

Pesticides Safe Usage, Hazards, Antidotes and Treatment Methods

- Poisons which are used for protection of plants and other agricultural crops are divided into following groups

Insecticides The poisons which are used to kill insects

- For Example Sulfoxaflor, Abamectin, Trichlorfon, Profenofos, Spinetoram, Fenbutatin Oxide, Nitenpyram, Fipronil, Buprofezin, Emamectin Benzoate, Lufenuron etc.

Nematicides These poisons are used to kill nematodes

- For Example Oxamyl, Thionazin, Methyl bromide, Fenamiphos, Aldoxycarb, Terbufos, Metam-sodium etc.

Miticides Poisons which are used to kill spiders and mites

- For Example Shuttle O, Floramite SC, Pylon, TetraSan 5 WDG etc.

Pesticides Safe Usage, Hazards, Antidotes and Treatment Methods

Rodenticides Poisons which are used to kill rats

- For Example Zinc phosphide and Phosphine Gas.

Fungicides Poisons which are used to cure diseases that are caused by some fungi attack

- For Example Copper Oxychloride, Chlorothalonil, Mancozeb, Fenbuconazole, Thiophanate Methyl, Tebuconazole etc .

Weedicides Poisons which are used to kill or helpful in removal of weeds from Desired Agricultural land

- For Example Pendimethlin, Quizalofop-p-ethyl, Tribenuron-methyl, Acetochlor, Isoproturon, Metribuzin, Butachlor, Lactofen, Paraquat, Haloxyfop-R-Methyl etc.

Pesticides Safe Usage, Hazards, Antidotes and Treatment Methods

Seed dresser These Poisons are helpful to remove any kind of germs from seeds

- For Example 1% KCL Solution, 1% KH_2Po_4 , MnSo_4 , ZnSo_4 , MgSo_4 etc

Safe usage of Pesticides

Safety measure are divided into following three steps for Pesticides

1. Safety measures Before usage
2. Safety measures During usage
3. Safety measures After usage

Safety measures before usage

- Nobody allowed going near to pesticides until he or she does not know about Harms of pesticides.
- Before Application of pesticides ensure the personal protection Equipment like goggles, Hats, respirator etc.
- Do not use mix washed pump because Due to usage of this pump previous pesticides residues can chemically react with current pesticide and desired result cannot be obtained.
- Pesticides bottles and container kept away from daily living and kitchens because poisonous vapors can contaminate through air. Injure person are not allowed for Application of pesticides because it can increase the chances of injury to living tissues.

Safety measures during usage

- For Application of high poisonous pesticides availability of two people in field is compulsory So that in case of any Accident first Aid can be provided.
- If the nozzle blocked during pesticide Application, do not whiff in nozzle to remove blockage instead of that iron wire can be used for this purpose.
- Do not eat, drink or smoking during pesticides application.
- Application of pesticides should be done at the time of Dawn or dusk. Do not apply pesticides at the time of hard sun shine, rain and high wind flow

Safety measures after usage

- Wash spray machine After Application of pesticides at separate place and be care full about that waste water does not allow draining into other Agricultural fields.
- Empty bottles or container should be burnt or buried into depth of soil.
- Remove the personal protection equipment's and Take a bath with good quality soap.
- Place a Sign board of relative pesticide Application in front of field

First aid

- Help given to sick or injured person until full medical treatment is Available is known as First Aid.
- It consist on following in case of pesticide exposures
- Firstly Remove contaminated clothing, wash skin, gently dry and loosely cover.
- Secondly In case of eyes exposure, wash across eyes for 15 minutes.
- And in last If pesticide is inhaled then get victim to fresh Air and laid Down and If pesticide is ingested then give activated charcoal in water to induce vomiting

Antidote for insecticides

- Insecticides are divided into further groups so that they can easily distinguished from each other.
- Insecticides are divided in to Organochlorines, Organophosphate, Carbamates, Pyrethroids, Naturalyte, Oxadiazine and Phenyl Parazole.
- **Antidote for Organochlorines** is taking place 10mg of diazepam into veins. Dose of Diazepam can be reciprocated suitable 30-40 mg.
- **Antidote for Organophosphate** Atropine is 5% solution of infusion at the rate of 0.5g per hour is very effective till patient can be cure.
- **Antidote for Carbamates** use of Atropine at the rate of 2-4 mg within vein and physiological condition of being under the influence of atropine for 24-48 hours so, that patient comes out of danger.

Antidote for insecticides

- **Antidote for Pyrethroids** use of pentobarbitone in vein at the rate of 0.7 g per day until poisoning has been cured.
- In Case of **Cartap** Dimercaprol can be used as antidote at the rate of 3-4 mg per Kilogram of body weight in intra muscles after every four hours for a period of two days and after that 2 times a day for next ten days can be used.
- .

Antidote for Fungicides

- Fungicides like Carbendazim, Streptocycline, Copper Oxychloride, Edifenphos, Iprobenphos, methoxy Ethyl, Mancozeb, Ridomil (64% mancozeb+ 8% metalaxyl), Triadimifon, Dinocap, Carboxin, Captan, Cholrothalonil, Propiconazole and Wettable Sulphur also need antidotes.
- **Antidote for Carbendazim** first gives test dose of Atropine at the rate of 2-4 mg. if no response has been noticed against this dose, then repeat this dose after every 10 minutes.
- **For Streptocycline**, Injection of Cortisone, Adrenalin and antihistamine is given for intense degree of poisoning

Antidote for Fungicides

- **For Copper Oxychloride**, Dimercaprol dose of 3-4 mg per kilogram of body weight. At early stage 3ml is injected deep between muscles for two days and then double amount of dose for next ten days.
- Antidote for **Fungicides** belong to Methoxy Ethyl groups is usage of 1-4 gram sodium citrate after every 4 hours for speedy cure
- Antidote for **Mancozeb** is usage of 0.2 gram of vitamin C in veins per minute

Antidote for herbicides

- In Agricultural fields most of Hazards of Herbicides are caused by Anilophos Atropine, Glyphostae, Isoproturon and Paraquat.
- Anilophos Atropine toxicity cause dry mouth, blurred vision, nausea, dizziness and cause rashes on skin.
- To cure the patient first wash stomach with the help of 5% sodium bicarbonate then give 5% solution of dextrose in veins.
- Glyphostae toxicity cause skin allergies, eyes irritation, respiratory Problems and can even cause death.
- In case of Glyphostae immediately drink milk or some water.

Antidote for herbicides

- in case of Isoproturon toxicity, washing eyes and skin with soap and water.
- Paraquat toxicity cause lung hyper calcemia, respiratory problems and even death can occur
- To cure the patient vomiting is induced so that poison is removed for stomach with the help of 30% water suspension in sodium sulphate.

Antidote for rodenticides

- In case of Rodenticides toxicity , try to maintain the pulse rate at the rate of 110 per minute and give vitamin K to the patient under supervision of medical experts