

CITRUS CARE FOR THE LOW DESERT RESIDENTIAL LANDSCAPE



Disclaimer

This is by no means a complete “How to” grow citrus in the Coachella Valley lecture. I took 120 hours of college-level citrus course work at Cal Poly Pomona. There is no way that I can condense 120 hours into 90 minutes, but I can cover the highlights!

More extensive general citrus growing knowledge can be obtained by going to our website (cvwd.org) and accessing our supplemental information from our previous 2018/2020 presentation:

Click: Conservation -> Seminars, Workshops & Classes -> Residential -> Past Workshop Materials ->

Scroll down to: “Caring for Citrus”

(supplemental handouts)

CITRUS CARE FOR THE LOW DESERT RESIDENTIAL LANDSCAPE

1. Chose/Pick out the right tree.
2. Plant in the right place.
3. Plant correctly
4. Minimize pruning
5. Protect the trunk.
6. Fertilize and Irrigate properly
7. Protect from pests and frost

Check Your County Crop Report Before You Buy/Plant your Crop

1. Farmers grow crops to make money and support themselves and their families.
2. Farmers pick crops adapted to their area because adjusting the climate/soil to help non-native plants thrive in a non-ideal location increases production costs and decreases profit.
3. **Grow what your local farmers grow for best results.**

Crop Report

(Covering the reporting period January - December 2015)

Crop production on Coachella Valley land irrigated with Colorado River water

Value of year's production: \$745,704,920

Total acreage irrigated (includes double cropping & irrigated but not harvested): 70,470

Average gross value per acre: \$10,280

Crop	Acreage	Yield in tons	Value per acre	Total value
Fruit	23,417	207,588	\$14,972	\$350,538,158
Dates	8,211	19,706	\$5,040	\$41,383,440
Figs	177	1,487	\$8,400	\$1,486,800
Grapes - (table)	7,592	62,520	\$20,587	\$156,300,300
Grapefruit	576	8,078	\$8,291	\$4,775,760
Lemons & Limes	3,902	64,500	\$26,753	\$104,388,255
Mangos	117	954	\$15,485	\$1,811,745
Olives	86	765	\$13,331	\$1,146,474
Oranges & Tangerines	1,656	16,428	\$8,504	\$14,082,984
Peaches	103	510	\$14,400	\$1,483,200
Strawberries	332	7,370	\$42,550	\$14,126,600
Watermelon	665	25,270	\$14,440	\$9,602,600
Vegetables	26,332	554,724	\$10,875	\$286,348,110
Artichoke	883	7,098	\$10,862	\$9,591,552
Basil	66	185	\$4,000	\$264,000
Green Bean	1,208	5,463	\$9,312	\$11,249,005
Bok Choy	354	4,381	\$7,875	\$2,787,750
Broccoli	953	5,841	\$6,465	\$6,161,421
Cabbage	58	435	\$5,700	\$330,600
Carrots	4,572	155,448	\$5,950	\$27,203,400
Cauliflower	1,134	8,268	\$8,952	\$10,151,659
Celery	659	14,338	\$10,458	\$6,891,891
Sweet Corn	1,279	13,094	\$6,120	\$7,827,160
Eggplant	221	4,860	\$27,224	\$6,016,420
Lettuce	2,930	40,559	\$9,674	\$28,344,615
Okra	791	3,283	\$4,150	\$3,282,650
Onion - Dry	60	1,697	\$11,876	\$712,530
Onion - Green	305	6,192	\$14,500	\$4,422,500
Oriental Vegetables	1838	19,299	\$7,875	\$14,474,250
Peppers (bell)	5,044	105,167	\$23,727	\$119,680,501
Peppers (chili)	152	1,375	16,637	2,258,789
Potatoes	971	11,031	\$3,510	\$3,408,443
Radish	249	1,451	\$7,992	\$1,990,008
Spice	1,364	3,819	\$4,000	\$5,456,000
Spinach	668	9,178	\$13,786	\$9,208,914
Squash	318	127,200	\$4,200	\$1,335,600
Tomatoes	255	5,064	\$11,876	\$3,028,451

NOT ALL CITRUS THRIVE IN THE DESERT

There are many varieties of citrus trees available, but not all of them do well in the desert.

Furthermore, some of the Mandarins (Tangerines) and Tangelos need a different citrus pollinator tree to produce well.

Following is a partial list of desert - compatible favorites.

CITRUS FOR THE LOW DESERT

The Grapefruits

The Oranges

The Mandarins (Tangerines)

The Tangelos

The Lemons

The Limes

The Kumquats



Ruby Red Grapefruit
(Also Marsh and Oroblanco)

CITRUS FOR THE LOW DESERT

The Grapefruits

The Oranges

The Mandarins (Tangerines)

The Tangelos

The Lemons

The Limes

The Kumquats

Navel (Eating) Orange

Hamlin Orange





Valencia (Juice) Orange

(Olinda and Campbell)

Blood Orange: Mora



Blood Orange



CITRUS FOR THE LOW DESERT

The Grapefruits

The Oranges

The Mandarins (Tangerines)

The Tangelos

The Lemons

The Limes

The Kumquats

Mandarins: Alternate Bearing and Likes a Pollinator (Tangelo)

Also Fairchild and Kinnow

Clementine (Halos/Cuties)



Dancy



CITRUS FOR THE LOW DESERT

The Grapefruits

The Oranges

The Mandarins (Tangerines)

The Tangelos

The Lemons

The Limes

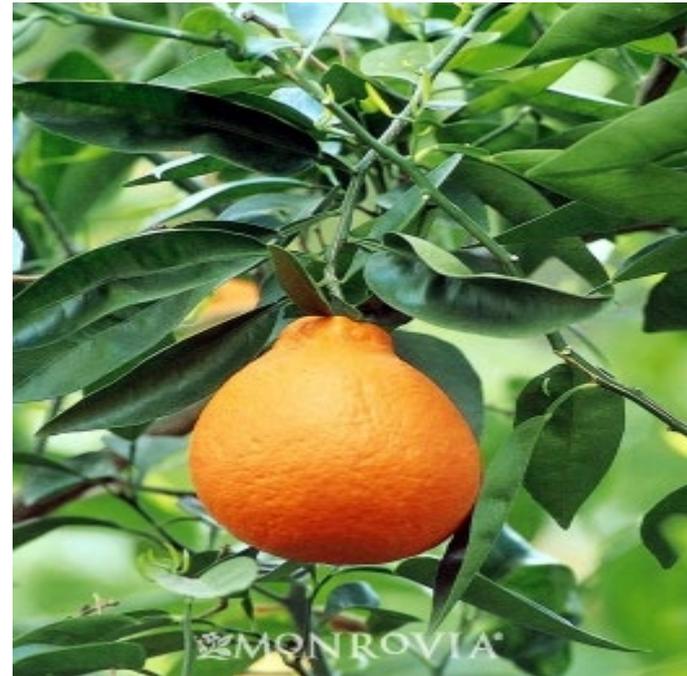
The Kumquats

Alternate Bearing and Likes a Pollinator (Mandarin)

Orlando



Minneola



CITRUS FOR THE LOW DESERT

The Grapefruits

The Oranges

The Mandarins (Tangerines)

The Tangelos

The Lemons

The Limes

The Kumquats

Meyer Lemon (Also Lisbon and Eureka)



Meyer Lemon: Fruit



CITRUS FOR THE LOW DESERT

The Grapefruits

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The Tangelos

The Lemons

The Limes

The Kumquats

Limes

Mexican (Key Lime)



Bearss (Persian)



CITRUS FOR THE LOW DESERT

The Grapefruits

The Oranges

The Mandarins (Tangerines)

The Tangelos

The Lemons

The Limes

The Kumquats

Kumquats: Negami



Don't forget the Dwarfs



Which one should I choose ????



PICK OUT THE RIGHT TREE

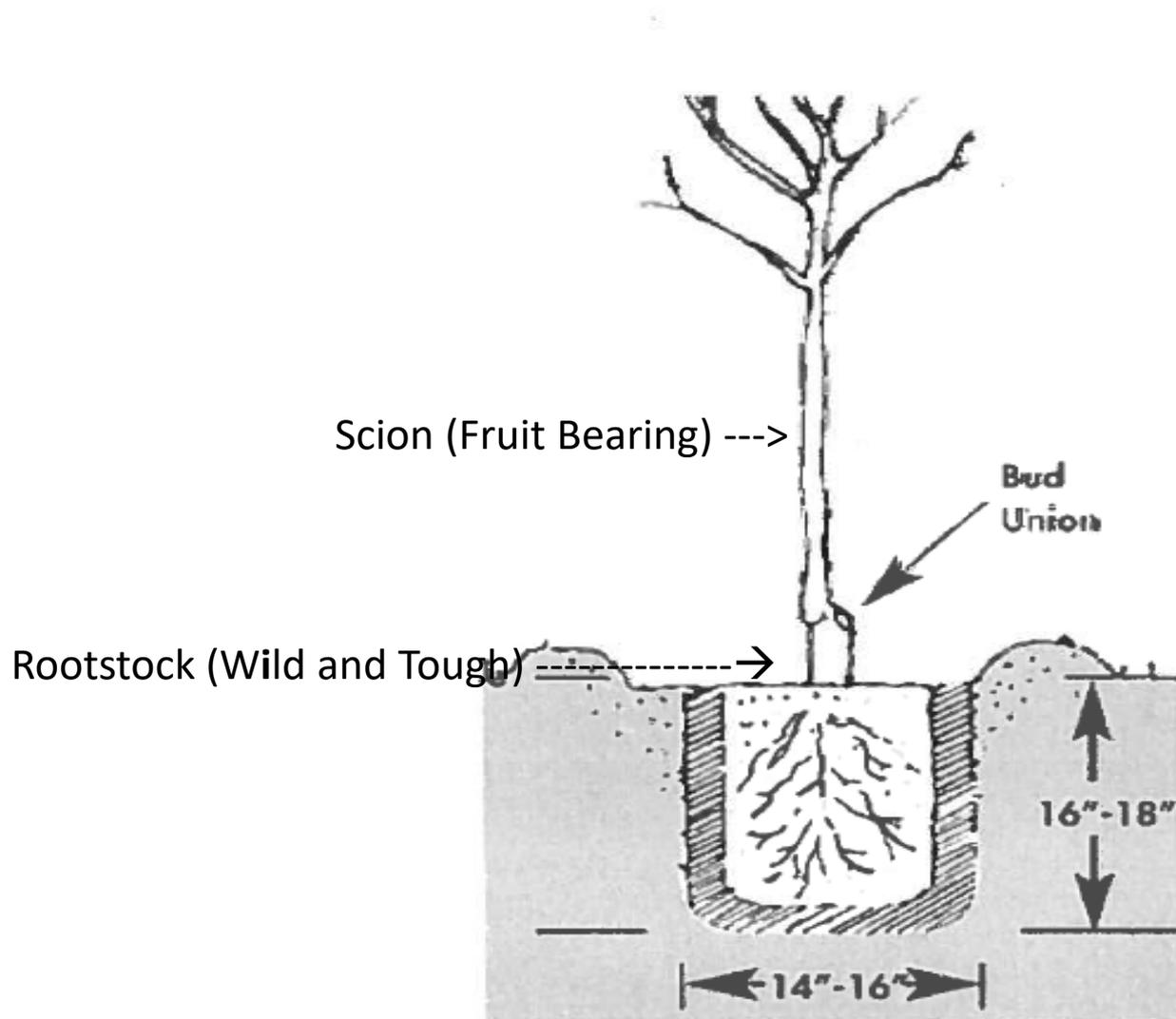
See pages 6-7 of Citrus Fruit for Home Planting (Posted on CVWD website)

Young trees are best(1-2 years)

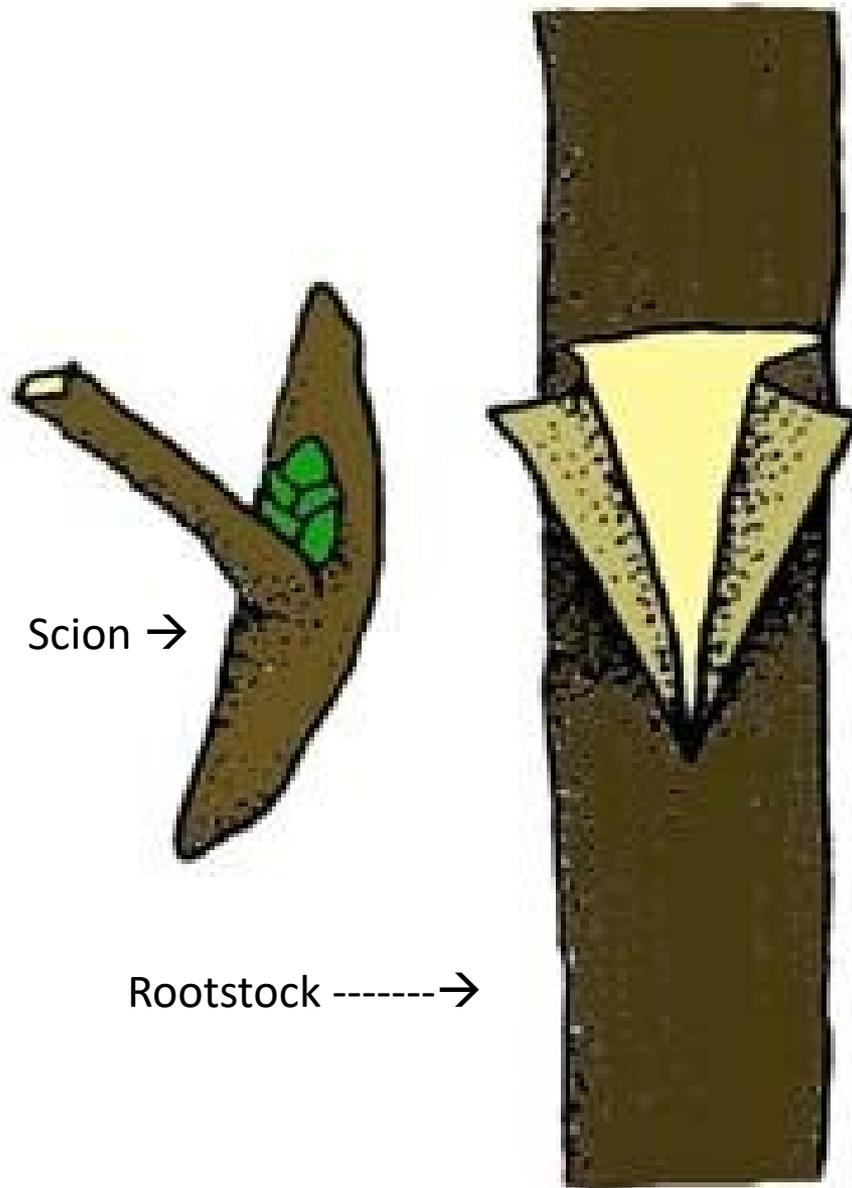
- a) 1 year old tree: $\frac{1}{2}$ to $\frac{3}{4}$ " diameter at 1"above the bud union.

- b) 2 year old tree: $\frac{3}{4}$ " to 1" diameter at 1"above the bud union.

Bud Union



Bud Grafting



Graft sealed by wax (or tape)



Citrus Bud Union



PICK OUT THE RIGHT TREE: II

Now that you know what the bud union is and where it is located on your tree, I repeat:

Young trees are best(1-2 years):

- a) 1 year old tree: $\frac{1}{2}$ to $\frac{3}{4}$ " diameter
at 1"above the bud union.
- b) 2 year old tree: $\frac{3}{4}$ " to 1" diameter
at 1"above the bud union.

In addition: No fruit on tree and no thick roots protruding from pot's drain holes.

Older trees left in nursery containers become root bound



If root bound, score roots to
break the circling



Plant in the Right Place at the Right Time.

1. Give Them Space: Mature trees will grow to be 16' – 18' wide and 20' – 25' tall at full maturity.
2. The tree will need full sun: Minimum 8 hours/day
3. Drainage: Before planting, fill the planting hole with water + “transplant” fertilizer at day’s end. The next morning, the water should be drained. If so, you’re ready to plant.
4. Timing: Best time is March/April after frost danger has passed.

“Quick Start” Planting fertilizer

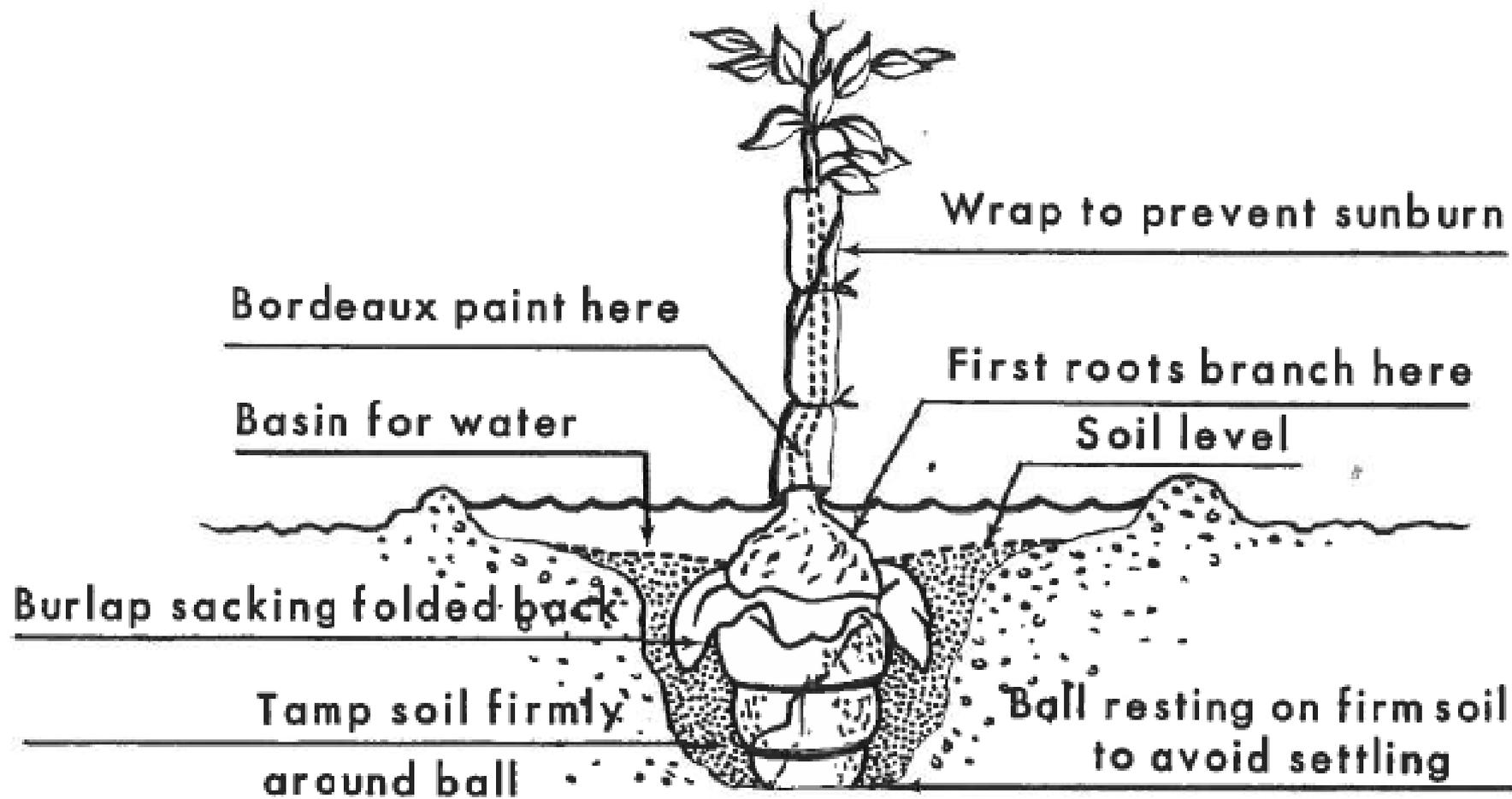


Plant Correctly

1. See illustration on page 8 of Citrus Fruit for Home Planting (Posted on CVWD website)
2. Don't plant too deep.
3. Don't add fertilizer or organic matter to the backfill.
4. Loosen the soil around the planting hole in a 2' wide ring with a spading fork.
5. After planting, Mulch the planting hole and loosened soil with 2" of bark or other organic mulch material. Leave a 6" ring of bare soil around the trunk.

Spading Fork in Action Loosens Soil





PLANT IT CORRECTLY

Mulching Citrus out to Drip Line



Don't Prune Your Citrus Trees to
Look Like These Peach Trees:
You Can't Train/Shape Citrus



Minimize Pruning

1. Understand Apical Dominance
(The top bud rules).
2. Remove rootstock suckers, but pull out scion suckers through the side of the canopy.
3. Leave as much green wood on the scion as possible. Skirt should touch the ground. No lollipops.
4. Remove dead wood, broken branches and cross-overs.
5. Use silver duct tape to cover large cuts.

Rootstock Suckers (Remove)



Lollipop Citrus Tree



Full Skirt: Maximum Yield



Cross-Over



Dead Wood



Protect the Trunk

1. Citrus trees are very susceptible to sunburn
2. Use tree wrap on newly planted trees. (See Pg 8: of Citrus Fruit for Home Planting (Posted on CVWD website).
3. Mature trees: If trunk is exposed, paint tree trunk and primary scaffolds with a white, water-based or latex paint. NOT Oil-Based or enamel !!
4. See handout.

Painted Citrus Tree



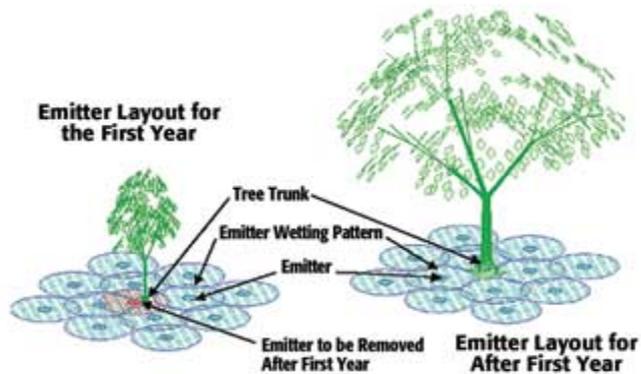
Irrigate Properly

1. You can use basins (Page 9 of Citrus Fruit for Home Planting: Posted on CVWD website), bubblers, drip, micro-spray or spray head sprinklers.
2. Water out to the drip line.
3. Water deeply, but infrequently.
4. Water down to 3' each time. One inch of water will penetrate down to 18" on sand.
5. Water when the first $\frac{1}{4}$ inch of surface soil is dry.
6. See Gallons per Day handout.

Water-Stressed Tree



Spread out your Emitters/Microsprays to Cover at Least 70% of the Under Canopy Area



Fertilize Properly

Use a citrus fertilizer.

Make sure it has Nitrogen, Iron, Manganese and Zinc.

Fertilize 3 X a year (Jan/Feb, Apr/May and Aug/Sept) at the dose recommended on the label for the tree's size.

Sprinkle fertilizer material as directed and water-in immediately.

Don't plant into lush turf grass. Mulch out to drip line.

Eliminate Nutrient Competitors



Adequate Nutrition



Pest/Frost Control

See Page 14 of Citrus Fruit for Home Planting for disease prevention

Be on the lookout for the Asian Citrus Psyllid and Huanglongbing (HLB) disease. See Handout.

See Page 16 of Citrus Fruit for Home Planting for Insect/Mite control.

I use Neem Oil Extract for both insect and disease problems (Read the label before applying).

See Page 10 of Citrus Fruit for Home Planting for frost control and Pages 16-17 of Citrus Fruit for Home Planting for frost damage control.

Harvest

Best place to store citrus is on the tree.

BUT

Remove all old (Old means poor quality) fruit from the tree once over-ripened and before next bloom to maximize fruit set.

Wear soft gloves when harvesting to keep fingernails off the rind.

If fruit does not pull off easily, clip/cut citrus from tree instead of pulling fruit off – Especially mandarins and tangelos.

**CITRUS CARE FOR THE LOW
DESERT**

Thank You!

Don Ackley

Water Management Supervisor

dackley@cvwd.org

(760) 398-2661, X3541