



VGB 3: Veggies One By One

Prepared by: Mollie Dean
University of Minnesota Extension
Master Gardener Program - Hennepin County 2013

Goal For Today

- We want to review some families of vegetables and herbs, and provide you with information to **successfully** raise them.
- Some may be new to you, or you may not have considered or grown them in the past.
- The most popular vegetable grown in the home garden is tomatoes. We want you to be brave, and consider raising some others.



VEGETABLES ONE BY ONE

In class we will go over the top vegetable in each category, the ones in *italics*.

Please keep this document as a reference. You can use it for information if you decide to grow any of the other vegetables listed.

Cool Weather Leafy Vegetables

Leaf Lettuce

Head Lettuce

Spinach

Swiss Chard

Cool Weather Cabbage Family (Brassica)

Broccoli

Brussels Sprouts

Cauliflower

Kale

Collards

Early Cabbage

Kohlrabi

Cool Weather Roots

Carrots

Radishes

Beets

Onions

Cool Weather Legume

Peas

Warm Weather Tomato Family (Nightshades)

Tomatoes

Peppers

Eggplants

Warm Weather Vines

Summer Squash

Winter Squash

Pumpkins

Cucumbers

Warm Weather Legumes

Pole Beans

Bush Beans



COOL SEASON CROPS

These are seeds that can be planted when there is still a danger of frost because they can survive in the cold. Look at the page for each vegetable to know when you can start planting.

Plant seeds into ground according to directions on seed package.

You can get seedlings and plant them. Plant them at the same time as “When to plant seeds outdoors”

With most of these vegetables, you can plant the seeds or seedlings again late in the season. Look at the page for each vegetable to know if you can plant it again.

These vegetables do not like hot weather and may continue to stop growing when it gets above 85 degrees.

In the fall, these vegetables can tolerate some frost and you can continue to harvest after a frost.

WARM SEASON CROPS

These are vegetables planted when there is no longer a danger of frost, usually after May 15. These seeds or seedlings cannot survive if there is a frost when they are just starting out. Some of them can survive a frost in the fall and you can still harvest the vegetables after a frost. See the page for each vegetable.

Plant seedlings into the ground according to the directions on the pot.

If you want to grow these from seed, you must start the seed indoors. Look at the page for each vegetable to know when you need to start the seeds. You need lots of sunlight to grow seeds indoors. This usually means that you need grow lights.

COOL WEATHER LEAFY VEGETABLES

COMMON NAME Leaf Lettuce

When to plant outdoors	When to plant again	Space between rows	Space between plants (plant more seeds and thin to get this number)	Number of seeds needed for one five foot row	Number of plants in one square foot section
Start April 15 Can plant every week until June 1	Start August 1 Can plant every week until August 15	12 to 18 inches can broadcast seed (see "care" below)	4 to 6 inches	¼ package Save package for August planting	16



What part you eat Leaf

Should I plant seeds or seedlings?

We recommend seeds into the ground. You can transplant seedlings.

How do I plant this vegetable?

You can plant in rows or you can broadcast the seed. Broadcast means that you use your trowel or hoe to dig up a shallow square or circle. Toss the seeds, a few at a time, into the area you dug up. Be sure the seed is spread all around. Then cover the seeds with soil to the recommended depth, usually ¼ inch. If you broadcast, the seeds will grow up all over. You need to thin them to 4 to 6 inches apart. You get more lettuce in a smaller area this way. Cut with a scissors or knife and eat what you thin. Do not pull the roots out because you can disturb the roots of the lettuce you are leaving to grow.

Does this vegetable need support?

No

How do I care for this vegetable?

Lettuce has small roots so check the soil **often** to see if it is dry and you need to water.

When is this vegetable ready to harvest?

As greens look ready, take a taste. Pick if they taste good to you. Use a scissors or knife to cut off leaves. Begin cutting the outside leaves first. The plant grows more leaves so you can harvest from the same plant many times. If you wait too long to harvest, the leaves will get bitter and the lettuce will bolt, which means it produces flowers. If the plant bolts, pull it out. It will be too bitter to eat.

Lettuce does not keep growing when it gets above 85 degrees. When it gets hot and the lettuce does not look good anymore, pull out the whole plant.

COOL WEATHER CABBAGE FAMILY (BRASSICA)

COMMON NAME Broccoli

When to plant outdoors	When to plant again	Space between rows	Space between plants (plant more seeds and thin to get this number)	Number of seeds needed for one five foot row	Number of plants for one square foot section
Start April 15 to June 1		24 to 30 inches	24 inches	¼ package	1



What part you eat Flower bud. You can eat the stem and leaves.

Should I plant seeds or seedlings?

We highly recommend planting seedlings. You could grow your own seedlings by planting seeds indoors between March 1 – 15. You can plant seeds into the ground if you want.

How do I plant this vegetable?

Plant according to the directions on the tag in the pot the seedling is in.

Does this vegetable need support?

No

How do I care for this vegetable?

Broccoli needs lots of nutrients from the soil so, when you plant your seedlings, put compost on the ground where you are planting. If you use seeds, put compost on the ground after the plant is a few inches high.

When you plant broccoli seeds, put a collar around it, so cut worms won't slice it off.

If you plant seeds, you do not need to put a collar around the plant when it comes up because it will be past the time for cut worms.

When is this vegetable ready to harvest?

You will see a large head of broccoli on the main stem. Pick the whole head. Use a knife. Watch the broccoli carefully so it does not bolt, which means it grows stems and yellow flowers. Pick before that happens.

After the main stem is picked, many small broccoli buds will grow along the sides of the stems. You can harvest these as they look ready. You can harvest these buds after a freeze in the fall.



COOL WEATHER ROOTS

COMMON NAME Carrots

When to plant outdoors	When to plant again	Space between rows	Space between plants	Number of seeds needed for one five foot row	Number of plants for one square foot section
Start April 15 until June 15		18 to 24 inches	2 to 3 inches	1/4 package	16

What part you eat Root

Should I plant seeds or seedlings?

We recommend seeds. If you plant a seedling, you are likely to get forked roots, which means two carrots in one plant.

How do I plant this vegetable?

Before you plant the seeds, work the soil so it is loose. Dig down as far as you think the carrot will grow. This makes it easier for the root to grow. The seeds can take a long time to germinate so do not give up on them.

The seeds are very tiny and can be hard to manage. Be sure and get them spread out over a row.

You can plant carrots and radishes in the same row. The radishes will be ready to be dug out and leave room for the carrots to grow.

Does this vegetable need support?

No

How do I care for this vegetable?

Thin by cutting with a scissors so you do not disturb the roots of the nearby carrots. You can eat the leaves that you cut if you want to.

Be sure and weed carefully until the plants look established. Carrots have small roots and the weeds can out compete the carrots.

Be sure you water to the depth of one inch. Otherwise the roots don't grow down because they are trying to use the water near the top of the soil.

When is this vegetable ready to harvest?

You can harvest when you see the root looks like a size you can use, about 3/4 inch. If the carrots are hard to pull out, spade the soil **next** to the carrots to loosen it a little. This will loosen the soil and make it easier to pull the carrot out. You can harvest carrots after a frost. They will be even sweeter.



COOL WEATHER LEGUMES

COMMON NAME Peas

When to plant seeds outdoors	When to plant seeds again	Space between rows	Space between plants	Number of seeds needed for one five foot row	Number of plants for one square foot section
April 15	July 1 to August 1		6 to 7 inches	¼ package	8

What part you eat

shelling peas, also called garden pea or English pea, you eat the seeds only
snow peas and sugar snap peas, you eat both the pods and seeds

Should I plant seeds or seedlings?

We recommend seeds. Peas are easy to grown from seeds. Soak the seeds for about an hour before planting.

How do I plant this vegetable?

Plant according to the directions on the seed package.

Does this vegetable need support?

Yes. A trellis is needed

How do I care for this vegetable?

Peas do not like hot weather (above 85 degrees) and will stop growing so plant as soon as you can.
Weed carefully when the peas are little or the weeds will take over the peas.

Mulch young plants.

When is this vegetable ready to harvest?

To harvest **shelling peas**, watch peas carefully. Harvest them when the pods have reached the mature length described on the seed package. Put them in cool water right away and then dry them off and put them in the refrigerator. If you cool them with water, they can last up to a week in the refrigerator.

To harvest **snow peas**, wait until the pods have reached their mature length as described on the seed package. The peas within the pod should be visible only as small traces; if they are allowed to mature further, the pods may become tough.

To harvest **sugar snap peas**, wait until the pods appear almost filled with peas. The peas will be smaller than the seeds you planted. Check often as the crop matures, and harvest when peas and pods are still sweet, juicy, and tender. You need to pick them right away as the quality declines very fast. Cool quickly as soon as they are picked. Some varieties will need to have the strings removed before cooking.

After harvest remove your trellis and turn the pea plants into the soil. Wait at least two weeks for the plants to break down, and then seed a second crop for fall harvest



WARM WEATHER TOMATO FAMILY (NIGHTSHADES)

COMMON NAME Tomatoes

When to plant seeds indoors	When to plant seedling outside	Space between rows	Space between plants	Number of plants needed for one five foot row	Number of plants for one square foot section
April 1 to 15	May 15 – June 1	24 to 36 inches	36 to 48 inches	3 to 4 plants	1



There are many kinds of tomatoes for you to choose.

- There are cherry, grape, pear, plum, and standard round tomatoes.
- There are heirloom tomatoes and hybrid tomatoes.
 - Heirloom tomato means a family has saved the seeds and passed them on through the generations
- There are determinate and indeterminate tomatoes.
- There are disease resistant tomatoes.

What part you eat Fruit. Never eat any other part like the stem or leaf because those are poisonous.

Should I plant seeds or seedlings?

Seedlings only. Do not buy tomato seedlings that have small tomatoes on them. The tomatoes already there are the only ones that you can get.

How do I plant this vegetable?

Put first two leaves under the ground. This encourages the tomato to make more roots which gives the plant strength.

You can plant the tomato at a slant. This way more of the root is nearer the top where the soil is warmer. The tomato will straighten itself and grow toward the sun.

When you plant tomatoes, put a collar around it, so cut worms won't slice the plant off.

When you plant, put the support on the seedling right away. It might grow fast and make it hard to put support in later.

Does this vegetable need support?

Yes. You can use stakes or cages or trellises. Sometimes you need both a stake and a cage. You can let them grow on the ground, but they get more disease and the fruit can rot faster. We highly recommend using a support.

How do I care for this vegetable?

Water tomatoes in the morning. Put your hose close to the ground when you water. Do not splash dirt up on the leaves. Do not let soil dry out.

As tomatoes grow, stems grow out laterally from the main stem. A new stem can grow between the main stem and the lateral stem. If it does, cut it off.

Do not smoke when gardening. Tomatoes can get tobacco mosaic virus. If you do smoke away from the garden, always wash your hands before touching plants.

WARM WEATHERS VINES

COMMON NAME Summer Squash – zucchini, yellow, yellow crookneck, patty pan

When to plant seeds indoors	When to plant seedlings outside	Space between rows	Space between plants	Number of seeds needed for one five foot row	Number of plants for one square foot section
	May 10 – June 1	24 to 36 inches	24 – 36 inches	Plant 4 to 6 seeds and thin to 2 or 3 plants.	Use only if squash can grow outside the box. 1



What part you eat Fruit including the skin and the seeds. You can eat the blossoms too.

Should I plant seeds or seedlings?

You can plant seeds or seedlings. If you choose seedlings you can plant them later, nearer June 1, and avoid the squash vine borer which is often gone by June 1. This is not guaranteed but can help you not get the borer.

How do I plant this vegetable?

Plant only one or two seedlings. These plants grow many many squash. If you plant seeds, plant about 5 and thin to have only one or two plants.

Does this vegetable need support?

We recommend a trellis. You can let them grow on the ground but the fruit tends to rot on the ground.

How do I care for this vegetable?

This makes the plant put its energy into growing the squash it already has.

When is this vegetable ready to harvest?

Pick the squash when small. Do NOT let them get big. This can happen very fast, so watch carefully.

Pick all these before a frost. If there is threat of a frost, you can cover the plants with a sheet or old blanket overnight. This keeps the warm air in.

WARM WEATHER LEGUMES

COMMON NAME Pole beans

When to plant seeds indoors	When to plant seeds outside	Space between rows	Space between plants	Number of seeds needed for one five foot row	Number of plants for one square foot section
	May 15 – June 1	36 inches	4 to 6 inches	1/4 package	4

Pole beans keep growing. You get two to three times as many beans than if you grow bush beans.

What part you eat Seed and seed pod

Should I plant seeds or seedlings?

We recommend seeds.

How do I plant this vegetable?

Plant according to the directions on the seed package.

Soak seeds before planting.

Does this vegetable need support?

Yes. Trellis.

How do I care for this vegetable?

When is this vegetable ready to harvest?

Start picking as soon as you can. Then you will get more beans.

Look carefully for the beans. They are green and can be hard to find in all the green leaves.

Do not harvest if the plant is wet. You can get rust spots on the leaves.





⌘ HENNEPIN COUNTY ⌘



University of Minnesota Extension
Master Gardener Program –
Hennepin County

Thank You.



Minnesota State
Horticultural Society

© 2011 Regents of the University of Minnesota. All rights reserved.

The University of Minnesota is an equal opportunity educator and employer. In accordance with the Americans with Disabilities Act, this PowerPoint is available in alternative formats upon request. Direct requests to the Extension Store at 800-876-8636.