

19th September 2016.

This submission is not to gain compensation but an effort to demonstrate how chemicals which harm human health are protected by the regulatory authorities.

As I have written to the UK authorities many times - "***Corruption is not merely condoned but it is now encouraged if it supports current political policy.***"

Presentation.

Although Monsanto and its like are responsible directly for the harm done by their chemicals much of the blame for that continuing harm must lie with the regulatory bodies who permitted those chemicals to be released into the environment.

Had those agencies around the world effectively performed the duties for which they are well-paid no harm would have been caused by any approved chemical.

As a former farm manager and pesticide sprayer operator I regularly used the glyphosate formulation Roundup on fields and around the farmyard.

I believed the propaganda that the chemical was "*almost safe enough to drink*".

However when the farm I managed was sold to a neighbouring farmer the staff there caused me to be poisoned with what I eventually discovered was an illegal mix of two organophosphorus insecticides, both of which are claimed to be safe enough to eat. Both approved for add-mixing with harvested grains for human consumption.

I then found that the regulatory agencies were determined to deny that the approved chemicals could harm humans.

Scientists claimed that the chemicals broke down rapidly in the environment but I knew from experience that this was not true.

Eventually a well recognised laboratory scientifically confirmed that the chemicals did not breakdown as claimed - even after over 5 years diluted in water.

This was eventually admitted in Parliamentary answers as being due to the protective action of other chemicals in the formulations.

This experience coupled with reports from other people who have suffered from the effects of pesticides made me examine the situation more carefully.

In 1996 the UK Department of Health released a publication on Pesticide Poisoning in which it was admitted that glyphosate was an organophosphorus compound.

However that publication claimed that the chemical only affected amino acids found in plants. (untrue, since it was proposed as a cancer treatment in humans)

It was also stated, again incorrectly as was to become evident, that this organophosphorus compound did not have the properties of others in the OP group.

As it happened I was in touch with a scientist at the time who told me that he had been in contact with a government scientists who stated differently.

That scientist confirmed that glyphosate had anticholinesterase properties.

This was later confirmed by a contact in the USA who reported having been poisoned by the formulation Roundup Pro, reportedly used “*as an insecticide indoors*” in the USA. Initially I was not convinced but understood the possibility.

I decided to check the accuracy if that report and to my surprise discovered that Roundup in solution killed insects faster than an OP insecticide.

Concerned about this finding I wrote to the UK regulators who showed no interest at all - they could have easily checked for these properties themselves but did not do so.

By 1997 I had however realised the implications should glyphosate formulations harm beneficial insects, as I had found, and so reported to the UK Prime Minister.

Tony Blair was in that post at the time and I suggested that his mantra “*Education, Education, Education*” meant nothing if the children were being poisoned.

There has been evidence reported for many years confirming brain damage caused in children exposed to OPs within the womb and in early life.

Instead of acting on that information the Prime Minister did as all MPS do and referred the matter back to the regulators, who again ignored the findings.

In discussions with a well-respected local farm manager it was discovered that his staff always suffered with skin rashes whenever they handled straw from crops treated with Roundup pre-harvest. This was another indication that the chemical affected humans as well as plants but because glyphosate is systemic in action the compound would also be found in the grain itself in combination with other OP compounds such as those add-mixed with the grain in the grain stores.

All efforts to flag up these risks with the regulators fell on deaf ears.

In 1998 I notified the BSE Inquiry of my findings concerning these chemicals.

Interestingly I can see no mention of my many submissions to the Inquiry in the archives or in their report. Those submissions are however available on the web at

<http://www.oprus2001.co.uk/bse.htm>

In 1999 The German Government was given the task of reviewing the safety of glyphosate. I dispatched the submission pasted below dated 4th May 1999.

After some time I answered a telephone call from Germany during which I was informed that the page of my submission referring to induced cancers had not reached the rapporteur’s offices. At their request the full submission was then faxed to their

offices and later that year German scientists were reported to have confirmed that glyphosate based products harmed beneficial insects. Reports suggested that the chemical would have to be banned immediately but to my surprise the German regulators failed to ban the chemical and instead increased the allowable residue levels in food 3-fold.

Later in September 1999 the UK government was given the task of re-evaluating the safety of anticholinesterase compounds. I made determined efforts to have glyphosate added to that list of chemicals for review and wrote to the Pesticide Safety Directorate saying:

“As I have repeatedly said over many years there must be an urgent review of the organophosphate chemicals which are deliberately added to our food, specifically pirimiphos methyl and glyphosate.

I note that no action has been taken to include glyphosate in the review of anticholinesterase compounds which indicates the adverse influence the manufacturer has over safety matters.”

In March 2000 the UK Pesticide Safety Directorate confirmed that Glyphosate was found to damage the vital mitochondria *“at all levels tested”* but they did not appear to understand the ramifications of such an admission. I wrote:

“I must offer my sincere thanks for the information on glyphosate action on the mitochondria. I have for many years been discussing this very mechanism of toxicity with a variety of research scientists and you provided valuable information. Perhaps the regulators do not realise the importance of the mitochondria? They seem to have ignored the risk? You may have seen that tests have recently been devised which can detect a variety of cancers simply by finding changes in the mitochondria found in body fluids. I suggest that it may well be the changes induced in the mitochondria which actually cause the cancers and that this may well explain the cancers reported to be linked to glyphosate use.”

The following information was received on the 19th September 2016 from a group representing the interests of those with damaged mitochondria. Given that glyphosate like other OPs damages the mitochondria the chemical can trigger these problems.

- Mitochondrial disease is a chronic, progressive disorder that occurs when the mitochondria of the cell cannot produce enough energy for cell or organ function.
- Mitochondrial disease is defined as the result of either inherited or spontaneous mutations in mtDNA or nDNA which lead to altered function of the proteins or RNA molecules that normally reside in mitochondria.
- Mitochondrial disease can be inherited from a person’s mother (mtDNA), from both parents (nDNA), can occur spontaneously, or may result from exposure to toxins, medications, or other environmental triggers.

- There are about 40 mutations in the mtDNA and 300 mutations in the nDNA that have been identified and linked to mitochondrial disease. However, it is likely there are many more that have yet to be discovered.
- Estimates suggest that 1 in 4,000 people will face a diagnosis of mitochondrial disease.
- Adults get mitochondrial disease, too, although for many years Mito was thought to be a “childhood” disorder. Some adults may have had “soft signs” of Mito their entire lives, while others may experience a sudden onset. Sometimes adult patients can identify an event that seemed to trigger the onset of their symptoms, such as a major illness, surgery, or pregnancy.
- Mitochondrial disease symptoms differ from person to person and can first appear in infants, children, teens, or adults. Common symptoms include poor growth, loss of muscle coordination, muscle weakness and pain, seizures, vision and/or hearing loss, gastrointestinal issues, learning disabilities, and heart, liver, or kidney failure.
- Mitochondrial disease symptoms affect many different organ systems. The neurologic, digestive, musculoskeletal, and cardiovascular systems are most commonly affected.
- Mitochondrial disease is related to autism, diabetes, Alzheimer’s, and Parkinson’s.
- A common misunderstanding is that these disorders are a singular disease, rather than a category. Patients can suffer from a variety of disorders, and still be considered to have a mitochondrial disease. A challenge facing those affected by Mito is the fact that multiple people in a family can have Mito, and may not know it, due to the difficulties associated with diagnosis. Lack of awareness and understanding of Mito may lead to misdiagnosis of symptoms.
- The combination of supplements, antioxidants, vitamins, and co-factors that improve mitochondrial function are called the Mito Cocktail. Exercise, nutrition, hydration, and energy conservation are as important as the Cocktail in the overall management of mitochondrial disease.

For more information, please visit www.mitoaction.org.

Of course organophosphates have for decades been known to damage DNA, RNA, protein formation, the energy transfer systems controlled by the mitochondria and therefore the nervous, cardio-respiratory, digestive, immune and hormone systems.

They have also been implicated in fertility problems because of the vital role played by the naturally occurring phosphates which are replaced by man-made compounds.

The combination of disruption of the calcium:phosphorus ratio and hormone imbalance can also explain bone degeneration in exposed humans.

There is an urgent need to take action to remove these poisons from use.

In December 2000 I wrote to the Pesticide Safety Directorate :

“the definition of the word "urgent" is "compelling, critical, crucial, immediate, imperative, important, immediate, instant, pressing", and "demanding early attention”

I first raised the issue of safety on the subject of pirimiphos methyl and glyphosate with the PSD some years ago and have so far been subjected to a deliberate attempt to delay the need for urgent action on the important issues raised. Far from "urgent" responses and the "immediate ban" advised by scientists in the USA some 2 years ago the PSD continues to evade if not prevaricate.....

The PSD is apparently funded by the tax payer and yet it is putting the tax payers at risk. It is too late to hide the truth now as it is a matter of public record that the PSD has been given this information. It is only the control of the media which has prevented greater protest and I suspect that when it is known that the PSD would prefer to waste money on useless faxes than address the serious scientific issues raised there will be more questions asked.

The failure of the PSD to act responsibly on these matters is endangering the entire population and it would seem that the only way that chemicals are permanently withdrawn follows voluntary action by the manufacturers themselves, often, it seems, simply because they dare not release the true safety data on their products. Expensive name changes seem to have become a habit in Government circles so perhaps the PSD should change its middle name to “Support”?”

They did later change their name and the word “Safety” was indeed removed.

They became known as the Chemicals Regulation Directorate - regulating poisons.

In 2001 the anticholinesterase effects of the compound were again confirmed by Egyptian scientists Demerdash *et al.*

Despite evidence from Egypt and elsewhere that, like other organophosphates, glyphosate does indeed inhibit cholinesterase, the UK Food Standards Agency stated that they have *"every confidence in the science"* and continued to support the use of the chemical group.

Its former Chairman was reported to support the Genetically Modified crops programme which relies on this group of chemicals, especially glyphosate.

The UK regulators determinedly refused to add the chemical to the review list.

So frustrated was I about the persistent delays in responding to serious requests for information that I began one reply to the then Pesticide Safety Directorate with the comment *“This is not the first time that you have deliberately made me wait 3 months for a reply and then given me false information.....”*

“.....Then you state quite clearly that "Glyphosate is not an anticholinesterase compound" which was proven by science to be untrue in January 2001. Furthermore glyphosate in formulations such as Roundup has been proven to have just such properties in human poisoning. I have the figures for one such case in my possession. Have you not heard of the Demerdash report which demonstrated just this property for glyphosate? You must have done because I have mentioned the science before.

Why attempt to hide this? Then you state that "It is highly unlikely, therefore, that there will be any interaction between these substances" - that is untrue for I know that scientists who actually studied this interaction reported "enormous increase in toxicity" when the two OP chemicals act together.

What are you trying to hide?”

Later I wrote “Hiding the truth will never result in its disappearance and be sure that it will show its true power in the end. Your letter of 29th October seeks once again to hide the truth.....

“.....given the admission that no one knows what chemicals are produced when the commonly used grain additives are mixed together, how can PSD hope to know how safe the residues are? You are relying on assumptions which are based on flawed data.

Glyphosate is another matter. My diluted samples of Roundup from 1991 retain both herbicidal and insecticidal activity. Samples purchased by a housewife from a supermarket also kill insects faster than pirimiphos methyl. These simple tests can be performed by anyone who seeks the truth.

I do not as you suggest, simply "think" that Roundup inhibits cholinesterase. I have been told by scientists and victims of the chemical who have had blood tests that it has that proven action I suggest that PSD seeks the services of more honest advisers.

This information was supplied to PSD before the review of the chemicals but it was all ignored.

Incidentally I know that scientists have supplied the regulatory bodies in this country with data indicating serious increases in toxic effect when these chemicals are used in combination. It is not my place to pre-empt other people's work. Nor am I in good enough health for any trip to your offices "to talk through the science". The science is already known, has been proven in a UK court of law, and if we can rid ourselves of the corruption it will be proven again.

I will report your comments to those involved in establishing the truth. It would seem that all regulatory bodies behave similarly so as to hide the facts.”

It is interesting to note that the UK Pesticides Guide 2001 reported for glyphosate based products such as Roundup :

"Do not use on grassland if crop to be used for animal feed or bedding"

"Exclude livestock from treated fields. Livestock may not graze or be fed the treated forage nor may it be used for hay, silage or bedding."

The chemical was recommended for that very purpose in 1998 so that farmers could benefit from the short spurt in growth of grass after application.

Why the change? We are all eating treated grains.

The 2016 edition reads :

"Some products require livestock to be excluded from treated areas and do not permit treated forage to be used for hay, silage or bedding"

Under Hazard classification and safety precautions it is described as ***"harmful"*** and ***"dangerous to the environment."***

In a more recent review the German regulators took similar actions as they had in 1999 by ignoring the ever-increasing evidence of serious harm to human health and the environment and once again increasing the permitted residue levels.

There is no doubt in my mind that the failure to act is a consequence of the immense power of the chemical companies and their lawyers and the influence that they have over the government of the USA, which appears to see Monsanto and its chemicals, and the genetically modified crops that are designed to depend on them, as potential weapons of war. Control the food supply and control the country seems to be the plan. The military connection is something that must not be overlooked.

The USA is so powerful that it has a great influence over all the other major countries involved in pesticide regulation. Britain, for example, has influence around the world via the Commonwealth and European Union and there is evidence that the British pesticide regulation system is far from reliable. For most chemicals the properties of the active ingredients are regarded as equivalent to those of the commercial products.

This despite the fact that the UK's Department of Health admitted that chemicals in the formulation of Roundup were responsible for the reported adverse effects.

Deception has been used to hide poisoning cases and the regulators have even involved themselves in preventing successful legal actions.

The reason for this may well be found in the fact that the Chemicals Regulation Directorate is an integral part of the Health and Safety Executive, which is itself part of the Department for Work and Pensions, the body that should pay benefits to those poisoned at work by pesticides. Effectively then those who approve dangerous pesticides for use have colleagues who investigate incidents of poisoning by those pesticides and they in turn advise their colleagues if cases of poisoning qualify for disability payments from the government.

It is glaringly obvious that the built in conflicts of interest risk hiding proven scientific truths in order to protect those involved. That may explain why a former

member of Health and Safety staff recently attempted to undermine my credibility using false information to influence a third party. This some 20 years after his dishonest involvement in my poisoning case in which he was encouraged by his superiors to pervert the course of justice - and did so.

Details and evidence can be provided on request.

My submission to the European Review of Glyphosate in 1999 follows and it must be said that it is most frustrating and annoying to find that all efforts to provide the regulators with evidence of harm are dismissed and then countered by officials whose wages are paid by tax payers who expect them to protect their health and that of the environment. Properties of the active ingredients do not equate to the end products.

This became evident recently in the arguments between the WHO and the EU.

As I have written many times when the regulators fail to properly investigate incidents of adverse reactions, and rarely if ever make the effort to check the data provided by the chemical companies for accuracy, it is impossible for those companies to obtain the feedback required to understand the true picture of toxicity.

I have no doubt that the chemical companies are all too aware of the potential adverse effects on human health caused by their products - some have been designed specifically for that purpose - and all too often those same companies produce highly expensive medications that are used to treat the induced symptoms.

Maximising profit is the clear aim. Sick people make them a lot of money.

Something must be done to break this cycle before it is too late not only for human health but for the environment too.

Submission to the European Review of Glyphosate Products 1999.

The rapporteur (Germany)

Biologische Bundesanstalt für Land und Forstwirtschaft

Abteilung für Pflanzenschutzmittel und Anwendungstechnik

Messweg 11/12

D-38104 Braunschweig

Germany

4th May 1999.

The UK Pesticide Safety Directorate has informed me that the EU review of glyphosate is currently underway and although they tell me that my observations in respect to the cholinesterase depressing action of glyphosate are to be reported to the review body by their representatives they suggest that I should contact you with any additional comments I wish to make. This is the reason for this letter.

I have been contacted by many people who have experienced adverse health effects when using glyphosate based products. The symptoms range widely from sore throats and headaches to dizziness and even permanent disability which at first I thought was very strange given the claims made by those who would promote its use as a "harmless" herbicide often given away free to gardeners with watering cans.

However, as is all too common with pesticides, it appears that the entire world has been given false information as regards the action and safety of this group of chemicals.

In 1996 the British government sent a paper to all General Medical Practitioners entitled Pesticide Poisoning , the 2nd Edition.¹ This paper was edited by Dr Alex Proudfoot who was reported to be a member of the UK Advisory Committee on Pesticides. Under the heading GLYPHOSATE he wrote that

"Glyphosate is an organophosphate which has ***no anticholinesterase*** activity. It inhibits an enzyme which is essential for the synthesis of aromatic amino acids in plants, but ***is not present in man***.....It is believed that this surfactant (polyoxyethyleneamine) was responsible for some of the features observed in cases of severe poisoning due to glyphosate containing products.....The new surfactants are expected to be less toxic than polyoxyethyleneamine ***but there is inadequate human experience to verify this.***"

The emphasis is mine. You will no doubt observe several areas of concern in that statement.

Firstly it is an admission that formulations of glyphosate have been released into the environment and then found to be unsafe. ***There is even evidence that it has anticholinesterase action.***

Secondly there is the suggestion that it is ***merely believed and not proven*** that the

surfactant was responsible for *some* of the adverse health effects experienced.

Thirdly that the surfactant was changed on the basis of that belief *with no certainty of safety*.

In fact reports of adverse human reactions are awaited in order to prove that there is no risk..

Sadly the manufacturers do not recognise adverse effects from their chemicals unless they are confirmed by the UK Health and Safety Executive. This body has been shown to use every means possible to avoid recognising poisoning by pesticides – even when there is medical evidence supporting the diagnosis.

The result is that few, if any, adverse reactions will be reported to the manufacturer and those vital early signs of danger will have been missed. This is an unsatisfactory and a dangerous situation, not just for the victims directly involved but for the entire population of the world since if the manufacturers have their way our crops will depend on the widespread use of the chemical.

Very slowly it is becoming apparent that the authorities are beginning to see that the safety data supplied to them by the manufacturers has not been accurate and in fact some reports suggest that data has been deliberately fabricated to give the impression that the product presents no risk.

This may explain the report issued in September 1997 that the New York Attorney General's office had taken the company (Monsanto) to task, **forcing them to withdraw adverts claiming that Roundup is biodegradable and environmentally friendly.**² Perhaps the fact that Roundup is not biodegradable explains the report by Greenpeace that residues have been found in lettuce plants grown over a year after the land was treated with the chemical. Farmers have reported to me that crops following those treated with glyphosate have suffered damage from the residues. Despite this the claim remains that no product is released into the environment unless it undergoes rigorous testing proving that it present no risk

In private correspondence it has been reported to me that one of the UK Government's Senior Medical Advisors, Dr Timothy Mars who adjudicates on pesticide incidents causing ill health as part of his work with the Pesticides Incidents Appraisal Panel, has actually confirmed that **glyphosate is a low level cholinesterase depressant** . Strange then that all glyphosate products escape the current review of anti-cholinesterase chemicals undertaken by the UK Ministry of Agriculture Fisheries and Food.

Repeated requests for an urgent review of data for glyphosate formulations because of the special place in the food chain as systemic herbicides which will soon be unavoidable have been ignored.

Evidence supporting the anti-cholinesterase properties of glyphosate recently came to me from the United States of America when I was informed that a Roundup formulation was used as an insecticide indoors.

I must say that I did not believe the story at first but I am assured that evidence exists

which proves that Roundup severely depressed the cholinesterase levels in the exposed victim. In my efforts to confirm or disprove this report I tested a formulation sold in supermarkets in a ready to use form and to my surprise I discovered that insects died almost instantly. The experiment was repeated with the same worrying result.

I notified the Government and the Pesticide Safety Directorate with no response. Concerned about the possible effects on wildlife in general and birds in particular in respect of destruction of their food supply I informed the Royal Society for the Protection of Birds and again there was no response.

In order to ensure that this information was put on record I photographed the demise of insects treated with the ready to use Roundup herbicide using the clock which appears as broadcast with the television programmes here in the UK as background.

Roundup Ready sprayed onto 4 flies at 15:40/01
on 3rd November 1998. All were DEAD at 15:41/19



Copies of those photos were then sent to the BSE Inquiry and after some persuasion they eventually acknowledged receipt. (see note below)

BSE, as I am sure you are aware, began in the late 1980s in the UK. There has been much support for the theory that the disease was caused by organophosphates and Roundup is included in that chemical group.

It may be significant to note that two approvals for Roundup were granted in the UK in the years preceding the BSE outbreak.

In 1981 the ADAS advisory service of the UK Ministry of Agriculture Fisheries and Food was recommending that arable farmers could use pre-harvest applications of Glyphosate on cereal crops³ such as wheat, barley and oats as a means to control persistent grass weeds. The only concern shown was for use on malting barley for which permission had to be obtained from the potential purchaser of the grain. By 1985, presumably because no obvious adverse reactions had been recorded, that same advisory group was advocating the use of glyphosate on grassland⁴ and significantly they declared that it would be good practice to graze the grass or preserve it as hay or silage **after** treatment.

This practice can only have added to the already high burden suffered by the cattle from OP insecticides in grain and straw, Lindane in grass, OPs in warble treatments and wormers, and fly control chemicals.

It would appear that these experiments paved the way for the use of Roundup on all crops before harvest as we now see in genetically modified crops which are resistant to glyphosate. There are reports that BSE cases are now being hidden as a means to support the now discredited meat and bone meal theory.

If so it is extremely foolish and irresponsible, especially if the BSE cattle indicate a risk from glyphosate.

Returning briefly to the reports of adverse effects on human health the earliest indications of problems came when I heard that men who handled thousands of bales of freshly harvested straw regularly every year began to experience rashes on their arms. They wondered why this should be and discovered that it only happened with bales from fields sprayed before harvest with glyphosate.

Other reports suggested that individuals already poisoned by organophosphates had collapsed when walking through the stubble of crops treated pre-harvest with glyphosate.

Another man is reported to have operated the line-making machine used on sports fields. He was disabled permanently by his work which involved the mixing of the whitening substance with a glyphosate formulation. The mixture was then used to make permanent lines through which the grass could not grow.

To his horror he discovered that phosphine was released during the application process.

The UK Government paper Notes on the Diagnosis of Prescribed Diseases⁵ lists the dangerous effects caused by phosphine but it also notes that "**Phosphine is usually**

liberated accidentally when acid and metal or alkali react to produce hydrogen. The action of hydrogen on phosphorus liberates phosphine"

Perhaps this is the reason why Agricultural formulations of Roundup carry the following warning

DO NOT MIX, STORE OR APPLY ROUNDUP IN GALVANISED OR UNLINED MILD STEEL CONTAINERS OR SPRAY TANKS.

DO NOT leave spray mixtures in tank for long periods and make sure tanks are **WELL VENTILATED**.

It is perfectly clear then that Roundup presents a serious risk to users in certain circumstances.

Now I will return to other and perhaps more serious aspects where the data seems less than accurate.

This concerns cancer. In recent years glyphosate was regarded as a potential treatment for cancer.

Nothing appears to have come of that research so far but the very existence of such plans proves beyond doubt that the chemical can influence human cells and is not simply restricted to plant amino acids.

My wife and I know to our cost that chemicals which can cause cancer are often used to treat cancer.

Currently she is undergoing chemotherapy using drugs which are derivatives of Mustard Gas in order to prevent a recurrence of a rapidly invasive malignant breast tumour of environmental origin. Lindane is the suspected causative agent but it is known that Mustard Gas is in itself carcinogenic and yet derivatives of such chemicals can control cancers by damaging cell growth in tumours.

In the Journal of Pesticide Reform/Fall 1998-Vol.18,No.3. Herbicide Factsheet⁶ on Glyphosate (Roundup) they report that "Given the marketing of glyphosate herbicides as benign, ***it is striking that laboratory studies have found adverse effects in all standard categories of toxicological testing.*** These include medium-term toxicity (salivary gland lesions), long-term toxicity (inflamed stomach linings), genetic damage (in human blood cells), effects on reproduction (reduced sperm counts in rats; increased frequency of abnormal sperm in rabbits), and carcinogenicity (increased frequency of liver tumors in male rats and thyroid cancer in female rats).

Glyphosate has been called "extremely persistent" by the U.S. Environmental Protection Agency, and half lives of over 100 days have been measured in field tests in Iowa and New York. Glyphosate has been found in streams following agricultural, urban, and forestry applications.

Commercial glyphosate herbicides are more acutely toxic than glyphosate. The amount of Roundup (containing glyphosate and the surfactant POEA) required to kill rats is about 1/3 the amount of glyphosate alone. Roundup is also more acutely toxic

than POEA.

Glyphosate-containing products are more toxic via inhalation than orally.

Inhalation of Roundup by rats caused "signs of toxicity in all test groups," even at the lowest concentration tested. These signs included gasping, congested eyes, reduced activity, and body weight loss. Lungs were red or blood-congested. The dose required to cause lung damage and mortality following pulmonary administration of two Roundup products and POEA (when forced into the trachea, the tube carrying air into the lungs) was only 1/10 the dose causing damage orally.

The report states that **adverse effects have been identified in each standard category of testing** (subchronic, chronic, carcinogenicity, mutagenicity, and reproduction). The publicly available studies of glyphosate's ability to cause cancer were all conducted by or for its manufacturer. In 1991, EPA alleged that Craven Laboratories, a company that performed studies for 262 pesticide companies including Monsanto, had falsified tests. "Tricks" employed by Craven Labs included "falsifying laboratory notebook entries" and "manually manipulating scientific equipment to produce false reports." Roundup residue studies on plums, potatoes, grapes, and sugar beets were among the tests in question. The following year, the owner of Craven Labs and three employees were indicted on 20 felony counts. The owner was sentenced to five years in prison and fined \$50,000; Craven Labs was fined 15.5 million dollars, and ordered to pay 3.7 million dollars in restitution. Although the tests of glyphosate identified as fraudulent have been replaced, this fraud casts shadows on the entire pesticide registration process.

In 1996, Monsanto Co. negotiated an agreement with the New York attorney general that required Monsanto to stop making certain health and environmental claims in ads for glyphosate products and pay the attorney general \$50,000 in costs. Claims that glyphosate products are "safer than table salt," "safe for people, pets, and the environment, and degrade "soon after application" were challenged by the attorney-general because they are in violation of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the national pesticide law. According to the attorney general, Monsanto had engaged in "false and misleading" advertising. **EPA made a similar determination about Roundup ads in 1998, finding that they contained "false and misleading" claims** and were in violation of FIFRA. However, EPA took no action and did not even notify Monsanto Co, about the determination because two years had elapsed between the time that the ads were submitted to EPA and the time that EPA made the determination.

At this point I would like to relate a sad story about a friend of mine. He was working in his garden when the spray boom covered him in Roundup. He had breathing problems and a rash but the operator of the machine declared there was no risk and thought it was a joke. His doctor told him not to be concerned as the symptoms would pass without further trouble. Just two and a half years later my friend died with cancer of the pancreas and his specialist dated the start of the cancer to a time shortly after the incident.

I understand that cancer of the oesophagus has also been linked to the use of

Roundup and I know of at least three cases of such incurable cancers in keen gardener friends who have used Roundup regularly.

I hope the information in this letter helps in your review and that there will soon be restrictions on the use of this chemical. As a former farm manager I was happy to see the introduction of the chemical as it replaced gramoxone which we all knew to be deadly in effect on humans with no antidote available.

However we knew where we were with the chemical and no-one took risks with it for fear of death.

Glyphosate formulations imply that no harm can be done and because this is not true the risk is greater.

The danger is further enhanced with the introduction of Genetically Modified crops designed to withstand repeated applications of this chemical. Such actions will have devastating effects on the environment and upon the health of those using the chemical, living near areas sprayed with the chemical, and those eating the food which will inevitably contain residues of this systemic organophosphate herbicide / insecticide.

The dangers are obvious and I urge you to demand independent research and immediate restrictions on both its use and the importation into the EU of foods produced with the aid of the systemic poison.

References

- 1 Pesticide poisoning, 2nd Edition, Notes for the Guidance of medical practitioners by Dr Alex Proudfoot 1996 (p 20)
- 2 Reported on page 23 of the Guardian Weekly September 28 1997 by George Monbiot
- 3 Pre-Harvest Glyphosate ADAS 1981.
- 4 Glyphosate on Grassland. ADAS "Progress" 1985
- 5 Notes on the Diagnosis of Prescribed Diseases 1992 from the UK department of Social Security (p72)
- 6 Journal of Pesticide Reform/Fall 1998 - Vol.18, No. 3, Herbicide Factsheet on Glyphosate (Roundup)

NOTE - Despite criticism from official quarters about the usefulness of such tests as above a University staff member later applied for a patent on a similar test using fruit flies to measure OP contamination of water.