



PUBLIC HEALTH AND PESTICIDES : A MINI REVIEW

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KEYWORDS :

INTRODUCTION:

Some of the artificial pesticides when they when they exposed to sunlight and rain, they quickly breakdown in to less toxic materials, on other hand some don't breakdown in environments; they are known as persistence core recalcitrance pesticide; some of them are remain in environments for long time with multiplication persistence pesticides. Have gases properties like low water solubility, bio accumulate with and toxicity and can move from plant to animal long distance} Because they are lipophidic, it dangerous to animal.

Pesticides came to indie 1948 when DDT import to India to control for the malaria. Now Indian developed economy but problem with pesticide's use is "the highest" in the worked today that parathion, aldrin, chlordane, DDT and enduring like recalcitrant pesticides survive in environment for years or more. From soil to and air or it water that ultimately end in the food supply.

Indian loss of grain due to pests is 8% To 15% AF its total production, compare to china it is 8% To avoid such losses. Pesticides are widely used to contraol agricultural and house hold vests.

It has been estimated that only about 0.1% of pesticides reach the target organisms [carriger et al 2006] in other woes, we are using 1000 times higher that that would be required if is target oriented only. There is a significant increase in crop production due to pesticides usage leads to keeping food prices under control.

Pesticides upgrade the standard of human health. But continuous application has created serious health problems.

According to NIHO number o pesticide poisoning cases is around 3x10⁶ and 22x10⁴ deaths are reported in developing counties [hah 2011].

Our food and drinks are mainly concern with direct and indirect pesticides exposure Bio-durable and non bio durable pesticides, low doze and high multi pilaf are the major issues points of concern.

Total 234 Pesticides Are Registered In India : Major Pesticides As Per Consumption

Name of Chemical	Description	Its side effects
Allethrin	Untra-low volume sprays for outdoor mosquito control	<ul style="list-style-type: none"> It is toxic to several animal Oxtic to human Carcinogen
Carbaryl	Major pesticides U.K., Austria, Denmark etc. Banned because it kills both targeted and beneficial insects.	<ul style="list-style-type: none"> Toxic to human Carcinogen

Carbosultan	Use to control of aphids. This is generally safe to humans European Union banned	Low Toxic via dermal route. Toxic via inhalation.
Carbofuran	Use to control insects in wide variety. It is absorbased through theroots	Toxic to birds and animals It has one of the highest acute toxicities to humans.
Cartap Hydrochloride	Control of chewing and sucking insects. It is widely used for many crops.	Neuromuscular toxicity results inrespiratory failure.
Chlorothabnil	Broad spectrum fungicide March 2019 EV banned the use.	Eye irritant moderately toxic. Heavy dose is toxic kidney damage.
Indoxacarb	To contral lepidopteren larvae. This is used for house hold insecticides including cock roach and rat.	Consumption of Indoxacarb results Methemoglobi nemia.
Limba crahalothrin	To control spider mites in crops.	Sore throat, breath problem cough, convvausions, burning eye and skin.
Profenotas	Used agaist lepilopteran insects. Widely use for the cottan wheat and vegetable.	Moderately toxic it has two different form.
Fungicides	It kills parasitic fungi or their spores.	Panthogens respond to this by evolving resistance so it should be apply only when absolutely necessary.
Carbendazim	This is broad spectrum be nzimidazole fungicide	High dose cause infertility.
Copper oxchloride	Widely used fungicide to control scab, Anthracnase Downy mildew	Lyosomal damage and endometrium damage.
Copper sulphate	Copper sulphate pentahydrate is fungicide some of the fungi are resentant also.	It is too toxic, irritant, skin contant may results in itching or eczema it may injur to brain, stomach liver or kidney

Manozeb	To control many fungal diseases in a wide range of crops.	Cause goiter probable human carcinogen by EPA.
Sulphar	The oldest of all fungicide highly effective against powdery mildew	Sulphur dust is highly glamable Hazarsdous for human body
Tricyclazole	To control of pyricularia oryzae on rice and other grains	It is absorbed by root Harmful to liver
Zineb	To control downy mildews, rusts. This is general use pesticides	Inhalation of zineb include tiredness, dizzlness and weakness convulsions and unconsciousness
Weedicides		
2,4-D Dichloro – Phenoxy aciticacid	It is a target oriented herbicide most widely used.	Infertility low toxic to human
Atrazine	Most widely used herbicide. It is used to pre and postemergence broadieaf weeds.	Men who work with this are at risk for abnormally shaped sperm.
Butachlor	This is herbicide extensively used in india	Low toxic rarely it creates neurological and cardiovascular problem.
Clyphosate	Broad spectrum berbicide In many cities it spreads over sidewalk	Probably carcinogetic in human. It can serious eye damage and toxic to auatic life.
Paraquat dichloride	Most widely used herbicides which is non selective.	Toxic to human it has been linked to the development of parkinson's disease.
Pretilachlor	To control annual grasses, broad leaved weeds	Skin irritant, skin sensitiser eye irritant phototoxicant
Rodenticides		
Aluminium phosphide	This is roadenticide insecticide and fumigant.	Highly toxic this has been used for suicide.
Bromadiolone	This is second generation rodenticide	Extremely hazardous substance This can enter into the human body through digestive track, through lungs, through skin.

The Pesticides in milk and milk product

No.	Name of Pesticides	Side Effect
1	Chlorpyrishos	Harm to mental development of children weakness
2	Total DDT	It is considered a possible juman carcinogen
3	Total Endosulfan	Headache, dizziness, ataxia
4	Malathion	Hypersensitivity, skin irritation, dry hair
5	Cypemethrin	Muscle, weakness, breath proble
6	Fenvalerate	Toxic to aqua life

Most probably of several pesticides some of them were tested and published in reference 8

No.	Name of Pesticides	Overdose Health problem
1	Lindane (the gamma isomer of HCH)	It damages human liver and kidney
2	Chiorpyrifos	Beurotoxicant immunological changes
3	Malthion	Causes birth defects It might cause genotoxicity in humans
4	Heptachlor	Toxic for aquatic life.

DISCUSSION:

In India, pesticides include, insectides, herbicides, rodenticides are applied by field labour who are not trained educated. These pesticides are applied pre harvest, post harvest storage and transportation stages. Adverse effect occurs direct to human and indirect through plants and animals.

Ready food, junk food, frozen food, soft drinks, ice cream, ready fruit juice are having pesticides. Almost 24 pesticides registered and used in India, classified as a carcinogens by the US EPA. This shows knowledge about pesticides is badly required to public. Many times, pesticides spray directly to animal and sometimes resident at humans which is very dangerous. On the basis of all the review conducted worldwide including India.From animal tissues through feed and folder and enter the food chanin-milk and milk product. Those product consume by all age groups.

Agrochemical ready food and drinks is modern strategy of crop production and economy.

Wong and Lee (1997) had found high concentration of DDT, DDE and HCH Isamers in juman breast milk which was discussed in "satyamev Iayte." Public awareness program on TV.

Because of economical and political scenario of India it is very difficult to prevent use of pesticide and especially overdose of pesticides. We can prevent this through public awareness and education only.

RECOMMENDATIONS:

1. Pesticides and their product have damaging detect on human. Because of nervosa system can addict human. Many at them have more damaging detect to human since it is more sensitive. It is very did cut to break such cycles. Ban on such pesticide like USA.
2. There are pesticides in almost all kind of water including raining water. Pesticides including raining water. Pesticides including lindane, chlorphyiofuos andmalathion have been dound. At certain lever these are safe over dose can cause cancer, kindly damage, liver damage. In July 2003 government of India notify new norms for pesticide for reduce doze of pesticide in packed drinking water one must follow those rules.
3. Pesticides are used to preserve fruits and vegetable must be water soluble, so one can wash it out.
4. Broad-spectrum insecticide must be used under proper specialist's supervision. It may kill good organisms.
5. Ban on pesticide producing company for any promotional offer to increase sell. 1800 cr. Rupees.
6. Though companies have instructed do not use this pesticide on vegetables and fruits, even though famers and stockist are using.
7. Pesticides are very costly one can relocate non pesticides technique to control the pest. All technique must be very cheap.
8. Small state like Sikkim has put ban on all types of pesticides which are used in farms.

9. Government all relief and subsidies should be given to organic rather than conventional farming.
10. Promote NGOs to help them to educate the farmers.
11. More than 100 techniques to control pest without chemical pesticides like physical control biological control.

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