

ORGANIC MANURE: A NEEDFUL IN TODAY'S ERA

HANSA SHUKLA

Swami Shri Swaroopanand Saraswati Mahavidyalaya, Hudco, Bhilai (C.G.), India

Key words :

(Received February, 2014; accepted, 2014)

ABSTRACT

M

INTRODUCTION

Traditional farming practiced in different areas of India is believed to originate as a medium of self sustainability among the early farmers and was the original type of agricultural practices used. It employed the usage of excreta of the pet animals they had (like cows, ox etc.) and the leaves were decomposed and used as manure by them in their croplands for thousands of years. All such traditional farming is now considered to be "organic farming" although at the time there were no known inorganic methods. Forest gardening, a fully organic food production system which dates from prehistoric times is thought to be the world's oldest and most resilient agro ecosystem. As a result in ancient times the manures were derived from natural sources and it did not harm the environ-

ment .After the industrial revolution had introduced inorganic methods, some of which were not well developed and had serious side effects, an organic movement began in the 1940s as a reaction to agriculture's growing reliance on synthetic fertilizers and pesticides.

GREEN REVOLUTION CAUSED HARM TO THE ECOSYSTEM

An increase in food production was witnessed especially in underdeveloped and developing nations through the introduction of high-yield crop varieties and application of modern agricultural techniques. The introduction of high-yielding varieties of seeds and the increased use of chemical fertilizers and irrigation are known collectively as the Green Revolution, which provided the increase in production

needed to make India self-sufficient in food grains, thus improving agriculture in India. To sustain this growth path and to increase the production of crops, people started using fertilizers in excessive portions which then lead to pollution, not only to the fields but also water, air, soil and the whole ecosystem. This also resulted in the extinction of many plants, birds, aquatic and land animals.

Agriculture is the backbone of India's economy. We started practicing GREEN REVOLUTION with an aim that it would help to improve our economy by increasing crop production in India. The pesticides and fertilizers used for this purpose though helped in increasing crop production and yield and helped improve quality of farming, did not sensitize us on the impacts of the harmful effects of this revolution. Sorrowfully today the entire mankind is exposed to these harmful effects.

Some positive impacts of GREEN REVOLUTION are as stated below:

1. Increase in production / yield.
2. Advantage to farmers: This includes improvement in their economic situation. Even small and marginal farmers are getting better yield, control on many insects and pests, mechanizing improved working conditions inspite of joining late in the race to get better.
3. Better land use by employing two and three crop pattern.
4. Better scientific methods applied as per requirement of farms.
5. Improves country's economic development.

The fertilizers and pesticides though helped in increasing the crop production management in India, they were also harmful to environment. In a way it can be said that all that glitters is NOT gold.

Below are some of the harmful effects of GREEN REVOLUTION:

1. Degradation of land: Due to change in land use pattern and employing two and three crop rotation every year land quality has gone down and yield has suffered. Also due to heavy chemical fertilizer inputs land has become hard and carbon material has gone down.
2. Weeds have increased: Due to heavy crop rotation pattern we do not give rest to land nor we have time to employ proper weed removal system which has increased weeds.
3. Pest infestation has gone up: Pests which we used to control by bio degradable methods have become resistant to many pesticides and now these chemical pesticides have become non effective.

4. Loss of Bio Diversity: Due to heavy use of chemical pesticides, insecticides and fertilizers, we have lost many birds and friendly insects and this is a big loss in long term.

5. Chemicals in water: These chemicals which we have been using in our farms go down and contaminate ground water which affects us and our children's health.

6. Excess use of fertilizers has made the soil infertile.

ENVIRONMENTAL IMPACT OF PESTICIDES

The environmental impact of pesticides is often greater than what is intended by those who use them. Over 98% of sprayed insecticides and 95% of herbicides reach a destination other than their target species, including non-target species, air, water, bottom sediments, and food. They lead in destroying their targets but they also destroy their non-targets. There was a bird named DODO found in Australia that carried the seeds of a very good wood tree in Australia. But due to environmental pollution these birds became extinct and gradually the seeds of the tree which they carried also became extinct. Thus we lost two very useful organisms due to excessive use of pesticides. It acts as both FRIEND AND FOE.

EFFECTS ON HUMANS

Pesticides can contaminate unintended land and water when they are sprayed aerially or allowed to run off fields, or when they escape from production sites and storage tanks or are inappropriately discarded. Ultimately pesticides contribute to global warming and the depletion of the ozone layer. As we know that the ozone layer protects us from the ultra-violet rays of sun we are again harming ourselves by depleting the ozone layer. Also, GLOBAL WARMING leads to many natural disasters like earthquake, floods etc.

Recently the cause of death of 23 children in Bihar was also PESTICIDES which was mixed in their food. The bags of pesticides were kept near their food and it got mixed up with it. We can imagine that how hazardous and poisonous pesticides are. This is just one example but the fact is that there are several cases across the world where the root cause of destruction is the use of pesticides. Many farmers are unaware about how to use it which leads to such kind of problems.

Eliminating pesticides

Many alternatives are available today to reduce the



effects pesticides have on the environment. There are a variety of alternative pesticides such as manually removing weeds and pests from plants, applying heat, covering weeds with plastic and placing traps and lures to catch or move pests. Pests can be prevented by removing pest breeding sites, maintaining healthy soils which breed healthy plants that are resistant to pests, planting native species that are naturally more resistant to native pests, and use bio-control agents such as birds and other pest eating organisms. [Integrated Pest Management (IPM) has also been one practice in pest management which establishes chemical use on a need basis only. IPM is a more socially accepted practice and causes less harm to the health of humans and the environment by those who use them. Over 98% of pesticide spray harms the health of humans and the environment and to those who use them.

CONCLUSION

The use of pesticides in environment is not only harmful to fields but also to humans, soil, air, animals and water or in short to the whole environment. Use of

pesticides increases the production first but due to its extensive use the soil becomes gradually infertile and also causes the extinction of many plants and animals. We know the fact that our environment now has become so polluted that today every 3rd child born suffers from a skin disease, asthma, cancer etc. Thus to save our environment and make the next generation healthy, it is our responsibility to minimize or even stop using agrochemicals and start using ORGANIC MANURE as was used in ancient times.

REFERENCES

- Daily Newspaper- The Times Of India, The Hitavada Principal, Swami Shri Swaroopanand Saraswati Mahavidyalaya, Hudco, Bhilai (C.G.)
 Editor: Professor Jokanovic Milan, Academy Publish, Publish date: 2012-10-12 ISBN: 978-0-9835850-9-1.
Pesticides - The Impacts of Pesticides Exposure. Edited by Margarita Stoytcheva, Publisher: InTech, Chapters published January 21, 2011 under CC BY-NC-SA 3.0 license
 Wikipedia-the Free Encyclopedia