

**Tennessee Conference of
The United Methodist Church**

Church Garden Resource Book

Planning and planting a garden at your church

by Julie Berbiglia, Master Gardener, Master Composter
2003

Table of Contents

Chapter 1: Reasons

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

Reasons for having a church garden5

Chapter 2: Theology

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

Scriptural and theological roots of community gardening7

Chapter 3: Hunger

My little children, let us not love in word, neither in tongue; but in deed and in truth. 1 John 3:18

Society of St. Andrew - Food recovery and gleaning efforts10

Preparing to share your produce10

Chapter 4: Example

Neither as being lords over God's heritage, but being examples to the flock. 1 Peter 5:3

Pitching the project to the church12

Being clear on your reasons for wanting to start a church garden13

Being realistic about the life of garden project; making alternative plans14

Chapter 5: Themes

It is like a grain of mustard seed, which a man took, and cast into his garden; and it grew, and waxed a great tree; and the fowls of the air lodged in the branches of it. Luke 13:19

An instant biblical theme garden15

Structural elements are the key to a peaceful garden15

Biblical vegetables16

Chapter 6: Herbs

He causeth the grass to grow for the cattle, and herb for the service of man: that he may bring forth food out of the earth. Psalms 104:14

The biblical herb garden.....18

Easy biblical herbs.....18

Using herbs.....19

Chapter 7: Feeding

He hath filled the hungry with good things... Luke 1:53

Plant a row for the hungry21

Nutritional accessibility21

Chapter 8: Children

But Jesus said, "Suffer little children, and forbid them not, to come unto me: for of such is the kingdom of heaven." Matthew 19:14

The children's garden.....23

Chapter 9: Organizing

For the body is not one member, but many. 1 Corinthians 12:14

Organizing the church garden project.....25

Dare to dream.....26

What are the barriers to getting started? What are the solutions?28

Considering the logistical issues.....28

Making the garden a part of the church mission.....29

Whatever you do, act deliberately.....30

Chapter 10: Preparing

But my God shall supply all your need according to his riches in glory by Christ Jesus. Philippians 4:19

Tools.....31

Tool stewardship.....32

Garden planning suggestions.....33

Alternative garden styles	33
Soil information	34
Digging up the ground for the first time	34
Water conservation.....	35

Chapter 11: Protecting

It was planted in a good soil by great waters, that it might bring forth branches, and that it might bear fruit, that it might be a goodly vine. Ezekiel 17:8

Organic gardening	37
Insect pest deterrents	37
Remedies for specific pests:	38
Companion planting	38
Weed solutions	39

Chapter 12: Growing

To every thing there is a season, and a time to every purpose under the heaven. Ecclesiastes 3:1

Spring gardening activities	40
Summer gardening activities.....	40
Fall gardening activities	40
Winter gardening activities	41

Chapter 13: Composting

In the sweat of thy face shalt thou eat bread, till thou return unto the ground; for out of it wast thou taken: for dust thou art, and unto dust shalt thou return. Genesis 3:19

Composting.....	42
The compost saint	43

Chapter 14: Saving

But he that had received one went and digged in the earth, and hid his lord's money. Matthew 25:18

Trash can stewardship44

The waste audit44

Conducting the audit.....45

Where do we go from here?47

Bibliography.....49

Scriptures quoted from *The Holy Bible*, King James Version. Nashville, TN: Thomas Nelson Publishers, 1970.

For more information contact

The Cooperative Ministries Committee
Tennessee Annual Conference
of The United Methodist Church
1110 19th Avenue, South
Nashville, Tennessee 37212
615-329-1177 800-403-5795
www.tnumc.org

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

Reasons for having a church garden

Church gardens are first and foremost community gardens -- bringing people together for a common purpose. The process of researching, planning and planting a garden strengthens the community as the church members work through their differing opinions and visions for the project. Along the way there are countless opportunities for meaningful discussion: What is the role of the church in the neighborhood? What is the congregation's relationship to the church property? What does stewardship mean when discussed in relation to the use of herbicides and pesticides?

Church gardens perform a number of functions for the congregation: study, stewardship, mission and outreach. The reason for having the garden will influence the form the garden takes. They can be symbolic and filled with plants that represent scriptures. They can be part of an active ministry with the produce earmarked for donation. They can be a place of meditation with design elements that invite reflection.

Make scripture come alive with a garden and enhance your congregation's understanding of the parables. The scriptures are filled with agricultural references. But for most of us our lives are void of agricultural experience, making it difficult, if not impossible, to fully understand many passages in the Bible. Imagine how much more your congregation would understand the scriptures if they were to experience the holy stories first-hand through a garden.

Encourage people to relax and pray in gardens located in a quiet setting on the church grounds. Incorporate a memory garden into the area using plants from the gardens of parishioners who have died or moved away.

Save money and the environment with a stewardship garden. Grow flowers for the church altar. Consider small savings: one youth group suggested growing herbs to use to spice up the Wednesday night dinners for free. Use xeriscape principles in the landscape and save water costs. Put in drought resistant plants and use mulch to keep the soil moist during dry times. Create a wildlife habitat with bird feeders and bird baths.

Bring the church mission all the way to the curb. Demonstrate the role of your church in the community by starting a "Plant a Row for the Hungry" garden in a place where it can be seen from the road. Dedicate one row, or the entire garden, to grow food that is donated to a free lunch program or food bank.

Develop leadership skills, build an intergenerational program, revitalize the Sunday School classes, develop an action-oriented youth program. Planning, planting and harvesting

together is a way for members of your congregation to share their talents and gifts while enjoying fellowship.

Use the idea of a church garden as a way to examine the message the church grounds send the neighborhood. What is that message if your church grounds are severe, sterile and uninteresting? And what would the message be if the grounds provide food, songbird habitat, religious education and a serene setting?

A garden project can make the church, large or small, become more vital to the neighborhood and to the congregation itself. A church garden can be a simple project done quietly by one, or a complex task undertaken by many.

Whatever type of church garden you are contemplating, this resource book will walk you through the theological roots, theme garden options, and practical steps needed to bring your project to fruition.



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

Scriptural and theological roots of community gardening

A cumbersome title like this one hints at the variety of attractions and the variety of needs that bring a community – whether a church, a synagogue, a mosque or a neighborhood – to gather around a garden and start turning soil and planting seeds. This ungainly title also suggests that the relationships we form and keep with the land, with our community, with the Divine, and with the cycles of seasons and harvests, are so close to us, so vitally important, and often so fragile that our articulations of them are clumsy at best. That being noted, I hope this brief essay can provide some evocative words that touch on why what we do when we plant and tend a community garden is central to our lives as people of faith, as members of communities, as citizens of the twenty-first century, and as a species on a bountiful, yet fragile planet.

One translation of Genesis 2:15, a passage in the beginning of the Hebrew Scriptures, reads: “The Eternal placed the human being in the garden of Eden to till it and to keep it.” To till (to cultivate, to employ, to work) *and* to keep (to care for, to protect, to watch over) – these twin tasks comprise an ethical framework grounded in the Judeo-Christian tradition through which we can place community gardening in the communal, spiritual and moral heart of congregation life.

Why do we till the land? We are hungry and we need shelter. The name of Adam, our first ancestor, is taken from the Hebrew word *adama*, meaning *ground*. We are of the earth itself and we depend utterly upon it. We must till to survive. We also till because, as many faith traditions attest, it is our vocation – in a phrase, “we are co-creators” with God. Our gifts of ingenuity, imagination, forethought and artistry are not meant to sit idle. Rather, they are to be devoted to being about (albeit in our own humble and much more mundane way) what God is about – building places and communities within which the flourishing of human life and human loving may take place. To co-create with God, we rely on the use of earth, water, other creatures, air and seasons.

We till in order to serve one another. St. Thomas Aquinas writes that one of the fundamental properties of the creation is that it exists so that the needs of all persons might be met through its bounty. The Judaic gleaning laws (requiring that the edges of the fields be left for the hungry) and the year of Jubilee in the Hebrew tradition both similarly attest not only to the principle that the goods of the earth belong to the hungry and the thirsty, but also, to the responsibility that the well-fed have to ensure that all are welcome at the table, and all have enough to eat.

The problem with this ethic and economy of tilling is that one certainly can till too far, till too much. We have managed to turn the earth and water and air and our fellow creatures into

not just our means of survival, but additionally, into a lifestyle espoused by many of us that has for several decades, and at an accelerating pace, been degrading, ravaging and destabilizing the very planet upon which we depend for life. Our frenzied pace of consumption drives us to cut down forests, pave over farmland, destabilize the climate and rely on fossil fuels whose procurement is causing violent international conflicts. In addition to these ecological problems, all our tilling has failed to provide for the needs of our neighbors. Undernourishment and hunger are global problems and Middle Tennessee problems. Community gardening thus gives us an opportunity to reflect on some critical questions for our time and place: The land is being spent, but for whose benefit? Who is left out of the goods of the harvest and why? Why are farmers struggling to make ends meet? What is our response as people of faith, people of community?

The Eternal placed the human being in the Garden of Eden to till it and to keep it. Why do we keep the land? The simplest and oldest answer is because “it is good.” The creation narrative in the Hebrew Scriptures resounds with blessings of the goodness and inherent worth of sky, creatures, waters, land and light itself. Beyond human use, beyond human valuing, the earth and its creatures have sacred worth and value. They are sealed with divine blessing that in our humility and love for the Creator, we are called to respect.

Why do we keep the land? It does not belong to us. We are stewards, and stewards are those who take care of some thing or some place that belongs to another. Theologically speaking, we do not own our property and we do not have absolute rights to a plot of ground or a stream of water. We are caretakers and are to use the earth wisely on behalf of and with the Creator.

Why do we keep the land? If, as people of faith, we strive to act in godly ways, like God, we will observe Sabbath with respect to working the earth. On the seventh day, God rested. We keep the land because our lives, our society and our economy require stillness, and quiet, and rest, and reflection, if our relationships to one another, to the Creator, and to the earth itself are to be healthy and just.

We keep the land in order that it may be tilled at all. As any farmer, gardener, ecologist or conscientious citizen knows, the earth’s giving capacity is limited. To use an economic metaphor, capital must be maintained in order for interest to keep flowing. The integrity of the earth’s manifold interrelated systems of water, nutrients, climate, habitat and minerals must remain intact if the earth is to continue being a fertile place. We keep the land because it is built into the design of the whole system that tilling depends upon keeping.

Why do we keep the land? So we can glimpse the Creator. Contemplating a work of art reveals something of the artist. In the appearance and attitudes of a child, we glimpse her parents. In listening to a musical performance, we know something of the passions and vivacity of the musicians. The land -- kept, protected and contemplated -- is in the theological language of some traditions, *sacramental*. It allows us to encounter the Creator by mediating the Creator’s beauty, generosity and love. The ineffable radiance and dynamism of the natural world offer irreplaceable symbols for thinking and talking about the Divine.

Given these twin themes of tilling and keeping in the Judeo-Christian traditions, it is perfectly fitting that congregations engage in community gardening. In a garden, we both till the land and keep it. We till the earth in order to provide food and materials for our survival and the survival of others; yet, in gardening we also keep the earth by respecting the land’s capacities and working within its rhythms. The garden is the middle place between the wilderness and the city. The garden is the classroom, the studio, the kitchen, the sanctuary where we work out how we are to relate to the Creation, to those who are

hungry, to the Creator. The garden can teach a community how we might relate to nature more gently and to those who hunger more compassionately, more effectively.

A garden is one of the best ways available to enact the now clichéd but still sensible environmental slogan – Think Globally, Act Locally. We are well aware of the immense suffering in our world due to hunger, homelessness, social injustice, and ecological devastation. And we know that each of these is a very real part of life in Middle Tennessee as well as in Eastern Europe, Namibia, Sri Lanka, or Kandahar. In a community garden, we begin with the soil beneath our feet, with the lawn beside our church or synagogue, with that neglected patch of earth behind our community center. We gather our tools, we plan, we come together and form a gardening group, we turn the soil, we plant seeds, we wait, we tend, we grow food, and feed our neighbors.

Community gardens do not feed only the community beyond our doors. They feed the gardeners and planners as well. A garden serves as a focal point for building community among those planting, watering and harvesting. In a garden, generations come together, a community gains a more intimate knowledge of nature and its rhythms, and a community finds the most tangible of ways to respond to the sufferings and conflicts in our world -- getting their hands dirty. Gardens give children and youth “unplugged” outside fun and learning, away from video games and television. In short, community gardens bring all the pieces together – our local community, the larger community, the earth and its creatures, time, place, and the Creator. And from right beneath our feet, from the very soil outside our churches and synagogues, grow new possibilities, new relationships, new ways of being on the land and with one another, new ways of being church, new ways of being the people of God.

The Eternal placed the human being in the Garden of Eden to till it and to keep it, and like the earth itself, this activity is good and life-giving for every being involved.

Jill Shashaty
Tennessee Environmental Council - Stewardship Project
www.tectn.org

My little children, let us not love in word, neither in tongue; but in deed and in truth. 1 John 3:18

Society of St. Andrew - Food recovery and gleaning efforts

There is a lot of wasted and thrown away produce in church and community gardens. It is important that this does not happen at your garden. It is not good stewardship.

The Hunger Relief Advocate (HRA) of the Society of St. Andrew (SoSA) can help you in the harvesting and gleaning efforts. From biblical origins, gleaning is the practice of gathering the extra crops that are left in the fields after a harvest. Coupled with food rescue and recovery, gleaning denotes the collection and distribution of food to disadvantaged people.

SoSA is an ecumenical ministry that feeds the hungry all year long by saving fresh produce that would otherwise go to waste. Each HRA operates a gleaning ministry and all who wish to are invited to participate in our efforts to feed the hungry in these states.

The Society of St. Andrew opened a gleaning office in Nashville, Tennessee in April, 2000. This office is responsible for salvaging food for the hungry in central Tennessee. The Nashville area Gleaning Coordinator also serves as the National Hunger Relief Advocate and coordinates both field gleaning events as well as large food deliveries through the Society of St. Andrew's *Potato Project*. As of July 1, 2002 the Nashville Hunger Relief Advocate reports that potato drops, food recovery and gleanings have resulted in more than 500,000 pounds of vegetables and fruits being distributed to over 100 hunger agencies in the Middle Tennessee area. There have been 54 events with more than 800 volunteers involved.

The HRA Initiative is a partnership of the Society of St. Andrew, the General Commission on United Methodist Men, and the United Methodist Committee on Relief (UMCOR).

Preparing to share your produce

As part of the planning for a church garden you need to determine what you will be growing and why. Is the church going to sell the produce? Will the produce be used for church and community meals? Will parishioners share the harvests? Whatever the reason you should have a certain amount (we suggest a tithe, 10%, as a minimum) go to feed hungry people in your community.

Determine what agencies in your area have feeding programs. Keep in mind that for fresh produce, the time between harvesting and serving must be kept short. There are many agencies in your area, including churches, that feed the hungry daily. Look for a soup kitchen, a battered women's shelter, a homeless shelter, a home for the disabled or elderly, and similar places where meals are served.

SoSA will help you identify and work with hunger relief agencies to make sure your produce gets to hungry people in the most efficient manner. You might consider having a Hunger Relief Advocate for your local church or organization. The HRA can direct your food recovery efforts and perhaps coordinate those efforts with other churches and organizations. You may want to develop a gleaning group that will help recover food at local farms, in backyard gardens and in other community gardens.

For additional information and/or assistance contact 615-340-7125 or hratn@endhunger.org

Hunger Relief Advocate
P.O. Box 340006
Nashville, TN 37203-0006
www.endhunger.org/tennessee.htm

Neither as being lords over God's heritage, but being examples to the flock. 1 Peter 5:3

Pitching the project to your church

Each church garden is different. Its form and structure reflecting the individual church. To give some idea of how to think through a garden project, consider some of the advice from Bill Markie, a self-proclaimed "blessed gardener?" and parishioner at Cook's United Methodist Church in Mt. Juliet, Tennessee:

Q: What words of advice do you have for others who want to propose a Church garden project?

A: Be extremely well-prepared! Demonstrate that the project is being approached in a thinking manner, rather than haphazardly. Show that the church has much to gain and nothing to lose. When you "make your pitch" to the ultimately responsible group, show that you have tried to think of everything.

Present potential problems with feasible solutions. Keep in mind that the ultimate determination is of no importance. Getting the church involved is always the goal.

Try and cover any liability incurred by the church. For example, I stated that volunteer workers en route to and from the church garden, and while present on church property, were a potential liability problem. In order to cover this, I suggested an individual liability waiver for each volunteer (with minor children also having a waiver, completed and signed by his or her parent). It was eventually determined that the waiver was not necessary as the church was insured for such a problem.

Q: How did you explain that a garden would fit into the church mission?

A: The mission of this (and hopefully, any other) church is to help the needy. If good, nutritional foodstuffs are provided, then one of the church's reasons for existing is met. Tomatoes, corn, okra, cucumbers, onions, squash, beans, watermelons, and possibly pumpkins, could be grown in the garden. Produce from the garden will be transported to the Help Center in Mt. Juliet and the Help Center in Lebanon, so that it may be furnished to those in need.

Q. Who did you promise would work in the garden?

A: Me.

Being clear on your reasons for wanting to start a church garden

Q: Why did you want to start a garden project?

A: I was not looking for a pat on the back. I did it because I like to make things grow and hungry people can directly benefit from my actions.

Q. Why did you decide the church needed a garden?

A. It didn't have one and it seemed an inexpensive way to do good.

Q. How did you go about developing the idea with the church?

A. I didn't. The minister knew of my interest in gardening and asked my wife if I would attend a meeting about church gardens.

Q. How did you get church support?

A. I didn't ask for any support. I told the minister that I would do it.

Q. Who all did you contact to get ideas and support?

A. I sort of sprung the idea on the minister, after I attended the meeting in Gallatin and after carrying produce from my own garden and that of others to the Help Center in Mt. Juliet, initially.

Q: How did you actually get started?

A: I planned the project out, using the internet and other resources, then I showed my completed plan to the minister. I explained that I was trying to do something good and that my idea would make the church look good, too.

Q: Which land did you use?

A: The minister allowed the use of some land beside the parsonage

Q: What did you need to buy?

A: Almost everything. Some seed was donated, some was purchase. I bought gypsum to break up clay, compost to help soil, lime to counteract the gypsum's effect on pH. The minister's hoses weren't long enough, so I got some that were. Other supplies included: feeding bottle, to provide food to growing plants; soil test (from UT Extension by way of the Co-op) to determine what was lacking in the soil; PVC pipe for planting markers; landscaping spikes to tether string for rows; wood and paint to construct perimeter fence, air-nailer, to speed construction of perimeter fence (716 pickets, whew!); film, to photograph garden site; volunteer help, and food for volunteers.

Q: What about volunteers?

A: I roped in a Master Gardener and friend to "spot" me when I was tilling the site, a neighbor who helped me assemble the fence (he donated about 3 hours) and the facility manager, who helped me place the boundary lines and stakes. The work crew from The Temple's Mitzvah Day was greatly appreciated. I had resigned myself to "babysitting" a group of 8 year olds while their parents went off somewhere. Instead, the entire crew got down to planting, etc. with the only instruction being, "where".

Being realistic about the life of the garden project; making alternative plans

Q. What are future plans for the garden?

A: The garden exists at the discretion of the minister. Currently, the minister is amenable to the project. When he moves (as is the custom in the Methodist Church), I'll approach the new minister and see if he is amenable. If so, I'll continue on with the project as long as I can.

Q: What if something happens and the Church garden is discontinued due to building expansion or other circumstances?

A: I'll go back to donating excess produce from my garden and that of others that I plow and till. I don't charge them anything for my labor and merely ask them to allow me to make their garden slightly bigger so they can grow something for those less fortunate.

It is like a grain of mustard seed, which a man took, and cast into his garden; and it grew, and waxed a great tree; and the fowls of the air lodged in the branches of it. Luke 13:19

An instant biblical theme garden

Claim the biblical garden that you already have. Take a quick survey of the property to find out what meaningful plants and elements already exist.

Look for flowers. Lilies – the lilies of the field can be any kind of lily: day lily, tiger lily or any other lily. Dandelions – a bitter herb of Passover that is almost certain to be found in the lawn. Dogwood trees have a traditional story associated with them. The story is told that these trees once grew straight and tall, but after one was used to make Jesus' cross they were all doomed to forever after grow stunted and crooked. The four brachts have a red edge to them, reminiscent of Jesus' wounds. The center of the flower resembles the crown of thorns. The flowers appear around Easter.

The goal of this exercise is to begin to appreciate the church grounds in a new light and to get you started on the church garden project with an instant success.

Steps to take:

1. Survey the church property and list as many of the plants and trees that you can identify.
2. Look up the existing plants in books about biblical plants. This is a great project for a youth Sunday School class.
3. Write up a list of the plants that have biblical meanings. Note where the plants are on the property.
4. Use the information to educate the congregation about the biblical garden you found. Publish the information in the church bulletin. Plan a Sunday school activity that involves finding and discussing the plants and their meanings.

Structural elements are the key to a peaceful garden

Do the grounds already have benches for meditation, prayer, rest and fellowship or do you need to recommend adding seating areas? Picnic tables can provide group meeting spaces and work areas. Benches can be given to honor and memorialize individuals.

A bird bath and feeder are active reminders that humans have a responsibility toward the creatures of the earth. Ask a youth class to begin each week's Sunday School class by filling the feeder and changing the water in the bird bath.

Simple statues of animals and St. Francis are often found in church gardens. A cross or other item can be set in place to remind visitors that they are on sacred grounds. These plants are very easy to grow. Each represents a bit of scripture.

Biblical vegetables

It is very easy to select vegetables that fit into the Biblical garden theme. There are many feasts described in the Bible with detailed lists of what was eaten.

We remember the fish we ate in Egypt at no cost – also cucumbers, melons, leeks, onions and garlic. Numbers 11:5.

Cucumbers grow easily when planted in the late spring, but can take up a lot of space if allowed to sprawl on the ground. Train the vines up a trellis to save space and protect the fruit from rotting on the ground and being eaten by slugs and snails. Plant three to five cucumber seeds in a circle, which is usually called a hill even though the soil doesn't need to be piled up into an actual mound. Pick cucumbers when a lighter color begins to appear at either end of the fruit.

Melons of all types can be grown vertically on a trellis or allowed to wander around on the ground. Plant melons as you would cucumbers. As the fruit begin to mature, place a stone or piece of wood under the individual melons to prevent them from rotting on one side.

Onions are grown from seeds and sets. The seeds are very small and the small seedlings need to be thinned out – quite a bit of work. Onion sets can go into the ground in early spring, or almost any time during the growing season. Place them barely an inch beneath the soil, water regularly, and soon green shoots will appear. Eat the green onions or let them grow and feed the bulb. Onion bulbs are ready to be harvested when the tops dry up and fall over.

An unusual and attractive type of onion is called the Egyptian or Walking Onion. This plant produces a small bulb with very large and hollow leaves. The flowers develop into small bulbs on the top of the plant, causing the leaves to bend over until the bulbs rest on the ground. The little bulbs then take root and grow into new plants, which is why the plant is said to be "walking" across the garden.

Garlic can be grown readily from the bulbs you buy at the grocery store. Break the bulb into individual cloves. Plant the cloves, pointy side up, about one inch deep. The new leaves will look like thick grass and taste like garlic butter.

***It is like a mustard seed, which a man took and planted in his garden. It grew, became a tree, and the birds of the air perched in its branches.
Luke 13:19***

Mustard seeds are truly small and mustard greens taste great. This plant can be used to teach the parable of the mustard seed. Observe the seeds, study the scriptures, and plant the garden. Eat some of the mustard leaves to experience their spicy taste. Allow a few plants to grow to maturity, put out small yellow flowers, and produce pods filled with more seeds. Save the seeds and pass them on to another group to begin the study and growth cycle all over again.



**He causeth the grass to grow for the cattle,
and herb for the service of man: that he may
bring forth food out of the earth.**

Psalms 104:14

The biblical herb garden

Herbs can be used to teach about the culture of biblical times. How and why certain herbs were used tells much about daily life. A study unit involving biblical herbs can end with a celebration feast prepared by the group. Scripture reading can accompany the serving of each dish.

What are herbs? Herbs are fragrant and flavorful plants used throughout the household as medicines, perfumes, flavorings, and dyes. They are basically weeds and will grow well in any sunny spot. Most herbs prefer normal to poor, well-draining soil. Herbs grown in rich soil usually won't taste or smell as much as those grown in poor soil.

Easy biblical herbs

Herb seeds don't have to be expensive. Buy dill and coriander, both are edible seeds, out of the bulk herb bins in a health food store and plant them. It's cheaper than buying them in seed packets. Both dill and coriander are annuals that will reseed easily, giving you several crops through the season.

When he has leveled the surface, does he not sow caraway and scatter cumin? Isaiah 28:25. Eat dill (the Biblical name is caraway) leaves and seeds in potato salad and dips. Enjoy the delicate, tiny yellow flowers that wave in the breeze on top of feathery plants.

"The people of Israel called the bread manna. It was white like coriander seed and tasted like wafers made with honey." Exodus 16:31. Make cookies with the seeds, known as coriander, and salsa with the leaves, called cilantro.

They are to eat the lamb, together with unleavened bread and bitter herbs. Numbers 9:11. It takes patience to grow parsley, one of the bitter herbs of Passover, from seed, but it really isn't difficult. Just remember that it takes up to 21 days for the tiny seeds to germinate. Press the seeds into the top of the soil (cover very lightly, if at all) and keep moist. As a biennial, parsley will flower and go to seed the second year.

Lettuce is another of the bitter herbs. Plant endive in the early spring as a bitter addition to salads. As the weather gets warmer lettuce plants bolt, or begin to flower. The plant

shoots up a tall flower spike and the leaves become very bitter. Allow the plant to continue to grow to have an unusual and attractive flower. Small seeds can be harvested for a fall crop.

Mints were used as tithing herbs. These are herbs that will over-run any garden if left unattended. Plant these herbs in a pot and sink the pot into the ground as a way to contain the roots. Every few months dig the pot up and cut off any roots that are making an escape.

There are many varieties of mints, but they all have a square stem and can be grown readily from cuttings. Some mints to choose from include:

Chocolate mint – Tastes great when swirled in a cup of coffee!

Lemon Balm – Rub the leaves on arms and legs to deter mosquitoes.

Spearmint – Smells like the gum.

Rosemary is the herb of remembrance and fidelity. An old legend says that rosemary flowers were originally white but changed to blue after Mary laid her blue cloak on one of these fragrant herb bushes to dry out. If protected from the winter winds, rosemary bushes can grow several feet tall outside. The trick is to wrap the bush lightly with burlap, leaving it open at the top to allow for air circulation. This herb does not like to be transplanted and will barely survive being taken inside in the winter. When inside the house, rosemary leaves need to be misted with tepid water daily, while the soils needs to be kept fairly dry.

Using herbs

Herbs grown in the church garden make wonderful gifts. Package the herbs along with scriptures, seeds and growing instructions as a way to pass along the spirit of the biblical garden.

Drying herbs

Herbs taste best when harvested early in the morning after the dew has dried but before the strong sun hits the leaves. The oil that gives the leaves their odor and taste dissipates in the heat of mid-day. Another good time to harvest herbs is in the evening as the sun begins to go down. Cut stems or leaves gently and lay them out flat in a basket taking care not to bruise them.

Gently wash the herbs and lay them out on clean cloths overnight to dry. The easiest way to preserve most herbs is to dry them in a paper sack. Fill small paper sacks no more than halfway with herbs that have been washed and dried over night. Fold down the top of the sack and sit it in a location that is out of the sun and away from moisture. Open the sack and check the herbs on a weekly basis. When the leaves crumble readily they are dry enough to be placed in glass jars. Remove the leaves carefully from the stems, trying to keep the leaves whole as much as possible. Do not crumble the leaves into the jar – that allows the flavor producing oils to evaporate and the herbs will not have as strong a flavor. Dried herbs will last for about one year before the taste begins to diminish. Immediately throw out any herbs that appear to have mold growing on them – they were not completely dry when put into the jars.

Herbal treats and gifts

Herbal gifts are easy to make and will have a special meaning when accompanied with scripture verses and photos of the church garden in which they were grown.

Make herbal vinegars by filling a glass container with one type of herb or even a mixture of complimentary herbs, fill with white vinegar, and let sit for a minimum of one week.

Herbal mustards can be made by adding fresh or dried herbs to any type of mustard. Let sit overnight for the richest flavor.

Dried mints can be sewn into small pillows, or sachets. These can be placed in drawers and closets to keep clothing and linens smelling fresh.



He hath filled the hungry with good things... Luke 1:53

Plant a row for the hungry

Address the issue of hunger in your community. A common church mission is to feed the hungry and/or work on hunger relief both at home and around the world. A common gardener's problem is how to get rid of an abundance of produce. Put these two issues together and you have a problem with a ready made solution.

There are many ways to involve the congregation in hunger relief through gardening:

- Ask the gardeners in the congregation to bring some of their produce in each week, or once a month, and take all of the food together to a food shelter.
- Ask the gardening parishioners to sign a pledge card promising to tithe from their garden. Provide a list of food shelters that would like to receive the fresh produce.
- Dedicate all or part of the church garden to growing food for a food shelter. Hold a seed offering, asking the congregation to bring in vegetable seeds and/or give money that will go toward the purchase of seeds for the garden. Put up a sign in the garden that tells where the food will be donated.

Nutritional accessibility

While everyone readily acknowledges that people go hungry every night, not many of us consider the nutritional deficiencies that occur at all levels of society. Most of us just do not eat enough fresh fruits and vegetables, preferring the speed of processed and take out foods over the taste and nutrition of fresh cooked meals. Those of us who do try to eat our veggies often don't realize that the produce we buy at the grocery store has traveled long and far to get to us, losing nutrients each day and each mile it travels. Picked before it's time and forced to ripen in trucks and on the shelves, most produce is less nutritious after traveling the 1,400-mile average it takes to get to the big chain stores than produce grown nearer to town.

Churches can contribute to healthier lifestyles by making it easier for people to get locally grown, fresh, nutritious produce. Here are a few ways to take action:

- Hold a mini-farmers' market on Sundays. Ask the gardeners in the congregation to bring in their extra produce and have a swap or sale during the fellowship hour.
- Hold a congregational farmers' market outside in the parking lot, or on the church lawn, and sell produce to the neighbors. Promote the church programs along with the produce.

- Already too busy on Sundays to add another activity? Recruit local growers to use the church parking lot on Saturdays to sell their produce. Put out some information about church activities and have someone on-hand to explain the mission of the church and answer questions.
- Hold a harvest dinner at the church and ask that all the dishes contain fresh produce cooked in healthy ways. Photocopy and hand out recipes.
- Invite someone from the health department or Agricultural Extension Service to come to a Wednesday night dinner and talk about nutrition, preserving foods, and other health-conscious topics.



But Jesus said, “Suffer little children, and forbid them not, to come unto me: for of such is the kingdom of heaven.” Matthew 19:14

The children’s garden

The first garden I had was located at the bottom of a friend’s back yard. The back yard was shared with her three children, the neighbor’s two toddlers, and swarms of visiting young ones. Having never spent a lot of time around young children it was with great surprise that I observed what seemed to be their physical and mental inability to respect the obvious garden borders and the vulnerable baby plants. The children squealed with delight upon finding the garden. I squealed with fear as their tiny feet came down upon the tiny plants. But soon I began to laugh as it became apparent that one of the cutest things in the world is a child exploring a garden. Sure, plants died that day, but gardeners were born. The lettuce survived and thrived to be picked later by the children who happily ate it in their salads.

While I still cringe a bit when the first group of children romps through the spring garden, I can quickly relax and enjoy the smiles and cries of fun as they explore and enjoy the plants. Carefully placed logs around the garden beds get rolled around as children look for bugs. The occasional plant loses its life to a too strong tug on a flower. While restoring order after the children leave the garden, I sometimes have to remind myself that there is a trade off when a garden is shared with children.

To keep adults sane and children happy in the same garden, consider these guidelines:

- Reserve some places for digging, looking for bugs and general romping.
- Dedicate some garden space for fun plants – sunflowers, mints, pretty flowers that can be picked at will (zinnias are a good choice for picking flowers).
- Make the productive part of the garden an intergenerational project. Ask gardeners to work in pairs – one over a certain age and one under a certain age.
- Let children plant in unusual containers. Their own old shoes make cute containers for mint, onions, and small plants.

Children’s gardens can become the study and work of the Vacation Bible School class. Ask parishioners to bring in plants from their gardens, cuttings, and seeds. Use these donations to talk with the children about the useful plants in the world, the beauty of nature, and add some scripture readings. Plant the garden in pots or in the ground.

Add signs to the garden with this simple method:

1. Collect aluminum pie pans.
2. Cut out rectangles and punch a hole in one side.
3. Write the name of the plant, a scripture, or a quote on the sign using a ball point pen. Push down hard enough to make an imprint into the aluminum.
4. Hang the sign on a stick that is placed in the ground.

Include children in any church gardening project and you will get a host of dedicated volunteers – both the children and their parents. When growing a hunger relief garden, make sure the children participate in the harvesting and understand that the food will be donated. Use the garden to instill in the congregation a dedication to the church mission at an early age.

Provide an educational component along with the children's gardening project. Here are some ideas:

- Discuss the plants of the Bible and how people lived in biblical times. Incorporate the garden plants into any dramatic or art activities that are normally part of the children's program.
- Discuss the issue of hunger and the role of the church in the community. Ask the children to come up with a list of ways to provide hunger relief in their city.
- Invite speakers to talk to the youth classes. Bring in representatives from hunger, gardening, environmental, and recycling organizations to talk about opportunities for direct action.
- Use the flowers grown by the children to decorate the altar.
- Cook with the herbs and produce the children grown and serve it up at a church dinner. Have the children talk about their garden as part of the program that evening.
- Ask the children to write about their garden for an article in the church newsletter. If possible, include photographs of the children and the plants.

Have fun in the garden and make sure the children want to come back again and again. If necessary, make a special garden, or section of the garden, just for children so as not to disturb the plans of the adult gardeners.

Celebrate in the garden, play in the garden, enjoy the garden.

For the body is not one member, but many. 1 Corinthians 12:14

Organizing the church garden project

Get the interested people together and spend some dedicated time thinking about what you are doing. Even if you are starting out all by yourself, it will be beneficial to get some things written down.

Carefully consider your reasons for wanting to have a church garden. Ask each person to talk a few minutes about what they would like to accomplish and why. Fill out the form below to get a good picture of the overall project.

Why should the church grow a biblical garden?
Will we be making a theological statement? What is it?
Will we be making a social statement? What is it?
Will we be making an environmental statement? What is it?
Other reasons...

Some questions to consider:

How would the church benefit from a garden?
How would you explain the church garden to other people in the church and in the community?
How will the garden impact the church community, the church business, the congregation's growth?

Dare to dream

Start at the end of the project – what you want it to be – and work backwards. If you know what the end product should look like you can work out the in-between steps.

Take time for a creative exercise. Ask the group to visualize the church garden in a mature and finished stage. Encourage everyone to dream the biggest picture.

Ask someone to read these questions out loud while the rest of the group sits with closed eyes in careful contemplation how they see the Church garden of the future. When the exercise is finished, ask each person to fill in the blanks and then share their ideas with the group.

When you walk into our future church garden, what are you seeking?

What is the first thing you see? How does it make you feel?

Where do you go to in the garden? Do you sit, stand, kneel, or wander along a path?

What do you do in the garden? Do you pray, sing, read, or work in some way?

Who else do you see in the garden? What are they doing?

What plants do you see? Do they have a special meaning?

When you leave the garden, how do you feel? What are you thinking?

What do you tell other people in the church about the garden?

What do you tell people in the area about the garden?
What is your favorite spot in the garden? Why do you keep returning there?

What are the barriers to getting started? What are the solutions?

While the perfect garden is fresh in your mind, consider what has prevented you from starting a church garden. List all the possible barriers to each aspect of the ideal garden you have described. Budgets, buildings, baseball – anything that might stand in the way should be anticipated at this stage.

List the simplest solutions to each barrier. If the budget is a possible barrier, then a simple solution is to have parishioners donate everything. If time is a barrier, then a smaller garden during a shorter season is a simple solution.

Barriers:	Potential Solutions:
1.	1.
2.	2.
3.	3.
4.	4.

Considering the logistical issues

It's one thing to say that you are dedicated to having a Church garden, it is another thing to carry out such a project. Here are the basics that need to be covered if the project is to come to fruition:

<p>Where will the garden be grown?</p> <ul style="list-style-type: none"> Does a garden already exist that could be transformed? Will the garden be in a public or a private location? Will it be a container garden or planted in the ground? Does it need to be an inside garden? <p>Your ideas:</p>
--

Who will care for the garden?

Who will be responsible for it?

Who will direct its growth over the season and over the years?

Could a Sunday school class (youth, adult, or intergenerational) care for the garden as part of their curriculum?

Could the church organize its own garden club?

Your ideas:

Who is the garden's constituency?

Is it only for church members?

Is it open to the public?

Are children welcome?

Your ideas:

Making the garden a part of the church mission

Educate the congregation about the garden project. Never assume that just because the garden is obviously there it is understood or even noticed. Consider for a moment the surprised expression on the pastor's face when her husband asked where the church garden was...the one she had been working on for the past year! Think about the tiny committee that worked every weekend on the large garden, right there on the church property, and donated the produce to a food shelter. Imagine the confusion and dismay felt when members of the congregation asked what the neighbors were doing with that big garden next door.

Advertise the garden to the congregation. Put a note in the church bulletin on a regular basis. Maybe even write a short column each week – "What's happening in the church garden." A weekly message about the garden will get people interested in what is going on and help build support for the project.

Present the garden to the congregation as a local mission. Speak about the garden during a worship service. Make sure everyone knows the good deeds of the garden and shares in the good feelings that come with donating food, providing nourishment and housing for songbirds, adding beauty to the neighborhood.

Invite the congregation to share in the garden in some way. On a mild spring or fall day hold fellowship coffee hour around the garden. Ask the worship leader to begin one worship service outside by the garden and process into the sanctuary. Or request that the congregation end the service by processing out to the garden.

Whatever you do, act deliberately

You may need to go the formal route:

- Form a committee.
- Draft a mission and justification.
- Devise a budget.
- Create a calendar of responsibilities and activities
- Gain approval from a governing board.

You may be able to go the informal route:

- Decide you want a garden
- Put in a garden.
- Bring some potted herbs to your Sunday school class.

Keep your goal in mind and tailor the execution of the plan to fit whatever constraints may exist. Find out what you need to do to go forward with a garden project. Devise a plan. Take action.

But my God shall supply all your need according to his riches in glory by Christ Jesus. Philippians 4:19

Tools

Concentrate on obtaining basic tools, especially during the first few years when the church garden is developing. There's no need to break the bank on tools.

Here are the basic tools needed for most gardens

Hand tools:

- Trowels and hand cultivators are useful. Cheap metal tools are often sufficient. Plastic tools break easily, avoid them.
- Tin snips, so called "miracle scissors" (often pictured on the package cutting a penny in half!) are inexpensive and make great garden utility scissors.

Long handled tools:

- A transplanting shovel, it has a long and narrow blade, is a great digging tool, especially in clay soil. It is also very helpful in small and/or crowded garden beds.
- A garden fork, not a pitch fork, has thick tines for digging and loosening soil. It can also be used to turn compost, toss straw mulch.
- A shovel with a roundish, pointed blade is for digging. A square bladed shovel is for scooping, but can also be used for edging beds and other digging tasks. Get the roundish shovel first and save the square bladed one for later.
- A garden rake is helpful for smoothing beds and spreading compost. Don't confuse this with the large lawn and leaf rake.
- A large bucket can be used as a sturdy tool bag for hand tools, markers, pens, and so forth. Put large plastic cups inside the bucket to make compartments for different types of items.
- Plastic wheelbarrows are easier to handle than metal ones. A thick plastic shower curtain can be used to drag compost, weeds, and soil.

Here are a few ideas on how to accumulate tools on a tight budget

- Hold a tool offering one Sunday. Ask parishioners to bring in tools they no longer use.
- Create a tool lending library so that members of the congregation can check tools out when needed and return them for use by others. This is an especially economical way to have access to tools that are expensive and used rarely, such as tillers.
- Reuse items creatively and make some tools. Here are some ideas:

What you need:	Alternatives
Watering Can	<ul style="list-style-type: none">• Plastic milk jugs• Water with sponges, especially good for young children, people with hand strength problems, and for anyone who is watering young seedlings.
Hand tools for digging	<ul style="list-style-type: none">• Large plastic spoons and other similar kitchen items.
Pots for seedlings	<ul style="list-style-type: none">• Plastic yogurt and cottage cheese containers, poke holes in the bottom for drainage
Labels	<ul style="list-style-type: none">• Aluminum pie pans and a ballpoint pen
Plant ties/twine	<ul style="list-style-type: none">• Ruined, clean, pantyhose will stretch when plants grow and protect their stems, but will not break easily
Brown paper bags, cardboard, newspaper	<ul style="list-style-type: none">• Use to mulch between plants, cover with rotting leaves, compost, or mulch

Tool stewardship

Taking care of tools properly will guarantee their use for many years. Keeping them clean and storing them properly is simple.

The easiest way to clean metal tools is to use sand and vegetable oil. Fill a 5-gallon bucket, or a large plastic box, with builder's sand. Add one cup of cheap vegetable oil. Plunge the tools into the mixture after each use. The sand will clean the tool and slightly sharpen the edges. The oil will coat the metal and protect against rust.

Metal tools need to be kept in a dry location. Long handled tools should hang to prevent the wooden handles from warping. It is helpful to draw the outline of the tool on the shed wall; this makes it easy for anyone using the tools to put them back into the right place. Paint tool handles a bright red to make it easier to find them in the garden.

Pots and seedling trays should be washed out thoroughly with a gallon of water and a couple of drops of bleach before going into winter storage. This will prevent plant diseases from over-wintering in the pots.

Garden planning suggestions

It makes a lot of sense to draw out your garden plan before beginning. Try to draw it to scale, including pathways and any obstacles such as trees. Include the plants you want to grow and some idea of how many of each. This will help make shopping or requesting donations a little easier as you will know what and how much is needed.

If possible, locate the garden in a spot that receives full sun all day long. Try to get at least six hours full sun if possible. You may need to visit the area several times over several days to see where the shadows fall in your chosen spot.

On the other hand, it may be that you will need to accept the spot that you are given. In that case, figure out the sunny and shady spots and plan the garden accordingly.

Finally, don't be afraid to change the plan mid-season. Squash may take up more room than planned, the beans may not ever germinate, and other surprises will occur. Stay flexible and alter the garden plan as you go.

Alternative garden styles

Some vegetable gardens are arranged in long rows of crops. Some in blocks of intensively planted areas. Some flower gardens are arranged as borders. Others are interesting shapes carved out of the lawn. Here are a few types of gardens you may want to consider.

Intensive gardens for small spaces

Small spaces can produce large yields, claims Mel Bartholomew, author of *Square Foot Gardening*. The basic idea is to construct a raised bed garden that is 4 feet by 4 feet in size. This small area is large enough to grow a lot of plants, yet small enough that the average person can reach into the middle without stepping on the soil and causing compaction to occur.

Seeds and transplants are arranged in a grid, planning carefully for every square foot of garden space. At maturity, the plants will overlap each other, smothering out the weeds and forming a living mulch that retains moisture.

Square foot gardens are attractive, fun for children, and take up very little space.

Trellis gardens for tiny spaces

If you have but a few feet of garden space, increase the growing capacity greatly by using vertical growing techniques. Grow vines such as cucumbers, melons, and squash up a trellis.

Physically accessible gardens for everyone

Make sure everyone can enjoy the pleasures of gardening by making the garden accessible. The gardens can be built so that they are raised and allow for wheel chairs to fit under them, much like a table. The gardens can be situated next to a wall where

gardeners can sit or lean for support. More simply, the gardens can be placed in large containers that can be worked from a chair.

Soil information

Plunge a shovel into the ground and examine the soil that comes out to get an idea of what the first season's challenges will be. Plan on spending the first year with less than perfect soil. Make building better soil one of the goals of the garden project.

Soil is a mixture of sand, silt and clay. Sandy clay won't make a ball when you wet it and squeeze it. A ball of silty soil will crumble when poked with a finger. The clay soil ball can be modeled like, well of course, modeling clay.

Sandy soil won't retain moisture or nutrients. Clay soil will stay too wet and drown plant roots. To improve both types of soil add compost, compost and more compost.

Soils biggest enemy is compaction. Try not to step on the garden after it is dug up. Do not work in the garden when the soil is soaking wet. Protect your soil and it will keep your plants healthy for a long time to come.

Soil tests are useful, especially when the garden is in its first year. Call the county Agricultural Extension Service to find out where to take a soil sample and how much it will cost. Be realistic about the results. Keep in mind that it can take a year or more to change some of the test results.

Digging up the ground for the first time

Plan to start small. A garden dug by hand is going to be smaller than one dug by tiller or tractor. What you are willing to dig by hand in the spring is likely to be the biggest area you are going to want to work in during the heat of the summer. There's nothing more discouraging than a garden that is so large it becomes hard work that is done only grudgingly. A small garden lovingly tended is more likely to see a second season.

No-dig gardening

Lay cardboard or thick sections of newspaper (avoid slick paper) directly on the ground to kill the grass. (Note: this won't work if you have Bermuda grass, sorry.)

1. Cover with dry leaves, weeds you just pulled, mulch, compost, and other yard trimmings.
2. Wait for 3 - 4 weeks to allow the grass to die, compost itself, and the worms to dig up the earth for you.
3. Plant as you normally would, pulling away the mulch until you see soil.

How to plant a seed

To plant any kind of seeds, start with a hole that is three times as deep as the seed is thick. This means that most seeds will be planted in the top inch of soil, no deeper. Very tiny seeds are sprinkled on the top of the soil and gently pressed into the ground with a flattened hand.

Water the small holes before planting to seeds. Water again after the top layer of soil is placed over the seeds.

If you are planting a row of seeds, dig a furrow as deep as the seed requires, no more than two inches wide, and as long as needed. Water the furrow before planting the seeds to gain a jump start on germination. Place the seeds in the furrow, spaced as recommended for *plants*, not as recommended for seeds. This technique will save you the tedious step of thinning out seedlings that are too crowded. Cover the seeds with soil until the soil is once again level across the top of the furrow. Water one more time. Label the row with the name of the plant and the date of planting.

How to transplant a seedling.

Try to transplant seedlings on overcast, cooler days and during the early evenings. It is a more forgiving circumstance than during the hot mid-day when the sun is beating down. Always dig the hole and fill it with water before you unpot seedlings so that you are ready to plant as soon as you expose the seedling's roots to the air. Allow the water to seep into the soil before planting. This encourages deep root growth which makes for a more drought-hardy plant.

To take a seedling out of a pot properly, avoid pulling on the stem and crushing the tube that moves food and water around the plant. Place one hand gently over the top of the pot, allowing the stem to poke out between your fingers. Turn the pot over, tap or squeeze it gently, and let the root ball fall into your hand. If the roots are growing around the outside of the root ball gently tease them apart so they will grow into the surrounding soil when planted.

Place the seedling gently into the hole so that it will remain at the same depth as it was in the pot. If planted too deeply the stem will rot, too shallow and the roots will dry out. Gently place soil around the root ball and finish by watering thoroughly.

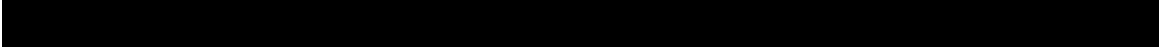
Water conservation

I was conducting a workshop with a church youth group when I heard some amazing theology. To the query about why churches should be concerned with water conservation, one of the teens grinned and replied, "If we don't save water then Jesus won't have anything to walk on! – But seriously, it's a good thing to save water because we all need it." The discussion then turned to brainstorming how the church could save water and we heard everything from putting bricks in the toilet tanks (please note: use a water filled plastic jug to avoid clogging the pipes) to collecting rainwater off of the roof. The youth group was motivated by a desire to preserve the natural resources and also by the fact that a lowered water bill might mean more money for their program.

Gardens can take lots of water. But they don't have to. Here are a few ways to water wisely, keep your plants healthier, and save money.

- Use lots of compost to increase the moisture retention of the soil.
- Use composted leaves or another type of mulch to keep moisture from evaporating from the surface of the soil. Two to six inches of mulch is a good amount to use. Leave about an inch of space between the mulch and the stem of a plant to keep the plant from rotting.

- Water the roots and not the air. Avoid sprinklers – most of the water will evaporate in the air or land on the leaves which is not good for the plants.
- Water during the cooler times of day, early morning or early evening. The plants are better able to absorb the water at these times of day.
- Water deeply once or twice a week to get the roots to grow deeply into the ground. Pour on the water until it sits on the surface of the soil and no longer seeps in quickly (called “watering until runoff”).



**It was planted in a good soil by great waters,
that it might bring forth branches, and that it
might bear fruit, that it might be a goodly
vine. Ezekiel 17:8**

Organic gardening

Before starting the church garden project you need to make a decision about how to deal with insects and weeds, and what to use for fertilizer.

On the one hand, deciding to have a completely organic garden can make a statement about protecting the environment. Pesticides, herbicides and chemical fertilizers seep into ground water and may have a wider impact than originally intended. Wide-spectrum pesticides kill beneficial insects along with the pests. Warnings on product containers list the risks to people. Having an organic garden is a way to make a very visible statement about avoiding certain products and can be an educational tool about organic techniques.

On the other hand, it may be difficult convince long-time, non-organic gardeners to participate in the church garden if the regulations are too strict. There may also be confusion over which products are allowed and which are banned.

Whichever way you go, the discussion itself presents the opportunity for an educational forum on how gardening practices can impact the world beyond our own yards.

There are many organic remedies. Here are just a few.

Insect pest deterrents

The best over-all spray is a strong jet of water from the hose. Spray as hard as the plants can stand it. Clouds of bugs will fly away. Repeat the spraying three days in a row and you have a good chance of breaking up almost any pest infestation.

Make your own stinky spray: chop up several cloves of garlic, pepper or a mixture of both with some onions thrown in to make the spray really stinky. Soak in hot water overnight. Spray onto plants and watch the bugs fly away. Place the garlic, pepper, and onion pieces around the bases of the plants to deter bugs for a little longer.

A few general thoughts on using sprays:

- Test sprays on one plant before spraying the entire garden.
- Apply sprays to the underside of leaves where bugs hide and lay eggs.
- Spray early enough in the morning to allow the droplets to dry off before the sun hits the plants. Water droplets act like small magnifying glasses on plant leaves.
- Spray early enough in the evening to allow plants to dry off before nightfall. Wet plants are susceptible to mildew.
- Sprays are temporary. They will often make pests leave the plants and will have some deterrent effect for a few days. Sprays have to be reapplied after several days and after rain.
- Adding a few drops of liquid soap to a mixture will help the spray adhere to plant leaves.

Remedies for specific pests

Slugs and snails have soft bodies. Use this knowledge to defeat them by creating barriers they cannot cross. The easiest, cheapest deterrent is sand. Spread an inch wide circle of sand around plants to protect them. Snails and slugs are unable to cross over the sharp edges of the sand particles.

Squirrels like to dig in soft soil and a garden is the perfect place to look for nuts or hide them. In the process seedlings are pulled up and carefully planted seeds are disturbed. Fortunately one of the best squirrel deterrents is available at most fellowship hours. Used coffee grounds, spread thinly on the top of the ground, are avoided by squirrels and add some nutrients and organic matter to the soil.

Cutworms come out of the soil at night, wrap around seedlings, and cut the new plants down. Defeat the cutworms by putting a small stick in the ground so that it sits against the stem. Wrap seedlings with aluminum foil, strips of paper, or even onion leaves. Prevent the problem at planting time by planting seeds in a protected environment. Cut a cardboard toilet paper tube in half and stick the half into the soil so that some of it sticks up above the ground. Plant seeds inside of the cardboard circle to protect the future seedlings from the threat of cutworms.

Make your own sticky traps to catch small, flying pests. Cut a one inch by three inch strip from a yellow milk carton (other colors will also work, but yellow is more attractive to insects). Poke a hole in one end of the strip and tie a string through the hole. Coat the plastic strip with petroleum jelly or vegetable oil. Tie the trap to a stick or short stake and place it in the garden. Small insects will get stuck to the trap. Wash it off and re-coat it, or throw it away and make a new sticky trap when the first one becomes covered with bugs.

Companion planting

Organize your garden so that the plants will protect each other. Place garlic and onion plants throughout the garden to deter pests. Scatter pieces of these fragrant plants all around to keep pests at bay. Planting marigolds around tomatoes is a time tested example of companion planting that really works.

Weed solutions

Build in a little extra time in the gardening calendar to allow for some weed killing time. Dig up the soil, water it, and wait a week for weed seeds to germinate. Rake over the tiny weed plants to destroy them before their roots get a good hold on the soil.

As long as birds eat seeds and fly, there will be weeds. Herbicides may be a quick solution, but they are a short term solution. At some point a bird will drop another seed and the battle against weeds will begin again. Here are some organic weed prevention methods that present fewer hazards to people and animals than chemical herbicides but still help defeat weeds.

Smother weeds with cardboard and newspaper. Lay the paper directly on the ground over the weeds and cover with mulch, compost, or rotting leaves. The weeds will die and add organic matter to the soil. Expect the weeds to decompose in four to six weeks depending on the time of year. Be warned, Bermuda grass and other grasses that spread by runners are unlikely to give up just because there isn't any light; these grasses will keep spreading out their roots until they find a spot to come up and put out their leaves. Unfortunately, digging out the roots is the only remedy for some weeds.

Many weeds can be killed with a shot of vinegar or boiling water. Try both for a real one-two punch. Pull out the dead weed and add it to the compost pile secure in the knowledge that herbicides won't be lingering to kill off seedlings when you apply the finished compost to the garden.

To prevent weeds during the growing season apply a thick layer of leaf mulch or compost around plants. For extra protection, put down a layer of newspaper or cardboard first and cover that with the more attractive mulch.

Perseverance is one of the lessons of weeds. Perhaps your church garden will help you learn some of the other lessons!

To every thing there is a season, and a time to every purpose under the heaven. Ecclesiastes 3:1

Spring gardening activities

Think green salad and you will have a good idea of the food plants to grow in the spring.

- Find out when the average last frost is for your area.
- Plant lettuces and other greens.
- Plant radishes, carrots, and turnips.
- Put out birdfeeders and bird baths.

Summer gardening activities

Think mixed salad and you will have an idea of the summer crops. Begin with either seeds or transplants. Wait until the soil is no longer cold to the touch.

- Plant tomatoes.
- Plant squash, cucumbers and melons.
- Keep in mind that plants need 1" of water each week.
- Look at rain barrels and other water collection systems.

Fall gardening activities

Fall is similar to spring and you can't go wrong planting spring crops in the fall.

- Plant bulbs for spring color.
- Transplant perennials while the weather is cool.
- Let flowers go to seed. Collect the seeds for next year.
- Leave some dead flower stalks standing and filled with seeds. The birds will eat the seeds throughout the fall and winter months.
- Plant cover crops to improve the soil. Sow annual rye seeds into the garden beds and let the bright green grass grow all winter. Plan to turn the rye over into the soil in the very early spring, about one month before planting time.

Winter gardening activities

Winter is a time of fallowness in most parts of the country. But there are things that can be done in the garden.

- If there were problems with bugs that came out of the soil, leave the soil bare until after a good freeze so that the eggs are killed.
- Cover the garden with brown leaves to protect the soil from erosion, keep the earthworms active, and prevent weed growth.
- Clean and repair tools.
- Store seeds in air tight containers placed in a cool, dry location.
- Make notes for next year – what worked, what didn't work, what can be improved.
- Don't want to stop gardening? Experiment with a cold frame – place a window on top of a frame that is at least 12 inches tall. Plant lettuce and other cold season crops inside of the frame. Vent the window on sunny days to avoid cooking the seedlings.
- Keep feeding the birds. Keep the bird bath full. Birds need to bathe frequently to keep their feathers – their insulation – clean and fluffed up.

In the sweat of thy face shalt thou eat bread, till thou return unto the ground; for out of it wast thou taken: for dust thou art, and unto dust shalt thou return. Genesis 3:19

Composting

Save some money, avoid burning tender roots and seedlings with harsh fertilizers, and recycle the church coffee grounds by making and using compost. Starting and managing a compost pile is a great way to teach about recycling and to promote organic gardening. Compost is a natural process of things rotting and turning into soil. When done correctly, compost does not smell, doesn't look unsightly, and doesn't take up a lot of time and energy.

Be forewarned, composting can be controversial! Plan to embark on an educational campaign. Find the home composters in the congregation and request their support and help.

Most likely the congregation will feel more comfortable with the idea of having a compost pile if an enclosed compost bin is used. Many options can be viewed at the website www.composters.com.

The basic composting recipe is:

1. Put in some kitchen waste. Vegetable and fruit peels, coffee grounds and filters, but no bones, meat or fat go into the compost pile. You might want to start by composting only the used coffee grounds and filters from the fellowship hour so as to allay concerns about smells and attracting unwanted critters.
2. Put in some dry leaves to add some carbon to the pile. If you don't have dried leaves add torn up newspaper.
3. Put in some green yard trimmings to add some nitrogen to the pile. Carbon and nitrogen together make things rot quickly. Use grass clippings, weeds, and plant trimmings. Avoid plants that have been sprayed with herbicides or pesticides. Herbicide residue can kill garden plants when the finished compost is spread. Pesticides can kill the worms and other decomposers in the compost pile. Also avoid florist flowers because of the chemicals used to keep them fresh (another reason to use flowers from the church garden to grace the altar).
4. Put in some sticks, no larger than your thumb. Sticks keep the plant material from matting down, that is, sticks create air spaces. As long as there is air circulation through the compost pile it won't stink.

5. Keep adding stuff. Dig a hole into the middle of the pile to add food waste. Always cover food with leaves, weeds or newspaper to avoid flies and an unsightly appearance.
6. After about four to six weeks, tunnel into the bottom of the pile and look for the compost. You are looking for mulch or even chunky soil.
7. Spread the mulch and compost on the garden. Compost is the perfect soil amendment, adds some nutrients, and adds lots of the organisms that keep the soil and the plants healthy.

For more in-depth information on composting, see the website www.nashville.gov/recycle and click on “composting” to download the booklet “The Dirt on Composting”.

Here are some ways to incorporate the compost pile into church life:

- Collect used coffee grounds from the church kitchen for the compost pile and advertise the fact that you are doing so.
- Hold an occasional compost offering and ask a few members to bring their vegetable and fruit peelings from home to donate to the church compost pile.
- Have a compost give-away day every few months.
- Hold composting mini-workshops or request that the Master Composter Class be held at your church.

Do not despair if you are unable to have a compost pile at the church garden. Gain the benefits of composting without the controversy by taking it off site.

- Hold a compost offering in which parishioners are asked to bring in some of their home made compost to place on the church garden.
- Give away the used coffee grounds from the fellowship hour to the gardeners in the church.

The compost saint

Saint Phocas can be thought of as the composting saint. Legend has it that this early Christian dedicated himself to growing a garden and sharing the produce with the poor.

This gardening saint knew that one day soldiers would come to punish him for teaching his religious views. When that day came, St. Phocas was ready. His garden was in order and he had brought in the ripe vegetables.

Not knowing with whom they were staying, the soldiers accepted the humble gardeners hospitality, ate the fresh food he prepared, slept in his house, and enjoyed the hearty breakfast they were served.

St. Phocas introduced himself to his persecutors, acknowledging their duty and asking little in return. The thoughtful gardener had dug his own grave in the garden and was laid in the soil where his body would return to and enrich the earth.

But he that had received one went and dugged in the earth, and hid his lord's money. Matthew 25:18

Trash can stewardship

The parable of the ten talents is one that many of us have heard since childhood, but have you ever heard it used to explain why we should be good stewards of the earth? Now, centuries later, we find ourselves in the same position as the one talent man! We're burying our resources, given to us by God, without one thought to future consequences.

The modern landfill is merely a very sophisticated, well-designed hole in the ground. And that hole in the ground is where we, everyday, put paper, aluminum, steel, wood, glass, plastic and other re-usable and recyclable items.

Now, what does that mean for the church interested in gardening and environmental stewardship? It means that we can't ignore what we toss in our trash cans because ultimately, it all ties in together.

This section of the workbook is a challenge and a how-to guide. The challenge is to go outside and LOOK in your dumpster/s and garbage cans to see what your church is throwing out. The how-to-guide explains the benefits of looking in your trash cans and doing an audit of your waste.

The waste audit

For most churches the act of managing waste is not considered an important function of their budget. Waste management usually means getting rid of the waste as easily and quickly as possible. Not taking time to look at your waste, however, can be a big mistake.

What's in your trash can? Seems like a simple question, but most people honestly don't know what IS in their trash can, dumpster or compactor. By not knowing the composition of your waste stream, you miss a valuable opportunity to reduce waste, save money and provide a positive environmental image to church members.

A waste audit is a simple method for determining the composition of a church's (or a business, industry, school, etc.) waste. The waste audit provides a picture of the material you are throwing out on any given day. It is a matter of taking the waste out of your dumpster/s, grouping it by type, calculating volumes of the containers and various wastes, and then calculating volumes of waste which are recyclable and can be diverted. The waste audit also involves looking at the current costs of garbage collection and transportation. By diverting waste via recycling and waste reduction efforts, you can

reduce the garbage going into your dumpsters and often reduce the number of garbage dumpsters or hauls. Ultimately, that may SAVE valuable DOLLARS in your budget. Now do I have your attention???

Conducting the audit

Your church might want to consider having one of the youth groups conduct the waste audit with supervision from several adults. This will get more folks involved in learning about your waste composition.

What you will need:

- A large area (preferable near your dumpster or trash cans)
- Gloves (cheap disposable gloves will work)
- Extra trash bags (for clean-up)
- Litter pick-up sticks
- Five large tarps

Step One – Get ready: Plan to conduct your waste audit the day before you are scheduled to have your garbage cans or dumpsters emptied. That way, you will get the best picture of what you are putting in your garbage.

Before beginning the audit, find out the size of your garbage containers. If you have trash cans, usually toward the bottom of the container you will find the size in gallons. If you have a dumpster, you can look on your waste removal contract or measure the dumpster yourself. To figure out the cubic yard size of your dumpster multiply length x height x width (in yards). The result will be the cubic yard size of your dumpster. (For example: 2 yards long x 2 yard high x 2 yards wide = 8 yard dumpster). Common dumpster sizes are 2, 4, 6 or 8 cubic yards. You will also need to find out how often your dumpster is emptied. This information should also be on the waste removal contract.

Step Two – Prepare to take notes: Using the form below, make a notation of how full the dumpster is using a percent. This will help you to calculate if you are maximizing your space.

Step Three – Conduct the audit: Now the fun begins! Take your tarps and spread them out on the ground. Label the tarps:

1. Garbage—anything which is truly non-recyclable, non-reusable and must be landfilled.
2. Organic—all food, plant, paper towel and other bio-degradable waste
3. Paper/Cardboard
4. Other Recyclables—aluminum cans, tin/steel food cans, plastic or glass bottles
5. Re-usable Items

You will use these to group your waste by type. Then start removing all the waste from the dumpster. If garbage is in bags, break the bags open to see what is inside and place the various types of waste on the appropriate tarp. Even if you come across paper,

cardboard or other types of recyclables which have been mixed in with food or other garbage, do your best to separate everything on to the appropriate tarp.

Step Four – Calculate results: After everything is separated calculate the percent that each of the four categories of waste represent.

Step Five – Clean up the mess: Bag everything up and put it back in the dumpster. Now you are ready to calculate your waste stream.

Step Six – Record the results: Using the form below. Fill in the appropriate information.

Date of Waste Audit: ____/____/____	
Dumpster Size (cubic yards): _____	Frequency of Pickup: _____
Cost per Month: _____	Cost per Pickup*: _____
*You can get the cost per pickup by dividing the cost per month by the frequency of pickups. So if you pay \$100/month and are picked up weekly you would be paying \$25 per pickup.	
Based on the data you collected from the waste audit, answer the questions below. Since you will be using percent, make sure that everything adds up to 100%.	
1. What percent of your dumpster was full? _____	
2. What percent of your waste was paper or cardboard? _____	
3. What percent of your waste was organic? _____	
4. What percent of your waste was "other recyclables?" _____	
5. What percent of your waste was re-usable items? _____	
6. What percent of your waste was garbage? _____	

Step Seven – Analyze the results: Now, let's analyze what we have learned by looking at each of the six questions we answered above.

Question 1: Was your dumpster full when you started the audit? If the answer is NO then you can begin immediately to do the simplest thing to reduce your waste cost! If your dumpster was barely half full, you might consider having it picked up less often. It is easy to see that reducing the frequency that your garbage is collected could drop your waste collection costs significantly. Call your waste contractor immediately and see what the cost would be to have your dumpster picked up less often. Use the following form to calculate savings.

Question 2: What percent of your waste was paper or cardboard? Most churches will find that approximately 50% of their waste is paper and is easily recycled in their area. Call your city or county solid waste office to see what your options are. Find out if the city or county will supply you with any recycling services and what the costs are. You can also look through the phone book to see if there are any businesses in your area that buy or accept, at no cost, newspaper, cardboard, office paper or other paper products in your area. You could also see if the city/county has a recycling drop-off where items can be taken to at no cost. Any of these steps that allow you to remove items from your waste stream at little or no cost can reduce the amount of waste you through out and ultimately save money in the church budget!

Question 3: Since you have already read the section on composting there is little need to go in to it again. However, you will probably find a significant portion of your waste is organic and compostable. Don't miss this opportunity to begin a church composting program which will supply rich organic material for your garden.

Question 4: A much smaller portion of your waste may be those "Other Recyclables" but don't ignore them. If your city or county has recycling drop-offs, this is a good opportunity for a youth group or adult Sunday School class to take turns swinging by the drop-off to recycle your plastic, glass, aluminum and tin. And, if you have a lot of aluminum cans, look through the phone book for an aluminum buy back center. You can get a few dollars from selling your aluminum cans to use for seeds, mission offering or other projects.

Question 5: This is an easy one. If you are throwing away items that are re-usable such as furniture or office supplies, look for a Goodwill, Salvation Army or other organization which will accept donations. There are lots of folks less fortunate than your church that could benefit from the things you don't need.

Question 6: Now we are down to the last portion of your waste that is probably truly garbage. If you have been very aggressive with your waste audit, you may find that less than 20% of your over all waste is really actually garbage that needs to be landfilled. Give yourself a pat on the back since you will no doubt be saving money as you recycle, compost, donate and throw out less stuff every week!

Where do we go from here?

You have already learned that maximizing your dumpster space and frequency of pickup is a cost saver. Now, you have learned that by removing anything that is recyclable, compostable or reusable, you can further reduce your waste. You might want to consider going to a smaller dumpster size. Call your waste contractor and see what your options are. Or, call your city/county solid waste office to see if you qualify for free garbage collection service now that you have so little to dispose of. On average, the church who conducts a waste audit, and takes action based on the results, can save 40% of their waste disposal cost!

Calculate your waste disposal savings

New dumpster size: _____

New Collection Frequency: _____

New Collection Cost/Month _____ + Cost for Recycling Services (if any) _____ =
Total New Collection Cost _____.

Now calculate your savings!

Old Collection Cost _____ - New Collection Cost _____ = Total Savings _____ !!!

If your church already receives free waste removal services through the city or county don't use that as an excuse to avoid recycling, composting and re-using items around your church. Remember, everything we throw away ends up in a large hole in the ground much like that one talent in the parable. Your church can be a shining example to the neighborhood and community by responsibly managing your waste and being good trash can stewards.

For more information on conducting a waste audit:

Sharon Smith, Recycling Coordinator
Metropolitan Nashville and Davidson County
www.nashville.gov/recycle or 615-862-4069

Bibliography

Biblical plants

Anderson, David A. *All the Trees and Woody Plants of the Bible*. Dallas: Word, 1979.

James, Wilma. *Gardening With Biblical Plants: Handbook for the Home Gardener*. Chicago: Newson-Hall, Inc., 1983.

Mackay, Alastair, I. *Farming and Gardening in the Bible*. New York: Pyramid, 1970.

Parmelee, Alice, *All the Birds of the Bible: Their Stories, Identification and Meaning*. New York: Harper, 1959.

Composting

Applehof, Mary. *Worms Eat My Garbage*. Kalamazoo, MI: Flower Press, 1982.

Backyard Composting: Your Complete Guide to Recycling Yard Clippings.. Ojai, CA: Harmonious Press, 1992.

Berbiglia, Julie and Sharon Smith. *The Dirt on Composting*. Nashville, TN, 2002. Downloadable at www.nashville.gov/recycling, click on "composting".

Campbell, Stu. *Let it Rot! The Gardener's Guide to Composting*. Charlotte, VT: Garden Way, 1975.

Make Compost in 14 Days. Emmaus, PA: Rodale Press, Inc., 1982.

Container gardening

Schultz, Warren. *Pots and Containers*. New York: Barnes & Noble, 1997.

Spier, Carol. *Window Boxes*. New York: Barnes & Noble, 1997.

Garden Planning

Adil, Janeen R. *Accessible Gardening for People with Physical Disabilities: A Guide to Methods, Tools and Plants*. Bethesda, MD: Woodbine House, 1994.

Bartholomew, Mel. *Square Foot Gardening*. Emmaus, PA: Rodale Press, 1981.

Gardening with children

Bradley, Clare. *50 Gardening Projects for Kids*. London: Anness Publishing Ltd, 1996.

Bryan, Felicity. *A Garden for Children*. London: The Joseph Co., 1986.

Herb gardening

Hemphill, Rosemary. *Herbs for all Seasons*. New York: Penguin Books, 1992.

Shaudys, Phyllis. *The Pleasure of Herbs: a Month-By-Month Guide to Growing, Using and Enjoying Herbs*. Pownal, VT: Storey Communications, 1992.

Varney, Bill and Sylvia. *Along the Garden Path*. Nashville, TN: Favorite Recipes Press, 1995.

Whiteman, Robin. *Brother Cadfael's Herb Garden: Medieval Plants and Their Uses*. Boston: MA: Little, Brown & Company, 1996.

Organic gardening

Benjamin, Joan and Deborah L. Martin, eds. *Great Garden Formulas: The Ultimate Book fo Mix-It-Yourself Concoctions for Your Garden*. Emmaus, PA: Rodale Press, 1998.

Bradley, Fern Marshall and Barbara W. Ells, eds. *Rodales' All-New Encyclopedia of Organic Gardening: the Indispensable Resource for Every Gardener*. Emmaus, PA: Rodale Press, 1992.

Denckla, Tanya. *The Organic Gardener's Home Reference: a Plant-By-Plant Guide to Growing Fresh, Healthy Food*. Pownal, VT: Storey Communications, 1994.

Gardens Alive! Environmentally Responsible Products That Work! (Catalog company)
www.gardensalive.com

Hart, Rhonda Massingham. *Bugs, Slugs and Other Thugs: Controlling Garden Pests Organically*. Pownal, VT: Story Communications Inc., 1991.

Lawton, Barbara P. and George F. Van Patten. *Organic Gardener's Basics*. Van Patten Publishing, 1993.

Spirituality and gardening

Barrett, Marilyn. *Creating Eden: The Garden as a Healing Space*. San Francisco, CA: Harper, 1992.

Gilmer, Maureen. *Rooted in the Spirit: Exploring Inspirational Gardens*. Dallas, TX: Taylor Pub. Co., 1997.

Glyck, Vivian Elizabeth, *12 Lessons on Life I learned From My Garden: Spiritual Guidance From the Vegetable Patch*. Emmaus, PA: Daybreak Books, 1997.

Schaper, Donna E. *The Art of Spiritual Rock Gardening*. Mahweh, NJ: HiddenSpring, 2001.

Sismic, Wayne, *Garden Prayers: Planting Seeds of Your Inner Life*. Winona, MN: Saint Mary's Press, 1995.

Tennessee gardening

Glenn, Walter and Lark Foster. *The Tennessee Gardeners' Guide*. Franklin, TN: Cool Springs Press, 1996.

Hunter, Margie. *Gardening With the Native Plants of Tennessee: the Spirit of Place*. Knoxville, TN: University of Tennessee Press, 2002.

Wofford, B. Eugene. *Guide to the Trees, Shrubs and Woody Vines of Tennessee*. Knoxville, TN: University of Tennessee Press, 2002.

Vegetable gardening

Ball, Jeff. *Rodale's Garden Problem Solver: Vegetables, Fruits and Herbs*. Emmaus, PA: Rodale Press, 1988.

Crockett, James Underwood. *Crockett's Victory Garden*. Boston: Little, Brown, 1977.

Crockett, James Underwood. *Vegetables and Fruits*. New York: Time Life Books, 1972.

Jeavons, John. *How to Grow More Vegetables Than You Ever Thought Possible on Less Land Than You Can Imagine: a Primer on the Life-Giving Biointensive Method of Organic Horticulture*. Berkeley, CA: Ten Speed Press, 1991.

Lima, Patrick. *The Natural Food Garden: Growing Vegetables and Fruits Chemical-Free*. Rocklin, CA: Prima Pub., 1992.