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Dangerous Effects of Pesticides to Humanity

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Review Article

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ABSTRACT

The use of toxic pesticides around the world to manage pest problems as becomes easy and common practice in agriculture field. Pesticides are using everywhere not only in agriculture field, but living areas like homes, parks, roads, schools etc. Our entire world is with full of pesticides, we can find anywhere in water, food, air, soil which causes dangerous effect to human health as well as to entire creature. The present review covers the toxic effect and dangerous problems are causing to entire world. The study suggest proper usage of pesticides to manage pest problems and as well as to minimize toxic condition to entire world.

INTRODUCTION

One of my favorite foods in this world has to be fresh fruits. Fruits are always packed with essential minerals and vitamins which improve our body health. That's why our elders were used to say "An apple a day keeps the doctor away" and I believe that. When we are eating juicy fruits like Apple and Mango, we don't think about how they become fruits? Now-a-days, farmers are using pesticides highly to control pest problems. All fruits and vegetables are sprayed with pesticides which can kill insects and control the pest problems. I surprised and I got a question, the same pesticides [1-17] are having potential effects on our body and environment? This question encourages me to dedicate a review on dangerous toxic effect [18-21] of pesticides on entire creature.

As we know all fruits and vegetables are grown in farms, then we can find lot of insects and bugs on the plants. The farmers don't want to lose their crop by those small insects, so they can use pesticides and chemicals to kill them. Pesticides are preventing the spreading of diseases to entire crop, so farmers prefer pesticides to lower the risk of losing crop in that particular season. Not only farmer's people are also using pesticides in the form of

repellents [22], rodents [23-28] etc. By this way pesticides are exist in the system and it is one of the reasons for Environmental Hazards and harmful to human health. There are so many effects of pesticides are following below.

EFFECT OF PESTICIDES ON ENVIRONMENT

Pesticides are mainly meant for killing pest and to protect crop from infectious diseases, but very large percentage of pesticides are reaching their destination other than targeted place. They are easily entering into air, water, soil and even into food.

Air and water: There are so many ways that pesticides are reaches into air and water by spraying, leaching [29-31], runoff and May spilled accidently. An approximate two million metric tons of pesticides are used annually on fields. Apart from this, stockpiles of old and outdated pesticides add to the trouble. Most of the farmers are illiterate and use expired products. An estimated six to nine million metric tons of such pesticides are improperly stored. So they are easily reaches rain, rivers, lakes and oceans.

Soil and plants: By spraying in the agriculture lands pesticides are reaches soil and plants and affecting them drastically. They are affecting the agriculture land soil by harming useful micro-organisms, beneficial insects, worms. They are affecting plant biochemistry and physiology by weakening plant immune system [32-42] and root systems, and also reducing concentrations and effect of plant nutrients [43] such phosphorous [44,45] and nitrogen.

Animals and birds: By eating the food which is having pesticides spraying can harmful for animals and birds. The over usage of pesticides may diminish food sources that some animals are need. Birds can be harm by eating warms and insects which have consumed the pesticides. Now a day the pesticides are in the form of granules [46-49] and the birds may eat them by mistaking them for grains of food.

Aquatic life: Fishes and other aquatic animals may be harmed by pesticide contamination of water. Reaching pesticides into water May causes physiological and behavioral changes in fishes and aquatic animals.

EFFECT OF PESTICIDES ON HUMAN HEALTH

Pesticides are mainly designed to kill pest and insects. The mode of action of pesticides is not particularly specific to any species, they often harm or kill organisms other than pest, including human. The World Health Organization estimates that there are 3 million cases of pesticide poisoning each year and up to 2,20,000 deaths, primarily in developing countries. We have to realize this, when we are eating fruit, we are also eating nearly 35 different pesticides that have been sprayed on that. After many studies, pesticides are linked to cancer, birth defects and also harm the reproductive system [50-53], the nervous system [54-63], and the endocrine system [64]. Children are at risk when they exposed to pesticides because of their small size and they have not developed their nervous systems and immune systems completely, they don't have capable of fighting the entering of toxic pesticides into their body systems.

REMEDY FOR PESTICIDES EFFECT

The real solution for pesticides effects lays cultural methods and non-toxics methods of agricultural field. Sustainable methods of pest control [65], pest management [66-69] and organically [70,71] grown food are the best

ways to prevent pesticides to minimize the harm to environment [72-100] and human health.

CONCLUSION

By the entire study, we have to take some preventable cautions for proper usage of pesticides. The government bodies have to maintain proper regulatory system for pesticides. They should implement stricter independent testing of pesticides. We have to implement non-toxic pest management [66-69] programs in public places like parks, schools, roads etc.

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