

## How to make a planting decision?

It seems as every year passes, there is more information available to influence your planting decision. One way of reducing the volume of information is by process of elimination. By breaking down information into pieces, often your decision will become obvious.

The following is a recommended procedure to find the variety and rootstock combination that not only fits your location, but also fits you as well. It's a good idea to start working on these steps at least 18 months prior to planting.

### 1. IDENTIFY YOUR MARKET.

A grower that takes the time to do some of his own market research will be much more comfortable with his final decision. You can expand your knowledge base by talking to professionals who understand current markets for citrus consumption, such as farm advisors, packers and marketers, produce buyers, nurserymen and other growers. It should be noted that the opinions of these professionals might not always agree. Many times, some of these opinions may even be misleading. However, if a new idea can be found in the process of discovery, the effort is worth the time invested.

### 2. IDENTIFY THE UNIQUENESS OF YOUR LOCATION.

Every piece of property is different and those differences influence which variety to plant. Table 1 provides some general information that could influence which variety would match up best with the unique characteristics of your location. A factor not listed is Isolation, which is especially important for mandarins like Clementines or W. Murcotts that can become seedy when in the presence of pollen



from other seeded citrus.

As an example, the table indicates that locations with sandy soils would typically harvest earlier than an orchard on clay soils. If you target a market that has the premium returns in the month of May, it would not be appropriate to plant that variety in a sandy location. In one case, a grower was having difficulty making money on Minneola tangelos. The trees were on a south-facing slope in sandy soil and by the time the market had developed in March, most of the fruit had fallen on the ground. There was no way to fix that problem because the trees were planted in the wrong location. An early Navel variety or early mandarin would have been more appropriate in that location.

### 3. EVALUATE THE DIVERSITY OF YOUR BUSINESS.

Just as your property is unique, so is your business. Diversity is often the means of reducing risk. If farming is your only source of income, planting many high-risk varieties would not be advisable. You have to decide how diverse your operation should be as well as the amount of fruit you would like to have harvested prior to the threat of a freeze.

### 4. DECIDE ON A VARIETY CATEGORY.

One method of breaking information into pieces is creating categories. A simple way to do that is to group things by harvest period as indicated in Table 1. This table groups some

examples of citrus varieties for you and also relates them to your soil type and location. The information in Table 1 does not represent all choices. It's purpose is to show there are many influences on choosing the right variety.

### 5. LIST THE VARIETY CHOICES FOR THE CATEGORY.

At this point in the process of elimination it should start to become clear which are the most appropriate varieties for your circumstances. Many of those that fit the category may not be something that interests you, so this is where you list varieties that will work or fit your needs. Knowing all the choices can be tough, but you can find some help at [www.citrustreesource.com](http://www.citrustreesource.com) and click on Variety Research. Also, *Citrus Varieties of the World* by James Saunt is a great book and fairly current. Lindcove Field Station (559-592-2408) is always available to visit to research varieties and so is the Variety Collection at TreeSource in Woodlake. Just drop by and wander through any time. Each tree has a sign.

### 6. SEEK COUNSEL.

Once you have a list of varieties that fit your location, it's time to seek counsel from experts on varieties. These experts might include nurserymen, U. C. Cooperative Extension farm advisors, and other growers who have experience with the variety of interest. This is where economic analysis also comes into play. Can you actually make money on the selection that best suits your property? What kind of production can you expect? What is the tree's growth habit?



# “Industry Interview”



*Mike George is General Manager of Suntreat Packing & Shipping and Secretary-Treasurer of CCGA. Before the move to Suntreat he spent 18 years at Griffith Farms, advancing to the role of General Manager. He also farms his own citrus in the Lindsay area.*

**TS: What is the first thing that you wrestle with when you're looking at a piece of property for development to citrus?**

**Mike:** I ask myself, “what is this property suited for?” Soil type, location, topography? Late, early, water quality, what’s been planted there before? Water with nitrates could affect earliness. I don’t want to plant summer navels on a south facing hill. I want to determine what this piece of dirt is most suited for.

**TS: Specifically, what are primary limitations to citrus.**

**Mike:** Temperatures, meaning frost sensitivity. Also for me is the availability of water in winter. After the 1990 freeze I’ve always made it a priority to have frost water available.

**TS: Once you've established what's suitable for the property, how do you choose what to plant?**

**Mike:** I ask myself, in my portfolio of citrus, what is it that I would like to plant? As a small grower I’ve got early, mid-season, and late navels with some specialty varieties on 50 acres. If I had 1000 acres I’d do the same thing. I try to spread risk by having something that makes money all throughout the season. As an example, the last purchases I made were mid-season navels with high production and export quality. I wouldn’t even

be opposed to planting mid-season navels. You can make money with the right fruit, production, and quality.

**TS: What pushes you to the final decision?**

**Mike:** What I want to know is what is going to be making money ten years from now. Often we look at what is making money today and the market doesn’t last. What I want to grow is also important. It comes down to something I like that also has market potential. You’ve got to have fun with what you’re doing, too. I could put all my dollars in the stock market and watch consistent growth, but that isn’t any fun. Isn’t that part of why we do this?

**TS: How do you establish for yourself what a market might be?**

**Mike:** I talk to as many good marketers as I can. I look at historical and objective data from California, Florida and other countries. I do my own market research. For example, when I’m out-of-town, I always go into supermarkets and see what produce they have. My wife has come to expect that from me. I put a good dose of common sense in, “is this something a consumer would want to eat?” When I first came in the industry there wasn’t a whole lot of choices in the produce department. It was all about how good it looked, but now the consumers want taste. I also look for “What is the next thing?” Something we haven’t thought of yet? I try to get a feel for what the demand is going to be down the road. What would I want to buy, what would I want my kids to eat?

**TS: What defines a “good marketer?”**

**Mike:** A progressive person that thinks outside the box. There are salespeople and there are marketers. Salesmen sell what’s in the cooler, a marketer thinks about what could be sold. They’re visionaries. When I was at Griffith Farms, I started building a relationship with the marketing team at our packing-house and then volunteered to take export

buyers into the groves and asked them questions about what they were looking for and what they thought we needed to change about the fruit. Later, I had a chance to go overseas on a marketing trip and saw fruit at its ultimate destination. It is important to collect ideas from many sources. There are some very talented people in this industry and combining all their thoughts together helps me form my ultimate decision.

**TS: How do you decide what rootstock and spacing?**

**Mike:** First, are there limitations to soil or can the soil be modified? I want a rootstock that will help me accomplish what I want to do. Bigger fruit, sunlight, aeration, spacing, all flow into the rootstock decision. If I have a replant situation I might be more inclined to plant a trifoliolate or its hybrids like C-35 or Carrizo.

**TS: How do you decide what nursery to use?**

**Mike:** I want a nursery that grows a good quality tree that I can depend on. Is the nurseryman competent, do they have clean budwood, will they deliver on time, will they be around if I have problem, and can they help me make the planting decision? Some nurseries are good order takers and some are good planners.

**TS: Thanks Mike.** ☺

**MANDARIN  
Field Day**

**9:00 am, Friday  
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Located on Rd 192, ½ mile N on  
Ave 344 in Woodlake



# DECISION continued from page 1

## 7. CHOOSE A VARIETY.

At this point it's time to make your decision. There may be an obvious choice or there may be several options. For example, if it is clear your property is good for late navels, then you'll have to choose from 10 late navel selections in California.

## 8. CHOOSE A ROOTSTOCK.

There are four primary rootstocks used in new plantings in Central California – Carrizo, C-35, trifoliolate and Volkameriana – all have characteristics that are unique and all influence specific varieties differently. At TreeSource, our job is to help you with this decision and it is important you know your soil conditions well. Newer technology that uses GPS can define what kind of soil you have in a very specific and affordable way. A soil consultant like Jim Yager of Impact Technologies (559-259-4523) can help you define your soils, which will help TreeSource advise what rootstock is best.

## 9. DETERMINE TREE SPACING.

Many people place the spacing decision at the top of their list, but spacing is a result of the variety and rootstock combinations. Certainly economics comes into play on whether a grower chooses a double-density planting over a traditional planting, but spacing is also influenced by tree vigor. Table 2 categorizes varieties and rootstocks and indicates their relative vigor. For more information and discussion, contact TreeSource regarding this important decision.

Having a lot of choices is nice, but can be

confusing. At TreeSource we are always here to help you through the process of finding that specific variety that suits your needs best. Deciding what to plant is tough, but

when you step back and go through the process of defining specific circumstances that relate to your property, the choice that best suits you will become obvious. ☺

### TABLE 2 Vigor Ratings for Common Cultivars

CULTIVARS	COMMON ROOTSTOCKS USED			
	TRIF.	C-35	CAR.	VOLK.
<b>Most Navels</b>	3	3	4	5
<b>Fukumoto Beck</b>	2	X	3	4
<b>Valencias</b>	3-4	3-4	4-5	5
<b>Lisbon Lemon</b>	5	5	6	7
<b>Minneola</b>	4	4	4	X
<b>Oroblanco</b>	3	3	4	X
<b>Melogold Pummelo</b>	5	5	6	X
<b>Clementines</b>	3	3	3	X
<b>Owari Sat. Dobashi Beni</b>	2	2	3	X
<b>Okitsu Wase</b>	1	1	1	X

X=Not Recommended

### Single density spacing suggestions for various vigor ratings of main citrus soils

SCION/ROOTSTOCK VIGOR RATING	SOIL VIGOR RATING		
	+	0	-
<b>1</b>	14 x 18	14 x 18	14 x 17
<b>2</b>	16 x 18	15 x 18	18 x 18
<b>3</b>	17 x 20	18 x 18	16 x 18
<b>4</b>	20 x 20	18 x 20	18 x 20
<b>5</b>	22 x 22	20 x 22	18 x 22
<b>6</b>	22 x 22	22 x 22	20 x 22
<b>7</b>	22 x 22	22 x 22	22 x 22

+ Virgin citrus soil, light soils such as sandy loams.  
 0 Virgin citrus soil that is heavy adobes. Replant sandy loam soils.  
 - Heavy Adobe replant soils.

### TABLE 1 Examples of Influences on Harvest Period

	EARLY HARVEST	MID-SEASON	LATE HARVEST
<b>SOIL</b>	Sandy	Loams	Clay
<b>SOIL DEPTH</b>	Shallow Soils	Medium to deep	deep
<b>GEOGRAPHY</b>	Kern County	Tulare, E. Fresno County	Madera, E. Ventura County
<b>ROOTSTOCK</b>	Carrizo (early color)	All types	Trifoliolate (internal quality)
<b>TOPOGRAPHY</b>	South or West Facing Slopes	Flat	North Facing
<b>WATER</b>	No frost water		Higher Nitrates
<b>NAVELS</b>	Fukumoto, Rush, Beck, etc.	Atwood, Parent, Cara Cara, etc.	Powell, Autumn Gold, Barnfield, etc.
<b>MANDARINS</b>	Satsumas, Clementines, etc.	W. Murcott, Tahoe Gold™	W. Murcott, Gold Nugget, Shasta Gold™
<b>GRAPEFRUIT</b>	Oroblanco	Melogold	Star Ruby

(This table is only a basic guide. It is not designed to detail every possible influence)





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1200 Atwood Navel / trifoliolate  
4000 Autumn Gold / trifoliolate  
300 Beck Navel/C-35  
900 Barnfield Navel/trifoliolate  
750 Cara Cara Navel/C-35  
975 Chislett Navel/Carrizo  
1600 Chislett Navel/trifoliolate  
1500 Fisher/trifoliolate  
4000 Parent/trifoliolate  
5000 Powell Navel/trifoliolate  
150 Fingered Citron/Volk  
200 Torocco Blood/Carrizo  
190 Oroblanco/Carrizo  
125 Seedless Lemon/Carrizo  
370 Owari Satsuma/C-35  
3500 Tahoe Gold™/Carrizo  
4200 W. Murcott/Carrizo  
200 Olinda Val./RbTxAFSh

### Available for May-July 2005 or Spring 2006

#### NAVELS

5000 Atwood/ Car  
10000 Atwood/trifoliolate  
2600 Autumn Gold/Car  
14000 Autumn Gold/trif.  
3200 Autumn Gold/C-35  
2400 Cara Cara/trifoliolate  
2900 Cara Cara/C-35  
1200 Chislett Late/trifoliolate  
5000 Fukumoto Early/Carrizo  
7600 Parent Wash./Carrizo  
25000 Parent Wash./trifoliolate  
4720 Parent Washington/C-35  
11000 Powell Late/Carrizo  
37000 Powell Late/trifoliolate  
4000 Rush T.I. Early/C-35  
1000 Spring/trifoliolate

### MISC.

1100 Chandler Pummelo/C-35  
4800 Minneola Tangelo/Trif.  
2000 Minneola Tangelo/Car.  
800 W. Murrott/C-35  
3800 8A Lisbon Lemon/trif.  
3400 Shasta Gold™/C-35  
1700 Tahoe Gold™/C-35

### OTHER CHOICES for 2006

Rush T.I. Early Navel  
Wiffen Late Navel  
Yosemite Gold™ Mandarin  
Gold Nugget Mandarin  
Star Ruby Grapefruit  
Melogold Grapefruit

**Check out our website at [www.citreesource.com](http://www.citreesource.com) for a listing of all of our choices**  
Call Roger Smith at 559-804-6176 or Patty Dreyer at 559-592-2304 for availability of trees and rootstock combinations.

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