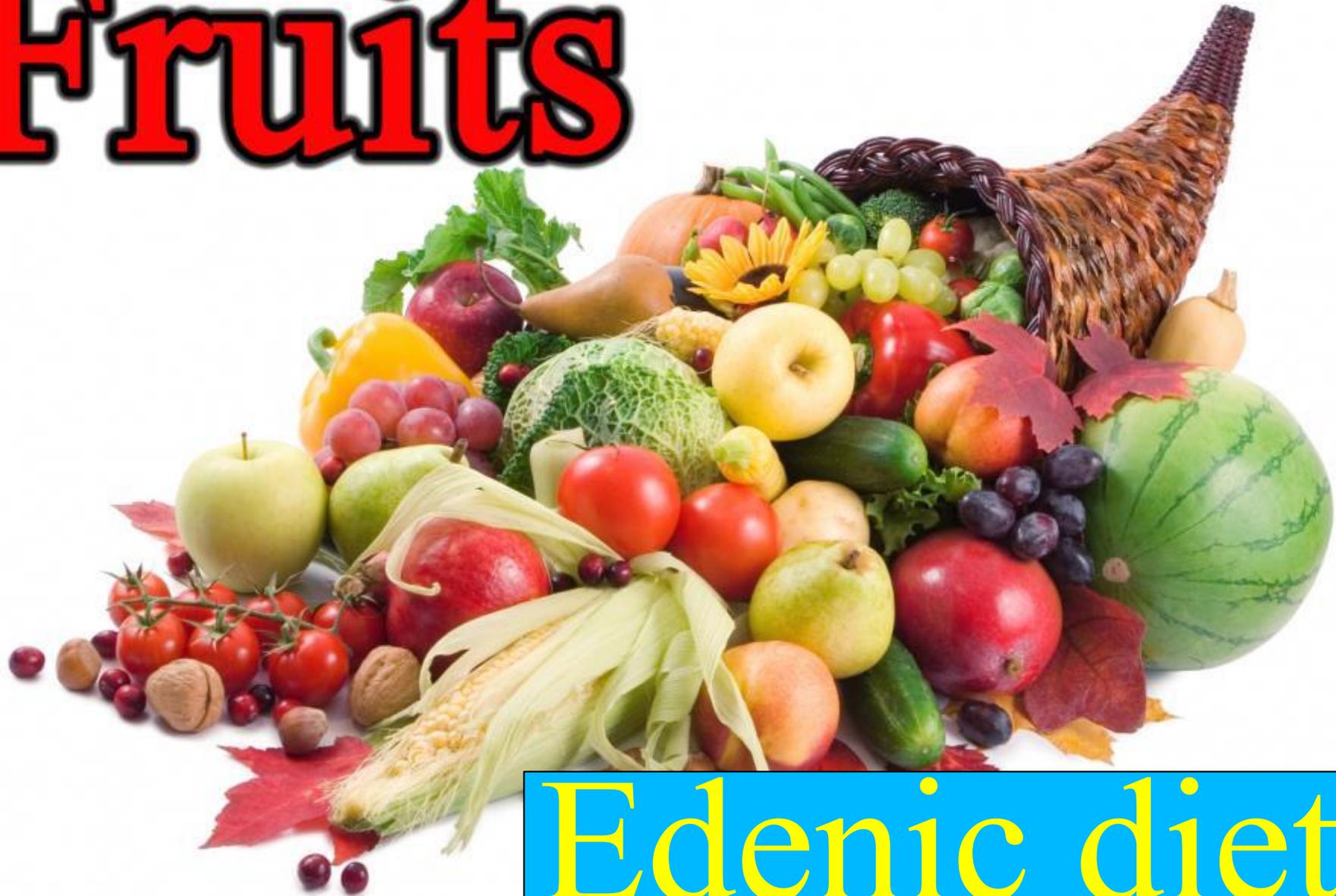


RESTORING THE BROKEN BLUEPRINT

Unless the attention of the people is gained, all effort for them will be useless. The Word of God cannot be understood by the inattentive. They need a plain "Thus saith the Lord" to arrest their attention. {Ev 424.3}

“The work of God in the earth presents, from age to age, a striking similarity in every great reformation or religious movement. *The principles of God’s dealing with men are ever the same.* The important movements of the present *have their parallel* in those of the past, and the experience of the church in former ages has lessons of great value for our own time.” GC 343

Fruits



Edenic diet

Sunshine



Nutrition



Water



Fresh Air



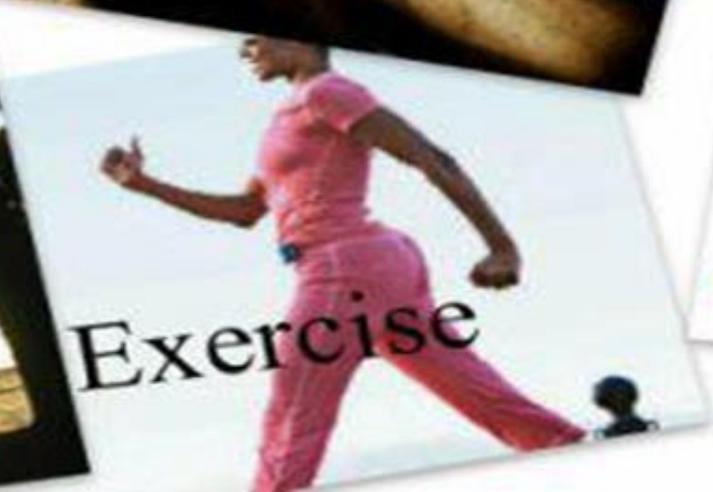
Trust in God



Rest

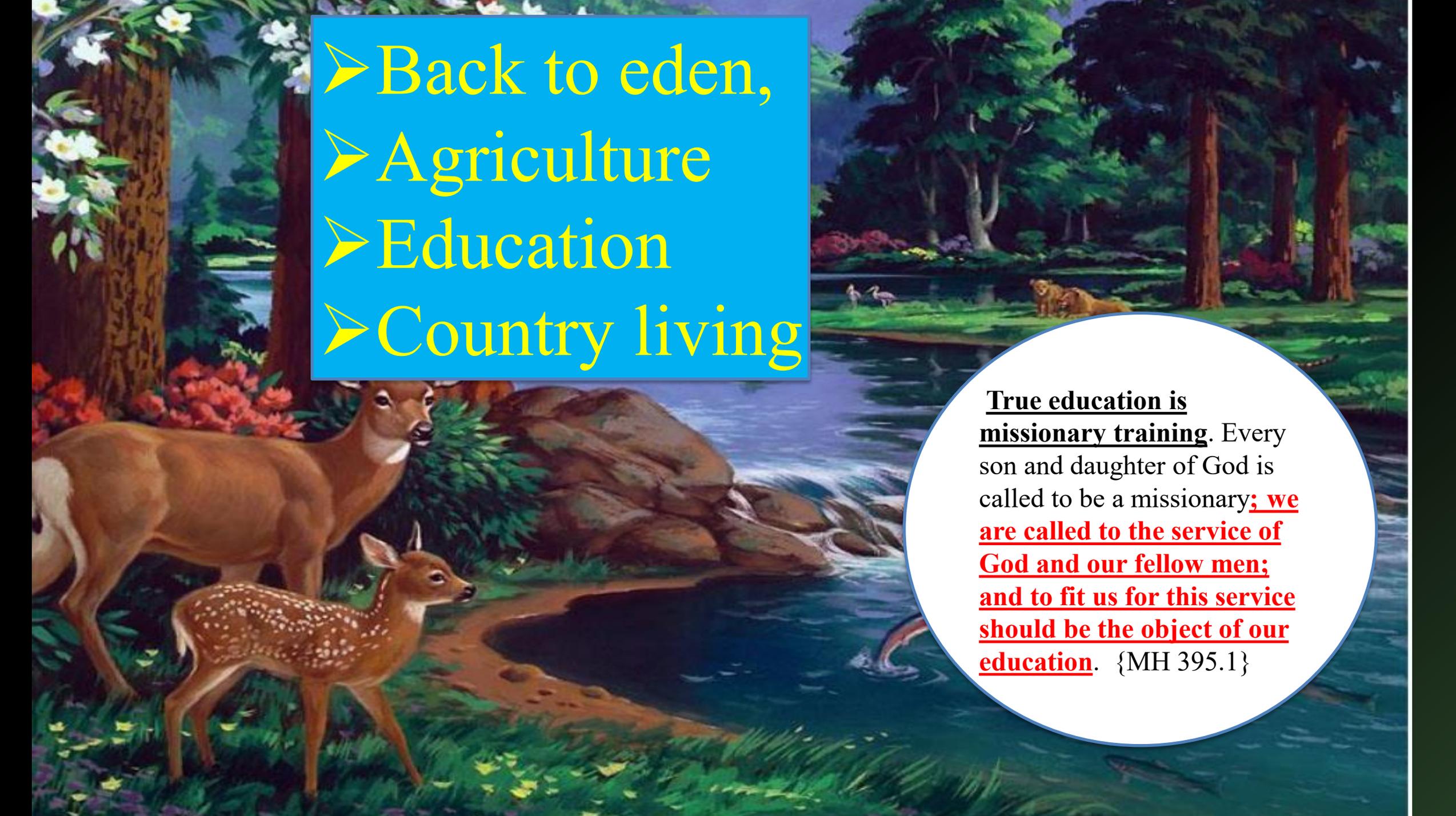


Exercise



Temperance



- 
- Back to eden,
 - Agriculture
 - Education
 - Country living

True education is missionary training. Every son and daughter of God is called to be a missionary; **we are called to the service of God and our fellow men; and to fit us for this service should be the object of our education.** {MH 395.1}

“He that tilleth his land shall have plenty of bread...” Proverbs 28:19

"Students should be given a practical education in agriculture. This will be of inestimable value to many in their future work. The training to be obtained in felling trees and in tilling the soil, as well as in literary lines, is the education that our youth should seek to obtain. Agriculture will open resources for self-support. Other lines of work, adapted to different students, may also be carried on. But the cultivation of the land will bring a special blessing to the workers. We should so train the youth that they will love to engage in the cultivation of the soil. {CT 311.1}

I have been troubled over many things in regard to our school. In their work the young men are associated with the young women, and are doing the work which belongs to women. This is nearly all that can be found for them to do as they are now situated; but from the light given me, this is not the kind of education that the young men need. It does not give them the knowledge they need to take with them to their homes. There should be a different kind of labor opened before them, that would give opportunity to keep the physical powers taxed equally with the mental. **There should be land for cultivation. The time is not far distant when the laws against Sunday labor will be more stringent, and an effort should be made to secure grounds away from the cities, where fruits and vegetables can be raised. Agriculture will open resources for self-support, and various other trades also could be learned.** This real, earnest work calls for strength of intellect as well as of muscle. Method and tact are required even to raise fruits and vegetables successfully. **And habits of industry will be found an important aid to the youth in resisting temptation.** {FE 322.1}

MORE THAN THE PULPIT

God would be glorified if men from other countries who have acquired an intelligent knowledge of agriculture, would come to Australia, and by precept and example teach the people how to cultivate the soil, that it may yield rich treasures. Men are wanted to educate others how to plow, and how to use the implements of agriculture. Who will be missionaries to do this work, to teach proper methods to the youth, and to all who feel willing and humble enough to learn?--Special Testimonies, p. 101.

PRINCIPLES OF GARDENING

GOD A GARDENER

Gen 1:1, 31 [1] In the beginning God created the heaven and the earth. [31] 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.

Gen 2:8 And the LORD God planted a garden eastward in Eden; and there he put the man whom he had formed.

2:9 And out of the ground made the LORD God to grow every tree that is pleasant to the sight, and good for food; the tree of life also in the midst of the garden, and the tree of knowledge of good and evil.

2:10 And a river went out of Eden to water the garden; and from thence it was parted, and became into four heads.

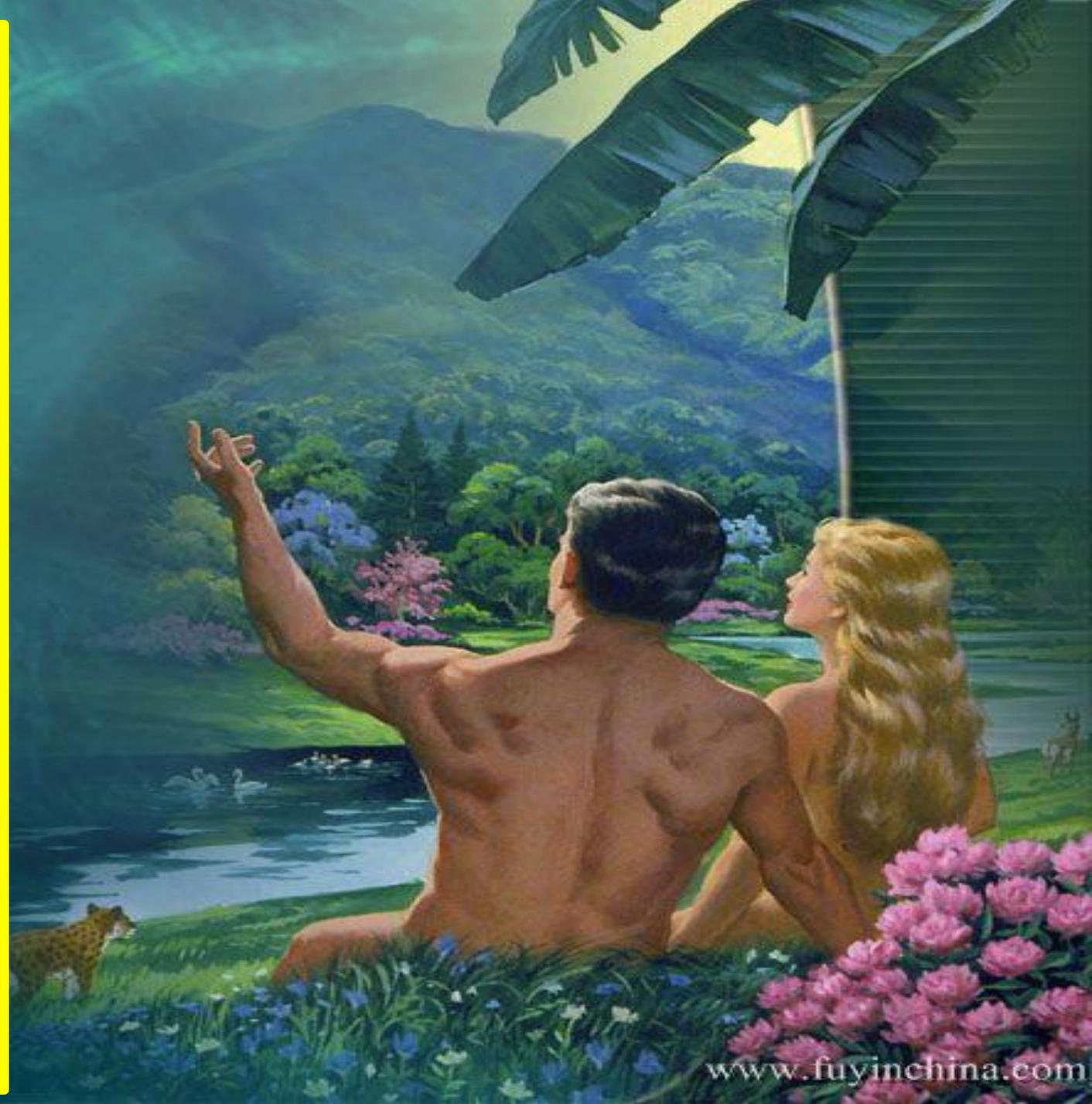
WHERE DID HE PLACE MAN



GEN 2:15 And the LORD God took the man, and put him into the garden of Eden to dress it and to keep it.

In the near future

CL 9 Again and again the Lord has instructed that our people are to take their families away from the cities, **into the country, where they can raise their own provisions; for in the future the problem of buying and selling will be a very serious one.** We should now begin to heed the instruction given us over and over again: Get out of the cities into rural districts, where the houses are not crowded closely together, and where you will be free from the interference of enemies.--Letter 5, 1904.



Prov 27:12 A prudent *man* foreseeth the evil, *and* hideth himself; *but* the simple pass on, *and* are punished.

{SUPPLIED}-The wise man hides himself from the trouble. He makes preparation, in other words, and the wise thing for us to do, for the sake of our families, for our loves ones, for the sake of those who do not see the trouble that's coming, is to make preparation for that little time of trouble. Like Noah, who built an ark for the saving of his house.

Heb 11:7 By faith Noah, being warned of God of things not seen as yet, moved with fear, prepared an ark to the saving of his house; by the which he condemned the world, and became heir of the righteousness which is by faith.

Prov 14:12 There is a way which seemeth right unto a man, but the end thereof are the ways of death.

1MR 252 I am told that Dr. Kellogg advised the brethren to go ahead and build in the city of Los Angeles. But did he not know that the Lord has given instruction in regard to the need of getting out of the cities? As far as possible, **our institutions should be located away from the cities.** We must have workers for these institutions, and if they are located in the city, that means that families of our people must settle near them. But it is not God's will that His people shall settle in the cities, where there is constant turmoil and confusion. Their children should be spared this; for the whole system is demoralized by the hurry and rush and noise. **The Lord desires His people to move into the country,** where they can settle on the land, and **raise their own fruit and vegetables,** and where their children can be brought in direct contact with the works of God in nature. Take your families away from the cities, is my message.

5T 151 Could our brethren remember that **God can bless twenty acres of land and make them as productive as one hundred**, they would not continue to bury themselves in lands, but would let their means flow into God's treasury. "Take heed," said Christ, lest at any time your hearts be overcharged with surfeiting, and drunkenness, and cares of this life." Satan is pleased to have you increase your farms and invest your means in worldly enterprises, for by so doing you not only hinder the cause from advancing, but by anxiety and overwork lessen your prospect for eternal life.

Make a written plan for your garden

- **1.** What percent of my food do I need to grow?
- **2.** The size of the garden you are able to care for?
- **3.** Who will do the work?
- **4.** What tools do I need?
- **5.** How much water is available?
- **6.** Will it be organic or with chemicals?
- **7.** How and where will I preserve the harvest?

In the cultivation of the soil the thoughtful worker will find that treasures little dreamed of are opening up before him. No one can succeed in agriculture or gardening without attention to the laws involved. The special needs of every variety of plant must be studied. Different varieties require different soil and cultivation, and compliance with the laws governing each is the condition of success. The attention required in transplanting, that not even a root fiber shall be crowded or misplaced, the care of the young plants, the pruning and watering, the shielding from frost at night and sun by day, keeping out weeds, disease, and insect pests, the training and arranging, *not only teach important lessons concerning the development of character, but the work itself is a means of development. In cultivating carefulness, patience, attention to detail, obedience to law, it imparts a most essential training. The constant contact with the mystery of life and the loveliness of nature, as well as the tenderness called forth in ministering to these beautiful objects of God's creation, tends to quicken the mind and refine and elevate the character; and the lessons taught prepare the worker to deal more successfully with other minds.* {Ed 111.3}

RELATION OF TRUE EDUCATION TO FARMING

Men take you to their orchards of oranges and lemons and other fruit, and tell you the produce does not pay for the work done on them. It is next to impossible to make ends meet, and parents decide that the children shall not be farmers. They have not the courage and hope to educate them to till the soil. What is needed is schools to educate and train the youth, so that they will know how to overcome this condition of things. There must be education in the sciences, and education in the plans and methods of working the soil. There is hope in the soil, but brain and heart and strength must be brought into the work of tilling it. {Advocate, March 1, 1901 par. 14}

ROTATE AND LET REST

There is need of much more extensive knowledge in regard to the preparation of the soil. There is not sufficient breadth of view as to what can be realized from the earth. A narrow and unvarying routine is followed with discouraging results. **Let the educated ability be employed in devising improved methods of work. This is just what the Lord wants.** There is need of intelligent and educated ability to devise the best methods in farming, in building, and in every other department, that the worker may not labor in vain. God, who has made the world for the benefit of man, will provide means from the earth to sustain the diligent worker. The seed placed in thoroughly prepared soil will produce its harvest. God can spread a table for his people in the wilderness. There is much mourning over unproductive soil, when, if men would read the Old Testament Scriptures, they would see that the Lord knew much better than they in regard to the proper treatment of the land. **After being worked for several years, and giving her treasures to the possession of men, portions of the land should be allowed to rest, and then the crops should be changed. We might learn much, also, from the Old Testament, in regard to the labor problem.**--Special Testimonies, p. 100. {Advocate, March 1, 1901 par. 15}

REFORM

Many who till the soil fail to secure adequate returns because of their neglect. Their orchards are not properly cared for, the crops are not put in at the right time, and a mere surface work is done in cultivating the soil. Their ill success they charge to the unproductiveness of the land. False witness is often borne in condemning land that, if properly worked, would yield rich returns. The narrow plans, the little strength put forth, the little study as to the best methods, call loudly for reform. {MH 193.3}

IMPROVING PH AND FERTILITY

- **Wood Ashes**
- Wood Ashes are about 12% potassium. Ashes generally contain large amounts of calcium. So do not use ashes on soil with a pH above 6. Apply no more than 2 lbs. per 100 sq. ft. every 3-4 years, ashes placed without testing the soil may "lock UP" the nutrients in the soil.

WHAT IS ORGANIC FARMING?

- Organic farming is a farming method that aims to work in harmony with nature rather than against it.
- It promotes sustainable health and productivity of ecosystem like soil, plants, animals and people.
- It includes keeping and building a good soil structure and soil fertility, as well as controlling pests, diseases and weeds.



Why organic farming ?

- ▶ Earlier seasons and climate of an area determined what would be grown and when, today it is the "market" that determines what it wants and what should be grown. The focus is now more on quantity and "outer" quality (appearance) rather than nutritional quality, "vitality". Pesticide and other chemical residues reduced quality of food, increase in various diseases, mainly various forms of cancer and reduced body immunity.
- ▶ Fertilisers have a short term effect on productivity but a longer term negative effect on the environment where they remain for years after leaching and running off, contaminating ground water and water bodies.

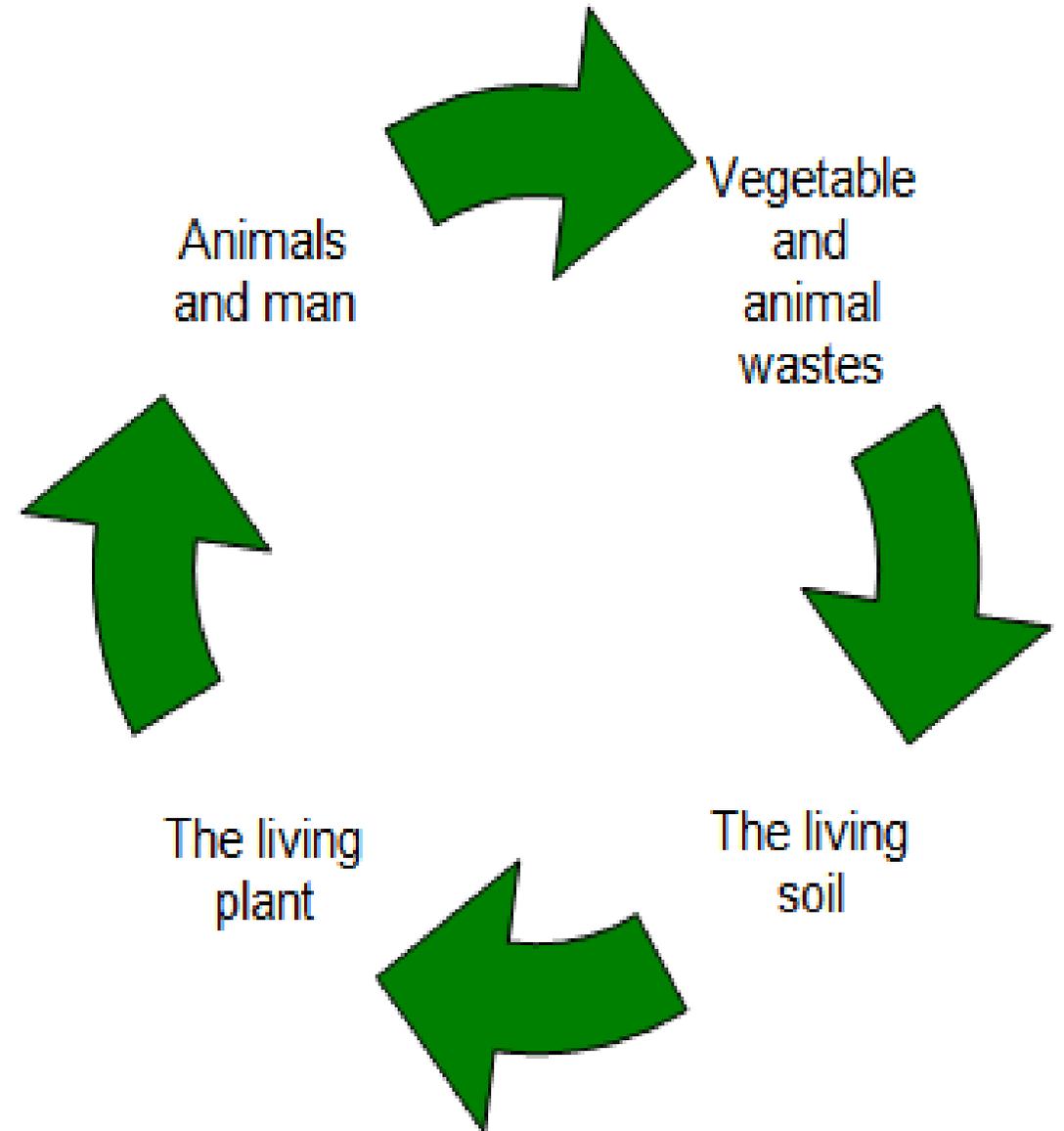
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➡ Millions of people are still underfed and where they do get enough to eat, the food they eat has the capability to eventually kill them.

➡ Organic farming has the capability to take care of each of these problems. Besides the obvious immediate and positive effects organic or natural farming has on the environment and quality of food, it also greatly helps a farmer to become self-sufficient in his requirements for agro-inputs and reduce his costs.

PRINCIPLES

- Wide crop rotation
- An efficient use of on-site resources.
- Absolute prohibition of the use of genetically modified organisms.
- Choosing plant and animal species that are resistant to diseases and adapted to local conditions.
- Raising livestock in free range, open air systems and providing them with organic feed.
- Using animal husbandry practices appropriate to different live stock species supply chain.
- Maintaining a stable ecosystem



Beneficial Effects

- ❖ **Manure supply plant nutrients including micro nutrients.**
- ❖ **Improves soil physical properties like soil structure and porosity.**
- ❖ **Increase the availability of nutrients.**
- ❖ **Co₂ released during decomposition of organic manure and helps to reduce alkalinity of soil.**
- ❖ **Increases the organic carbon content of the soil.**

Contd.....

- ❖ Binds soil particles into aggregates increasing porosity, infiltration and water holding capacity in the soil.
- ❖ Reduces soil erosion through better soil structure.
- ❖ Increases potash and phosphate uptake by the plants.
- ❖ Acts as buffering agents which helps to reduce damage from excessive acid, alkalinity or salt.

Aims

- To work as much as possible within a close system and draw upon local resources.
- To maintain the long term fertility of the soil.
- To avoid all form of pollution caused by agricultural techniques.
- To provide food stuff of high nutritional quality on sufficient quantity.

Contd....

- To make it possible for agricultural families to earn a living through their work and develop their potentiality as human being.
- To maintain the rural environment and also preserve the non agricultural ecological habitats.
- To reduce the use of fossil energy in agriculture to a minimum tending to zero.

METHODS

● Crop rotation

● Mulching

● Green manure

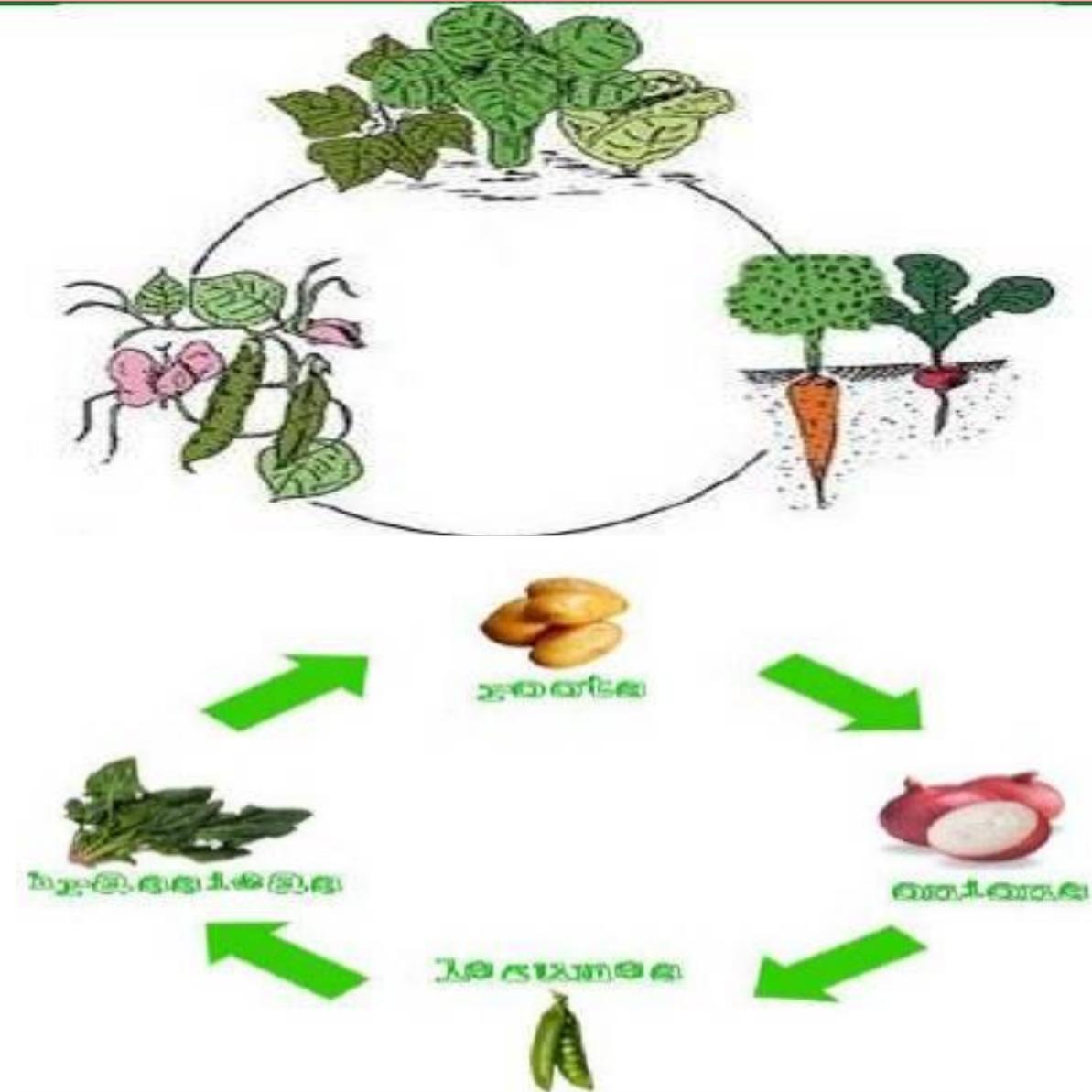
● Composting



CROP ROTATION

❖ Crop rotation means having times where the fertility of the soil is being built up and times where crops are grown which remove nutrients.

❖ Crop rotation also helps a variety of natural predators to survive on the farm.



Composting

- Compost is an organic matter (plant and animal residues) which has been rotted down by the action of bacteria and other organisms, over a period of time.
- Compost improves soil structure, water holding capacity and fertility by adding nutrients for plants to take up the nutrients already in the soil.
- It supplies part of 16 essential elements needed by the plants.



MULCHING

● Mulching means covering the ground with a layer of loose material such as compost, manure, straw, dry grass, leaves or crop residues.

□ How to use mulches?

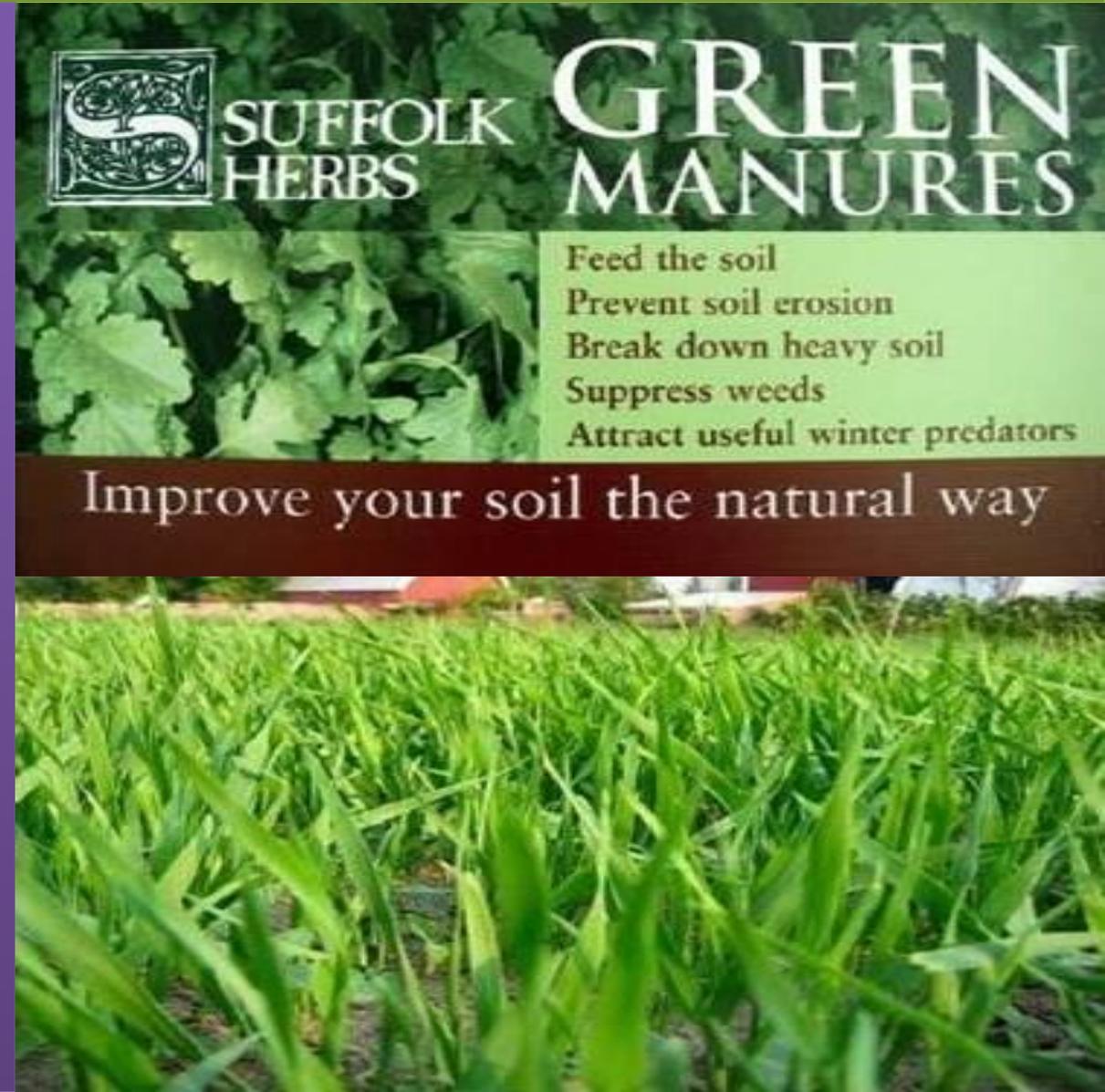
✓ Always apply mulches to a warm wet soil.

✓ Care should be taken as to the thickness of the mulch applied.



Green Manures

- Improve the availability of the soil to hold water
- Control soil erosion
- Improve soil structure
- Improve soil fertility



Prospects of Organic Farming



Health conscious



Selling of organic produce at
premium -Rising income levels



Growing demands
Rising demand for export
Awareness among farmers



Environment friendly and
Safe for the stake holders

ADVANTAGES OF ORGANIC FARMING:

- Enhances Soil Nourishment**
- Poison free health food**
- Food tastes better**
- Better storage life**
- Grower benefits**
- Increase disease and Pest tolerance**
- Increase drought tolerance**
- Lower Input Costs**

CERTIFICATION PROCESS

- ✚ Certification of organic farms is required to satisfy the consumers that the produce is totally organic.
- ✚ Certification agency provides information on standards, fees, application, inspection, certification and appeal procedures. The producer then submits application along with field history, farm map, record keeping system etc. Then the contract indicating scope, obligation, inspection and certification, sanction and appeals, duration, fee structure is executed.
- ✚ Then the Inspector of agency comes and carries out inspection. Inspector gives inspection report with his recommendation to the agency, Then agency issues approval or denial of certificate.
- ✚ Certificate is given for current year's harvest only and hence annual certification is required.

ORGANIC FARMING OF SPICES AND PLANTATION CROPS

- Few spices and plantation crops like Black pepper, cardamom, chilli, turmeric and ginger, fenugreek, coriander, cumin, fennel, oleoresins and essential oil of chilli, coconut, areca nut, oil palm betel vine have tremendous export potentialities.
- Organically cultivated spice and plantation crops get myriad importance in food products in countries of Europe, USA and Japan and other countries.

BLACK PEPPER

Nutrient management

- Application of 2 kg compost with 125 g rock phosphate /vine at the time of planting.
- Compost or FYM during May-June from 2nd year onwards @ 4kg/vine and gradually increased up to 10 kg.
- In bush pepper, application of leaf/vermicompost at 2kg/plant or neem cake at 200g/plant.



Weed and moisture Management

● Mulching is an important cultural operation practice in pepper to suppress weeds and conserve soil moisture.

● Cover crops (*Calapogonium muconoides* & *Mimosa invisa*) are grown to provide effective soil cover and to prevent soil erosion.



Pests and Disease Management

- **Pollu Beetle (*Longitarsus nigripennis*)**

Spraying neem oil at 400ml/100 litres of water.

- **Scale Insect(*Lepidosaphes piperis*)**

Neem-garlic suspension at 2% was found effective.

- **Foot Rot(*Phytophthora capsici*)**

Application of Trichoderma spp. At 75g/vine along with neem cake at 2kg/vine.

- **Nemodes (*Radopholus similis*, *Melodogyne incognita*)**

Apply Crushed neem seed @1kg/vine/year .

- **Capsule rot (*Phytophthora meadii*) and Clump Rot**

Soil application of *T. harzianum* or *T. viride* to the main field resulted in high disease control ranging from 62.3 to 64.8%.



CARDAMOM

Nutrient Management

- Apply neem cake at 1kg or poultry manure/FYM/compost /vermicompost at 2kg/plant once in a year during May-June.
- Apply rock phosphate or bone meal.
- Coir pith compost fortified with rock phosphate can be used as a substituted for FYM in the potting mixture for during nursery phase.



Pest and Disease Management

➤ **Root Grub** (*Balepta fuliscorna*)

Mechanical collection and destruction of larvae reduce the pest damage.

➤ **Stem Borer**(*Conogethes punctiferalis*)

Injection of *Bacillus thuringiensis* preparation into the bore hole (0.5 ml in 10 ml water) will kill the larvae.

➤ **Whitefly** (*Dialeurodes cardamomi*)

Spraying neem oil with soft soap (500 ml neem oil and 500 gm soft soap in 100 litres of water).



Contd.....

❑ **Capsule rot (*Phytophthora meadii*)**

Soil application of *T. harzianum* or *T. viride* to the main field resulted in high disease control ranging from 62.3 to 64.8%.

❑ **Katte Disease (virus)**

Use of disease free planting material is important. Regular rouging of virus affected plants should be made to reduce the spread.

❑ **Root knot Nematodes (*Meloidogyne sp*)**

Trichoderma sp improved growth of cardamom seedlings by suppressing root knot nematode population.

CHILLI

Nutrient Management:

- Organic manure such as FYM applied @4to 5 t/ha.
- It is always advisable to use enriched compost than FYM alone.
- Restricted use of permitted mineral fertilizers under organic system can be done depending on requirement.
- Use of biofertilizers can also be resorted in combination with organic inputs.



Weed Management

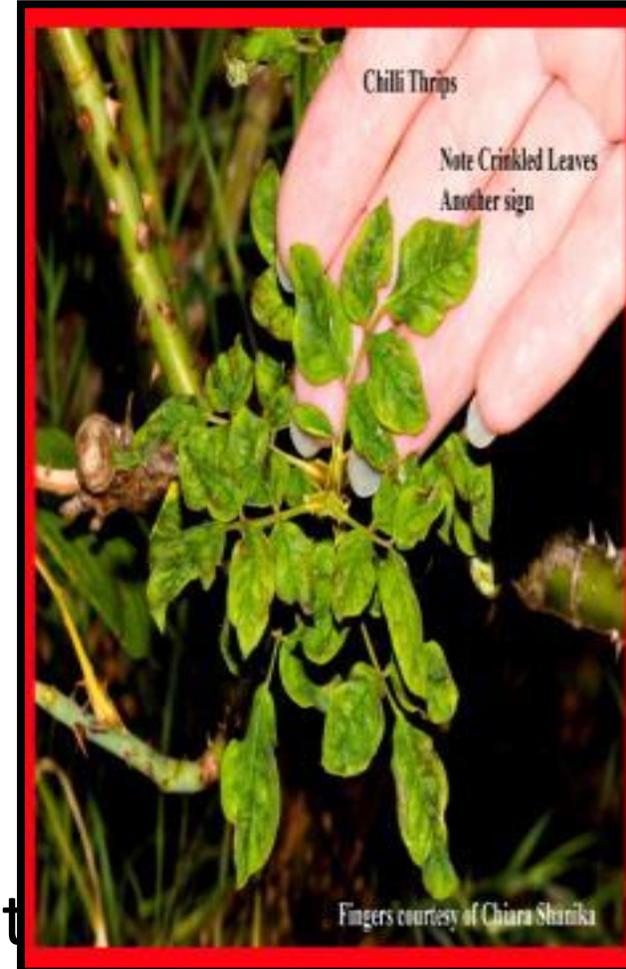
Use of crops and varieties which are

- Tolerant.
- Well adapted to the environment.
- Fertile soils of high biological activity.
- crop rotations, green manures etc.



Pest and Disease Management

- **Thrips**
Application of neem seed kernel extract can be done.
- **Root Grub**
Application of neem cake @250 kg/ha is advisable.
- **Fruit pod borers**
Restricted use of *Bacillus thuringensis* @ 1kg/ha are beneficial.
- **Root and die back and Bacterial wilt**
Seed treatment with *Trichoderma* takes care of seedling rot in nursery. Roughing and destruction of affected plants help in checking the mosaic virus.



GINGER AND TURMERIC

Nutrient Management:

- Application of FYM/compost at 25 t/ha every year.
- Coir pit compost at 2.5t/ha along with FYM and bio fertilizer significantly increased the yield and quality.



Contd....

- **Organic manures such as FYM, neem cake and groundnut cake in turmeric cultivation gave rhizome yield of 48.2, 48.1 and 46.3 quintals/ha in comparison to 48.8 q/ha with chemical fertilizers.**
- **Organic manures improved the curcumin content in the rhizome more than chemical fertilizers.**
- **Application of FYM at 25t/ha and vermicompost at 2.5 t/ha gave higher yield of ginger.**

WEED MANAGEMENT

- ❑ **Mulching the beds with green leaves at 10-12 t/ha 40 and 50 days after planting is recommended in turmeric to suppress weeds.**
- ❑ **Application of compost provides better soil aeration and helps in growing of fingers.**
- ❑ **In case of Ginger mulching after planting + hoeing at 40 DAP + grubber at 60 DAP + hand weeding at 90 DAP + mulching showed superiority in terms of plant height, tillers/ clump, number of leaves/clump and tiller, leaf area index and leaf area/clump.**

Pest and Disease Management

- Hot water treatment of the seed rhizomes at 51°C for 10 min eliminated nematodes and surface bound pathogen also.
- *T. harzianum* in combination with *Pseudomonas fluorescens* showed a synergistic effect in reducing the soft rot infection.
- Apply *T. harzianum*, *T. viride*, *T. hamatum* and *T. virens* as seed treatment and soil application along with neem cake at 100 kg/ha gave production and increased yield.



CORIANDER

Nutrient Management

Well rotten FYM @ 4-5 t/ha may be applied at the time of sowing.

Pest Disease and Weed Management

Aphids can be controlled by using fish oil rosin soap or neem seed kernel extract 3%, neem oil (50ml/liters + 50 ml soap solution).

- Seed treatment and soil application with *T. harzianum* was effective for the management of the disease.
- *T. viridi* as seed treatment (4g/kg) and soil application (5kg/ha) reduced the Fusarium wilt incidence by 58% with an yield of 575kg/ha compared to 433kg/ha in control.
- Follow crop rotation.



CUMIN

Disease Management:

- *T. harzianum* with neem cake as soil application reduced the incidence of wilt.
- Seed and soil treatment with *T. harzianum* was also found significantly effective for both wilt and blight diseases.



FENNEL



- **Nutrient Management**

Combined application of *Azospirillum* + FYM at 5t/ha gave maximum seed yield.

Well rotten FYM or compost @ 10-12 t/ha may be applied as basal application.

- **Pest , Diseases and Weed Management**

Emphasis is given on the use of a balanced nutritional programme.

Use of crops and varieties which are tolerant or resistant and well adapted to the environment, fertile soils of high biological activity, crop rotations, green manures etc.

Contd...



Pests:

Apply fish oil rosin soap, neem seed kernel extracts (3%). Neem oil (50ml/10 lit water mixed with 50 ml soap solution. And tobacco decoction (0.05%) may be done to control aphids, thrips and jassids.

Diseases:

Incorporation of *Trichoderma* with cow dung also help in controlling soil born diseases.

Weeding may be taken up depending on necessity and the inter rows slash weeded and all materials used for mulches.



FENUGREEK

- **Nutrient Management**

Well rotten cattle manure or compost may be applied @ 4-5 t/ha at the time of sowing.

- **Pest, Disease and Weed Management**

Root Rots

Seed treatment with *T. viride* (4g/kg) followed by soil application (5kg/ha) along with 150 kg/ha of neem cake consistently suppressed root rot.

Emphasis is given on the use of a balanced nutritional programme. Use of crops and varieties which are tolerant or resistant and well adapted to the environment, fertile soils of high biological activity, crop rotations, green manures etc.



COCONUT ,ARECANUT AND OIL PALM

Manuring

- For coconut 20 - 50kg and for areca nut 10-15kg for oil palm 15 kg organic manure should be applied per palm per year with high soil moisture content.
- Different forms of organic manures like compost, farm yard manure, bone meal, fish meal, blood meal, neem cake, groundnut cake etc. could be made use for this purpose.
- Burying fresh or dried coconut arecanut husks, oil palm bunch, dried male flower, leaves around the palm is a very beneficial practice particularly for moisture retention especially in drought prone areas.

Green Manure and Cover Crops:

This will help to increase the organic matter content of the soil and also will prevent soil erosion in coconut gardens

- *Crotalaria juncea* (Sunnhemp)
- *Tephrosia purpurea*
- *Gliricidia maculata*
- *Calapagonium muconoides*
- *Mimosa invisa*

Diseases & pest management

- **Bud Rot-** Cut and burn severely affected palms which cannot be saved.
- **Leaf Rot-** Improve general condition of palms through proper manuring and management.
- **Stem Bleeding-** Along with 50kg organic manure, apply 5kg neem cake containing the antagonistic fungi, *Trichoderma* culture to the basin during September.
- **Root (wilt) Disease-** Grow green manure crops - cowpea, sunhemp (*Crotalaria juncea*), *Mimosa invisa*, *Calapagonium mucanoides*, *Pueraria phaseoloides* etc.

Rhinoceros Beetle- using the virus *Baculovirus oryctus* (release 10 - 15 virus infected beetles in 1 ha)

Red Palm Weevil- clean cultivation , removing palms already damaged and the decaying stumps in the garden.

Black headed Caterpillar-Use of parasitoids like *Gorriozus nephantidis*, *Elasmus nephantidis* and *Brachimeria nosatoi*.

Eriophid Mite of Coconut- Spraying biopesticides on the bunches

a) 2% neem oil - garlic emulsion (20ml neem oil + 20g garlic + 5g bar soap in 1 litre water). Emulsion has to be prepared on the same day of application itself. b) Other neem based pesticides at 0.004% (Azadirachtin).

c) Recycling of biomass generated within the coconut system by vermi compost method or by using lignin degrading fungus.

d) Raising of green manure crops in the coconut basins (like sunhemp, cowpea, calapagonium etc.)

BETEL VINE

Nutrient management:

- organic manures viz., farm yard manure (FYM), neem cake, vermicompost, shepmanure.
- Oilseed cakes like Castor cake, linseed cake, sesamum cake or neem cake are applied as manure @ 15 Q/ha. The cake is first soaked in water in a big earthen pot for a week. Then this slurry is applied at frequent intervals. Oilcakes in powder form are also applied in the rainy season. Nitrogen @ 200kg/ha/year as farmyard manure or oil cakes should be applied
- Foliar spray of 25% vermiwash was conducted monthly.
- Organic nutrition not only produced larger leaf but also recorded higher leaf yield indicating scope for sustainable farming.

Diseases pest management:

Use resistant varieties.

Use neem oil

Use bio control agent like *Tichoderma viridi*, *Trichoderma harzanium*

CASHEW

- vermicompost and vermiwash; EM in all liquid modes (extended solution, EM5, EM-fermented plant extract) and as EM bokashi; EM-soaked charcoal, EM-soaked mulch and EM compost; agni hotra, rock dust; homeo dynamic preparations; plant-derived and other organic pest control preparations and measures.
- extensive green manuring and compost, nowadays use cattle manure and biomass.
- Use of charcoal retained moisture for many weeks throughout the dry season, and thus is able to provide the environment for microbial soil life.

Pest and disease control in organic Tea

If insects and diseases occur, non-toxic biological methods are applied.

Within a balanced ecological system, the pests and diseases are controlled by the use of resistant clones, balanced nutrient supply, parasites and predators, pheromones, herbal sprays and by appropriate cultural operations.

Certain caterpillars like flushworm, leaf rollers and tea tortrix can be controlled by manually removing the infested shoots during plucking.

Blister blight by the use of resistant clones and by modifying the micro-climate by the thinning of shade trees.

- **Vegetables you can grow indoors no**

I'm the kind of person who looks at a backyard and sees [garden](#) beds instead of turf. That makes winter a bit hard for me, which is why I turn to indoor gardening.



- Don't let cold weather or limited space squash your green thumb. Here are nine vegetables and leafy greens you can grow indoors year-round.

-

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- **1. Lettuce greens**

- Lettuce is surprisingly easy to grow and does not take up much space, making it an excellent choice for a sunny window. Look for lettuce mixes marketed as cutting lettuces or leaf lettuce varieties. With these, you can harvest the leaves and the plant will grow back, giving you more lettuce for half the work.

- [Start your seeds in a pot](#) or a plastic bag with drainage holes. Fill with moist potting soil and sprinkle five to 15 seeds on the surface. Cover them with 1/8 inch of soil and mist them with a spray bottle until the surface is damp but not soaked. Place them in a sunny window or under a grow light and keep nice and moist. Thin the seedlings once they germinate, leaving the strongest to grow into delicious, fresh lettuce.

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- **2. Carrots**

- You won't get monstrous carrots from an indoor garden, but with a deep enough pot you can enjoy fresh carrots year-round. Shorter carrot varieties need a pot at least eight inches deep and longer varieties require 12 inches to reach their full size. Choose a moistened organic potting soil mix and fill your container up to an inch from the top. Plant your seeds 1/4 inch deep.

- Keep your carrots in a sunny windowsill and keep them moist but not wet. Once they germinate, thin them so that each carrot is at least an inch apart from its neighbor. Plant a new batch of carrots every two weeks to keep them coming all year long.

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- **3. Arugula**

- Spicy and delicious, arugula germinates quickly and grows even faster. Each plant gives you multiple harvests if you cut the larger leaves and leave the small ones at the center. Arugula prefers cooler temperatures, which makes it a perfect vegetable to grow indoors.

- Sprinkle arugula seeds in your container the same way you would lettuce. Water and place them in a sunny windowsill, thinning out weaker seedlings as needed.

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- **4. Kale**

- Once a garnish and now a superfood, kale is a great vegetable to grow indoors. Like arugula, you can harvest the bigger leaves and leave the small ones for a later harvest. Plant a few seeds in a medium-size pot and cover with 1/2 inch of soil. Keep the soil moist and thin to one plant per pot, as kale can get pretty large.

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- **5. Scallions**

- Scallions, also called green onions, give you that onion taste without the space requirements. You can start them from seed or you can pick up some scallions at the grocery store or farmers market. If they still have roots attached, stick them in the soil, burying them up to the top of the white bulb, and watch them grow. Harvest the tops periodically.

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- **6. Microgreens**

- Sometimes waiting for salad greens to grow is tedious. [Microgreens](#) are one of the best vegetables to grow indoors. They grow quickly, they require very little space, and they are absolutely delicious. To grow microgreens, simply sprinkle a single crop of mesclun or microgreen seed mixes in a shallow, well-drained container. Cover the seeds with a fine covering of soil, keep moist, and harvest once the first “true leaves” of the plant pop up.

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- **7. Tomatoes**

- I was surprised at how long my tomatoes lasted indoors the first time I moved a potted plant inside. Had I added fertilizer, I suspect it would have lasted even longer. Tomatoes do well in containers, but they do like sunlight so make sure your tomato gets the best seat at the window.

- I highly recommend starting your seeds in a seed flat (egg cartons work well too) and transplanting them into a large pot when they are a few inches tall. This gives them sturdy roots. Trellis your tomato with a stake to offer further support and fertilize every two weeks.
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- **8. Ginger**

- Ginger is an attractive plant that looks a little like bamboo. The best way to start ginger is to pick some up at a natural food store, as these tend to use fewer chemicals. Even then, you'll have to soak it in water for a few hours to remove any growth inhibitor chemicals on the plant.
- Place your root in a wide, shallow container and barely cover it with soil. Keep it moist, sit back, and watch it grow.
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- **9. Lemons**

- Lemons are technically not a vegetable, but they go well with so many dishes that it seemed criminal to omit them from this list. Dwarf lemon trees make beautiful houseplants. They also provide full size, juicy lemons that pair nicely with meat and vegetable dishes, not to mention a hot cup of tea in the winter.
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- While you can start lemons from seed, most potted citrus enthusiasts buy a dwarf citrus tree from a nursery. It takes a long time to grow a productive tree from seed, and professional nurseries use a grafting process that keeps potted lemons small enough to grow inside.

- **1. Cut and Head Lettuce**

- [Lettuce](#) is a relatively hardy vegetable, and a popular one no matter what time of year. Grow a few different [lettuce varieties](#) for mixes, as well as some colorful lettuce heads, to draw customers in.

- **Grow It:**

- Sow seeds for leaf mixes thickly, preferably using a seeder, in tight rows 2 to 3 inches apart in 4-foot-wide beds. Cut leaves off one plant up to four times, tasting every time to make sure it hasn't become too bitter. For head lettuce, sow or transplant seeds 10 to 18 inches apart, depending on the variety. Succession-plant in early fall and late winter.

- **Market It:**

- Mix cut lettuce in plastic bags or enclosed totes, and display out of wind and sun. [Dunk head lettuce in clean, cold water](#) before market, and display on table. Keep both cut and head lettuce well-misted and prominent on the table. Few foods draw people in like fresh lettuce, especially the darker, redder varieties.

- **2. Spinach**

- Spinach is a classic greenhouse crop. It must stay watered and the farmer must avoid extreme temperature shifts by monitoring the greenhouse, but spinach can be cut from several times in a season and provide a dependable off-season income.

- **Grow It:**

- For full leaf spinach, sow seeds 1 to 2 inches apart, in rows 10 to 18 inches apart. For baby spinach, you can sow seeds in wider bands, in rows 6 to 10 inches apart. Succession-plant in early fall and late winter.

- **Market It:**

- If growing full spinach leaves, harvest from the stem, wash and tie in large, attractive bunches. Bring a baby spinach harvest in a tote or in individual bags, or consider making salad mixes with your spinach and lettuce.

- **3. Other Leafy Greens**

- Leafy greens like [kale](#), [collards](#) and Swiss chard are not only wildly popular but are a great fit for farmers wanting to extend the growing season. The flavor of some greens, like kale, even improves with a little cold. These crops are also ideal because unlike broccoli or cabbage, where you get one cut and that's it, these greens can be picked off of all winter and provide months of income.

- **Grow It:**

- Whether you sow seeds or use transplants, leave at least 8 to 10 inches between plants and about 24 inches between rows. Plant into fertile soil in early fall and late winter, and water regularly for best leaf production.

- **Market It:**

- Tie or bag your greens in large, attractive bunches. Keep leaves misted and out of the wind to avoid wilting. Come to market with a full load—you're sure to sell out!

- **4. Microgreens**

- [Microgreens](#) are tiny, tender versions of familiar vegetables like mustard, cress, radish, beet, basil and kohlrabi that pack a huge nutritional punch. You can grow microgreens from fall to spring, but because they are somewhat esoteric, also consider finding a buyer before they you plant. The good news is that restaurants tend to love these tiny bursts of green, especially when there aren't a whole lot of other greens available. Also, the two- to four-week crop turnover and high price tag they garner make them a pretty attractive option.

- **Grow It:**

- Fill small flats with soil, and follow the germination requirements for your chosen microgreen. Sow seeds thickly, cover with a small layer of soil mix, and keep moist, preferably from underneath the tray, as to avoid splashing dirt on greens. Plant from fall to spring.

- **Market It:**

- Even though it's wise to find a buyer (such as a restaurant or grocery store) before planting, microgreens will sell well in a busy market. Harvest when the first true leaves develop and when the sprouts are about 2 inches tall, after about two to four weeks. Wash the microgreens and bring to market in either a tote or in individual plastic bags, tied off with plenty of air.

- **5. Carrots**

- [Carrots](#) aren't always considered the best use of greenhouse space because they grow so well in the open with a little row cover. But also consider this: Most winters are wet, and if the carrots are ready but the garden is mud, it's a lot easier to dig them out of a space where you control the moisture.

- **Grow It:**

- Sow seeds thickly in rows 16 to 24 inches apart. As plants grow, thin to 1 inch apart, and keep well-watered. Plant in late summer and late winter.

- **Market It:**

- Harvest, wash and tie carrots in large, attractive bunches, with partial greens on. You can leave the entire greens on, and some customers enjoy that, but others will find the greens cumbersome. The greens may also take up a larger portion of your market display than you would like and hide the other bunches.

- **6. "Summer" Crops**

- [Tomatoes](#), [peppers](#), [eggplants](#) and [cucumbers](#) might not be the crops you want to sell at the winter market, but you can at least extend their season by growing them in a greenhouse. You can also grow starts of each of these plants to sell at market in the spring.

- **Grow It:**

- Following the basic growing guidelines for the summer crops you wish to grow, start them in late winter then plant in early spring, or start the crops in mid-summer and plant in the late summer. Also consider that these plants don't typically tolerate temperatures below 35 degrees F, and need lots of sunlight, so they must be tended to and covered when temperatures drop.

- **Market It:**

- You will not need much help selling these items in the off-season. If you do want to improve their visibility, however, the fall is a great time for pickling and canning, so consider marketing these crops as "canning veggies." Of course, being the first or last to arrive at market with tomatoes and peppers will make you a popular vendor no matter what.

- **7. Herbs**
- Whether it's [basil](#), cilantro, tarragon, rosemary or thyme, if you have good control over the temperature of your greenhouse, [herb starts](#) are another highly marketable product. Keep in mind that germinating and raising herbs requires a little more attention to detail but can be profitable under the right conditions.
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- **Grow It:**
- Follow the growing guidelines for each herb you wish to grow, paying strict attention to temperature and water requirements. Try to have starts ready to sell for spring markets when gardens are being replanted and starts are most in demand.
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- **Market It:**
- Selling herb starts can be a great business, especially in terms of perennial herbs, like oregano and rosemary, but even annual herbs do well. Bring them to market in attractive trays and consider growing them in or moving them into biodegradable containers that can easily be planted into the ground. Also, provide some simple growing tips for each crop—customers will definitely appreciate the extra effort.
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- **1. Avocados**

- Yes, you can grow your own guacamole maker's right in your own home. Since avocado trees can grow up to 80 feet in height, for your indoor or container

garden, look for dwarf varieties. You could also try starting your own avocado plant with a pit, but [Gardening Know How](#) cautions, "A plant produced from a seed is less likely to produce fruit, but it will make a lovely tree." They also recommend using a stake to keep the avocado tree straight and its main stem sturdy. And when the tree outgrows its pot, transplant it to a larger container.



- **2. Strawberries**

- Fresh strawberries right at home is a dream come true with the proper lighting and soil.

In fact, the strawberry plant is perfect for planting in something like a hanging basket because it doesn't require a lot of space and it grows just as well in a container as it would in the ground. Ever-bearing varieties produce fruit in the summer and again in early fall.



- **3. Carrots**

Carrots are a great source of vitamin A, fiber, and alpha and beta carotenes. And, it's not only the root that's edible, you can also eat the fern-like foliage. Carrots grow best in light, sandy soils and full sun.



- **4. Cucumbers**

Growing cucumbers indoors can ensure you have a never-ending supply of cucumbers. They do need plenty of water and full sun to ensure they are healthy. Also, look for varieties that are better for containers. According to [Grow It Organically](#), “although most varieties of cucumbers grow well in containers (as long as they’re at least 5-gallon size!), bush cucumber varieties are bred for compact vines, and are less rangy on decks and in small-space gardens.”



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- **5. Green beans**
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Green beans are a yummy, healthy and easy veggie to grow in a container. When purchasing your seeds, remember there are two main plant types. There are beans that grow as vines (usually referred to as pole beans) and bush beans. For indoors, the bush beans will take up less room and do better in containers. Another consideration is lighting — green beans need at least six hours of sunlight every day. If that’s not an option in your space, a grow light would work as well.



- **6. Salad greens**

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Salad greens are probably the easiest and quickest to grow in your small space. [Gardener's Supply Company](#) says that a sunny window is the best spot to put your salad greens container garden, preferably a south-facing window. The company sells a Mobile Salad Garden cart that is practical and adorable. It's on wheels so you could even roll it out onto a deck or balcony.

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- **7. Garlic greens**

Growing garlic plants indoors is an easy and delicious way to have a healthy ingredient at your fingertips. The garlic greens taste like scallions but with an added garlic flavor. You can use them in any recipe that calls for garlic or scallions.

From [Rodale's Organic Life](#): "To grow tasty garlic plants, all you need is a 4-inch pot (or a quart yogurt container with some drain holes poked in the bottom), a small bag of organic potting soil, and a saucer or tray to set the pot on to catch drips."



- **8. Peas**

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There are few flavors as delicious as freshly picked peas.

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- **9. Jalapeno peppers**

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The best peppers to grow in containers are smaller chili peppers, which is perfect for anyone wanting to add a little spice to your recipes. They grow well indoors and will produce fruit for more than five years if tended correctly.

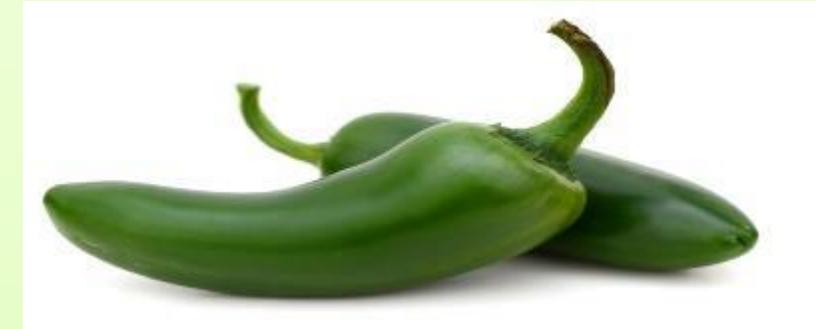
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- **10. Radishes**

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Radishes are super easy to grow, quick to sprout and ready to eat in only four to five weeks. The site Quarto Knows recommends when selecting a container for growing your radishes, chose a “narrow, rectangular pot to mimic the way that radishes would grow in the field. They need to be at least a few inches apart for adequate growth, so putting them in a long container will create a nice row that’s also visually appealing.”

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- **Best Healthy, Edible Plants to Grow Indoors**

- From [farmers' markets](#) and Community Supported Agriculture, to urban farms and rooftop gardens, to produce [delivery services](#), more and more people across the U.S. are embracing farm-fresh food.

- And for good reason: Locally grown produce tends to be [better for the environment](#) and for [local communities](#) than its store-bought counterparts. Growing food at home also ensures that growers know exactly where their food comes from and how it was grown (no need to worry about [deceptive food labeling](#)). If you're not whipping out the pruning shears yet, consider this: Learning new skills is [good for our brains](#).

- Luckily, you don't need to be a farmer (or even live near a farm) in order to reap the benefits of home-grown produce. If you have a sunny window (or two, or five) and a bit of extra time on your hands, then you're capable of growing your own food right at home. Read on for our roundup of 16 easy, healthy plants to cultivate indoors — and how to get them growing!

- **General Growing Tips**

- Before you get started, here are a few tips that will be handy to keep in mind no matter which of the plants from this list you choose to grow.

- All of these plants require well-draining soil, which means you will either need to use a pot with holes in the bottom or pile up some stones in the bottom of your pot before adding soil (so that the water can drain through the stones). If you choose to use a pot with holes in the bottom, be sure to put a shallow drainage container under the pot so the water doesn't drain onto your floor, shelf, or windowsill.

- For each of these plants, feel free to purchase potting mix at a garden center or make your own (You can also choose whether or not you want to stick with organic soils). Each plant grows best in a slightly different soil environment, but this general [potting mix recipe](#) will help get you started.

- Many of these plants grow best in areas that receive lots of sunlight and remain fairly warm throughout the day. Sunny windows are extremely helpful for growing plants indoors. However, if you don't have sunny windows (or if the area is a low temperature), [grow lights](#) will be your new best friend — they help maintain optimal light and temperature conditions for plants regardless of outside weather or indoor conditions.

- **Fruits and Veggies**

- **1. Avocados**

Why They're Healthy: [Avocados](#) are chock full of healthy fats in addition to vitamins E and B6 and carotenoids, which are high in vitamin A and have been linked to a reduced risk of cancer, heart disease, and eye degeneration. No wonder these fruits are one of our favorite superfoods!



- **How to Grow:** It's possible to grow an avocado tree [from an avocado pit](#), but doing so may not yield edible fruit. If you want to eat what you sow, it's best to purchase a dwarf avocado plant (varieties that yield the larger green-skinned fruit or the more common black-skinned fruits are equally good) . To [tend for your tree](#), **add some sand** to the bottom of a large, well-draining pot before filling it with regular potting mix and planting your tree. **Water** the tree regularly but make sure the soil is never soggy — avocado roots don't take well to being waterlogged. [Prune](#) the shoots regularly, and be sure to place the tree in an area with high ceilings — even dwarf trees can grow higher than 10 feet!
- **How to Harvest:** Green varieties are ready to harvest when the fruits' skin turns slightly yellow, while darker varieties are ready when their skins have turned almost black. Ripe fruits can be left hanging on the tree for a few weeks, but any longer than that and they'll start to lose their flavor and texture.

- **2. Carrots**

Why They're Healthy: Carrots are a [good source](#) of a variety of vitamins and minerals, including thiamin, niacin, folate, manganese, potassium, and vitamins B6, A, C, and K. They also supply carotenoids, which are a big boon for eye health .



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- **How to Grow:** Purchase carrot [seeds and a pot](#) or **window box** that's at least a foot and a half deep and wide, with drainage holes at the bottom. Fill the container to within an inch of the top with a [humus-rich](#) potting mix. Water the soil before planting the seeds. Plant the seeds one inch apart in rows that are six inches apart from each other, pressing the seeds gently into the soil and covering them with a thin layer of soil. **Water.** Place the container in an area that receives tons of light. Keep the soil moist, but not soaked. To help preserve moisture, soak some peat moss in water overnight and then spread it on top of the seeds. Expect the seeds to germinate (i.e., start sprouting) in about two weeks.
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- **How to Harvest:** Carrots are [ready for harvest](#) when they've grown to about $\frac{3}{4}$ of an inch across the top (just below the green stem). If you can't see the carrot itself, gently brush aside some soil around the stem so you can size it up (Note: Though it may be tempting to see how big carrots can get, they'll start to lose their sweetness and flavor once they surpass their peak size.). To pick the carrots, grab them firmly at the root and wiggle them around a bit, then pull straight up. If you find that the soil is quite hard, water it and then wait an hour or so before retrying the harvest. Once the carrots have been pulled from the soil, remove the greens immediately, wipe off any excess dirt, and let them dry before storing them in the fridge.

- **3. Garlic Greens**

Why They're Healthy: Pungent garlic is a member of the cancer-fighting allium family . It's also a Greatist-approved [superfood](#) that's been linked to improvements in high blood pressure, high cholesterol, heart disease, and certain types of cancer.



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- **How to Grow:** Note: Growing actual garlic bulbs indoors is a bit tricky, but you can easily grow garlic *greens*, which can be used just like scallions. [Start](#) by purchasing a few garlic bulbs with small cloves, and don't be afraid to buy a shattered bulb (i.e., one that's started to burst or is fully pulled apart). **Select a four-inch pot** with drainage holes at the bottom (a quart-size yogurt container with holes poked through the bottom will also work) and a small bag of potting soil. Fill the pot with soil to about half an inch below the top of the container. Break the bulbs into individual cloves (leave the peel on), and push each individual clove about an inch into the soil, pointy end up. Plant about 12 cloves close together. **Water well** and place the container in a sunny spot. Water regularly, making sure that the soil remains moist but not soggy. Green shoots should appear in about a week.
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- **How to Harvest:** Once the shoots are 8-10 inches tall (this will take a few weeks), clip off whatever you need with scissors. When the cloves start putting up more sprouts, compost the contents of the pot, fill it back up with fresh potting soil, and plant new cloves (Each clove only sprouts good greens once; to have a constant supply, you need to keep re-planting).

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- **4. Lemons**

Why They're Healthy: A Greatist superfood, [lemons](#) are packed with vitamin C and antioxidants, which could help decrease heart disease risk, reduce inflammation, and fight some cancers .



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- **How to Grow:** If you want the option of [harvesting fruits](#) right away, purchase a two-to-three-year-old dwarf tree at a nursery. Choose a clay, ceramic, or plastic **pot slightly larger than the root ball of your tree**, and make sure it has several holes in the bottom. Fill the drainage dish with stones to allow air to circulate. Use a potting soil specifically formulated for citrus trees, or choose a slightly acidic, loam-based potting mix. Place the plant in an area that will receive eight to 12 hours of sunlight each day and will ideally maintain a temperature between 55 and 85 degrees Fahrenheit. **Water regularly**, but be sure not to over-saturate the soil (it should be moist, not sopping wet). Citrus trees like moist air, so regularly misting the leaves with a spray bottle will help keep the leaves perky.

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- **How to Harvest:** Most lemons will ripen in six to nine months. Test for ripeness by looking for full color and gently squeezing the rind — a slight “give” indicates that the lemons are ready for eating.

- **5. Mandarin Oranges**

Why They're Healthy: These sweet little fruits are a [decent source](#) of antioxidants, calcium, phosphorous, magnesium, and fiber.

How to Grow: Purchase dwarf mandarin orange trees for the best chance of [growing fruits](#) successfully indoors. The trees will **grow best in spacious pots** with drainage at the bottom, and in rich soil. They also require a sunny location (rotate the plant regularly to ensure that it receives light evenly on all sides). **Water regularly,**

allowing the soil to dry out slightly between waterings. The trees can grow up to six feet tall, and their root system grows along with them — when the roots begin to grow back on themselves or out of the drainage holes, it's time to re-pot in a container that's at least 2 inches larger in diameter.

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- **How to Harvest:** Mandarins [need to be harvested](#) as soon as they turn orange in order to preserve their flavor. When the fruits turn orange, clip or carefully twist and pull the fruit from the tree, making sure that the “button” at the top of the fruit remains intact.



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- **6. Microgreens**

- **Why They're Healthy:** A big [bowl of leaves](#) can be a stellar source of vitamins A, C, K, and folate. And microgreens (a.k.a. seedlings of herbs and vegetables) might have [even more nutrients](#) than their full-grown counterparts .
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- **How to Grow:** Start by purchasing a variety of seeds, such as radishes, kale, Swiss chard, beets, basil, and dill. [Fill a shallow tray](#) (no more than 2 inches deep, often called “seedling trays”) or a shallow pot with a drainage hole and fill the tray to the top with potting mix. Moisten the soil with water, making sure that it's damp but not wet. Sprinkle the seeds evenly over the soil (they should be close to each other but not touching). Sift a thin layer of soil over the top to cover the seeds. Using a spray bottle, **lightly mist the soil**. Place the tray on a sunny windowsill in a room that's between 60 and 70 degrees Fahrenheit. Mist or lightly water the soil daily so it remains moist; don't let the soil dry out, but also make sure that it isn't waterlogged. In about three to five days, the seeds will likely germinate — once they do, make sure they get 12-14 hours of light every day. Keep the soil moist at the roots, but avoid soaking the leaves.
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- **How to Harvest:** Once the seedlings have grown to one or two inches in height (expect this to take three weeks or more) and have about two sets of leaves, they're ready to eat! To [harvest the greens](#), hold them at the stem and use a pair of scissors to cut off the leaves, making sure not to cut into the root (by leaving the roots intact, you ensure that your greens will yield multiple harvests). Eat the microgreens right away or store them in a plastic bag in the fridge for up to five days.



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- **8. Salad Greens**

Why They're Healthy: Just like microgreens, [salad greens](#) (which include iceberg, spinach, romaine, red leaf, and arugula) are chock full of vitamins A, C, and K, and also contain folate and iron.

How to Grow: [Begin](#) by purchasing starter plants or seeds from a local nursery (You can also order seeds online). Choose a **planter box that has drainage holes** in the bottom and fill it with potting soil. Use your finger to poke holes into the soil about four inches apart.

If using seeds: Sprinkle a few of them into each hole, then pat the soil back over the hole to cover them up.

If using starts: Massage the roots before placing each start in a hole, filling in around them with soil.

After planting seeds or starts: Water the soil. When plants start to appear (if growing from seed), pull out all but the largest, healthiest shoots. **Water the soil regularly**, making sure that it always remains moist to the touch.

How to Harvest: To harvest mixed greens, pull off only the outer leaves to allow the plants to keep growing, and be sure not to disturb the roots.



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- **9. Scallions**

- **Why They're Healthy:** Like garlic, scallions are part of the allium family of vegetables, which has been associated with cancer prevention and may help protect the body from [free radicals](#) (by-products of cellular processes that can cause cellular damage) .



- **How to Grow:** No seeds required! To [cultivate your own scallion crop](#), simply **buy a bunch of scallions**, wrap the bulbs together with a rubber band, and place the whole shabang (greens, bulbs, and all) in a glass with an inch of water. **Change the water daily**. When new green shoots appear and the roots have doubled in length (in about seven to 10 days), plant the scallions in a shallow pot or other container (not too big). Keep the plants [evenly watered](#) (i.e., don't let the soil get too dry before watering) and in full sun.

- **How to Harvest:** Snip the green tops (leaving at least an inch or two of the plant in the dirt) as needed. To use the white part of the scallion, [harvest the plants](#) when they're six inches tall. Gently pull the white clump from the soil. Washed and trimmed scallions should keep for a week in the refrigerator (To maximize freshness, wrap them in a moist paper towel and store them in a plastic bag.).



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- **10. Tomatoes**

- **Why They're Healthy:** Tomatoes contain lycopene, which has antioxidant and anti-inflammatory properties and may help prevent coronary heart disease

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- **How to Grow:** [Start by selecting one six-inch pot](#) (for one plant) or a larger pot (approximately 12 inches) if you'd like to grow two plants. For a continuous supply of tomatoes, start one or two new plants from seed every two weeks. Fill the container(s) with starter potting mix and plant seeds about ¼ inch deep. **Water**, keeping the soil moist but not soggy. Place the container in an area that receives substantial sunlight, turning the pot(s) occasionally so all sides have even access to the sun. Expect the seeds to germinate in five to 10 days. When the seedlings are about three inches tall, **transplant them** from the starter mix to potting soil. About two weeks after transplanting, add an organic fertilizer to the mix. Water the plants thoroughly; again, keep the soil moist but not soggy. As the plants grow larger, they may need to be staked to avoid broken stems. When plants bloom, tap the main stem and larger side branches with your finger — this will help to encourage pollination.

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- **How to Harvest:** Tomatoes grown indoors will not grow to be as large as outdoor tomatoes, but they'll still be full of tomatoey taste. When the fruits are red and firm, but with a slight “give” to the touch, they're ready to eat. Either clip or gently twist and pull the fruits from their stems.

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- **11. Ginger**

Why It's Healthy: This spicy superfood is known for calming nausea and motion sickness and reducing inflammation. There's also some evidence that raw [ginger](#) might ease sore muscles, alleviate symptoms of arthritis, and maybe even slow the growth of cancer cells.

How to Grow: This [one's easy](#): Simply **purchase a chunk of ginger** at the grocery store and cover it with soil in a container, making sure the freshest-looking buds face up. Place the container in an area that receives indirect sunlight and **wait for new growth** to sprout out of the soil (You'll also notice roots start to grow into the soil). Keep the soil [consistently moist](#), so that it is never dried out and never waterlogged.

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- **How to Harvest:** Pull the entire plant out of the soil, cut off as much as you need, and then replant the ginger using the same process described above.



- **12. Rosemary**

- **Why It's Healthy:** The heavenly-scented herb is rich in [carnosic acid](#), an antioxidant that may help limit weight gain and improve cholesterol levels .

- **How to Grow:** Start by planting seeds (or [propagating cuttings](#)) in a container with holes in the bottom for drainage. A soil made from a mixture of **two parts potting soil to one part coarse sand** works well.

- Add one teaspoon of lime (the agricultural kind, not the citrus fruit) per five-inches of pot in order to

- [make the soil alkaline](#). Place the container in a sunny area of the home; rosemary will [grow best](#) with at least six hours of direct sunlight each day. **Water only when the top of the soil is dry to the touch** (but be sure not to let the soil dry out completely).

- **How to Harvest:** Gently snip a few sprigs from each plant, being sure not to remove all of the leaves from any one plant.



- Parents, your own home is the first field in which you are called to labor. The precious plants in the home garden demand your first care. To you it is appointed to watch for souls as they that must give account. Carefully consider your work, its nature, its bearing, and its results. {AH 200.2}
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- Your home is the first field in which you are called to labor. The precious plants in the home garden demand your first care. Consider carefully your work, its nature, its bearings, its results, ever remembering that your looks, your words, your actions, have a direct bearing on the future of your dear ones. Your work is not to fashion beauty on canvas, or to chisel it from marble, but to impress upon a human soul the image of the divine. {CT 130.3}
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- Parents can associate God with the works of nature. While beholding his works, the beautiful trees, and plants, and flowers, they can awaken an interest in their young minds for the glories of Heaven. By making home and its surroundings attractive, they will lessen the desire for exciting pleasures and amusements which are injurious to the physical, mental, and moral health of children. You can beautify your homes with fruit trees, and shrubs, and flowers, and encourage in the minds of your children a love for these things. You can teach them in relation to the better life, by connecting the beauties of nature, so marred, and imperfect, and short-lived, with the never-fading and immortal beauties of Eden restored. You can unite with nature's your lessons of the love and mercy of our beneficent Creator, who has given them all these things for their happiness. You should seek to draw their hearts from nature up to nature's God, and connect the mercy of God with the morning light, and the glories of the setting sun. His mercy is seen in the musical, murmuring streams, and even in frowning storms. Direct their minds to the mercy of God in the summer's heat and winter's cold. We can trace before them the mercy and wisdom of God in the falling of the blessed rain to refresh and enliven the parched earth and vegetation, and direct them to a love and wisdom that is infinite. Young hearts will respond to such lessons as these, and parents will be blessed in seeing the fruit of their labor in the physical, mental, and moral improvement of their loved ones. {HR, March 1, 1871 par. 10}
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- Ellen White was fascinated by anything related to nature. She was much more interested in planting her flower garden than she was in purchasing furnishings for the new home. She notified her husband, "I do not wish my mind diverted from my work to even go and select furniture." (Letter 8, 1876). But she was quite willing to take whatever time was needed for the garden. In some of her other letters we find these details: {7MR 281.3}
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- "Last evening the two Marys went with me to Brooklyn for a few flower roots for our garden. Sister Grover gave us as many as we could carry."--Letter 3, 1876. {7MR 281.4}
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- "We came home and I set out my things in my garden of [the] new house by moonlight and by the aid of lamplight. The two Marys tried to have me wait till morning, but I would not listen to them. We had a beautiful shower last night. I was glad then I persevered in setting out my plants."--Letter 4, 1876. {7MR 281.5}
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- A week later she noted, "Our hedge is growing nicely. The things we have set out in rose bushes and a few choice shrubs are doing well." (Letter 6, 1876). {7MR 282.1}
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- In one of Ellen White's letters to her friend Lucinda Hall, who was in Battle Creek at this time, appeared this request: {7MR 282.2}
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- "Will you send me one of my straw hats by Frank Patten? If you could dry a few peony roots and let her take them in her trunk, and send a few slips of Queen of Prairie and a few choice seeds, as summer greens and pansy seeds, I should like some of these things so much. Send me verbena seeds. [From] our old place in the field which we sold, I wish you could send a slip of snowballs and a trumpet vine. These would take but little space and if you could send them I could have something new here which they have not." Letter 61, 1876. {7MR 282.3}
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- Genesis 2:8: And the LORD God planted a garden eastward in Eden; and there he put the man whom he had formed. 9: And out of the ground made the LORD God to grow every tree that is pleasant to the sight, and good for food; the tree of life also in the midst of the garden, and the tree of knowledge of good and evil.15: And the LORD God took the man, and put him into the garden of Eden to dress it and to keep it. 16: And the LORD God commanded the man, saying, Of every tree of the garden thou mayest freely eat:
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- Animals dwelt and dwell with plants, how do they survive?

CONCLUSION

- In spite of many genuine reasons resulting in the slow adoption process of organic cultivation of spices and plantation crops . we are to look ahead with positive approach. The gradual change in the life style and the food habits including the inclusion of spicy foods in our day to day life places the crops in a unique way across the world. Increased health consciousness is increasing the demand of the organic foods in recent times including organic spices. It is suggested to thrust on the following aspect such as: Financial incentives for organic farming research and technology development; Intensive campaign.
- It may be concluded that the government agency, university, and NGO's should jointly move for awareness or to make the consumer and the farmers conscious about their advantages for better environment and better life of present and future generation.