



READY

SET

GROW

A Kid's Guide to Gardening in Kentucky.






I'm a farmer, and I love it. The fact that you are reading this guide tells me you also have interest. Regardless of your level of experience, it can be a fun and rewarding activity—one you can develop and enjoy over your entire lifetime.

What makes gardening such a great activity is that anyone can garden and there's not just one way to do it. Whether you have access to a small area for container gardening or a large plot of land for vegetable gardening, you're limited only by your imagination.

This guide will teach you not only how to get your garden started but also how to take care of it, once it begins growing. You'll even get some ideas for using the delicious food that you grow. It is my hope that you'll learn some new things about gardening and, most importantly, have fun trying things out. Best of luck to you and happy gardening!

James R. Comer
Commissioner, Kentucky Department of Agriculture



As First Lady of Kentucky I am delighted to assist students of all ages plant their own gardens by lending my support to Ready, Set, Grow: A Kid's Guide to Gardening in Kentucky.

One of the best things about planting your own garden is that you get to make the decisions. You can plant your favorite vegetables and then learn how to prepare them in a delicious and easy manner for your entire family to enjoy. The possibilities are endless!

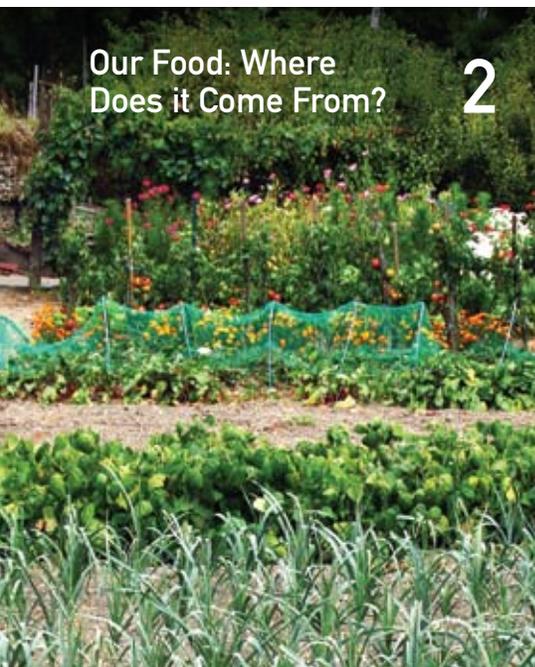
In fact, I have my own gardens at the Governor's Mansion and throughout the state that I developed where you can see a garden growing.

By visiting www.greenteam.ky.gov/garden/about.htm you can read all about the Governor's Garden program and how people just like you are making a difference in their communities. Best wishes for a bountiful harvest!

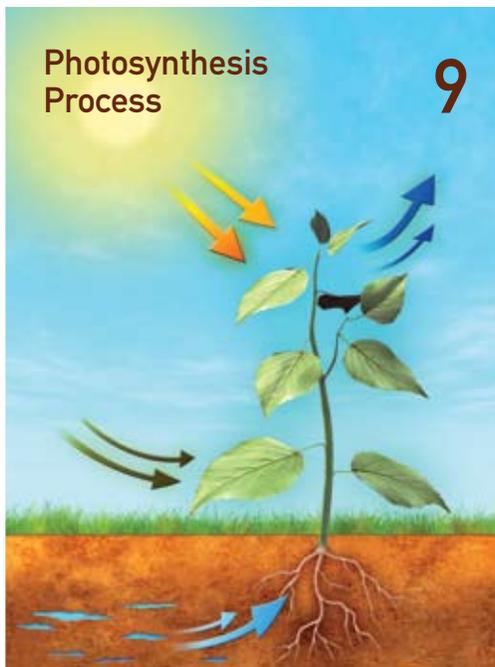
Jane Beshear
First Lady of Kentucky



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OUR FOOD – WHERE DOES IT COME FROM?



Much of the food we eat comes from gardens. Gardens come in all shapes and sizes. We can have a small patch in our backyard, but a large farm may have a garden that's hundreds of acres.



THE GOOD THING is that ANYONE can grow a garden – even on a small patio!

What can you find in a garden? Tomatoes, corn, green beans, lima beans, broccoli, squash, onions, eggplant, zucchini, cauliflower, pumpkins, and much, much more.

Thinking Organic?

There are things you need to know. Go to our website, www.kyproud/readyssetgrow, for links to organic gardening information.

How big should your garden be? That's totally up to you. You can grow one plant in a pot inside your house, you can have several plants on your patio, or you can fill an entire field. Most people use a small area of land behind their house. Start small and try a variety of vegetables.

You'll enjoy watching them grow and they'll be easier to care for.

Let's assume you will have a small area in your backyard for a garden. Before you think about planting, you should try to answer these questions:

- How large do I want to make my garden?
- Does the area get eight hours of sun every day? Most plants do not grow well in the shade and need plenty of sunlight.
- Is the area flat with plenty of space?
- Is the area well drained?
- Is water nearby, so you're able to water the garden from time to time?
- Do you know what you would like to plant and when? Different seeds should be planted at different times, based on the weather and how long they take to grow.

TYPICAL PLANTING TIMES FOR SOME GARDEN VEGETABLES

Radishes

Several plantings, 7 to 10 days apart, are possible. Radishes pass peak quite quickly, so several plantings are needed to provide high-quality radishes throughout the spring and early summer. Several fall plantings can be made in August and September.

Lettuce

Sow seeds in early spring. Lettuce flowers and turns bitter with the onset of hot weather. Fall plantings can be made in August.

Onions

Sow seeds as soon as the ground can be worked in spring for mature (storage) onions. Plant sets and transplants in spring.

Spinach

Sow seeds in early to mid-April. Leaves develop bitter flavor and plants make seed heads with the onset of hot weather. A fall crop may be planted about August 10.

Cabbages

Set out transplants any time from early April to mid-June. Early maturing types may be planted in early August for fall crop.

Broccoli

Set out transplants in early to mid-April. Broccoli is sensitive to hot weather and grows better in cooler temperatures.

Carrots

Seed early or any time during spring and summer. Carrots seeded as late as August 1 may produce full-sized roots by fall.

Potatoes

Best planted in early to mid-April; a long growing season is need to produce full-sized tubers.

Beans (Snap)

Plant any time after May 5. Most varieties will keep producing if they are kept picked. Last practical date for planting is August 1.

Corn (Sweet)

Plant when soil temperature reaches 60 degrees Fahrenheit or any time thereafter. Last practical date for planting an early variety is July 1.

Tomatoes

Plant seedlings in mid-May. Last practical date for planting tomatoes is June 20.

Peppers

Plant seedling in mid-May. Last practical date for planting peppers is June 20.

Squash

Seed mid-May. If harvested every other day, plants will keep producing until frost. Last practical date for seeding is July 20.

Cantaloupe

Seed mid-May. There are various differences in length of time from planting to harvest. Last practical date to sow seeds of early maturing varieties is June 20.

AS YOU GET READY TO PLANT:

- Choose an area facing south or southeast to get the most sun.
- Remove all grass and weeds from the area.
- If possible, have your parents help you get a soil test. That will help you know how much plant food you may need to add. You can get soil tests through your local county extension office.
- Avoid planting in low areas, such as the bottom of a hill.
- Till the soil to get it loose for planting. You should have loose dirt that you can scoop up in your hands. If you grab a handful and it clumps, it's too wet.
- Plant away from trees, buildings and fences that could shade your garden.

Remember: the closer your garden is to your house or school the more you will use it!

FROM SEED TO PLANT



Most garden plants start as seeds. Some vegetables – such as corn, green beans, lima beans and others – are usually planted straight into the garden. Other vegetables, however, need a period of warmth before planting, so they are started as seeds inside or in a greenhouse, then transplanted outside.

Seeds:

If you buy a packet of seeds from a garden center, carefully follow the instructions on the packet. This is an example of what you're likely to see:



SWEET CORN EARLY AND OFTEN HYBRID

Sweet tasting. 7-8" ears. Some mature early and others continue to mature throughout the season. Ready to harvest in about 64 days.

SOW in fertile soil in full sun after all danger of last spring frost and soil has warmed thoroughly. Sow 6-10" apart in rows 2-3' apart, in blocks of at least 4 rows side by side rather than in one long row. This ensures pollination and full ear development. Cover with 2" of fine soil. Seedlings emerge in 7-14 days.



Full Sun



2 in.



6-10 in.



64 days

Transplants:

While most plants come from seeds, in some cases, it's better for the beginning gardener to use "transplants" or young plants that have already germinated and have been potted individually. Good examples of transplants are tomatoes, squash, broccoli, cauliflower and peppers. These particular vegetables need very warm temperatures to grow, about 70 to 90 degrees. It's best to start them indoors, by placing the seed into warm, moist, soil and planting more seeds than necessary. Finally, you would "thin out" the growth to select and individually pot the best, most healthy transplants. That's what you will plant in your garden. Since this early



process takes time and effort, many gardeners simply buy the plant after it has germinated at a nursery or garden center.

Whether you use seeds or transplants, in Kentucky, the process normally starts in March. After 4-10 days, the seed swells and breaks apart. The roots start growing down into the soil, taking food from the soil, while the plant sprouts through the soil and reaches for the sun. This is called germination.

As a plant grows, its leaves branch out and get thicker. The plant needs good soil, water, sun and food, or nutrients, to grow. As the plant grows, it gets energy and food from the sun and the environment in a process called photosynthesis. Photosynthesis means “making things with light.”

Plants use energy from the sun to turn carbon dioxide into oxygen in the atmosphere and water into sugars and starches, which feed the plant.

In the next few weeks, the plant grows taller, more leaves branch out and thicken, and tiny flowers start to grow. These flowers will be where the actual fruit will grow.

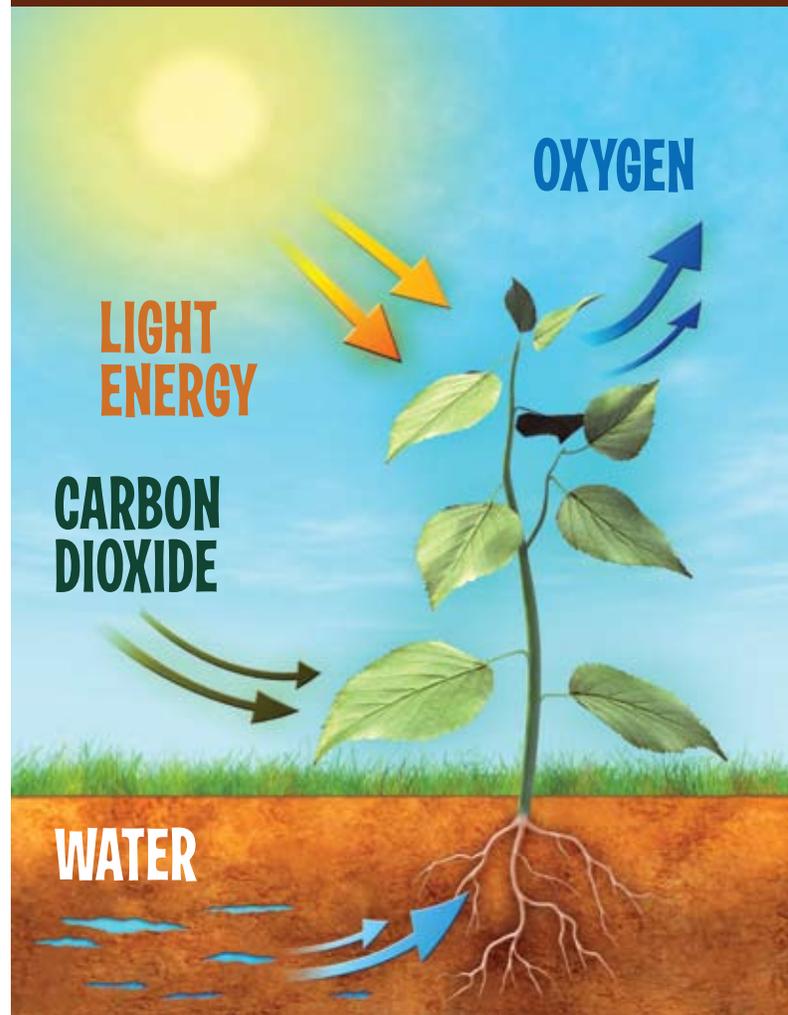
The flower releases pollen, which bees or winds carry from one plant to another. This fertilizes the plant and the vegetable’s fruit can start growing.

With most plants, you’ll first see a small green ball or knob, which grows constantly over several days. When the fruit is ripe, it will harden and, depending on the vegetable, change color.

At that point, it is ready to pick and eat. The whole process, which started in March, takes on average about 90 days to complete. It’s pretty amazing, so enjoy watching your plant grow and enjoy eating the vegetables!

Remember, throughout the growing process, you’ll have to keep weeds and grass out of the

PHOTOSYNTHESIS PROCESS



garden during this time. You may pull them, or cut them out with a hoe. It’s important to keep the garden’s soil soft, and hoeing will help keep it in shape. You’ll also have to water occasionally if the garden gets dry and you’ll have to watch for insects and diseases that can damage your plants. If you see insects or diseases, your parents may need to help you control the problem.

Find helpful links to pest control solutions on our website, www.kyproud.com/readyssetgrow.

WHAT A VARIETY!



You may think all tomatoes are red. But you may be surprised to find that they also can be orange, yellow, pink, green—even multi-color. There are so many different varieties, with names like Better Boy, Golden Girl, Beefsteak and others. They're round, pear-shaped, and even small, like cherry tomatoes.



FUN FACTS:

You might think a tomato is a vegetable, but it is really considered a fruit. Why? Because it has seeds. Cut open a tomato and take a look at the seeds. They can be collected, stored and used to grow tomatoes in the future. Also, a fresh garden tomato tastes sweet – like a berry. You *can* taste the difference.

143 Each farmer in the United States grows enough food to feed 143 people.

PEPPERS can be green, red, yellow, orange or even other colors. Corn can be yellow or white. Squash comes in a variety of colors. All of these depend on the variety of seeds you plant. If you want to grow something with a unique size and color, look at the different varieties available and then make your choice.

Keep Growing

The good news is that you can actually have a spring, summer, AND fall garden. Different plants have different growing seasons. It's best to look at the seed packet or visit a garden center to see what you can grow during spring, summer, and fall.

5 Kentucky ranks in the top 5 nationally in the number of farms within a state.

Farmland covers more than half of the all the land in Kentucky. **1/2**

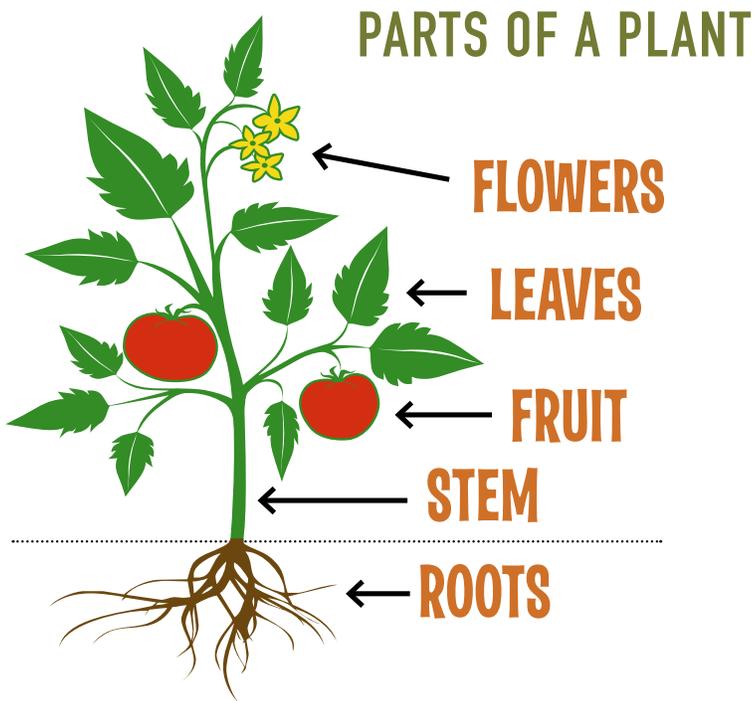
98% Percent of Kentucky's farms that are owned by families.

Information courtesy of the Kentucky Farm Bureau.

FUN ACTIVITY!

Make a seed starter.

For instructions go to page 17.

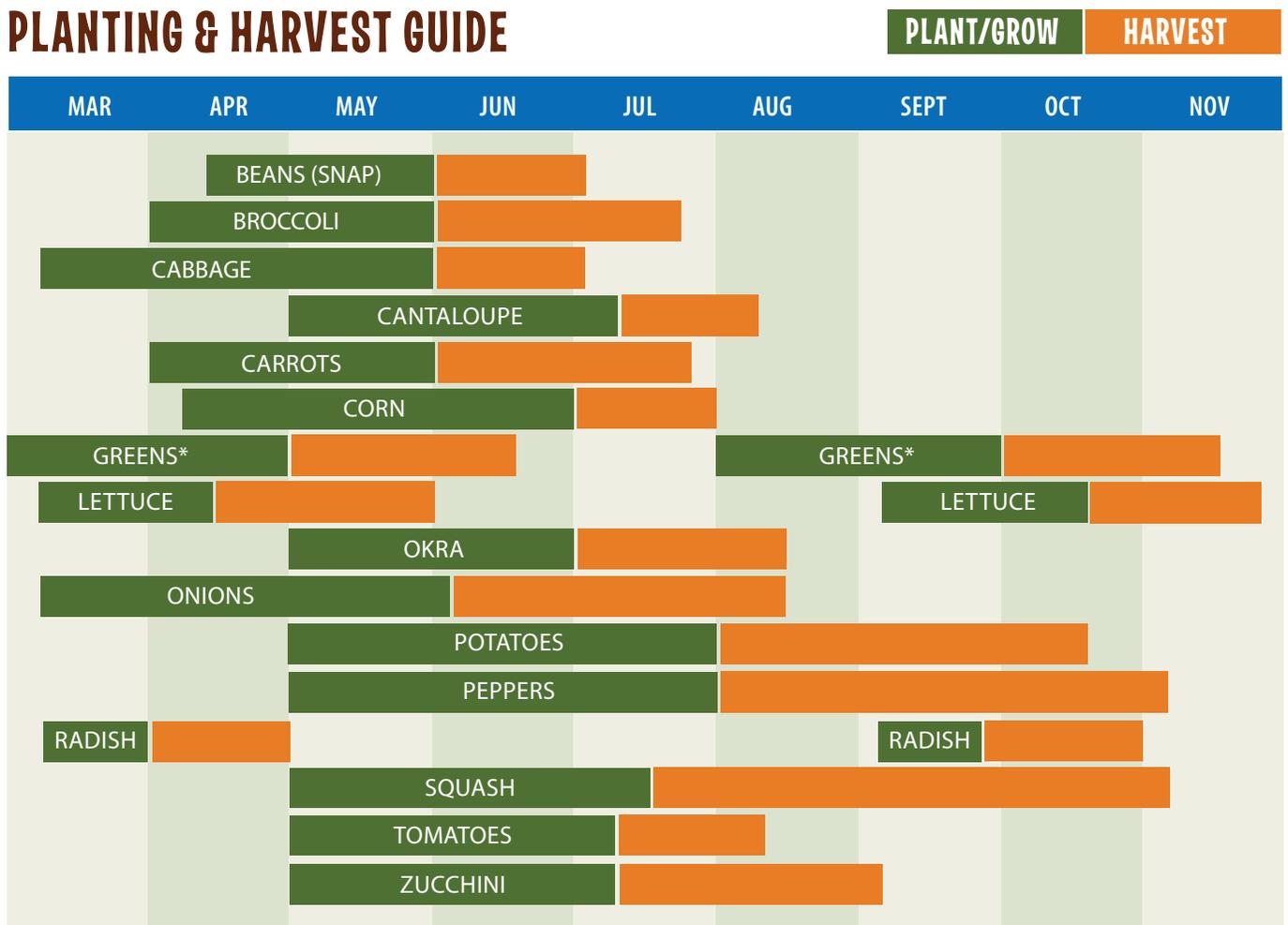


The Rest of the Garden:

All vegetables in the garden grow in much the same way, starting out as seeds or bulbs, and ending as healthy vegetables.

From planting to the dinner table, a tomato takes 60 - 90 days. The growing season for other popular garden foods are shown in the chart below:

PLANTING & HARVEST GUIDE



* Greens refer to any number of different plants including the traditional spinach, mustard, collard, turnip, etc., as well as newer Asian varieties and Swiss chard.

FROM SEED TO MATURE PLANT

SEEDLING

YOUNG

MATURE

GREEN BEANS



BELL PEPPERS



CANTALOUPES



RADISHES



LETTUCE



SEEDLING

YOUNG

MATURE

TOMATOES



CORN



POTATOES



ZUCCHINI



ONIONS



AFTER YOU PICK THEM... NOW WHAT?

If you haven't seen vegetables grow in a garden, you might not know what you do with them after they're picked. Some can be eaten raw. Others may be cooked or steamed. With some, you have to prepare them before you eat them.



BE SAFE! The first and most important thing to know is: you need to thoroughly wash the vegetables. Don't try to eat them right out of the garden. There may be dirt or chemicals on the vegetables that need to be washed off.

Depending on the vegetable, you may need to do some preparation. For example:

- **Corn:** You'll have to "shuck it." Tear off the outer green part, "the husk," away from the cob. You'll also have to remove the fine hairs, or "silk," you'll see at the top of the cob. You can pick them off or use a vegetable brush. After washing, the corn can be cooked in hot water, or prepared in a variety of other ways.
- **Green beans:** People prepare green beans in a variety of ways, one of the most common methods is to snap off each end of the bean, and snap the bean stalk itself into two or three pieces. Then, they're ready to cook.
- **Lima beans:** These are protected in an outer covering, called a "hull." Peel apart the hull to find the beans inside. Pull them out and cook them in hot water.
- **Broccoli or cauliflower:** These grow on their plants as large "heads." After you cut the head off the plant, you can break them apart into small pieces or florets. These can be eaten raw or cooked.
- **Squash or eggplant:** Once you pick these, they may be sliced, peeled or diced and cooked or put into a variety of casseroles.

- Spinach or kale: When these are ready, you simply cut off the top leaves, wash and place in salads or cook them.
- Cucumbers: Once you pick these, you can slice and eat them, or use in other dishes. You can even create pickles from them. One hint: Cucumbers grow fast. The bigger they get, the tougher they are. You may want to pick them when they're smaller and more tender.
- Carrots, onions and potatoes: These may surprise you because they grow under ground. You'll have to pull or dig them up when ready, wash them off and prepare them.
- Pumpkins: These are especially fun because you can watch them grow, and they will break away from their stems when they're ready.

FUN ACTIVITY!

Make a rain gauge

For instructions go to page 16.

COLORFUL EATING:

As you pick your vegetables think about separating them into color groups. Each color group offers different phytochemicals, antioxidants and nutrients that help you stay healthy.

When you grow, your body needs vitamins, minerals, amino acids and other important nutrients. Luckily, you can find most of them in various vegetables that you eat everyday.

Here is some of the “good stuff” you’ll find in your veggies:

Calcium – necessary for healthy teeth and bones.

Fiber – good for your heart and digestion.

Iron – needed for healthy blood.

Magnesium – helps with healthy bones and muscles.

Potassium – great for your blood pressure.

Vitamins – provide a variety of help for every part of your body, from head to toe. Vitamins help your entire body grow and remain healthy.

It's good to eat a variety of vegetables, so you'll get the right balance of all the “good stuff” that will help you grow.



Get the blues (and purples)

For brain/memory, healthy aging, and urinary tract.



Great greens

For vision, bones and teeth.



Wonderful whites

For heart and healthy cholesterol levels.



Outstanding oranges (and yellows)

For vision, immune system and heart.



Radiant reds

For heart, urinary tract and brain/memory.

TO MARKET, TO MARKET



Your vegetables just seem to taste better when you grow them, or you buy them from a local farmers' market. That's because they're fresher and contain more of the "good stuff" (vitamins and minerals) than those that are grown hundreds of miles away.



So what are you likely to find at a farmers' market? Here are just a few examples:

- Apples
- Beets
- Blackberries
- Blueberries
- Cabbage
- Cantaloupe
- Sweet corn
- Cucumbers
- Eggplant
- Okra
- White and green onions
- Paw Paws
- Peaches
- Pears
- Peppers
- Plums
- Potatoes
- Pumpkins
- Raspberries
- Summer squash
- Watermelons

IN KENTUCKY, we don't have as long a growing season as our neighbors to the south. We get a lot of food from Florida, Southern California, and Mexico because they can grow fruits and vegetables nearly 12 months a year. However, it takes time to get the food grown in Florida or California here to Kentucky. Think about it. A farmer has to pick it, box it up and take it to market. Then the food has to be shipped an average of 1,500 miles to get to supermarkets in Kentucky. While that food is still good for you, some of the "good stuff" is lost in the days it takes to get the vegetables from the field to the market here. And since food can spoil in just a few days, growing your own or buying from a local farmers' market should mean your food is fresher longer.

Farmers' markets are typically open from June through September, depending on when certain fruits and vegetables are ready. You're always going to find something good. Look for one, visit and see for yourself!

Other places to get food:

In addition to your own garden, there are other places where you can find fresh, locally grown food:

Farmers' Markets – These are becoming more popular in Kentucky. You'll see them organized weekly at various places around your community. Pickup trucks come full with vegetables just picked and ready for you to purchase and eat.

Urban or Community Gardens – If you don't have land to grow a garden, many communities offer a large piece of land in which many people may grow individual gardens. Check with officials in your own community for details.

School Gardens – Gardening has become a "class project" for many. Students take turns working in a school garden and then share the vegetables or donate them to a worthy cause. Many schools are using the food they grow to feed the students in the cafeteria. For more information, check out Kentucky Department of Agriculture's Farm to School Program.

Community Supported Agriculture programs (CSA) - A CSA is a commitment between a farm and a group of people in which the farm provides food to this group throughout the growing season. Each week, the farm may provide different fruits and vegetables. The people in the group agree to pay the farm a certain fee to grow the food and the farm agrees to provide food to this group on a regular basis.

If you can't find a place to purchase locally grown food in your area, call the County Extension Office in your community and ask for details.

Why buy local food?

There are several reasons why we should try first to find locally grown food:

- As we mentioned earlier, fruits and vegetables don't stay fresh a long time. If these items have to be trucked to you from hundreds of miles away, that takes several days and that makes them less fresh. Fresh food tastes better.
- There are more vitamins and minerals in locally grown fresh food. Large growers hundreds of miles away have to pick food before it is completely ripe and process it before shipping. When that happens, some of the nutrients are lost. Locally grown fruits and vegetables are picked and sold when ripe, so you get the best!
- When you buy locally, you help Kentucky farmers. They use the money to take care of their own families and buy other things in your community. That keeps more people working and makes your community stronger.
- It is also good for the environment. The farther food has to travel, the more resources are used. Buying local or growing your own food reduces fuel costs and carbon emissions that can harm the environment.

FUN ACTIVITY!

Build a compost bin

For instructions go to page 18.

SO... BACK TO THE GARDEN:

You've now seen the process food takes from seed to harvest. While you and your family might eat what you grow, that food could take a variety of forms.

LET'S TAKE THE tomato, for example. It's great in salads or on sandwiches. But it has many other uses.

It might make its way to a restaurant, where the chef will use the tomato in salads, soups and other foods. It could go to your school or a local hospital where it's cooked to make spaghetti sauce. Or it may arrive already processed, in the form of ketchup.

And in your home, you'll find tomatoes in salsa, pizza, and even for breakfast as tomato juice.

In other words, your food, from seed to table, goes through a lot of steps. That's why it's important to buy and eat fresh foods, grown in Kentucky. That will make you Kentucky Proud.

Here are recipes for your Kentucky Proud produce.

WATERMELON TOMATO SALAD

INGREDIENTS:

- 5 cups – seeded watermelon cubes (3/4 inch)
- 3 cups – cubed tomatoes (3/4 inch)
- 1/4 teaspoon – salt
- 1 small – red onion, quartered and thinly sliced
- 1/4 cup – red wine vinegar
- 2 tablespoons – extra virgin olive oil
- 1 teaspoon – black pepper
- 6 – lettuce leaves

PREPARATION:

1. Combine watermelon and tomatoes in a large bowl. Sprinkle with salt. Toss to coat. Let stand 15 minutes.
2. Stir in onion, vinegar and oil. Cover and chill 2 hours.
3. Serve chilled on lettuce leaves, if desired.
4. Sprinkle with cracked black pepper to taste.

Yield: 6 – 1 1/2 cup servings.

Courtesy of UK Extension.



BACON AND TOMATO DIP

INGREDIENTS:

- 1 cup fat free sour cream
- 1 cup low fat mayonnaise
- 2 large tomatoes, diced, reserve excess juice
- 4 slices bacon, cooked crisp and crumbled
- 1 teaspoon garlic powder

PREPARATION:

1. Combine all ingredients.
2. Add reserved tomato juice until dip reaches desired consistency.
3. Serve with fresh vegetables or reduced fat crackers.

Yield: 16 – 2 tablespoon servings.

Courtesy of UK Extension.



Want to See a Garden Growing?

You can - at one of six Governor's Gardens in Kentucky.

In 2009, First Lady Jane Beshear partnered with government, education, and agriculture organizations to start the Governor's Garden Program. This program seeks to promote products grown and produced in Kentucky by local farmers. This program encourages Kentucky businesses, organizations, schools, and communities, to cultivate and maintain their own gardens. The Governor's Garden program further seeks to educate the public about the health and economic benefits of community gardening and utilizing locally grown foods.

You can find the location of the nearest Governor's Garden on the inside back cover of this book.

Interested in Agriculture?

Perhaps all this garden talk has gotten you interested in learning more about agriculture. There are several organizations for young people that will help you. Organizations such as 4-H clubs, the Future Farmers of America, IFAL (Institute for Future Agricultural Leaders), and the Kentucky Farm Bureau all have ways you can learn more and get involved.

For more information check out the links on our website, www.kyproud.com/readyssetgrow.

CUCUMBER, CORN, AND BEAN SALSA

INGREDIENTS:

- 2-3 large cucumbers
- 2 tomatoes
- 1 yellow bell pepper
- 1 small red onion
- 1/4 cup chopped fresh cilantro
- 1/2 cup black beans
- 1/2 cup fresh whole kernel corn, cooked
- 1 ounce package dry ranch dressing mix
- 1/8 cup cider vinegar
- 2 tablespoons sugar, optional

PREPARATION:

1. Finely chop cucumbers, tomatoes, pepper, and onion.
2. Combine in a large mixing bowl with chopped cilantro.
3. Drain and rinse beans and add to chopped vegetables.
4. Add corn. If using canned corn instead of fresh, drain off liquid prior to adding to vegetables.
5. In a small bowl, mix together ranch dressing packet, vinegar, and sugar. Pour dressing over vegetables and mix well. Serve immediately or refrigerate until chilled.

Yield: 20 – 1/2 cup servings.

Courtesy of UK Extension.



APPLE CRANBERRY WALDORF SALAD

INGREDIENTS:

- 1 cup – chopped Granny Smith apple
- 1 cup – chopped Red Delicious apple
- 1 cup – diced celery
- 1 cup – halved seedless green grapes
- 1 cup – halved seedless red grapes
- 1 1/2 cups – dried cranberries
- 1/2 cup – chopped walnuts
- 8 ounces – non-fat vanilla yogurt
- 2 teaspoons – honey
- 1/4 teaspoon – cinnamon

PREPARATION:

1. Combine chopped apples and diced celery and put in a medium sized bowl. Add grapes, cranberries, and walnuts to the mixture. Stir ingredients together.
2. In a separate bowl, add the yogurt, honey, and cinnamon. Stir together and pour over the fruit mixture. Cover and chill before serving.

Yield: 8 – 1 cup servings.

Courtesy of UK Extension.



GARDENING ACTIVITIES

MAKE YOUR OWN RAIN GAUGE IN SIX EASY STEPS



Step 1: Get Your Rain Boots and Grab Your Materials!

You will need a glass jar, a plastic ruler and tape.

Step 2: Location

Find a good location for your rain gauge outside. Make sure it's a safe place where it will be undisturbed. If you'd like to compare rainfall at different locations, such as home and school, you can make more than one rain gauge.

Step 3: The Gauge

Place your ruler inside your empty jar, with the numbers facing out. Make sure the end of the ruler rests on the bottom of the jar and it stands straight up and down. Use tape to hold in place, if needed.

Step 4: Collect and Record

Place your rain gauge outside where it will collect water and begin recording your measurements. Plan to measure rain for an entire month. Check your gauge each day and record the amount of rain to the nearest tenth of an inch. Add up your measurements at the end of the month. This is great practice for adding fractions!

Step 5: Challenge Yourself

To challenge yourself, you can calculate average rainfall per week. Take your total rainfall and divide by the number of weeks you collected information.

Step 6: Clean Up

Be sure to clean up your area and put all supplies back where you found them.

Information is courtesy of American Farm Bureau Foundation for Agriculture.





Step 1: Get Your Gloves and Grab Your Supplies!

You will need a clear plastic glove*, cotton balls (5-10), seeds (5-10), ribbon, single hole punch/scissors, tape and water.

*Note: do not use a stretchy, latex medical glove; instead, use a loose fitting, thin, food-service grade glove

Step 2: Preparation

Take the plastic glove and spread it out flat. There are five fingers, which means you have five growing areas for your seeds.

Step 3: Ribbon Hanger

Using a single hole punch or scissors, make 4-6 holes around the top of the glove, about an inch for the edge. Lace your ribbon through these holes and leave about a 6" tail on the end. You'll use the tail to hang your glove window box.

Step 4: Preparing the Growing Area

Place 1 or 2 cotton balls in each finger of the glove and push all the way to the fingertip. Be sure the cotton balls fully cover the tips of the fingers.

Step 5: Planting

Carefully place 1 or 2 seeds (depending on size) in each fingertip, between the glove and the cotton ball

Step 6: Water

Add just enough water to each fingertip to make the cotton balls damp

Step 7: Hang it Up

Carefully tie the ends of your ribbon into a knot. Don't pull the ribbons tight, because you'll need the top open for watering. With adult permission, use a few pieces of tape to hang your glove window box in a sunny window from this ribbon.

Step 8: Check In

Check your glove daily. You always want your cotton balls damp, but not soaking wet.

Step 9: Clean Up

Be sure to clean up your area and put all supplies back where you found them.

Step 10: Watch Your Seeds Grow

Watch your seeds grow! You get to be the farmer, as you watch the lifecycle of a plant unfold before your very eyes.

Information is courtesy of American Farm Bureau Foundation for Agriculture.



Step One: Create Your Compost Bin

Buy or make a bin at least 3'x3'x3' or larger. Make sure the bin has an open bottom to provide the compost direct contact with the earth.

Step Two: Create the Foundation

Start with a layer of straw or twigs (the smaller the pieces, the better).

Step Three: Begin Adding “Ingredients”

Pile on veggie/fruit waste from the kitchen, grass from the yard, even newspapers, shredded cardboard, weeds, flowers, etc.

Step Four: Get the Right Balance of Carbon and Nitrogen

Make sure you have a carbon/nitrogen ratio that is 3 parts carbon, 1 part nitrogen.

- Examples of carbon (brown compost) include: wood, bark, shredded cardboard, corn stalks, pine needles, grass, leaves, shredded newspaper, sawdust, even dryer lint!
- Examples of nitrogen (green compost) include flowers, garden or kitchen waste, coffee grounds, weeds, seaweed, hedge clippings, manures, veggie scraps and grass clippings.

Step Five: Water

Water, about once weekly—just enough to moisten the compost so that the microbes that feed on the waste can survive—but not so much that your pile becomes slimy.

Step Six: Aerate

Expose your compost to the air by turning every few days to allow oxygen to get to all of the compost and help break down the waste. Earthworms will also help the decomposition process. To find out more about vermicomposting (using worms in your compost) follow the links on our website, www.kyproud.com/readyssetgrow.

Step Seven: Control Moisture

Put a lid on your compost to control the level of moisture.

Step Eight: Maintain Your Compost

Every time you add kitchen waste, cover it with a pile of leaves or grass to ward off pesky flies and foul odors.

Step Nine: Testing Your Compost

It could take anywhere from three months to one year for the compost to be complete. How do you know when it is done? When you test it, the soil should be dark, soft and crumbly, not fibrous. Also, it should have a slightly sweet, earthy smell. If it is fibrous, close the lid and just wait longer.

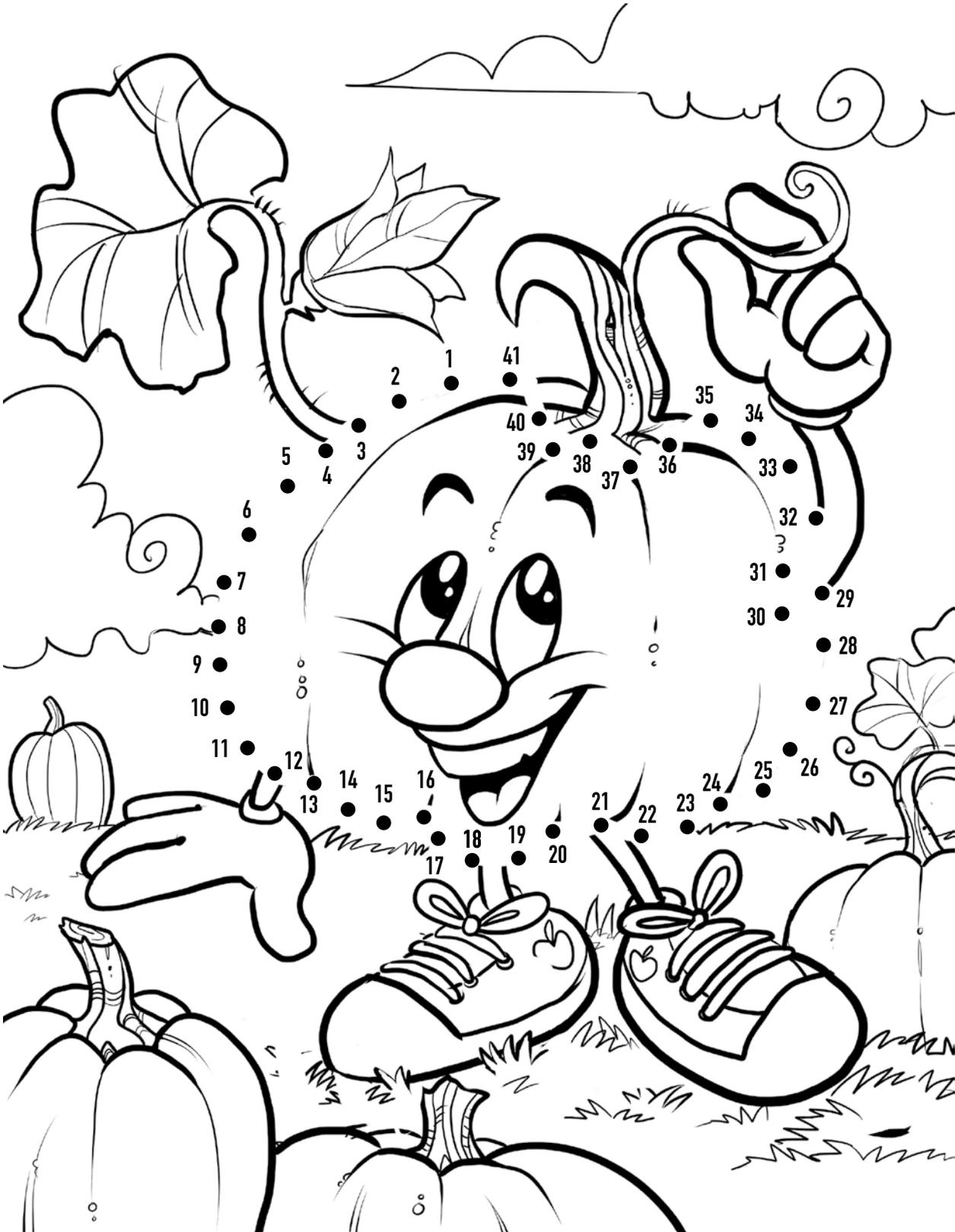
Use your compost for potting or gardening and it will greatly enrich the soil and the growth of whatever you choose to grow. If you don't want to grow anything, you have at least reduced your garbage waste by 50-70% and enriched the soil in your yard.

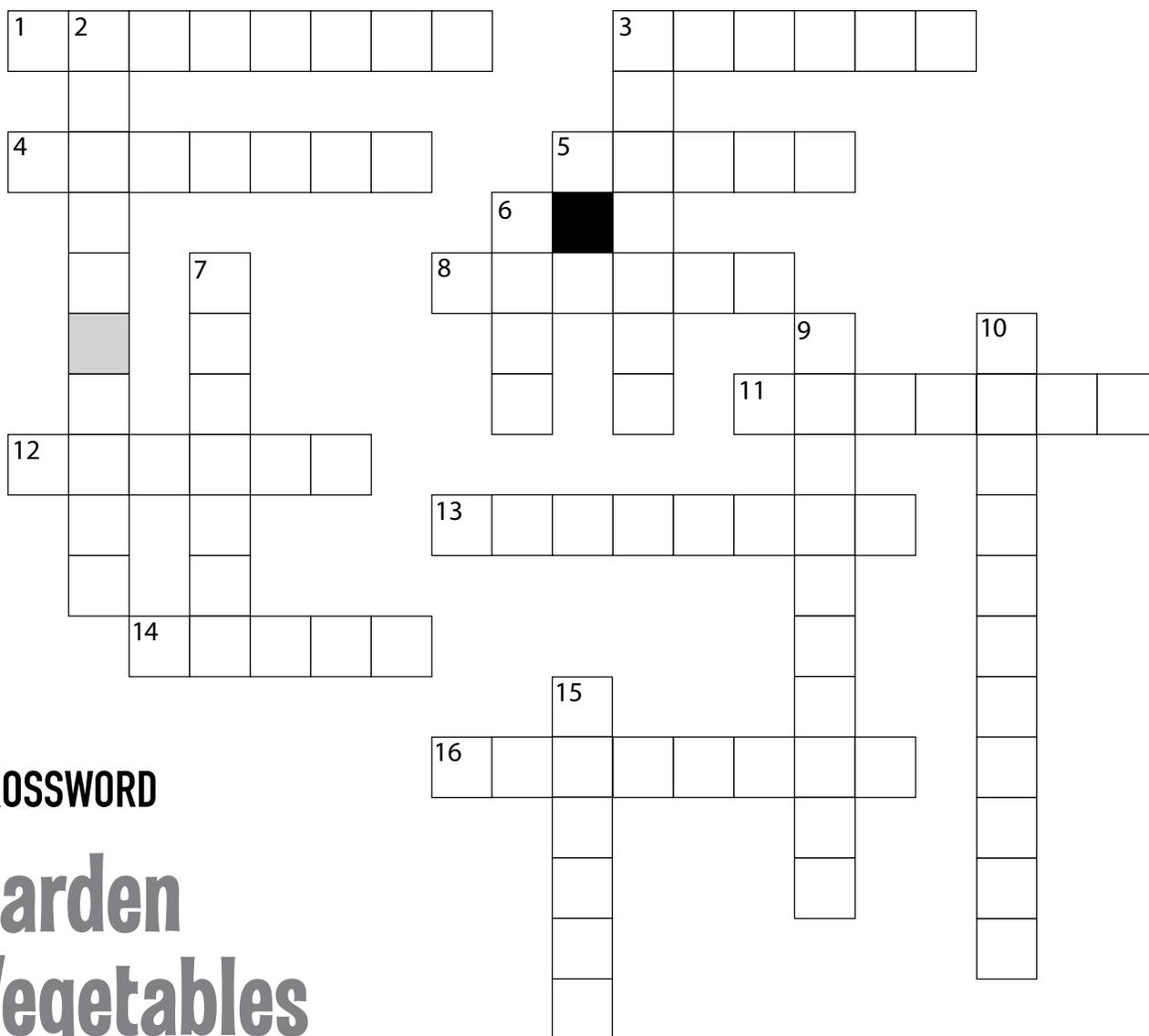
Information courtesy of UK Extension.

GARDENING FUN AND GAMES



CONNECT THE DOTS AND color me!





CROSSWORD

Garden Vegetables

ACROSS

1. This grows to be purple
3. This sounds like it has been smashed
4. This is green and is used in most salads
5. These beans grow in a pod
8. You have to have one of these on a BLT sandwich
11. This grows into a big green head
12. You can make hot sauce out of this
13. You can make pickles out of this
14. When you slice this, it could make you cry
16. This is often cut into "frets"

DOWN

2. This can be "string" and "snap"
3. Popeye ate this to make him strong
6. This has "ears"
7. You can make this scary-looking at Halloween
9. This is great at a summer picnic
10. When this grows, it has a big white head
15. This has "eyes"

WORD SEARCH

Gardening Terms

K E M A Y Q H R E O C I R E E K
V E G E T A B L E S S T L T B D
P H O T O S Y N T H E S I S U N
A N V L G E R M I N A T I O N O
U U E R N S Q C R G H S R S W S
E T R D Q S L S A S L P N U E S
S R N N E D E R L A Y R O N D E
L I O S U E D N R K L S R K S D
R E R G P E C E C A L C I U M Y
G N S X N R N U Y G H I Y H S R
I T G B V I T A M I N S A A E D
D S A G M N R E Z I L I T R E F
F A R M E R S M A R K E T V D I
L O D K R M E Z K N T H S E S B
W W E L I S V I I P F R E S H E
S E N E L L O P D T Q P N T D R

FIND THE FOLLOWING HIDDEN WORDS

GARDEN
FERTILIZER
SOIL
SUN
PHOTOSYNTHESIS
NUTRIENTS

GERMINATION
POLLEN
VITAMINS
MINERALS
FARMERSMARKET
GOVERNORS GARDEN

CALCIUM
IRON
FIBER
KENTUCKY PROUD
VEGETABLES
FRESH

HARVEST
GROW
SEEDS

WORD SCRAMBLE

UNSCRAMBLE EACH OF THE CLUE WORDS

GDNARE _____
 LIOS _____
 SNU _____
 ZREFIRLTIE _____
 NTLPAS _____
 DEES _____
 YSHHONETPTISSO _____
 NTESURINT _____
 MTGINANRIOE _____
 OLPNLE _____
 ITSVIAM _____
 NLSEMAIR _____
 FRESMRA TEAMKR _____
 LPRSTAASNPN _____
 MILCUAC _____
 ORNI _____
 RFIEB _____
 KCYENUKT DPUOR _____
 MSETOTOA _____
 ONCR _____

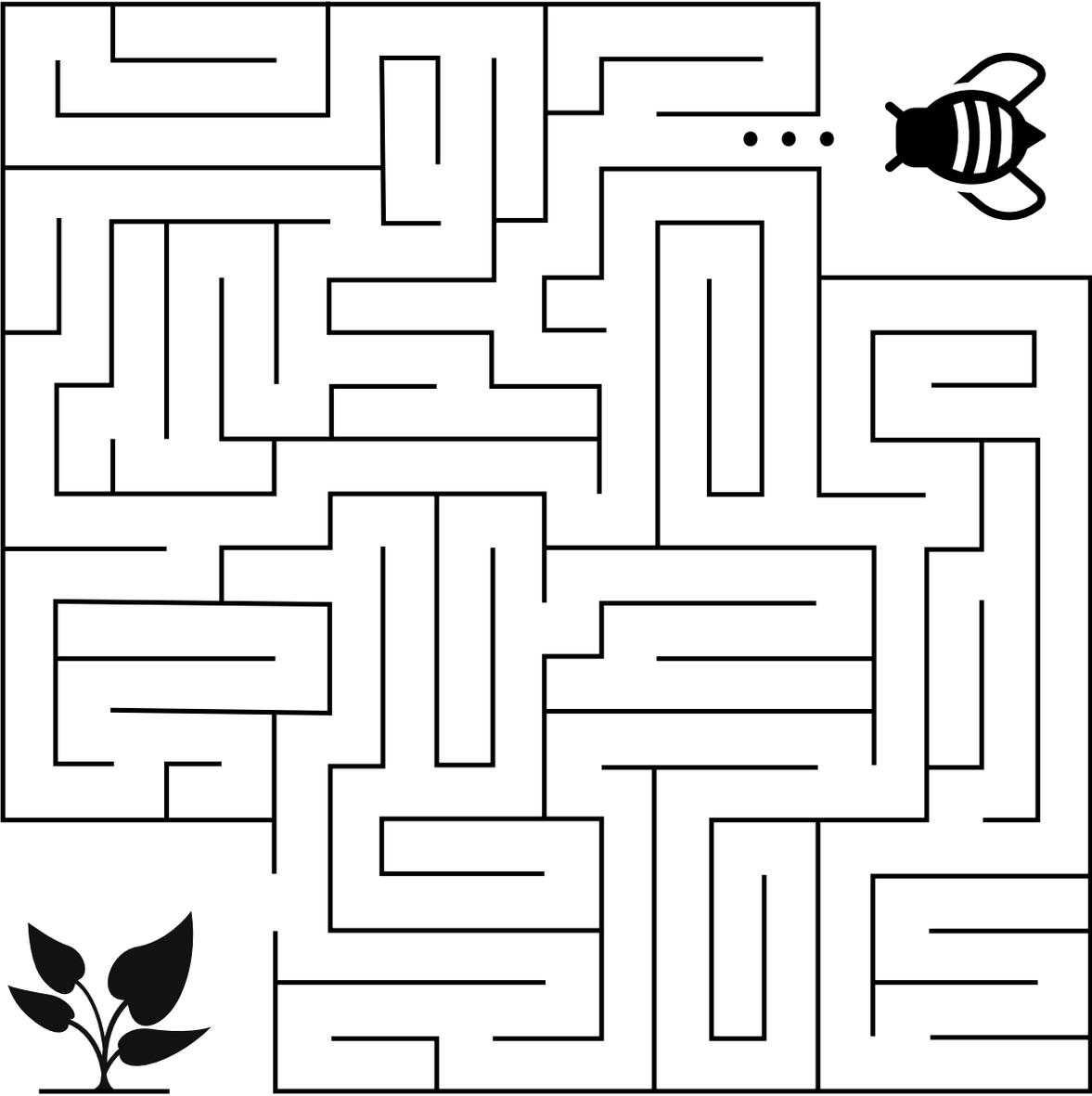
EGNERSANBE _____
 AISBNMAEL _____
 RCOCBLIO _____
 EPLGNTAG _____
 NONIOS _____
 NIICCUHZ _____
 EILLAORWFCU _____
 PKIUMPSN _____
 TPOAESOT _____
 EKAL _____
 NPSAICH _____
 CUBEUSRCM _____
 RCOTSRA _____
 QASHUS _____
 TGGPAENL _____
 EBTSE _____
 PSPPERE _____
 TMWORSLEAN _____
 RFHSE _____
 LONACUATPE _____

FIND THE BONUS WORD

Unscramble the letters in the grey boxes above to reveal the bonus word.

Garden Maze

HELP THE BEE FIND ITS WAY TO POLLINATE THE PLANT



Tomato Plant Challenge

FIND THE TWO TOMATO PLANTS THAT ARE EXACTLY ALIKE

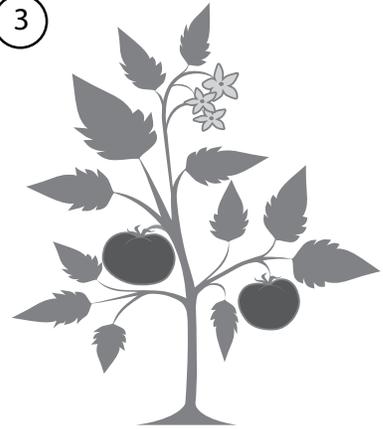
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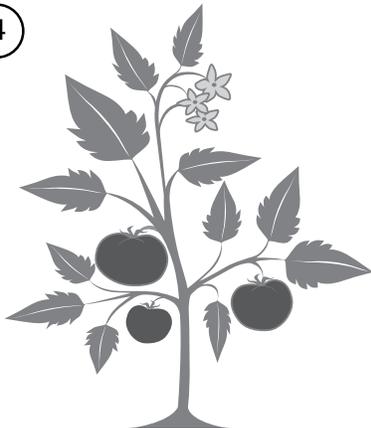
2



3



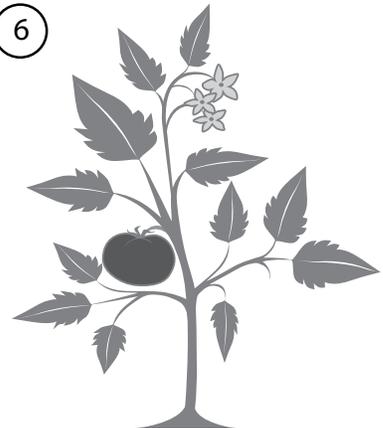
4



5



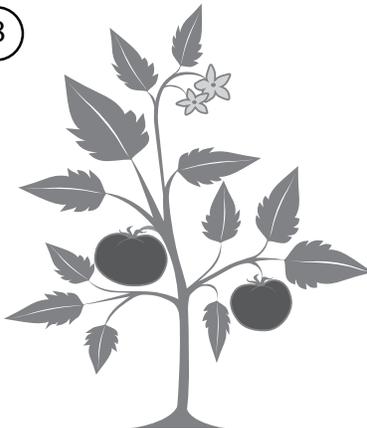
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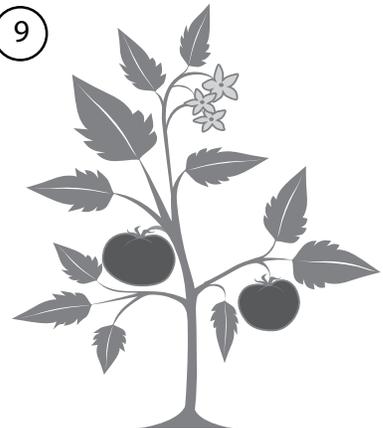
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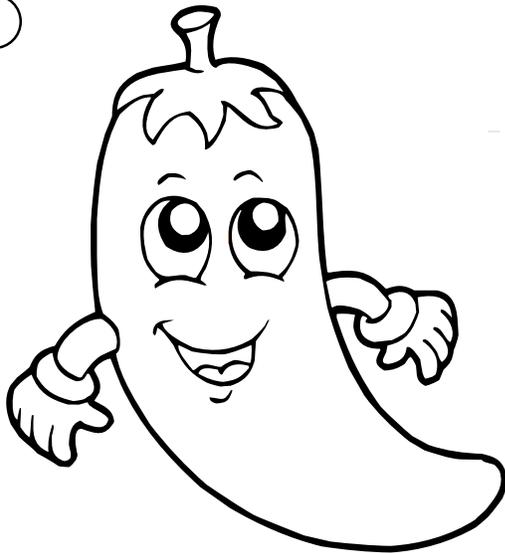
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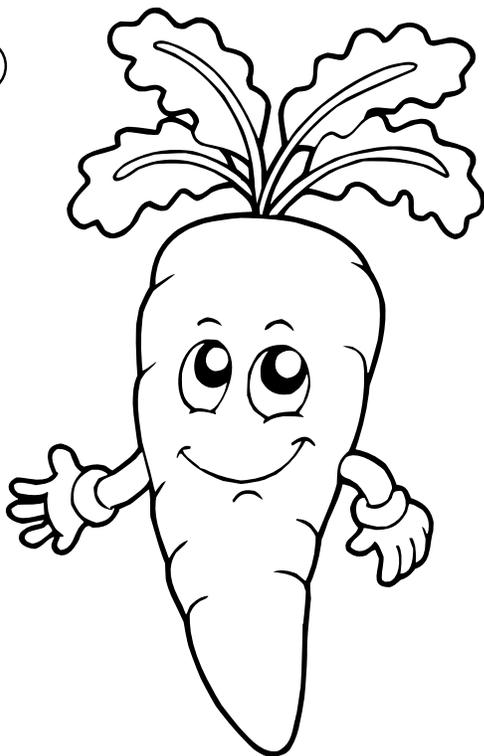
Vegetable Salad

Write the name of each vegetable under its picture and color accordingly.

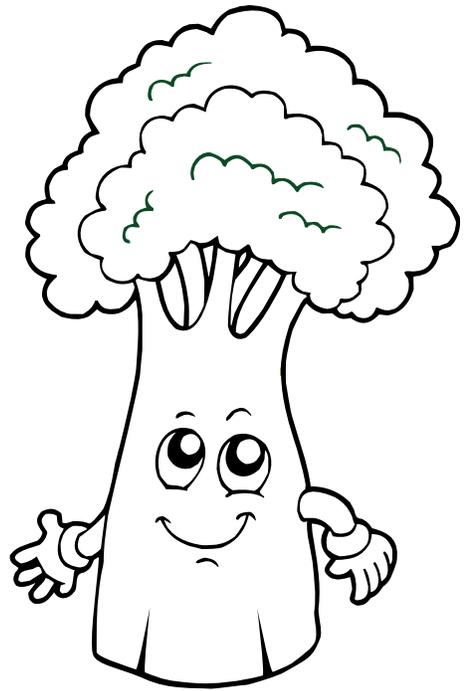
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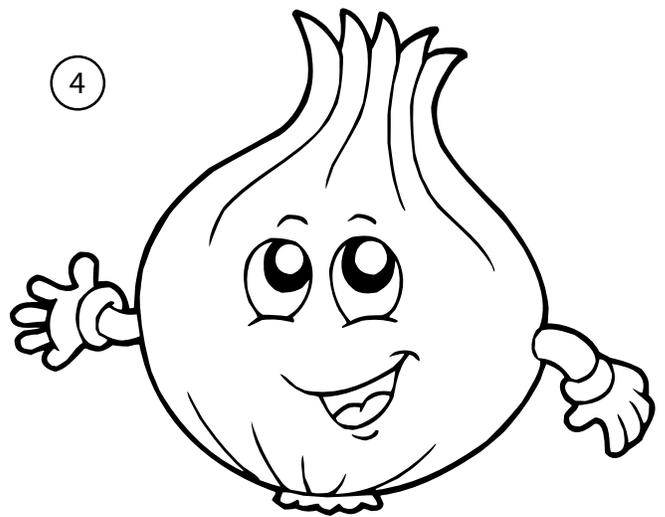
2



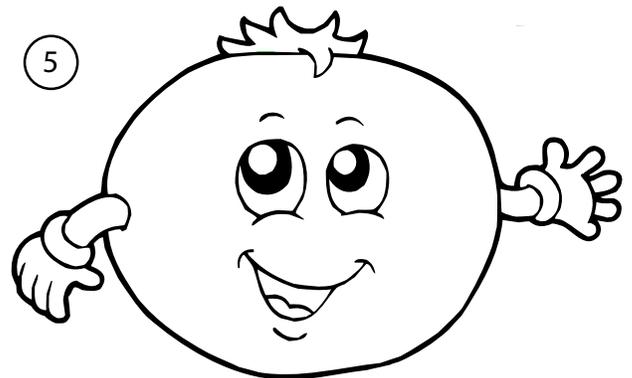
3



4



5



Watering the Garden

Can you identify the type of root vegetables the young boy is watering?

HINT: It is shown on the previous vegetable salad page.

ANSWER _____

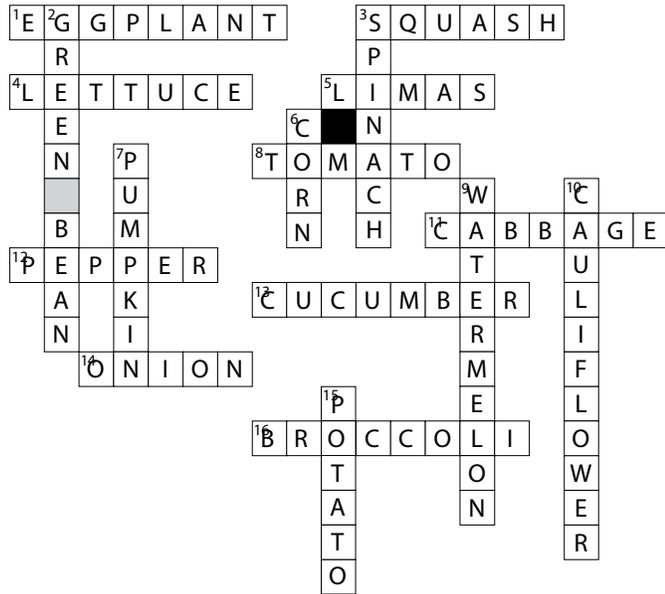


ANSWERS TO FUN AND GAMES

Page 21

CROSSWORD

Garden Vegetables



Page 23

WORD SCRAMBLE

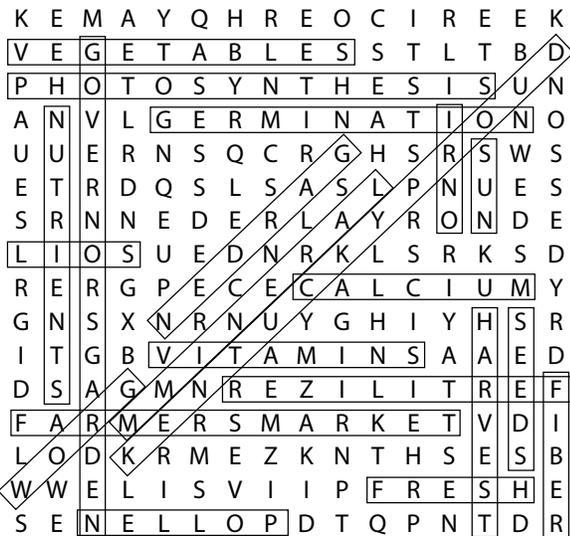
- | | | |
|----------------|----------------|-------------|
| GARDEN | CALCIUM | POTATOES |
| SOIL | IRON | KALE |
| SUN | FIBER | SPINACH |
| FERTILIZER | KENTUCKY PROUD | CUCUMBERS |
| PLANTS | TOMATOES | CARROTS |
| SEED | CORN | SQUASH |
| PHOTOSYNTHESIS | GREEN BEANS | EGGPLANT |
| NUTRIENTS | LIMA BEANS | BEETS |
| GERMINATION | BROCCOLI | PEPPERS |
| POLLEN | HARVEST | WATERMELONS |
| VITAMINS | ONIONS | FRESH |
| MINERALS | ZUCCHINI | CANTALOUPE |
| FARMERS MARKET | CAULIFLOWER | |
| VEGETABLES | PUMPKINS | |

BONUS WORD: COMPOSTING

Page 22

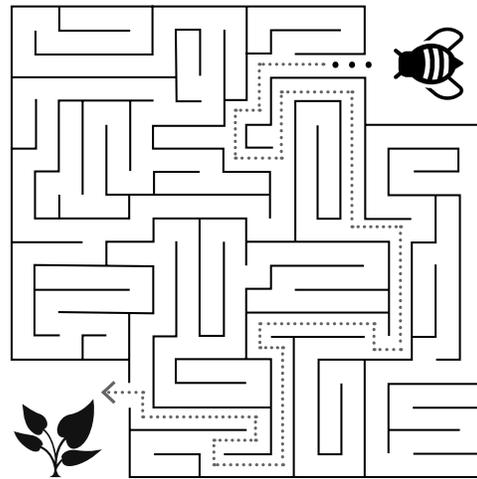
WORD SEARCH

Gardening Terms



Page 24

Garden Maze



Page 25

Tomato Plant Challenge

2 and 7

Page 26

Vegetable Salad

1. Pepper, 2. Carrot, 3. Broccoli, 4. Onion, 5. Tomato.

Page 27

Watering the Garden

Answer: Carrot

The Governor's Garden

Six locations where you can see the vegetable growing process:

Berry Hill Mansion – Frankfort

Governor's Mansion – Frankfort

Kentucky FFA Training Center – Hardinsburg

Locust Trace AgriScience Farm – Lexington

Kentucky Horse Park – Lexington

Kentucky Exposition Center – Louisville

For more details on the Governor's Garden, visit, greenteamky.gov/garden.





Thanks!



The following organizations provided information for this book:

Kentucky Department of Agriculture

Governor's Office of Agricultural Policy

Governor's Garden

Kentucky Farm Bureau

Kentucky Cooperative Extension Service

**American Farm Bureau Foundation
for Agriculture**

