

# Jump Start Your Spring Garden

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# Ten Steps to a Successful Vegetable Garden

<b>Step 1</b>	Select a good location
<b>Step 2</b>	Plan your garden layout
<b>Step 3</b>	Grow recommended varieties
<b>Step 4</b>	Obtain good seed, plants, equipment & supplies
<b>Step 5</b>	Prepare and care for the soil properly
<b>Step 6</b>	Plant your vegetables properly
<b>Step 7</b>	Irrigate with care
<b>Step 8</b>	Mulch & cultivate to control weeds
<b>Step 9</b>	Be prepared for pests and problems
<b>Step 10</b>	Harvest at peak quality



## Step 1

### Select a good location

- Choose an area with plenty of morning sunlight and some afternoon shade
- Ensure that vegetables that create fruit (tomatoes, squash, peppers, etc.) will get 6-8 hours of full sun exposure
- Don't plant under or near trees and large shrubs
- Make sure you have a convenient source for adequate watering
- Rotate crops
  - Root
  - Fruit
  - Green
  - Bean



## Step 2

## Plan your garden layout

- Start a gardening notebook or journal
- Sketch a plan of the intended planting areas
- Decide on what vegetables you want.
  - Seed?
  - Plant?
- Determine when it is most advantageous to plant each type of vegetable
- Document all this in your gardening notebook

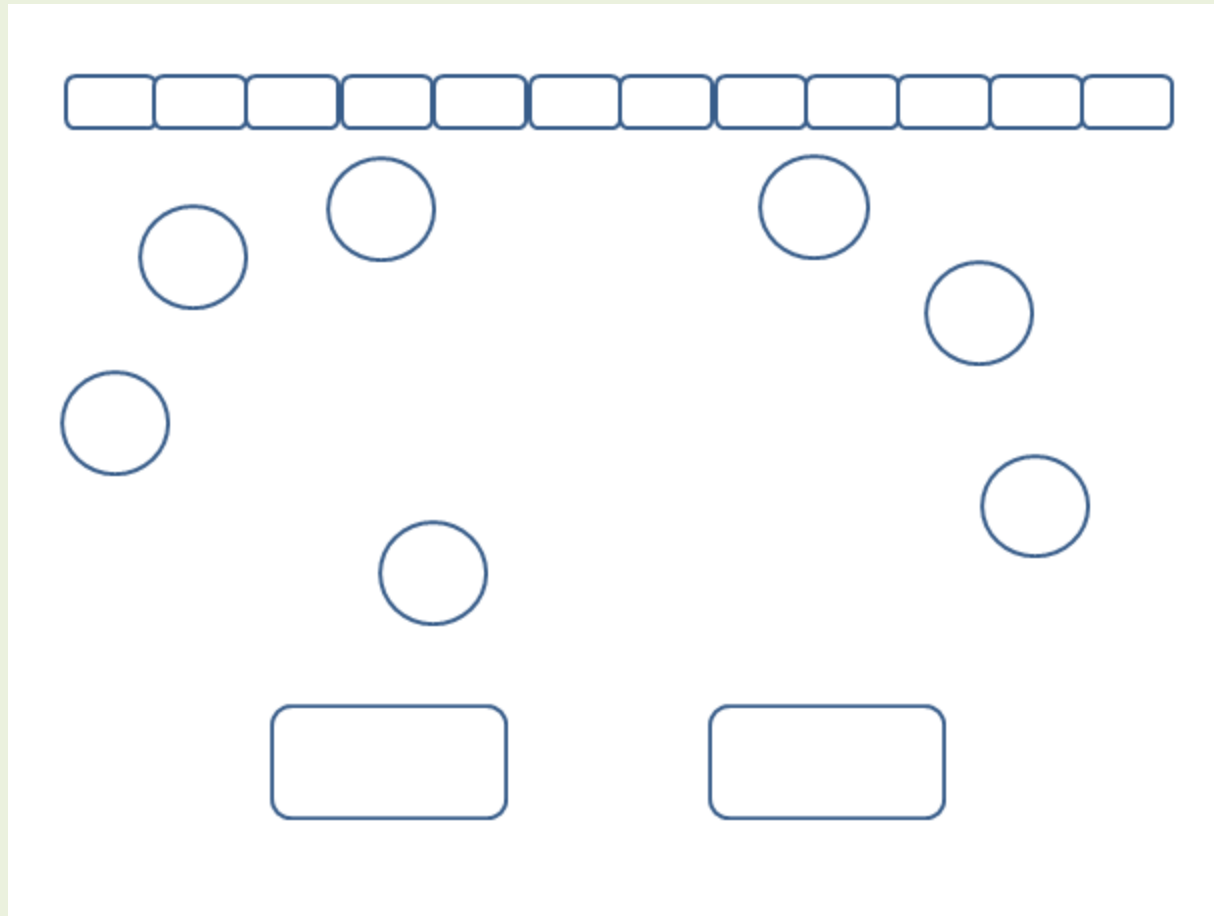


# My Garden Journal

Plant	Normal Germination	Typical Harvest	Planting Location	Seed outside	Seed inside	Sprout	Harvest	Notes
Watermelon radish	4 to 10	55	Front Gabion	15-Feb		26-Feb		
Carrots	10 to 25	60 to 75	Front Gabion	15-Feb		5-Mar		
Beets	10 to 12	55	Front Gabion	17-Feb		15-Mar		
Swiss Chard	7 to 12	60	Front Gabion	17-Feb		10-Mar		



# My Backyard Garden Layout



# Normal Vegetable Garden Spring Planting Time

On Mother's Day (May 13<sup>th</sup> this year)

February 2018							March 2018							April 2018							May 2018							
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	
28	29	30	31	1	2	3					1	2	3	1	2	3	4	5	6	7				1	2	3	4	5
4	5	6	7	8	9	10	4	5	6	7	8	9	10	8	9	10	11	12	13	14	6	7	8	9	10	11	12	
11	12	13	14	15	16	17	11	12	13	14	15	16	17	15	16	17	18	19	20	21	13	14	15	16	17	18	19	
18	19	20	21	22	23	24	18	19	20	21	22	23	24	22	23	24	25	26	27	28	20	21	22	23	24	25	26	
25	26	27	28				25	26	27	28	29	30	31	29	30						27	28	29	30	31			

After last hard freeze (32.5 degrees F)

Prescott Spring Freeze Dates and Probabilities\* (32.5 degrees F)

Earliest	90%	80%	70%	60%	50%	40%	30%	20%	10%	Latest
4/14	4/26	5/3	5/8	5/13	5/18	5/21	5/26	5/31	6/2	6/17



## Vegetable Species 4500-6000 feet

FROST TOLERANT		FROST SUSCEPTIBLE	
Kale	Feb. 15-Apr 10	Squash. summer	May 1-July 1
Onion, dry (seeds)	Feb. 15-Apr. 15	Watermelon	May 1-June 1
Pea, spring	Feb. 15-Aug. 15	Pepper (plants)	May 10-Aug. 25
Horseradish	Feb. 15-Mar. 15	Basil	May 10-June 1
Pepper (seed)	Mar. 1-Apr. 1	Potato, Irish	May 10-June 1
Rhubarb	Mar. 1-Apr. 1	Tomato (plants)	May 10-June 1
Tomato (seed)	Mar. 1-Apr. 1	Potato, sweet	May 15-20
Chard 2	Mar. 1-Apr. 10	Bean, bush	May 15-July 1
Lettuce, leaf	Mar. 15-Apr.15	Bean, pole	May 15-July 1
Broccoli	March 15-30	Bean, lima	May 15-July 1
Cabbage (seed)	March 15-30	Squash, winter	May 15-July 1
Cauliflower	March 15-30	Cantaloupe	May 15-June 15
Onions, dry (sets) 2	Apr. 1-15	Cucumber	May 15-June 15
Parsley	Apr. 1-15	Eggplant (plants)	May 15-June 15
Asparagus	April 1-30	Muskmelon	May 15-June 15
Leek	April 1-30	Okra	May 15-June 15
Garlic (cloves)	April 1-30	Pumpkin	May 20-June 15
Mustard	Apr. 1-July 1	Bean, edible soy	May 25-July 1
Radish	Apr. 1-June 15	Corn, sweet	May 25-July 1
Rutabaga	Apr. 1-May 15	Corn, Mexican June	May 25-June 15
Salsify	Apr. 1-May 15	Celery (plants)	June 1-July 15
Spinach	Apr. 1-May 15		
Parsnip	Apr. 1-May 20	FROST TOLERANT	
Turnip	Apr. 1-May15	Brussels Sprouts	June 1-July 1
Endive	Apr. 15-June 15	Chinese Cabbage	June 1-July 15
Onion, green bunch	Apr. 15-May 1	Collard	June 1-July 15
Broccoli (plants)	Apr.15-July 15	Chard	July 1-Aug. 1
Cabbage (plants)	Apr.15-July 15	Lettuce, head	July 1-Aug. 1
Cauliflower (plants)	Apr.15-July 15	Pea, fall	Aug. 1-Sept. 1
Kohlrabi	Apr.15-May15	Lettuce, leaf 2	Aug. 1-Sept.15
Beet	May 1-July 15	Onion, dry (seeds) 2	Oct. 15-Jan. 1
Carrot	May 1-July 15	Onions, dry (sets)	Nov. 1-Feb. 1



Taken from UofA Bulletin AZ1435-r2015. These guides are based on experience, observation, frost dates, hardiness and other characteristics of vegetable species.





## Step 3

## Grow recommended varieties

- Success is greatly influenced by plant variety
- Select from those known to do well locally
- Try one or two new varieties each year



## Step 4

## Obtain good seed, plants, equipment & supplies

- Seed catalogs
- Age of seeds
- Saved seeds
- Purchasing plants
  - Avoid wilted, spindly, spotted leaves
  - Look for insects
- Clean your equipment and tools
- Mulches and fertilizers



## Step 4

## Obtain good seed, plants, equipment & supplies

### PLANT INGROUND DIRECTLY

- Root vegetables
- Lettuce
- Spinach
- Corn
- Watermelon
- Pumpkin
- Onions

### GOOD FOR TRANSPLANTING

- Anything you would normally buy at a nursery
- Broccoli
- Cabbage
- Cauliflower
- Eggplant
- Peppers
- Sweet potatoes
- Tomatoes



## Step 5

## Prepare and care for the soil properly

- SOIL CONSIDERATIONS:
- New Gardens
- Mineral topsoil - soil rich in decayed organic material including nitrogen, potassium, calcium, sulfur and phosphorus
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- Existing Gardens
- Turn soil and mix in high quality, fully decomposed material into top 10-12 inches of soil
- May need to wait 1-2 months for harmful salts to leach through soil
  
- Square Foot Gardening Mix
  - 1/3 Blended Compost (Minimum 5 types of compost)
  - 1/3 Peat Moss (Coconut Coir fiber ok too)
  - 1/3 Coarse Vermiculite
  
- Potting Mix – not recommended



## Step 5

## Prepare and care for the soil properly

### FERTILIZING

- Before Planting
- Typical fertilizer application would be 16-20-0 (ammonium phosphate) into the top 10-12 inches
- After Planting
- Top dress plants (or after seedlings emerge) with organic mulch
- During Growing Season
- Side dress 3-4 inches to the sides of plants



## Step 6

## Plant your vegetables properly

### STARTING SEEDS FOR TRANSPLANTING

- Calculate when to start seed for proper transplanting into garden
  - Plants germinate and grow at different rates
  - If successive plantings are desired, successive seedings will be needed
- Determine the number of seeds to plant
  - Allow for non germinating seeds
- Medium (soil)
  - Use a seed starting mix
  - Homemade version:
    - 4 parts screened compost
    - 1 part perlite
    - 1 part vermiculite
    - 2 parts coir
  - When moving into large pot before planting in garden, ok to use potting mix



## Step 6

## Plant your vegetables properly

### STARTING SEEDS FOR TRANSPLANTING (cont)

- Start in peat pots, trays, cans, virtually anything but make sure containers are clean!
- Plant per seed packet instructions and gently water
- Cover with plastic and place where bottom is warm (top of frig, water heater, near oven, on seedling heat mat)
- When seedlings emerge, remove plastic and move to sunny or light supplemented location
- Thin plants to desired number early
- After seedlings have second pair of leaves and plants are in flats, move to individual containers

### SPECIAL HANDLING

- If mold appears on soil, spray with a mixture of 1 pint of water and 4-5 tablespoons of hydrogen peroxide



## Step 6

## Plant your vegetables properly

### DIRECT SEEDING INTO GARDEN

- Mark out straight rows
- Space seed properly as suggested on seed package
  - Lay toilet paper on soil before putting seeds down
- Plant at proper depth
  - Rule of thumb is depth should be 4 times diameter of seed
  - Very small seeds just lightly dusted with soil
- Cover seeds and firm the soil by tamping with hand or flat back of hoe
- Irrigate by sprinkling soil surface lightly
- Thin plants to desired number as soon as possible





## Step 6

## Plant your vegetables properly

### TRANSPLANTING INTO GARDEN

- Harden off plants taken from inside
- Transplant on a cloudy day or in evening
- An hour before transplanting thoroughly water plants
- Handle with care, remove gently from containers
- Keep roots moist if they are out of container for any period of time
- Hole for transplant should be slightly larger / deeper than container
- Use starter solution for faster start
  - Soluble fertilizer high in phosphorus (10-52-18 or 10-50-10)
  - Use about a cup per plant or enough to fill hole around plant
- If using peat or fiber pots break off excessive pot material at top
- Cover roots with soil and tamp down around plant
- Protect plants for a few days from sun, wind, or cold if necessary



## Step 7

## Irrigate with care

- Water enough to keep soil moist – not wet
- Typically need to water when soil becomes crumbly when squeezed
- Use a spade or probe to determine moisture depth
- Moisture is needed for seed sprouting
- As plant grows increase watering period allowing deeper penetration
- Large plants need more water than smaller plants
- Shallow rooted vegies need water more often (cabbage, onion, lettuce, corn)
- Night time watering encourages disease growth



## Step 8

## Mulch & cultivate to control weeds

### Weeds – BAD

- Insects
- Diseases

### Control Weeds

- Mulching – covering soil with protective material
- Cover crops
- Leaves, sawdust, wood chips, cardboard, newspaper, shredded paper
- Cultivation
- Use sharp hoe or cultivator just as weeds sprout
- Scrape and loosen soil on surface
- Good time to side dress with fertilizer



## Step 9

## Be prepared for pests and problems

Pest problems can be minimized when you're prepared for them

- Keep a close eye on plants for insects and disease – treat right away
- Select disease resistant varieties
- Rotate crops (Root, Fruit, Green, Bean)



## Step 10

## Harvest at peak quality

- Most vegetable are at peak quality for short period of time
- Immature vegetables do not improve after harvest
- Maintain harvest quality with careful handling
- Learn proper storage temperatures
  - 40° F for asparagus, broccoli, leafy crops, peas, sweet corn
  - 55° F for tomatoes, peppers, cucumbers, eggplant



# Wrap Up

- Remember to plant long lead time vegies early
- Get your starts growing inside and harden off
- Start seeds earlier than “Mother’s Day
- Green manures add an extra layer of protection
- Use season extenders for in-ground spring plants

## Resources

Ten Steps to a Successful Vegetable Garden

Yavapai County Agriculture Extension Website

- <http://extension.arizona.edu/yavapai/>
- Put AZ1435-2015 in search box

