

# SPRING GARDENING AND FRUIT TREES

By : Mark Ruben



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# BENEFITS OF GARDEN BEDS

- You can choose what soil you want to use
- There is better drainage
- Plants are raised higher for easy access/maintenance
- Can reach all sides of the bed without walking on the soil and potentially walking on the plants
- Most beds are 4 feet wide

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# PLACEMENT OF THE BEDS



- Where the plants can get morning sun is the best placement
- Try to avoid reflective heat from the wall in the afternoon
- Getting 6 hours of sunlight on the bed per day is best

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# SOIL PREP STEPS



Add organic matter

Incorporate fertilizer

Check irrigation

Plant seed/transplants

Floating row covers (help  
germinate the seeds by  
warming the soil)

Mulch (after seedlings have  
emerged)

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# SOIL FOR RAISED BEDS

Best ratio in a raised bed is 1:2

- 33% reject sand/play sand/silica sand/pumice
- 66% organic compost
  - Leaves
  - Kitchen scrapes
  - Coffee grounds
  - Manure
  - Potting Soil

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# IRRIGATION

- Drip irrigation with inline emitter works best
- ¼ inch diameter or ½ inch diameter works well
- 6in spacing works for carrots, beets, etc.
- 12in spacing for tomatoes, squash, and peppers
- Runs longer than 8ft, use pressure compensating



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# TIMING

Most crops are finished in 100-120 days

- Example: if you plant zucchini in mid March under a floating row cover, you can harvest in mid May

Crop will then be done by mid July



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# FLOATING ROW COVERS

After planting in early spring, use the row covers to speed up the germination process.

Row cover protect plants from

- Insects and animals
- Wind
- frost





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## PLANTS TO PLANT IN MARCH

- When the soil temperatures are 60 degrees plant the following with floating row covers
- Tomatoes
- Cucumbers
- Squash

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# VEGETABLES TO PLANT NOW

- Beets (65 days from seed)
- Carrots (75 days from seed)
- Broccoli (80 days from transplant)
- Cabbages (75-100 days from transplant )
- Kale (60 days from seed)
- Lettuce (60 days from seed)
- Spinach (45 days from seed)
- Radishes (23 days from seed)
- Turnips (60 days from seed)
- Peas ( 70 days from seed)



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# VEGETABLES CONT.

- Potatoes (100 days from tuber)
- Peas ( 60 days from seed)
- Radishes (21 days from seed)
- Spinach (50 days from seed)
- Arugula (30 days from seed)
- Swiss Chard (50 days from seed)
- Collards (80 days from seed)



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# VEGETABLES CONT.

- Onions (100 days from transplant)
- Plant intermediate day onions
- Intermediate Day: needs 12-14 hours of sun per day
- Varieties:
  - Candy (yellow)
  - Red Candy Apple (red)
  - Super Star (white)



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# FULL SUN PLANTS

In the winter, full sun for plants is preferred

These are the best plants that do well in full sun during the summer:

- Okra
- Sweet potatoes
- Vegetable amaranth
- Armenian cucumbers



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# MULCH YOUNG PLANTS

Wood chips, grass clipping, leaves, plastic, straw or loose compost

Benefits:

- Keep down weeds
- Holds moisture in soil
- Cools soil/ clear plastic will warm soil



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# FRUIT TO PLANT NOW

Fruit trees that are dormant to plant now:

- Peaches, apricots, plums, apples and pomegranates
- Grapes, blackberries and strawberries



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# TREE WRAPPING

- Use tree wrap to prevent sunburn on young trees
- Helps protect against bore damage
- You could also white paint or corrugated plastic as well



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# Usage steps



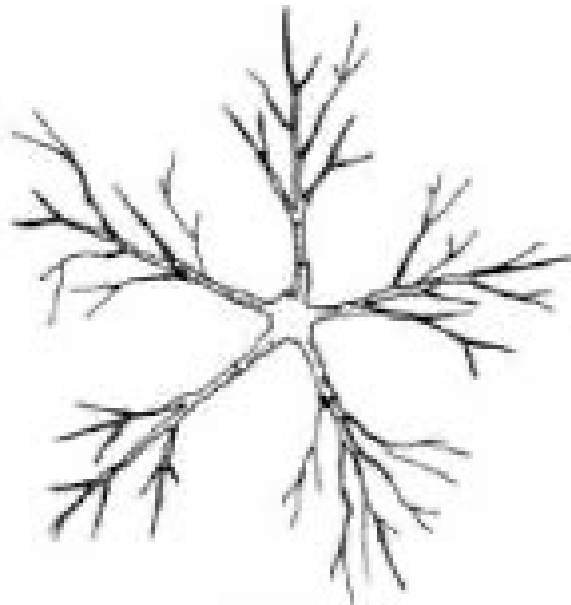
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# PRUNING FRUIT TREES

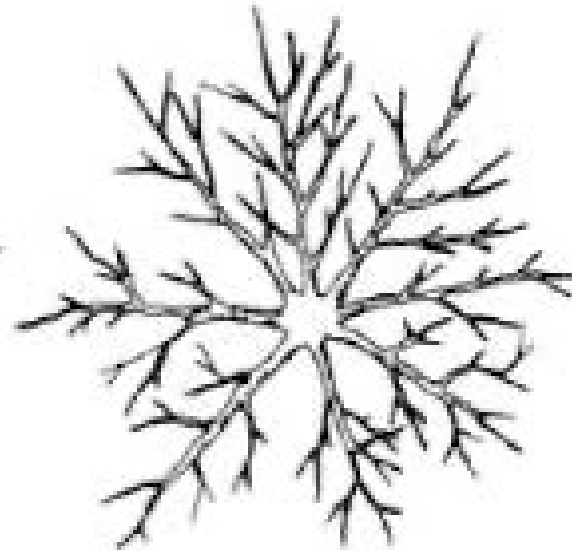
- Most of us are dealing with pome fruits (apples, pears and quince) or stone fruits (peaches, cherries, apricots, plums – anything with a pit)
- Start by pruning away any wood that is dead, damaged or diseased – a.k.a. the three D's
- First, remove any branches that grow downward, toward the center of the tree or that cross paths with another branch
- The goal is to have 4-6 evenly spaced branches for your main branches

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# OPEN CENTER AERIAL VIEWS



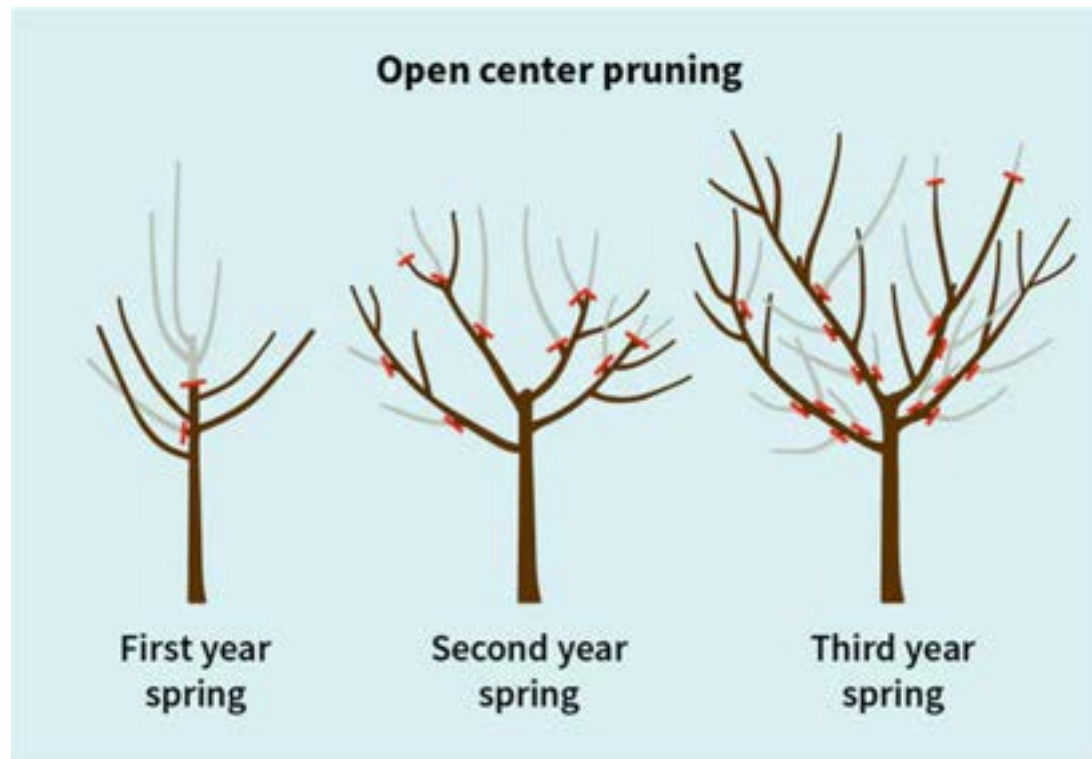
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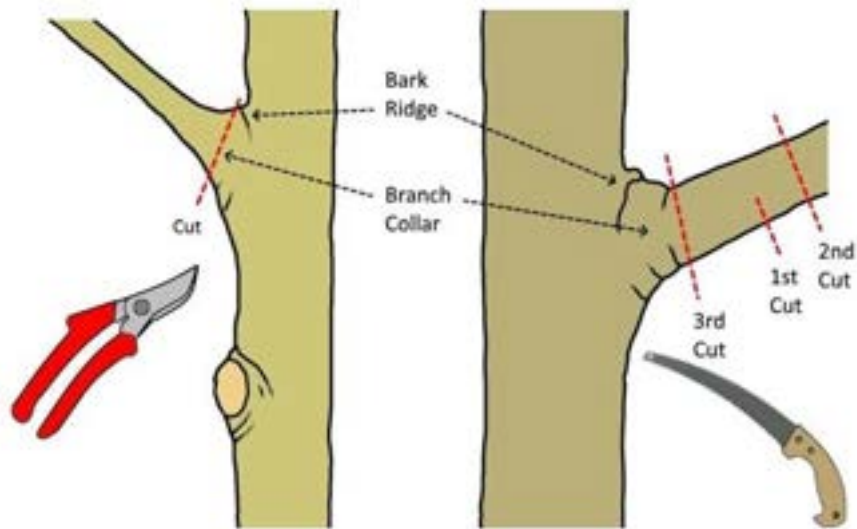
# OPEN CENTER



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# TWO MAIN CUT TYPES

## Branch Removal (thinning cuts)



## Heading Back Cuts



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# PEACH TREE PRUNING



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# PEACH TREE PRUNING CONT.



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# PEACH TREE PRUNING FINAL



PRESENTATION TITLE

2/11/20XX

24

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# CITRUS PRUNING

- Remove all growth below the graft
- Remove dead and damaged branches
- Remove water sprouts (tall vertical growth)
- Prune in the March when warmer





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# GRAFT

- Combination of two plants: the root stock and scion
- Root stocks are selected for hardiness, disease resistance, aggressiveness, etc.
- The scion is the desired fruit
- The root stock is cut off then the scion is grafted on top of it

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# MOST COLD HARDY CITRUS

- Satsuma Mandarin
- Meyer lemon
- Kumquat

## Others to try

- Various lemon varieties
- Limes
- Grapefruit



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# CITRUS CONTINUED

Best area to plant citrus

- Protected from the wind
- Morning sun
- Train to be low like a shrub
- Improved soil
- Can also be placed in pots as well



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# FERTILIZER

- Best to do a soil test to determine nutrients
- 1:1:1 ration
  - Nitrogen, phosphorus, potassium
- Organic fertilizers are slow to release the nitrogen

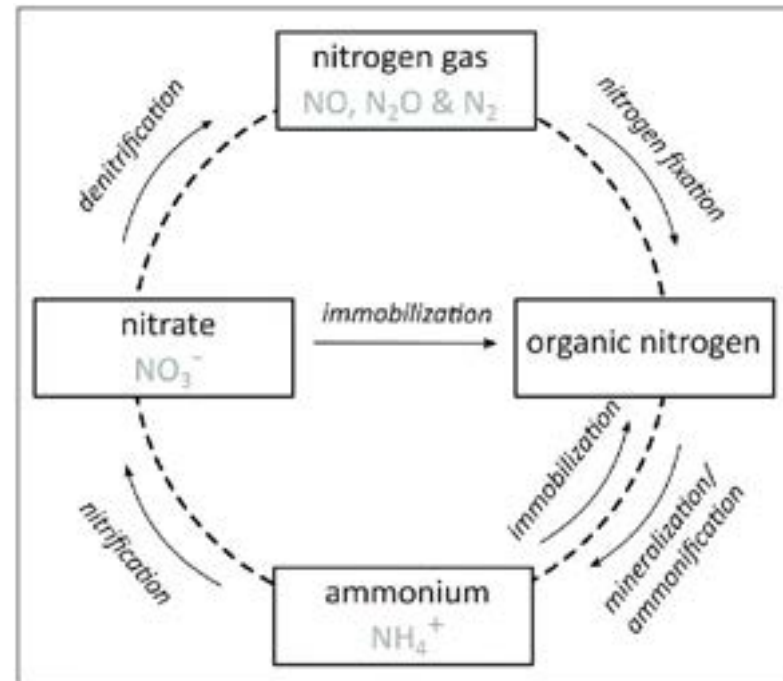


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# NITRIFICATION CYCLE

Organic nitrogen by nature is slow release nitrogen because it has to go through mineralization before the plant can use it.

Ammonium and nitrate nitrogen are ready to be used by the plants.



# FERTILIZER CONT.

## **BEST** AMMONIUM SULFATE 21-0-0

- Quick-acting form of water-soluble nitrogen
- Contains high sulfur (24%)
- High-quality, screened crystalline material

**DESCRIPTION:** AN ECONOMICAL, SOLUBLE FORM OF QUICK GREENING NITROGEN WITH HIGH SULFUR.

**GUARANTEED ANALYSIS:**

TOTAL NITROGEN (N)	21.00%
21.00% Ammoniacal Nitrogen	
Sulfur (S)	24.00%
Derived from ammonium sulfate	

**BENEFITS: BEST® AMMONIUM SULFATE 21-0-0**

- Is a quick acting form of water-soluble nitrogen that stimulates vegetative growth and produces deep green color.
- Contains high sulfur (24%) to enhance decomposition of thatch through stimulation of soil micro-organisms, improves color and density of turf.
- Is a very economical form of nitrogen and sulfur.
- High quality, screened crystalline material that is not produced as a result of any by-product manufacturing process.

**APPLICATION RATES:**

	Lbs. of actual nitrogen applied per 1,000 sq. ft.	Lbs. of BEST® Ammonium Sulfate 21-0-0 to apply per 1,000 sq. ft.	Lbs. of BEST® Ammonium Sulfate 21-0-0 to apply per acre	Lbs. of Actual Sulfur applied per 1,000 sq. ft.
TURFGRASS	0.50	2.4	100	0.58
Recommended Rate	0.75	3.6	150	0.86
	1.00*	4.8*	200*	1.15*

Application at the recommended rates will last approximately 4 to 6 weeks.

**GROUNDCOVER:** Broadcast 3 lbs. per 1,000 sq. ft. (1.0 lb. per 100 sq. ft.)

**SHRUBS & EVERGREENS:** Sprinkle 1/4 cup evenly around drip-line of plant and work into top 1 inch of soil.

**TREES:** Apply 1/2 lb. per 1 inch of trunk diameter. Distribute evenly under branches out to drip-line.

**NOTE:** Liquid measuring cups are very slow in estimating the weight of dry granular fertilizers. Example: An 8 oz. (1 cup) measuring cup holds approximately 8 oz. (1.0 lb.) of dry granular fertilizer.

**PRODUCT COVERAGE:**

ONE 50 LB. BAG COVERS 10,400 SQ. FT.  
4.2 - 50 LB. BAGS COVER 1 ACRE.

Based on the Recommended Turfgrass Rate

**SPREADER SETTINGS:**

cover settings list  
Apply Approximately the  
Recommended Turfgrass Rate

BEST® Pro	30	<p>Keep eye for spreading cone line within 6 in. direction</p>
BEST® Model 34, 44, 54	4.8	
Earthway	14	
Lawn	14	
Scotts R-64 (Cone 6)	6	
Lely 1250 / Vicon		visit <a href="http://www.bestfertilizer.com">www.bestfertilizer.com</a>

SON 200

**NOTE:** Spreader settings are guidelines only. Spreaders should be checked for accuracy.

**APPLICATION PRECAUTIONS:**

- Apply in dry turf or foliage and irrigate thoroughly immediately after application.
- Keep away from ponds, ponds, etc. Do not contaminate potable water.



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# MICRO NUTRIENTS

## Iron

- Iron is needed for peaches, pears, and apples
- Iron Chlorosis is sign of iron deficiency
- EDDHA is the only Iron Chelate that will work in our soils
- Best to apply the Iron Chelate in May
- Should see results in about 2-3 weeks

## Interveinal Chlorosis



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# MICRO NUTRIENTS CONT.

## Nutrients

- Zinc (chelate or sulfate)
- Manganese (chelate or sulfate)
- Copper (sulfate)
- Symptoms to look for:
  - Off colored leaves
  - Low vigor
  - Small fruit

## Lack of Nutrients Symptoms





# APHIDS

- Control: Can use insecticidal soap or assassin bugs

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# CATERPILLARS

Control: *Bacillus thuringiensis*-BT

**TOMATO HORNWARM**



**CABAGE LOOPER**



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# SQUASH BUGS

Control: Pyrethrin

## SQUASH BUGS EGGS



## BROWN MARMORATED STINK BUG



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# WHITE FLIES

Repellent: Silver Reflective Mulch  
Control: Neem Oil, Pyrethrin



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# MITES

Control: spray with water and keep down the dust

**MITES ON TOMATOS**



**MITES ON TOMATOS**



A vibrant garden scene featuring a wooden plank path leading through a variety of colorful flowers in pots. In the foreground, a pair of bright yellow rain boots sits on the path next to a blue-handled shovel and a metal rake. The background is filled with lush greenery and more flowers, creating a bright and cheerful atmosphere.

Thank you for listening

Questions?