

A Labor of Love

Highlights

- God was the first farmer and He gave humans the responsibility of tending to the garden.
- Farming requires understanding and discipline; the Bible illustrates how to do it.
- Rotation of vegetable crops promotes healthy soil and reduces pests.
- Resting the land every seven years will bring a blessing.

God, the First Farmer

Do you know God is the first and best Farmer in the universe? Did you know that farming is so important to God that He made the first garden, put humans in it, and then told them to care for the garden?

It's true—farming was the first God-given job for human beings.

The Lord God took the man and put him in the Garden of Eden to work it and take care of it. Genesis 2:15 (NIV)

When the Lord placed our first parents in the garden, He gave them the job of working and taking care of it. God had finished His work of Creation and pronounced all things very good. It naturally follows that even the work of gardening was a very good activity for His children. FARM STEW has witnessed that by changing attitudes about the value of the work of farming and showing its God-given dignity, we can begin to change their families' futures!

God's Plan for Farming

Farming was designed to be a labor of love – in paradise where humans were designed to live forever – but, sadly, it didn't stay that way.

"While Adam and Eve obeyed God, their labors in the garden were a pleasure; the earth yielded of its abundance for their wants. But when man departed from his obedience to God, he was doomed to wrestle with the seeds of Satan's sowing, and to earn his bread by the sweat of his brow. Henceforth he must battle in toil and hardship against the power to which he had yielded his will" (Ellen G. White, *Fundamentals of Christian Education*, p. 512.5).

Even during the hard times, the people of God were still encouraged to garden. The prophet Jeremiah instructed the people in exile to *"build houses and dwell in them; plant gardens and eat their fruit."* Jeremiah 29:5 (NKJV)



God's Wisdom for Farming

Seventy-five percent of the world's hungry people rely on subsistence agriculture, meaning they are trying to survive on what they can grow, for their primary occupation. Most of them want to learn how to do it better. Rural farmers in villages throughout the world can have a more abundant life by learning to properly tend and keep the land.

The Bible tells us that God values straight ways rather than crooked ones. The prophet Isaiah pronounces,

The voice of Him that cries in the wilderness, Prepare ye the way of the Lord, make straight in the desert a highway for our God. Isaiah 40:3 (KJV)

And the wisdom of Proverbs 3:6 says,

"in all your ways acknowledge Him, and He will make your paths straight." (NASB)

In farming, straight rows and proper plant spacing are essential. The greatest enemies of maturing crops are weeds and fungal diseases. Straight rows make weed management easier.

Proper spacing also makes it possible for each mature plant to get the fresh air and sunshine it needs, as they are the plant's greatest weapons against fungal diseases. Making a straight path in the garden is a key to success. See how good God's word is!

The Sower and the Soil

Jesus shared many important spiritual concepts using agricultural parables. For example, the farmer who sowed seeds into different types of soil had very different results from each soil type.



And when a great multitude had gathered, and they had come to Him from every city, He spoke by a parable: "A sower went out to sow his seed. And as he sowed, some fell by the wayside; and it was trampled down, and the birds of the air devoured it. Some fell on rock; and as soon as it sprang up, it withered away because it lacked moisture. And some fell among thorns, and the thorns sprang up with it and choked it. But others fell on good ground, sprang up, and yielded a crop a hundredfold." When He had said these things He cried, 'He who has ears to hear, let him hear!'" Luke 8:4-8 (NKJV)



You can see here that the pathway is the place where feet are stepping on the soil, compacting it so that the seeds are easily carried away by the birds. In the rocky soil, the rocks left in a garden bed or field will prevent the roots from accessing the water below.

Finally, the weeds are like the thief that Jesus describes in the first part of John 10:10. They come only to kill, steal, and destroy. Some weeds, like thorns, will actually choke out the plants you are trying to cultivate. Others will rob them below the surface by stealing nutrients and moisture in the soil.

Only the well-prepared and managed soil produced a good harvest! It is so true in the garden, but also in life, that you must prepare well and manage your time and habits to have a productive life.



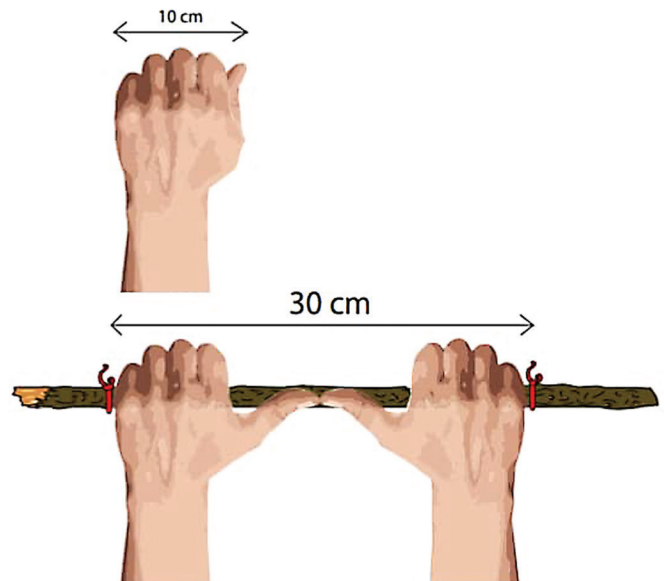
Diligence and Timing are Key to a Good Harvest

Diligence is the most important factor for success in farming. Timing is a close second.

There is an appointed time for everything... A time to plant . . . Ecclesiastes 3:1-2 (NASB)

All vegetables have a season to which they are best suited. Local agronomists can guide you in the right timing for your location and climate.

Although there are many ways to make a vegetable garden, FARM STEW recommends that your garden should be laid out in beds 110 centimeters wide (3 feet and 7 inches), and have walking paths 40 centimeters wide (1 foot and 4 inches) in between the beds. For more details, see the FARM STEW® Nutrition Sensitive Agriculture instruction chart in the next lesson.



Many people don't have a ruler or tape measure. As an alternate way to measure, an adult can grasp a stick with both hands with their thumbs outstretched and touching. The distance between the two smallest fingers will be about 30 centimeters (1 foot). The fist alone is 10 centimeters (4 inches) wide. You can, therefore, measure the distance and tie strings around the stick in order to mark the known widths to add up to 110 (for beds) and 40 centimeters (for paths). You can then use this measuring stick to measure the vegetable bed and path widths.

To prepare the vegetable beds, the weeds should be pulled or cut off with a hoe. It is helpful to do this either a day or two after a good rainfall so the soil is softer. Then soil from the walking path should be turned over onto the beds so that they are raised about 10 centimeters.



The weight of walking on the paths compresses the soil, making it hard for seeds to germinate in the paths. Think of Jesus' parable where the seeds that fell on the path were walked on. They were unable to grow and were eaten by the birds.

By not stepping in the beds, farmers make it easier for the roots to go down into the soil and for them to get the nutrients they need. Help everyone to understand not to step in the beds, even when planting or harvesting.

Four Groups of Fruits and Vegetables

A wide and colorful variety of fruits and vegetables provides important nutrients for your health and for the soil. They are often divided into these groups:



- **Greens.** Brassica crops such as cabbage, collard greens, etc. (They are also called cruciferous crops for the cross shape made by the four flower petals.) This also includes other greens such as spinach, amaranth, and lettuce.
- **Beans.** Legumes such as beans, peas, soya/soybeans, peanuts/groundnuts, lentils, etc.
- **Fruits.** Fruiting vegetables, such as cucumbers, pumpkins, etc., including nightshades, such as tomatoes, peppers, and eggplants. The flower on these plants is followed by the development of a fruit
- **Roots.** Root crops including carrots, onions, garlic, ginger, orange-flesh sweet potatoes, etc.

Crop Rotation

Each kind of crop should be planted in different garden beds and rotated each planting season. This is because they each take different nutrients from the soil and attract different pests. Rotation promotes healthy soil and reduces pests. It is good to make your rotations in each bed follow this order: beans, followed by greens, followed by fruits, followed by roots, followed by beans, etc.

In tropical climates, where there is no freeze that kills the garden, it may be harder to determine the end of one season and the beginning of the next. It is still important to make sure that, at least once per year, crops are rotated for the health of the soil and for pest management.

Nitrogen is Key to Life

One important reason for crop rotation is to make sure that nitrogen is regularly restored to the soil. Nitrogen in the soil is vital because it is used as a major part of chlorophyll production (the green part of the plant). Chlorophyll then works with light from the sun to produce the energy for the plant. When soil has been used to grow grain crops over many seasons, the soil's nitrogen level will decrease. Having beans in your rotation is recommended because beans help to add nitrogen to the soil. Although you can start crop rotation with something other than beans, starting with beans is a good idea. The beans will help nitrogen get back into the soil, where helpful bacteria will change it into a useful form through a process called nitrogen fixation. Then, the nitrogen can be used in the next season by the fruiting vegetables that follow beans in the rotation.

Plants aren't the only ones who need nitrogen. It is also a key part of all protein, which are used in every cell of the human body! Many malnourished children lack protein and iron that beans could provide in abundance. Healthy, nitrogen-rich plants can help grow your healthy body!

How to Grow Fruits and Vegetables

Plants grow best when it is warm. Most seeds germinate at temperatures between 16-24 C. Shade, water, and mulch help maintain the right temperature. Growing good vegetable seedlings (especially from the very small seeds of the brassicas and nightshades) can be difficult, so when possible, buy them as small plants (seedlings) instead of using seeds. Seedlings are ready to transplant when they are 7-10 centimeters tall. Treat them with care, disturb the roots as little as possible, transplant late in the day when the sun is not intense, and water thoroughly.



All vegetables require water, either from rainfall or by irrigation. Water planted seeds once or twice daily (depending on weather conditions) from seeding until plants are 8-10 centimeters (3-4 inches) high, and seedlings once or twice daily for a week after transplanting. Once established, plants should receive a thorough watering twice weekly. These water recommendations will work well when the soil has clay, but sandy soils will require even more frequent watering.

Land Needs to Rest

God gave instructions to Israel that they were to grow crops on their land for six years and then let their land rest on the seventh year.

In the seventh year there shall be a sabbath of solemn rest for the land, a sabbath to the Lord. You shall neither sow your field nor prune your vineyard.
Leviticus 25:4 (NKJV)

They were not to sow seed or prune or harvest for sale (see verses 2-7 for context), but they were allowed to eat whatever grew naturally on its own. Are there benefits to following these rules even today? Yes, the benefits are clear and documented. But first, let's consider what happens to the soil when it is plowed or tilled and what happens when it is left unplowed (fallow).

When land is plowed, the balance of nature is disturbed. The earth is left bare and naked but it wants to be clothed. The soil structure is disturbed by plowing and being turned over. This upsets the balance of microbes in the soil. The changes in soil structure and in the microbial populations are a stress on the soil. The stress continues as long as the land is plowed, usually resulting in decreasing fertility and water holding capacity over time.

Fallowing the land allows nature to restore balance to the soil and usually results in an increase in fertility. There are several ways this can be done. One is to divide your land into seven parts (or less), and to leave one part unplanted every year. Or, you can do as the Bible says and let all of your land rest for one year after working all of it for six years. To help restore the land even more, as you harvest your final crop before the year of fallow begins, you can sow the land with a cover crop mix of grains, legumes, brassicas and other broadleaf plants. The more different seeds you sow together the better, as a variety of plants will help restore the soil. Seven different varieties is excellent. The cover crops can also provide food for your family during the fallow year. Though the Bible instructs not to reap or gather in the seventh year, it does allow for you, your household, and animals to eat from the land during that time.

The weekly sabbath is more than a mere rest; it reveals our trust in our Creator and reminds us to rest in His provision for our temporal, spiritual and eternal needs. In the same way, resting the land every seventh year also demonstrates our trust in Him as the all wise Designer of fabulous interdependent systems, that when nurtured, provide the very best results. Many have experienced the supernatural blessings of following God's instruction for the land's sabbath rest. Here is a testimony of one farmer who has done this for twenty-eight years, which included four years of sabbath rest:

"I have kept the Sabbath year for the land four different times. Each time I am more convinced that the Lord has a special reason for everything that he says. Just as there is a blessing in paying tithe, so there is a blessing in doing everything He talks about. Yes, in the last 28 years the protein level of our wheat has risen by about 3 percent. A 3 percent increase in protein means almost double the profit. Besides that our average yield has come up by about 10 percent. You say how is that possible when there is no crop on the Sabbath year? I don't know how it all works, it's all sort of a miracle. From all of this I have very much confidence in the Bible."

God, Your Partner in Labor

Always Remember: God is the one who provides abundance. Ask for His blessings on your land and on your crop. He cares for your crop and for you. These verses are a reminder of that fact!

While the earth remains, seedtime and harvest, and cold and heat, and summer and winter, and day and night shall not cease. Genesis 8:22 (KJV)

Now He who supplies seed to the sower and bread for food will supply and multiply your seed for sowing and increase the harvest of your righteousness. 2 Corinthians 9:10 (NASB)