$$
{ }_{2} f_{x}
$$

Tarden
Steward

# The Garden Is Calling You 

"Make it your ambition to lead a quiet life, mind your own business and work with your hands, just as we taught you, so that your daily life may win the respect of non-Christians and so that you will not be dependent on anyone," (1 Thessalonians 4:11,12, paraphrase by Daniel LaFlair).
"Agriculture should be advanced by scientific knowledge... make a study of the soil, and learn how to plant, to cultivate, and to gather in the harvest... plowshares should cut deeper, broader furrows, and they need to learn that in tilling the soil they need not become common and coarse in their natures. Let them bring religion into their work. Let them learn to put in the seed in its season, to give attention to vegetation, and to follow the plan that God has devised... Men may learn, in cultivating the soil, precious lessons about the cultivation of the Spirit,"
(Signs of the Times, August 13, 1896).

July 2014 marked the 100th anniversary of the start of World War I. Many scholars/historians now mark that event as the birth of modern civilization. Although the industrial age began decades before, that single event in history moved more people away from farms to city work than probably any prior single event. Contrast that to a call in 1903, just eleven years prior, to "Get out of the cities as soon as possible and purchase a little piece of land where you can have a garden, where your children can watch the flowers growing and learn from them lessons of simplicity and purity" (Selected Messages, Book Two, p. 356). Further reading even states parents answering that counsel will receive the moniker "kings and queens" (see Adventist Home, p. 141).

It's ironic that July 2014 also marked the launch of a periodical I did called Roots. That single issue periodical introduced readers to the origins of humanity's occupation (see also "Agricultural Origins," The Garden Steward, December 2017). God placed Adam and Eve in the ideal environmental model He desired for everyone. From that simple lifestyle He laid out, characters would be formed and developed. I proposed, that has not changed! In that environment, God said He will bless! We're told He will bless educational institutions who use agriculture to teach students; health institutions who incorporated agriculture to aid the healing of their patients; outposts strengthened when agriculture is used to reach the lost; the list and blessings go on.

One of today's top challenges for the North American Division (NAD) of Sev-enth-day Adventists is how to reach secular post-modern America, but God has placed before us an avenue which shouldn't be ignored. The Great Awakening of the 1800's brought an increase of
people's interest in spiritual things and the Bible. Various movements came out of this hunger to learn about God. Today, people are interested in and hungering for wholesome, nutrient-rich foods. Silly you say? Amazon.com, Inc., is betting big money on that trend by acquiring Whole Foods Market, Inc., on June 15, 2017 valued at $\$ 13.7$ billion dollars (Whitten, Sarah (2017-06-16). "Amazon is buying Whole Foods in a deal valued at $\$ 13.7$ billion." CNBC. Retrieved 2017-09-1).

In addition, many around the world are realizing and writing about the sacredness of dirt because of all the research taking place and new information discovering it's healing properties both physical and mental. God is revealing Himself and this door is wide open for us. In some instances, this may be the only opening we have to reach such a society who finds no value in worshiping the true God.

Yet there are still challenges. How do you introduce someone to a concept they've never heard, or even thought of: a creator God who has imprinted His signature in everything He created pointing us back to Him. We must figure out ways to answer the question, how in the world do I do that? I reminisce sitting in a pew listening to Bob Jorgensen and Jerry Travers back in 2012, introducing the listening audience to God's true education, and feeling overwhelmed. I pondered the obstacles, felt the reservations, and wondered how my wife and I would incorporate these newfound truths into our own family. Like anything in life, if you jump in and try to tackle everything, it overwhelms you, discouragement sets in, and thus many give up and walk away.

Another question, how does one engage in agriculture to teach others with no property? How does a city boy who never worked in a garden get something to grow? How does a girl or lady who hates
bugs and doesn't like getting dirty make friends with the dirt?

Although I can't address each one specifically, the sky is not a limit for God. Although the aim should be get out of the cities and live as "kings and queens," it doesn't mean you have to wait till you're there to start learning. If you're an apartment dweller, earnestly seek ways to get outside and, while you do so, try potting a tomato plant in the spring and learn the difference between store-bought and gar-den-grown tomatoes. This is a good way to introduce your children to gardening. It's also a good way for those wizened in years and unable to stoop to the ground to be able to enjoy fresh home-grown tomatoes, or bell peppers, or even fresh picked lettuce. But remember, this doesn't mean a complacency to stay where you are. In fact, it should spur you on all the more to move soon. "The earth is full of the goodness of the Lord." " Whoso is wise, and will observe these things, even they shall understand the loving-kindness of the Lord", (Psalm 33:5; 107:43).

A few suggestions for you as you plan your rapid move from the cities.
1 Learn Square Foote Gardening
1 Grow in pots on patios/porches
1 Grow in raised beds
1 If you don't have land, a porch or a patio, borrow land from a neighbor, friend, or family member-work out a rental arrangement, or share in the bounty
No matter your stage, God's richest blessings are at your fingertips in the form of rich soil, and our aim is to help you discover that. I hope to address all the thing mentioned in this article in the future via other articles.

## Happy Growing! $\mathcal{I}^{-1}$

Daniel LaFlair
which includes adding compost, growing cover crops and other amendments. However, when it comes to amendments, don't assume a little is good, therefore a lot is better. That's not always the case. Too much will damage your soil.

## Start small

"Let all things be done decently and in order," (1 Cor. 14:40). Too big a project is a common mistake first time gardeners make. It is fun choosing seeds and starting plants. Lynn says, "I know I get carried away, but then everything has to be planted and pretty soon the garden owns me. I commend you for wanting to grow enough for your family, neighbors and friends but an excess can become a burden."

Don't overlook maintenance! If you ignore what you cannot maintain, the rotting excess will cause varmints and pests of every kind to move in and multiply. Now you are attracting pests and critters that will plague you in the future.

The bottom line: grow all you can use, sell, or give away comfortably. Start small. Do it well, then expand as you gain skill in growing on your ground. Here are some things to consider:
1 How much land do you have? You may not need as much as you think.
1 How much irrigation will you need?
1 What about fencing? Is it necessary? How much do you need?
1 How close is the field to the house?
1 How much time do you have to dedicate to the growing area?
1 What tools do you have?
$\mathcal{L}$ Are you able to extend your season (e.g. row covers, hoop houses, greenhouses, etc.)?
$\mathcal{1}$ How will you preserve your food (e.g. freezing, root cellars, canning, etc.)?
$\mathcal{1}$ Is your soil dead? Do you have time to properly work it?
"In one of my early gardens a friend gave me a brown paper bag full of zucchini seed," said Lynn. "He said it was a tasty vegetable and encouraged me to grow as much as I wanted. So, I planted a fifty (50) ft. row of it. I drove around town with truckloads of zucchini I couldn't give away. Now I plant two zucchini seeds a year in my garden because that's sufficient for my family size."

## Keep a Food Journal

The next starting point, is to keep a food journal. The purpose of this is to help you see what it is your family eats each year, and how much of it you need.

Determine a time frame during each season to discover exactly what it is you eat. This is suggested because each season demands different crops. Daniel suggests journaling for one month per season, that's three months total. Log everything even if it's from a can or jar! Keep it accurate, and log after each meal. An interesting side result of this diary is it will reveal any inadequacies or deficiencies in your diet. The diary will put into perspective where your dietary weaknesses are. Are you getting enough fruit, fiber, etc.

Are you seeking food independence? If so, this food diary
will help you enormously. There are things you will need to substitute for the things you are unable to grow in your zone. For example, what can you grow in Canada, or Maine, or Norway to replace the banana grown in the tropics? Or what can you grow in the tropics to take the place of cabbage or broccoli?

A small garden, well maintained, will produce more useful food than a much larger, but poorly maintained, garden will. The results of following these simple guidelines, along with some hard work, will impress you with how much you can grow in such a small area. Another pleasant surprise will be how little time it will demand. Structure and good planning should only require a couple hours of your time each day once everything is established. With help, time demands diminish.

## Economy of Scale

When it comes to economics, most like to think in terms of a pie. Many focus their efforts on economic growth and efficiency making the pie bigger and bigger. This is deceiving. Modern agriculture holds that mindset and is all about getting larger and larger, but planning and efficiency is key, not size. A Google search will reveal that Elliot Coleman, the modern go-to guru of organic farming, is able to produce for himself, friends, family, market, and restaurants on only 1.5 acres of land. How does he do it?

Planning! The next starting point is to understand what each item from our Food Diary will yield per square foot in the garden. What does that mean? For example, if your family consumes 500 lbs . of tomatoes (fresh and canned) and you're able to yield 5 lbs . per sq. ft. of garden area, then you'll require 100 square feet of garden space devoted to tomato plants.

You don't need to grow everything at once since many can be grown in cycles. Certain things grow twice a year while others will grow all during the entire warm season. Even with these starting points, you'll experience failures. That's part of the garden experience. Working out the issues of your garden equips you with the tools to work out the inward garden issues of the heart.

The biggest mistake is doing nothing. So, get out there. Start making your own mistakes. It will be fun and hard work. You will have some delightful successes and a few fail-ures-while gaining a valuable education in the process. We're all called to participate in agriculture, just like Adam and Eve. "Rightly understood, both the revelations of science and the experiences of life are in harmony with the testimony of Scripture to the constant working of God in nature," (Education, p. 130). In working the soil, this lesson becomes more clear and real.

## Lynn Hoag and Daniel LaFlair

Lynn teaches the Ellen White Planting Method as well as other gardening methods. www.suncountrygardens.com

# *Garden. Steward Newsletter 

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

Editor: Daniel LaFlair
Asst. Editor: Trudi LaFlair
Layout \& Design:
Daniel and Trudi LaFlair
Photography: Unless otherwise specified, all photos are royaltyfree or are in the public domain.

The cover photo of his daughter and the photo on p. 2 are ©2018 Daniel LaFlair

Illustrations on p. 4 and 5 are © 2018 The Garden Steward

Bible verses are from the KJV unless noted.

Select "scripture quotations are from the ESV ${ }^{\circledR}$ Bible (The Holy Bible, English Standard Version ${ }^{\circledR}$ ), copyright © 2001 by Crossway, a publishing ministry of Good News Publishers. Used by permission. All rights reserved."

Vol. 2, No. 1, December 2018
The Garden Steward Newsletter Copyright © 2018

Material from this magazine is property of The Garden Steward editor and/or the individual authors. Please contact us for permission for use or reprint.

The names of actual companies mentioned herein may be the trademarks of their respected owners. Any rights not expressly granted herein are reserved. The views and opinions expressed in this magazine are those of the respective authors and do not necessarily represent the editors.

If you would like to be added to the newsletter mailing list, would like to provide feedback, or might be interested in contributing an article, please contact us at:
thegardensteward@gmail.com

## QUICK-PRODUCING SMALL FRUIT

Since apples and pears take three to seven years to produce fruit. I think I'm going to plant raspberries and grapes and I'll have some fruit to eat in just six months to a year.

In the temperate zone of the continental USA, raspberries, followed by grapes, are the fastest producing fruits from new plants.

## Raspberries



Red or yellow raspberry varieties can be planted by transplanting shoots, while black raspberries grow from rooted tips. ${ }^{1}$ Here in the state of Connecticut, USA, we also enjoy the delicious "Japanese jewel berries," a rooted tip berry modernly condemned as an invasive species.

In raspberries, the rooted tip species produce the year after planting, as do grapes properly grown. The red and yellow raspberry varieties (red being the most flavorful and used for jam, while yellow is the sweetest to eat fresh), when planted in the spring with a heavy feeding mulch (old hay or pulled weeds, $4-5$ " deep and 4 ' wide), will produce a crop on its tip in late summer and early fall. That same cane (the stem that has fruit on its tip), will pro-
duce another crop of berries in the late spring or early summer by pushing out lateral fruiting branches. While it's doing this, it will also multiply, growing new canes which also provide tip borne fruit in late summer. With a heavy feeding mulch, one cane will become six in the second year and in the third year there will be 36 canes.

Black raspberries and other tip-rooting raspberries produce once each year and then die, but not before producing three or four new canes, if a heavy feeding mulch has been applied. A good variety to try is the thornless blackberry.

Most varieties of red and yellow raspberries need wires to support their canes because their heads, or tips full of berries are so heavy they fall to the ground where they're eaten or spoiled.

Fall gold, a yellow variety, can stand up on its own without wire support. It is also the firmest berry. Some older (heirloom) red and yellow varieties will only produce once a year. It's best to find local growers who are successfully raising berries and ask for starts rather than trialing many varieties until you find one that does well in your area. Note, many nursery or store bought raspberries are trialed with pesticides and/or chemicals.

Plant raspberry rows 3 ' apart allowing for stake and wire support. Black raspberries and other tip-rooted varieties can also stand alone without support. The most cold hardy, black raspberry, ripens earliest but only produces for about eight days. A well established (at least three years) red or yellow raspberry row will produce fruit over six weeks in late summer and fall, as well as fruit for about two or three weeks

in the early summer. Start another new row every four years to avoid the problems that arise with overcrowding. If you plan to grow an orchard, you can plant raspberries in the orchard while you wait for the trees to mature. Simply plant a row of raspberries in the fruit trees row, at the same time you plant the trees; those trees won't be big enough to shade out the berries for three or four years. This way you get a few crops of berries from the land that the trees are growing on.

An example of this method: My friend, Charlie Young, a third -generation apple grower, set his apple rows that were forty feet by forty feet (40' between trees and $40^{\prime}$ between rows); he planted peach trees down the middle of the rows while the apple trees were growing. Peach trees grow quickly and produce sooner than apples. Rather than waiting four to seven years for an apple crop, he was able to benefit from peaches in two to three years. Charlie utilized the unused space this way. Had he utilized raspberries in the peach rows, he would also have had fruit in one year or less.

Grapes


There are three popular types of grapes planted in the U.S. These are the American grape (Concord, Niagara and Catawba, etc.), the French or Mediterranean grape (mostly grown in California and other dry areas), and the southeastern Muscadine/Scuppernong, with its cultivars. I am from New England, Connecticut, so I will focus on the American and French/American hybrids that are grown in the northeastern U.S.

When grapes are planted, plan on providing support. Vines cannot stand by themselves, they need outside support. Herein lies a picture of how helpless our human nature is. By ourselves, we're unable to stand upright. In return for receiving support, the vine "dresses" the object it entertwines with it's shoots, leaves, flowers, and fruit.

A row of grapes can have a wire $51 / 2-6^{\prime}$ high on posts. Concords do well this way. If mulched with a heavy feeding mulch, (fall trees leaves or chipped tree branches with leaves mixed in), this forest meal, 1 ' deep, will reduce competition and feed the plant so it can grow 6 ' or more the first year. Use grape plants that are not root bound from being in a pot too long. These bare-rooted plants will spread out fast under

the 4 ' or wider mulch causing rapid growth. The larger the mulch pile around them, the more they will grow. This will avoid the sluggard's vineyard (see Proverbs 24:30, 31) whose vineyard is not well kept.

Take the strongest shoot from the grape plant and tie it up on a string to the wire. Pinch off the growing tips of the other shoots, so they will branch and grow more leaves to feed the plant. When the selected shoot reaches six inches from the wire, pinch off the tip. It will produce lateral branches that can be trained both ways to run along the wire. If the grape plants are planted 6 ' apart, in a row, pinch off the growing tips of the two lateral branches at 3 '. If planted $8^{\prime}$ apart, pinch off laterals at $4^{\prime}$. You now have a trunk and two arms, often called cordons. Grape branches will be grown off of the two arms. These branches produce the fruit. These were the branches that Jesus spoke of, that when grafted into the true vine, produce good fruit. Hopefully you will be planting "good" varieties and not disease susceptible ones (see "Where are the Disease and Pest-free Plants?," The Garden Steward, December 2017).

After training up the trunk and arms, pruning these structures each year is necessary for high sugar (brix ${ }^{2}$ ) fruit production. Fruit can be harvested the second year, provided that you have good growth the first year. It can be harvested off of branches coming off the trunk. After that crop, remove those trunk branches during your winter pruning. The arms will supply enough branches from now on.

In winter, select pencil thick branches that came off of the arms and cut them back, leaving five buds (nodes). Cut back thinner branches, leaving one bud. The five-bud branch will grow fruiting branches and the one bud branch will grow a renewal branch, for the next year. Each year we grow a crop of fruit, and a crop of branches, for the next year.

After this pruning is done, leave only four or five of those five bud branches equally spaced on each arm. This equals about 45 buds for 6 ' spaced grape plants. For 8 ' spaced plants leave 60 buds. Leaving more buds produces too much
fruit. That fruit is poor quality and will weaken the plant by producing branches thinner than pencil thickness. Extra thick branches show that you have not left enough fruiting branches. Therefore, leave more fruiting branches than you did the year before to reduce growing thick or "bull" branches. They produce less fruit than the ideal pencil size branches. When you see them, your soil may be richer and can support more buds than recommended.

French/American hybrids can grow small, medium or large clusters of fruit. Small cluster varieties need more branches left than medium or large cluster varieties. French/American hybrids are winter pruned, leaving only two buds on each branch. Leaving more two-bud branches is necessary. The final total of buds per plant is 50 for small cluster varieties, 40 for medium and large cluster varieties. You must study to see how each variety performs and adjust your pruning accordingly. These varieties produce many extra branches than what you left. Summer prune these extra branches by pinching off the sprouts. These varieties are usually called wine grapes. That name only means they produce more sugar than other varieties so they taste better and are more nutritious; higher sugar equals higher mineral content.

For an extensive understanding of grapes grown in the northeast USA, go to the Garden Steward YouTube channel to see pruning videos by Tom $\mathrm{Za}^{-}$ badal. 1

Editor's note: Jerry has been pruning trees and bushes of all kinds for more than 50 years.

Jerry Travers is the current farm manager for Sweet Birch Farm in Meriden, CT. He has written several books and tracts on understanding God's lessons in agriculture and nature. Contact Jerry at (203) 686-1425

[^0]
## Berries as Disease Fighters

Editor's Note: This is an edited and abridged version of the original article which can be found here.

Did you know those berries you're hopefully growing in your own garden can help you and your neighbor? Do you have (or are at risk for developing) diabetes, hypertension, cancer, or dementia?
blood glucose levels. Since berries rate low on the index, they're an ideal food for individuals who are obese or have either prediabetes or diabetes. Their soluble fiber slows down the glucose absorption. The polyphenols in blueberries inhibit the enzymes that break down sucrose. Berries also reduce the natural inflammation that occurs after consuming a high fat, high carb diet in overweight individuals. ${ }^{3}$

## Cardiovascular Protection

Harvard researchers followed 100,000 young and mid-dle-aged women for 20 years and found that those who ate more than three servings of strawberries or blueberries weekly reduced heart disease risks by $32 \%{ }^{.}{ }^{1}$

Cardiovascular diseaseatherosclerosis, coronary artery disease, vascular dementia, and hypertension-are caused by much more than accumulated cholesterol and fats in arteries. Oxidation, inflammation, sticky platelets, and reduced ability of the blood vessels to dilate, all contribute to these disease processes. The flavonoids and other compounds in berries target each problem. As antioxidants, they inhibit the oxidation of cholesterol. Why is that important for me? Well, oxidized cholesterol triggers inflammation inside the arteries.

Not only that, the red, purple, and blue pigments (anthocyanins) of berries help reduce cholesterol synthesis in the body. By inhibiting platelet clumping, they also lower the risk for undesirable clotting and consequently heart attacks and strokes. Plus, the soluble fiber in berries reduces the body's production of cholesterol, decreases its absorption, and removes it from your body.

## Diabetes Prevention

During 3,645,585 person-years of follow-up, higher intakes of anthocyanins were significantly associated with a lower risk of type 2 diabetes. ${ }^{2}$

How you ask?
Berries are low on the glycemic index. The glycemic index measures how fast and how much a food raises


Blueberries also contain pterostilbene and resveratrol, a phytochemicals inhibiting inflammation. This is important because inflammation fuels the many complications of diabetes. When blood sugar (glucose) is too high, it builds up in the blood and combines with hemoglobin, becoming "glycated" (Alc). Elevated hemoglobin Alc increases the risk for diabetic complications. ${ }^{4}$

## Cancer Protection

Strawberries and raspberries contain ellagic acid which help protect from cancers of the breast, esophagus, skin, colon, prostate, bladder, and pancreas. Ellagic acid:

[^1]A daily consumption of blueberries help protect genomic DNA integrity and can stimulate natural killer cell activity. Blueberries help protect us from breast, prostate, stomach, colon, and pancreatic cancers. Blueberries exert cancer-protecting activity (to name just a few) by: ${ }^{5}$

$\mathcal{L}$ inhibiting inflammation<br>1 Protecting DNA from free radical damage<br>1 inhibiting proliferation of cancer cells<br>$\mathcal{L}$ increase the suicide of the cancer cells

Blueberries also have the phytochemical pterostilbene which inhibits two enzymes (MMP-2 and MMP-9) which help cancer cells invade tissues and spread. This phytochemical also inhibits inflammation, a key player in cancer development.

## Brain Protection

Accumulating evidence suggests frequent consumption of blueberries slows down brain aging. The polyphenolic compounds found in blueberries exert their beneficial effects by reducing free radical damage, protecting brain cells from neurotoxins, and inhibiting inflammation inside the brain-all of which contribute to brain aging and brain disease. By improving signaling and communication between nerve cells, memory is improved. ${ }^{6}$ Flavonoids in blueberries have been shown to reverse age-associated memory and learning deficits in aged animals. ${ }^{7}$ Blueberry supplementation prevents behavioral deficits in an Alzheimer disease model. ${ }^{8}$

With so many health benefits, why not include them as a staple in your diet? 1

Contributed by Wildwood's Lifestyle Center. Copyrighted © July 2017-2018. Used with Permission by Wildwood Center for Health Executive Committee. duplication, editing, publishing in any form is prohibited.

[^2]4 McCormack, D, et al., Review of Pterostilbene Antioxidant Activity and Disease. Oxidative Medicine and Cellular Longevity. Volume 2013 (2013), Article ID 575482, 15
5 Johnson SA, Arjmandi BH, Evidence for Anti-Cancer Properties of Blueberries: Anticancer Agents Med Chem. 2013 Jan 24 Proc Nutr Soc. 2010 May;69(2):244-60.
6 Krikorian R, et al., Blueberry supplementation improves memory in older adults. J Agric Food Chem. 2010 Apr 14;58 (7):3996-4000

7 Spencer, J, Beyond antioxidants: the cellular and molecular interactions of flavonoids and how these underpin their actions on the brain. Proc Nutr Soc. 2010 May;69(2):244-60.
8 Joseph JA, Blueberry supplementation enhances signaling and prevents behavioral deficits in an Alzheimer disease model. Nutr Neurosci. 2003 Jun;6(3):153-62.

## Chapter 11-Lessons of Life

"Speak to the earth, and it shall teach thee."
"The Great Teacher brought His hearers in contact with nature, that they might listen to the voice which speaks in all created things; and as their hearts became tender and their minds receptive, He helped them to interpret the spiritual teaching of the scenes upon which their eyes rested. The parables, by means of which He loved to teach lessons of truth, show how open His spirit was to the influences of nature and how He delighted to gather the spiritual teaching from the surroundings of daily life.

The birds of the air, the lilies of the field, the sower and the seed, the shepherd and the sheep-with these Christ illustrated immortal truth. He drew illustrations also from the events of life, facts of experience familiar to the hear-ers-the leaven, the hid treasure, the pearl, the fishing net, the lost coin, the prodigal son, the houses on the rock and the sand. In His lessons there was something to interest every mind, to appeal to every heart. Thus the daily task, instead of being a mere round of toil, bereft of higher thoughts, was brightened and uplifted by constant reminders of the spiritual and the unseen.

So we should teach. Let the children learn to see in nature an expression of the love and the wisdom of God; let the thought of Him be linked with bird and flower and tree; let all things seen become to them the interpreters of the unseen, and all the events of life be a means of divine teaching.

As they learn thus to study the lessons in all created things, and in all life's experiences, show that the same laws which govern the things of nature and the events of life are to control us; that they are given for our good; and that only in obedience to them can we find true happiness and success," (Education, pp.102, 103).

## Jeaching Moments

The most common and wellknown cluster fruit is the grape. A healthy cluster of grapes will contain similar-sized individual fruit. The closer in size, the healthier the plant. There is a phenomenon called "hens and chicks" where large and small clusters exist within a cluster resulting in poorer production and quality.
Traits of a good cluster:
$\mathcal{L}$ Not too tight, allowing air circulation around each grape
$\mathcal{L}$ Vine nutrition needs carbon (C), nitrogen ( N ), boron ( B ), and zinc ( Zn ), controlled by microbial activity
$\mathcal{L}$ Vine vigor needs nitrogen. Study shows higher N in vine tissue results in more vigor
$\mathcal{L}$ Needs protection from extreme weather, enough water, sunlight, non-polluted air, enough dark-time
$\mathcal{2}$ Requires organic matter and rich microbial soil.

In this cluster we see a ripe reminder of the fruit of the Spirit. We read, "But the fruit of the Spirit is love, joy, peace, patience, kindness, goodness, faithfulness, gentleness, self-control; against such things there is no law." (Galatians 5:22-23, ESV).

In this verse we see nine graces of the Spirit combined in a cluster. If Love is present, then all should be present. Each "grape" of the cluster should be similar in size to the rest; if it is not then it needs attention. If self-control is not present, then we must address the issue so that the cluster can grow to be healthy and even. If gentleness is absent, the rest of the cluster suffers because of a deficiency. A daily prayer life with God and studying His word will specifically provide "nutrients" for the Galatians nine-cluster fruit to grow.


[^0]:    1 Rooted Tip -The tip of the plant does not grow straight up like the yellow and red variety. It arches over as it grows and when the tip hits the ground, it starts to root. From that root the new plant then shoots up canes for the next year.
    2 A brix scale helps you to identify quality food. It measures solids in the sap, which includes sugars AND valuable minerals and trace minerals. (http://www.healthy-vegetable-gardening.com/brix-scale.html [accessed January 14, 2018])

[^1]:    $\mathcal{L}$ activates DNA repair
    $\mathcal{L}$ increases the liver's carcinogendetoxification
    $\mathcal{L}$ arrests proliferation of cancer cells
    $\mathcal{L}$ inhibits tumor angiogenesis (a mechanism in which new blood vessels are created to feed the tumor)
    $\mathcal{L}$ induces apoptosis (cell suicide) of cancer cells

[^2]:    1 Cassidy, A, et al., High Anthocyanin Intake Is Associated With a Reduced Risk of Myocardial Infarction in Young and Middle-Aged Women. Circulation. 2013; 127: 188-196.
    2 Wedick NM, et al., Dietary flavonoid intakes and risk of type 2 diabetes in US men and women. Am J Clin Nutr. 2012 Apr;95(4):925-33.
    3 Ellis, CL, et al., Attenuation of meal-induced inflammatory and thrombotic responses in overweight men and women after 6 -week daily strawberry (Fragaria) intake. A randomized placebo-controlled trial. J Atheroscler Thromb. 2011;18 (4):318-27

