

The Truth About Chemical Farming And Gardening

Many farmers and gardeners say that insecticides and water-soluble chemical fertilisers are necessary for productive farming and gardening.

Others claim that both are harmful.

What are the facts?

This problem, directly or indirectly, affects us all.

Originally the land was so rich that it produced abundant crops every year.

Then production lagged and insects and diseases began to destroy crops.

Why?

What brought this crop plague on us?

Genesis 1:31- 2:1 [King James] *“And God saw every thing that he had made, and, behold, it was very good. And the evening and the morning were the sixth day. Thus the heavens and the earth were finished, and all the host of them.”*

Two things we understand from these two verses.

- a) **Everything that the Creator God had made was good, even insects and crop diseases!**
- b) **The physical creation was complete, the Hebrew word translated “finished” is “kalah” meaning “ready for use.”**

Thus we know that insects that plague our crops and diseases are **not** something new.

Many farmers and gardeners admit that water-soluble fertilisers and insecticides are harmful and would like to stop using them but are afraid to do so.

Others believe that without water-soluble fertilisers they would produce very little, and without insecticides what little they grew would be consumed by the insects driven onto their property by their neighbour’s insecticides.

Malachi 3:11 [King James] *“And I will rebuke the devourer for your sakes, and he shall not destroy the fruits of your ground; neither shall your vine cast her fruit before the time in the field, saith the LORD of hosts.”*

Even when we see that the Creator God has promised to protect us from the “devourer,” that is insect devastation, most fail to step out in faith.

It is time to quit deceiving ourselves, and to make changes in our food production.

The solution with plants is not reached by administering poisons to the soil.

We can eliminate harmful food production without fear of failure.

Humans' natural responsibility

Genesis 2:4-5 [NIV] *“This is the account of the heavens and the earth when they were created. When the LORD God made the earth and the heavens, and no shrub of the field had yet appeared on the earth and no plant of the field had yet sprung up, for the LORD God had not sent rain on the earth and there was no man to work the ground,”*

Before the first human was created God had ordained what was to be our major task.

Genesis 1:26-28 [King James] *“And God said, Let us make man in our image, after our likeness: and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth. So God created man in his own image, in the image of God created he him; male and female created he them. And God blessed them, and God said unto them, Be fruitful, and multiply, and replenish the earth, and subdue it: and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth.”*

Humans are expected by our Creator God to exercise dominion over all the created earth, and we are to do this in several ways.

Fruitful – Hebrew “*pârâh*” meaning to cause to grow and increase.

Multiply – Hebrew “*râbâh*” meaning to cause to yield more.

Replenish – Hebrew “*mâlâ*” meaning to gather a handful and to satisfy.

Subdue – Hebrew “*kâbash*” meaning to bring into subjection – domestic.

Genesis 2:15 [King James] *“And the LORD God took the man, and put him into the garden of Eden to dress it and to keep it.”*

Our whole approach to this beautifully designed ecological system is bound up in two words:

Dress – Hebrew “*âbad*” meaning to till, work for and to serve.

Keep – Hebrew “*shâmar*” meaning to hedge about, protect and preserve by watching over it.

The whole creation is for the service of humanity but we should be bound to that creation in a grateful attitude of service, dedication and protection.

The more we serve our environment the more it will serve us as human beings and glorify God its Creator.

God created our natural resources in a proper balance and intended that humans should maintain this balance.

When we use a plot of land, we assume the responsibility of a steward of that land for the period of our physical life.

As a good steward we should use the land properly, maintaining its natural health so that the soil will produce food of good quality.

Humans have been able to raise good crops without insecticides for many centuries when they allow nature to maintain its balance, acting as a good steward who passes on a good inheritance to the next generation of stewards.

Insecticides have been used extensively only about 60 years, in which time humans have wrought havoc within our living resources, our God-given wildlife in all its forms.

“The current widespread use of insecticides is the greatest threat to animal life worldwide. Worse than deforestation, illegal shooting or drought.”
[Dr. George J. Wallace, Michigan State University Zoologist.]

How do insecticides upset nature’s harmony?

When the soil is allowed to produce the micro-organisms it needs, various fungi among these organisms provide the plants with antibiotics to protect it against disease.

Other organisms manufacture plant food.

When we corrupt this natural balance, plants lose their immunity to insect and fungal attack.

Insect attack is increased and some of the insecticides used to counter this is absorbed by the plant and then ingested by humans who eat the plants.

A portion of the insecticides are washed off the plants into the soil, where it destroys earthworms and micro-organisms.

After these organisms have died, they can no longer maintain the health of the plants.

Plants then become puny and infested with diseases and insects.

It appears that diseases and insects were given to humanity by an all-wise Creator God to cull out inferior quality and to encourage us to produce only quality crops.

Scientists admit that healthy plants resist disease and insect pests.

Various experiments have proven that insects normally attack plants that are starved of minerals but do not damage neighbouring plants of the same variety and age that have received a good supply of minerals from a healthy soil.

Insects usually select plants that are pale and sickly in appearance.

[Reference from *‘Make Friends With Your Land’*; page 54]

Leading college professors have presented proof that when insecticides have been used, insects have increased who are immune to the insecticides.

Crops that first received only one spraying of insecticides per year eventually need six or seven sprayings per year and now have more insects attacking the crops than before.

Studies have also shown that insecticides are absorbed into the human body and cause many human diseases.

[See *‘Our Daily Poison’* by Leonard Wickenden, a well-known professional chemist.]

When we remove crops without returning cover crops and humus to the soil, we allow the topsoil and organic matter to wash away, along with the vital minerals.

The soil becomes unbalanced and poor quality plants will be attacked by insects.

It will take a few years of organic-based farming to restore the balance in the soil that will cause the insect to go elsewhere, seeking plants that are good for insects and bad for humans.

Worms are essential to increase the productivity of the soil, but by instinct, desires a certain quality of surroundings in which to work.

Humans should, by using our minds, also desire and choose the quality that our body needs to function effectively.

Leonard Wickenden, in his book *'Our Daily Poison,'* gives the results of extensive and accurate tests conducted with insecticides, to determine the lingering effects of these poisons.

Tests positively proved that some poisons were still deadly after being in the soil for five years.

These tests also proved that the land which had been poisoned produced much less than the land which had not received these insecticides.

Robert S. Strother, in his article *'Backfire In The War Against Insects,'* [Readers Digest, June 1959], as well as many other writers, have shown evidence which proves that insecticides destroy beneficial as well as harmful insects and also hawks, owls and foxes, that eat rodents that have picked up food in sprayed areas.

When these natural rodents' enemies are killed the few rodents that remain increase rapidly.

God had a reason for creating natural enemies to keep rodents in check.

Are chemical fertilisers harmful?

Before we can compare the values of the various fertilisers, we need to understand the basic differences in the chemical composition and reaction of two major types of commercial fertilisers.

One type is made up of minerals in their natural state, such as rock phosphate, potash mineral and limestone.

This type of fertiliser is not dissolved by water, it is gradually changed into plant food by the action of carbonic acid, nitric acid and other organic acids that are formed by the decomposition of organic matter.

This natural rock mineral, even when ground into a powder, is used up so gradually that soil tests taken 15 years later still show traces of the mineral still remaining.

[See *'Organic Gardening And Farming,'* November 1959.]

The other type of fertiliser is water-soluble which has been processed in a factory by unnatural methods.

This is the type of fertiliser which is commonly sold on the market and advertised for quick results.

Most farmers use it every year and feel they could not get along without it.

The usefulness of any particular fertiliser must be considered on the basis of its effect on the soil, as well as the amount and quality of products produced.

Our goal must be to produce the quality of crops that will build into our bodies the health and vitality that our Creator God intended us to have.

The land originally produced the needed quality of its own accord, because the Creator God who is perfect [Matthew 5:48], was the first farmer and gardener, creating the land in perfect organic balance.

When our farming and gardening operations are patterned after the Creator God's natural growing processes, they are organically correct.

But when humans look for short cuts, and deviates from the natural way, they invent new systems that are usually perverted.

Let us further analyse the quality of fertile, organic soil and come to a better understanding of our responsibility towards the land we work.

Where does good health start?

If we want good health, we **cannot** look to scientists' test tubes to develop it and sell it to us in bottles.

We must look to the soil, from which all food is ultimately derived.

Only those who learn how to maintain health in their soil can get health out of it.

Some claim that a plant will select out of the soil all the elements it needs and in a proper balance, even if the soil is unhealthy.

This simply **cannot** be true, plants **cannot** take out of the soil anything that is **not** there.

Look at the natural soil of a weed patch or a hardwood forest floor that humans have not touched for years.

Here you will find God's way of farming.

The topsoil is literally filled with earthworms and smaller organisms, many of which are visible only under a microscope.

These are the micro-organisms that live in their millions in every handful of healthy topsoil.

Earthworms and micro-organisms eat humus [decaying vegetation], and mix it with the soil's natural minerals to produce plant food that grows healthy plants.

Minerals by themselves are not a balanced food for plants, they have no life until living organisms or natural chemical actions change them into organic plant foods.

When earthworms and micro-organisms are not hindered in their work, they continuously enrich the soil.

They also maintain a porous, loamy texture in the soil which enables it to absorb and hold rainwater.

A good porous, silty loam forest topsoil can hold up to half its volume in water, [*Water, Land And People,* by Bernard Frank and Anthony Netboy; page 33.]

But when humans add to the land a chemical that destroys the essential organisms, the natural organic balance is upset.

Without the earthworms and other organisms, the dead vegetation and the minerals are not readily converted into plant food.

The soil becomes hard and dense, and will no longer absorb and hold a good supply of rainwater to last through dry seasons.

The soil dries out rapidly and produces poor crops if any.

Humans make their own droughts and deserts!

What chemicals are destructive?

Tests have proven conclusively that the fertilisers that are highly soluble in water are destructive to earthworms and micro-organisms, without which the soil cannot be healthy.

Land which does not have these organisms become an almost sterile mineral bed.

The natural minerals cannot be changed into a balanced plant food without these micro-organisms.

How do the water-soluble chemical fertilisers destroy our essential organisms?

Their destructiveness works in two ways.

The rapid dissolving of the chemicals produces in the soil a solution that is so highly concentrated that the soil's organisms cannot live in it.

Another fault of the highly soluble chemicals is that they are composed of unnatural combinations of minerals forced together in factory processes.

When they are put into the soil they dissolve and seek natural combinations with other minerals.

Some of these new combinations go into the plants and glut them with unnatural, unbalanced, one-course meals of inorganic minerals.

Others of the new combinations remain in the soil, usually in the form of poisons.

For example, when sulphate of ammonia is used as a fertiliser, the ammonia is taken into the soil and becomes sulphuric acid, a poison that is deadly to natural organisms in the soil.

The use of nitrate of soda brings similar results.

Plants use the nitrogen and reject the sodium, which joins with carbon dioxide to form sodium carbonate, which is a washing soda. This compound is likewise poisonous in the soil.

Other chemicals used as fertilisers follow the same pattern in adding various poisons to our soil. [See *'Make Friends With Your Land,'* by Leonard Wickenden; pages 63 and 117.]

Is it any wonder that earthworms disappear when chemical fertilisers are used?

It is impossible to produce a nutritionally-balanced chemical fertiliser.

Even a slight disproportionate mixture has been known to give plants a dangerous overdose of certain elements.

Feeds poisoned in this way have killed many cattle.

Yet manufacturers claim that chemical fertilisers have brought great increases in production to the farmers.

They quote authoritative-sounding figures to support such claims.

Do not allow a wrong application of figures deceive you.

Manufacturers have hidden part of the truth and have warped records to suit their own desires.

Organic farming produces more quality food

Why organic farming appears to produce less when you first start to change to its more natural way of food production is because of two things:

1. The soil has been rendered practically sterile by chemicals and erosion.

Such soil produces poorly just after discontinuing the use of chemicals if **no** organic material and natural minerals are put into it.

2. The harmful acids that have killed off the soil's organisms take time to be washed out of the topsoil.

Only then can earthworms and micro-organisms increase and do the job of making the natural minerals available for plant food.

If plenty of organic matter is added to the topsoil and natural minerals are disked into the topsoil, the yield is actually increased after discontinuing chemical fertilisers, [see *'Make Friends With Your Land'*; pages 22-23.]

Both the richness of the soil and its ability to hold moisture are increased if shallow cultivation is used in order to keep the organic matter in the surface soil, where the plants can use it.

This organic matter will be teeming with earthworms and micro-organisms. The acids produced by these organisms will seep downward and convert underlying minerals into plant food.

Such a system imitates God's method of enriching the forest floor.

This is thoroughly demonstrated by the experiments of Edward H. Faulkner as described in his book, *'Plowman's Folly.'*

What about soils that are deficient in certain minerals?

Will organic farming build those needed minerals into the soil?

No, but there are ways of putting into the soil these needed minerals without destroying earthworms and micro-organisms.

Crushed limestone will supply any lack of alkali.

Finely ground rock phosphate supplies the necessary phosphorous without the detrimental effects of super-phosphate.

Potash mineral supplies potash and many trace elements.

Potash can also be added to the soil in the form of wood ashes.

If these minerals are not available in your area, they can be ordered from companies who advertise in magazines that teach organic farming principles.

When we consider that these natural minerals do not have to be added more often than once in several years, they are much less expensive than the chemical fertilisers that many farmers use every year.

Before buying minerals, one should purchase and use an inexpensive soil testing kit and test your soil to see if some essential minerals are needed.

Christians who have taken God at His word, and have discontinued the use of insecticides and water-soluble chemical fertilisers have found that there is no need to fear insects. God has kept His promise and has protected their crops!

Let us not be guilty of conforming to the world's corrupt practices.

The Creator God is training us to appreciate quality.

When we produce food, we should concentrate upon building health.

Deuteronomy 28:1-6 [King James] *“And it shall come to pass, if thou shalt hearken diligently unto the voice of the LORD thy God, to observe and to do all his commandments which I command thee this day, that the LORD thy God will set thee on high above all nations of the earth: And all these blessings shall come on thee, and overtake thee, if thou shalt hearken unto the voice of the LORD thy God. Blessed shalt thou be in the city, and blessed shalt thou be in the field. Blessed shall be the fruit of thy body, and the fruit of thy ground, and the fruit of thy cattle, the increase of thy kine, and the flocks of thy sheep. Blessed shall be thy basket and thy store. Blessed shalt thou be when thou comest in, and blessed shalt thou be when thou goest out.”*

God promises to give us health, productive crops, and prolific livestock if we obey Him.

People who produce unhealthy foodstuffs when they can more easily produce that which is nourishing, are without realising it, forcing others as well as themselves to violate a command of God.

1 Corinthians 3:17 [King James] *“If any man defile the temple of God, him shall God destroy; for the temple of God is holy, which temple ye are.”*

Our bodies are the temple of the Holy Spirit of God.

It is interesting that this corrective verse is found in context of planting, watering and increase, [verses 7-9].