the pesticide risk assessment of the active substance glufosinate, finalized 14 March 2005, Report 27, 1-81.

¹⁴ U.S. Environmental Protection Agency (US EPA), Science Information Management Branch, Health Effects Division Office of Pesticide Programs, Chemicals Evaluated for Carcinogenic Potential,, September 24 2008.

[[]I am not sure if this is correct because it was a little confusing to determine what was the author and what was the title. I think it may be important to put the footnotes in one uniform style of citation?]

3.3. Paraguat use in the tea industry

We focussed our survey mainly on two major players in the tea industry: first, Unilever, which owns major tea brands Lipton (sales of nearly 3 billion £) and PG Tips (number 1 UK brand), is the world's largest purchaser of black tea, and currently buys around 12% of the world's black tea supply; and second, Nestea, an iced tea brand owned by Nestlé and controlled in most global markets by Beverage Partners Worldwide (BPW), a joint venture between Coca-Cola and Nestlé. Tetley, a fully-owned subsidiary of Tata Tea Limited, the world's second manufacturer and distributor of tea, was also ask to participate in the survey but did not respond to our survey. Starbucks and Teekanne (Teekanne is one of the largest and oldest German tea brands) also did not answer the questionnaire.

Unilever's standards on tea purchasing prohibit the use of Paraquat. In response to the questionnaire, Unilever reiterated its May 2007 commitment to only buy tea from tea estates certified by the Rainforest Alliance. The Rainforest Alliance standards for tea production prohibit the use of Paraquat because it is listed on the Pesticide Action Network's "Dirty Dozen" list. Managers of certified farms are required to use biological or mechanical alternatives to pesticides whenever possible. All Unilever teas from Africa, South America and Asia with Rainforest Alliance certification are guaranteed to be Paraquat-free. certification process in Asia has started and has made good progress.

By 2010, Unilever aims to have full certification of all mainstream tea bags (Lipton Yellow Label and PG Tips) in Europe made from tea sourced from estates certified by the Rainforest Alliance. By 2015, Unilever aims to have all Lipton tea bags globally sourced from estates certified by the Rainforest Alliance. Its long-term goal is to source all of its tea, sold in all of its market worldwide, from sustainable sources. Due to Unilever's commitment to buying tea from certified estates, over time, as more and more estates become certified, Unilever will be able to prove that its tea comes only from estates that meet sustainability criteria, including criteria on pesticide management and use.

An estate that uses any of the pesticides prohibited by Rainforest Alliance, including Paraquat, cannot pass the audit. At present, several of Unilever's suppliers in Argentina and Kenya are certified, in addition to Unilever's own tea estates in Kenya and Tanzania. Unilever expects that some of their suppliers in Indonesia and India will become certified soon.

The only place where Paraquat has been found in Unilever's supply base during routine testing is India. Although both Unilever's standard and the Rainforest Alliance's standards for tea production prohibit the use of Paraquat, it will take time to achieve complete non-use. Unilever is already working towards this goal with Indian suppliers.

Nestea (Beverage Partners Worldwide -BPW) confirmed, after checking with Argentina/Chile, Kenva. suppliers inIndonesia, China, and other regions, that Paraquat was not used for BPW tea leaves. Nestea reported that it supports Paraguat-free tea production and supports efforts to eliminate Paraguat from the production chain. Its suppliers were therefore required demand that producers substitute Paraquat. There was no certification system in place on this issue at the time of the survey.

Some Smaller Tea Companies and their estates, such as the Pfunda Tea Estate (a grower in Rwanda, owned by LAB International, a British tea trading company) and Phu Ben Tea Company Ltd. (a subsidiary of Sipef, Belgium, based in Vietnam), each producing more than 1,500 tonnes per year, communicated to us that they have never used Paraquat on their plantations. Their suppliers control weeds manually (Pfunda) or manually and with Glyphosate (Phu Ben). As a reason for its decision not to use Paraguat, Pfunda listed its possible health hazards and environmental reasons. Phu Ben listed the high probability of leaf damage. Lastly, the suppliers of the German tea importer "Tee Gschwendener" did not use Paraquat; ninety-nine percent of the tea "Tee Gschwendener" purchases is organic.

One of the seven tea companies that participated in our survey reported that 18 of its 20 suppliers are still using Paraquat. This company is based in India.

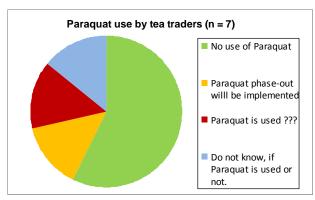


Figure 3: Paraquat use by surveyed tea traders and producers

4. Goodbye Paraquat

The results of the survey show that many leading companies, such as Chiquita, Dole and Nestea have already phased out the use of Paraquat. Unilever, the world's largest tea producer, aims to have a Paraquat-free supply chain and is taking major steps to make this a reality.

Producers see the writing on the wall and are moving away from Paraquat reliance. Our findings about the large-scale phase-out of Paraquat are in line with the sales prospect for Paraquat published by Agrow in 2005, which predicted that Paraquat sales would be falling, and thus confirm a clear trend.¹⁵

With its ongoing lobbying efforts to keep Paraquat on the market, Syngenta is working in the opposite direction of producers and other segments of the supply chain that have realized Paraquat must be phased out. And, like Syngenta, those governments that have not banned Paraquat also lag behind and continue to be responsible for the adverse effects this highly hazardous herbicide has on their citizenry.

Major global food and beverage producers and many smaller producers now have Paraquat-free production. This confirms that alternatives to Paraquat exist and that farming is clearly feasible without Paraquat. Further, more and more buyers are asking for the elimination of Paraquat in their supply chain. In fact, we found no users had switched to Paraquat for weed control, while we frequently observed a reorientation in the opposite direction.

These results should be of interest to all stakeholders, from growers to manufacturers to consumers, as it is convincing evidence that in the palm oil, banana and tea sectors Paraquat-free production is, not only desirable, but also economically viable and

thus possible. These findings clearly invalidate the contrary claims made by the pesticide industry.

Now, with these facts in hand—and with existing knowledge of the detrimental effects of Paraquat—we expect governments to take immediate action to ban Paraquat.

In moving forward, it is important to make sure that Paraquat is not replaced by other highly toxic pesticides, such as Glufosinate and/or Oxyfluorfen. This would not be a sustainable solution. Weed prevention measures and the use of non-chemical weed control must have priority over chemical weed control in the future.

15 Agrow's Complete Guide to Generic Pesticides: Volume 2, Products and Markets - DS250 Published 1 August 2005, http://www.agrow.com/reports/generic_pesticides_vol2 chapter1.shtml.