

# Intro to Vegetable Gardening – Planting Tips

Vijai Pandian

Horticulture Educator

Kenosha, Milwaukee & Racine Counties



**Extension**  
UNIVERSITY OF WISCONSIN-MADISON

# General Planting Tips

- Seeds
  - Mark straight rows, shallow furrow –  $\frac{1}{4}$ " for small seeds, 1.5 to 2" for large seeds
  - Planting in hill – 6-8" inch high, 4 to 5 seeds, Squash, melons, cucumbers, sweet corn, sunflower
  - Space the seeds uniformly in rows
  - Plant at proper depth ( 4 times the diameter of the seed)
    - Small seeds – carrots, lettuce –  $\frac{1}{4}$  to  $\frac{1}{2}$  inch deep
    - Large seeds – corn, beans, peas – 1 to 2 inch deep
  - Cover the seeds and firm the soil
  - After germination, thin the seedlings

# General Planting Tips

- Transplant
  - Schedule planting on cloudy day or in the evening
  - An hour before planting, water the transplant
  - Dig a hole large enough than the transplant container
  - Do not disturb the root ball
  - Plant ½ inch deeper
  - Gently firm the soil around the plant
  - Jiffy pellets, peat pots, soil block – bury the container below the soil line.
  - Water the newly planted crops gently and thoroughly
  - Spread a light mulch – newspaper, rice hull, clean straw
  - Sudden drop in night temperature - floating row cover, baskets, boxes



# Succession Planting

- Extend the harvest
- Fast growing vegetables & its varieties – salad greens, bush beans, peas, cucumbers, green onions
- Sow the seeds second or third week after initial planting

# Interplanting

- Space efficiency, reduce weed pressure between rows
- Slower growing vegetables like cabbage, broccoli, Brussel sprouts, sweet corn
- Seed fast growing crops between rows – leaf lettuce, arugula, radishes, green onions

# Crop specific plant spacing guidelines - Resources

- “Vegetable Gardening in the Midwest” by C.E. Voigt and J.S. Vandemark, University of IL Extension
- <http://urbanext.illinois.edu/veggies/directory.cfm>
- Cultivar selection:
  - <http://learningstore.extension.wisc.edu/Vegetable-Cultivars-and-Planting-Guide-for-Wisconsin-Gardens-P1373.aspx>
- Seed packets, transplant tag



# Perennial Crop – Asparagus

- Choose male cultivars – Jersey Knight, Jersey Supreme, Jersey Prince, Purple Passion
- Prep the bed – organic matter
- Incorporate fertilizer
- Dig a 6” trench, with 12-18” wide
- Space the crowns 9-12” apart
- Spread the roots with crown centered and facing up
- Fill the trench, water thoroughly
- Do not harvest the spears during first year of planting
- Weed Control – Mulch, shallow cultivation in following spring



# Onions

- In Wisconsin – Long day onions
  - Require 14 hours day light for bulb initiation
  - Can be used for immediate consumption or for long-term storage
- Dry Onions – Long-term storage
- Sweet Onions– Immediate consumption
- Green onions – Immature true onions, harvested before the bulbs are formed, 6” tall





- Long day onions three types – white, yellow, and red.
- Large sets (bigger than dime size in diameter) are best for green onions
- Small sets are ideal for bulb formation.
- At the time of planting, moisten the roots to give a head start.
- Well drained, loose soil is needed. Best in raised beds. Work out the soil, add organic matter, fertilizer.
- For dry onions – Plant the sets 1” deep, with 4” spacing between sets. Allow 12-18” spacing between rows.
- For green onions – 1.5” deep, and 1” spacing
- Mulch can be used for smothering weeds.
- In windy areas, protect the young onions from strong wind.



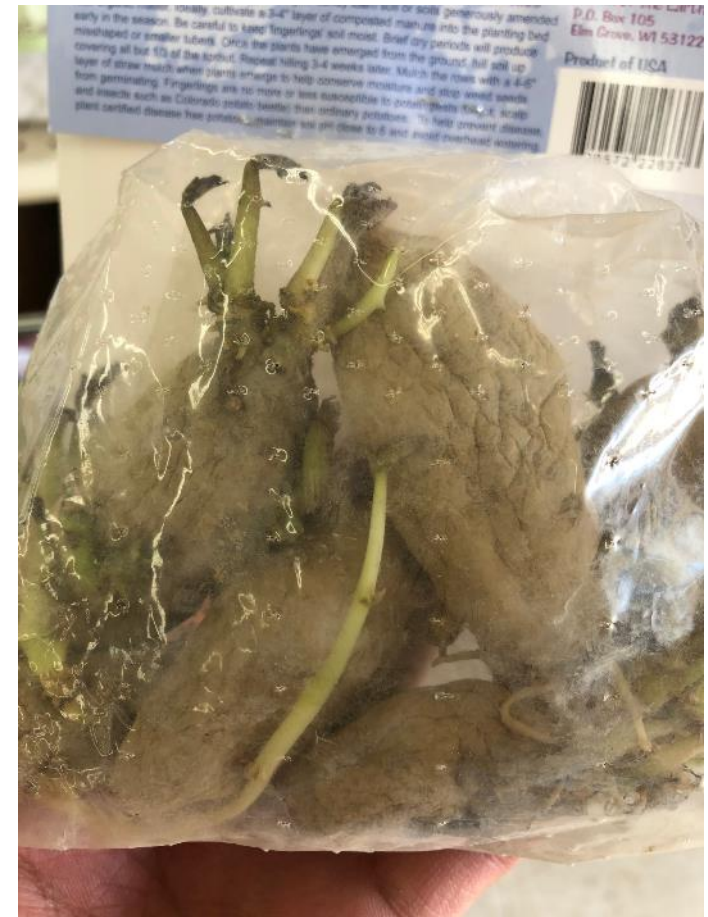
Onion transplant



Onion set

# Potatoes

- Planted in May, can withstand light frost in spring.
- White skinned, red skinned, russets, and yellow fleshed types.
- Russet Burbank – For commercial production variety
- Yukon gold – Popular yellow fleshed variety
- B-size seed-small tubers weighs 1½-2 oz. These tubers should not be cut before planting.
- Larger tubers or 4-6 ounces in size should be cut before planting.
  - Each seed piece should have two or more eyes, at least 1" height and width
  - Cut 5-10 days prior to planting, store at normal room temperature





# Planting

- Well drained soil is important. Add organic matter to improve the clayey soil structure.
- Shallow trench of 3-4" deep and plant the seed pieces about 10-12" apart, row spacing 24-36" wide.
- First hilling -when plants are 6" tall,
- Last hilling when plant is 15" tall, the last ridges should be 4-6" tall.
- Irrigate the crop in summer



# Tomato – Determinate vs. Indeterminate

- Determinate
  - 3-4 ft. tall
  - Plant ends in flower bud
- Indeterminate
  - 7-15 ft. tall
  - Plant “never ends,” remains vegetative
  - Forms flowers in leaf axils
  - Cherry and pear tomatoes
- Semi determinate
  - Relatively compact than indeterminate but produces till first frost
- One plant can produce 10-50 lbs. fruit per season





# Transplanting

- Indeterminate varieties spacing – 4' between plants and row
- Determinate varieties spacing – 3' between plants, 4' between row
- Dig holes large enough for all roots, deep enough to come just below the true leaves
- Pinch off the bottom one or two sets of leaves close to the soil surface
- Leggy plants can be laid on side with top above ground level
- Spread a light mulch around the base



# Growing Season

- Water well and evenly.
  - Soaker hose best, not overhead.
  - Early morning so plant leaves dry, preventing disease.
- Mulch in mid- to late-June to about 2-4" deep
  - Straw, rice hulls, leaves, newspaper (not colored portions).
- Stake, trellis or cage





- Indeterminate, trellis, stake – prune suckers



# Pumpkins

- Plant by end of May or first of June where soil temperature is 65-70°F
- Vining pumpkins:
  - Plant seeds 1" deep (4-5 seeds per hill)
  - Allow 5-6 ft. between hill and row spacing 10-15 ft. apart
  - During young stage, thin to 2 or 3 plants per hill
- Semi-bush varieties:
  - 4 feet between hill and 8 feet row spacing, thin to 2 plants per hill
- Miniatures:
  - Plant 2 or 3 seeds per hill, thin to one plant per hill
  - Hill spacing – 2 ft. apart and 6-8 ft. between rows

- Bees are essential for pollination.
- Cross pollination – pumpkin, squash & gourds, does not affect the current crop
- Irrigate – shallow root, mulching helps.
- First flowers of pumpkins are male flowers.
- Female flowers have a swollen base.





# Cucumbers

- Slicing, compact, pickling, novelty
- Warm soil for germination and growth
- Direct seeding - hill system, row planting
- Sow the seeds  $\frac{1}{2}$  to 1 inch deep and thin one plant per 12 inch
- 3 plants in hill about 3' apart
- Transplant – don't get large size plants, 12" apart spacing
- Shallow rooted – water the base, don't stress during its fruiting stage
- Cucumbers do not cross pollinate with melons







# Peppers

- Warm season crop, slow to grow and mature
- Sweet peppers - banana, bell, cherry and pimiento
- Hot peppers - ancho, chili, habanero, jalapeño, hot banana and serrano
- Raised bed, black plastic mulch bed are best
- Night temperature above 55 F
- Transplant spacing – 18 to 24” apart in row or 14 to 18” in all direction in beds
- Avoid frequent light watering



# Sweet Potato

- Beauregard, centennial
- Well drained soil, warm soil temperature
- Raised bed, mounded beds with black plastic mulch
- Plant slips after frost
- Soak the slips for an hour before planting
- Plant spacing –2 -3' apart and 5' between row
- Plant slips 10" deep in raised beds or 8" high ridged hills
- Water thoroughly after planting





# Garden Pests & Growing Tips

- [go.wisc.edu/planthealthadvising](http://go.wisc.edu/planthealthadvising)
- **Call: 608-298-6945**
- **Email: [planthealth.advisors@extension.wisc.edu](mailto:planthealth.advisors@extension.wisc.edu)**
- **Walk-in Diagnosis PHA Locations** (Hours vary by location, call or email prior to visit):
  - **Kenosha County:** Extension Kenosha County, Kenosha County Center, 19600-75th Street, Suite 2, Bristol, WI 53104
  - **Milwaukee County:** Boerner Botanical Garden, 9400 Boerner Drive, Hales Corners, WI 53130
  - **Racine County:** Racine County Ives Grove Offices 14200 Washington Avenue Sturtevant, WI 53177