

Lisa Lieberman.



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Early Varieties: Are the Benefits There?

THE TOMATO MAGAZINE
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Tomato Industry Continues to Study Potential Benefits of Early Varieties

By Lisa Lieberman



Tomato harvesting operation underway. Photo courtesy of Lisa Lieberman

When it comes to new tomato varieties, any grower's dream variety would be one that harvests early, stores well in the field, has good yield, high soluble solids and is resistant to diseases like powdery mildew and tomato spotted wilt virus. The industry isn't quite there yet in terms of creating the perfect variety. But, each year, it seems to be getting closer.

Take early tomato varieties for instance. For a long time, growers thought that early-maturing varieties would produce lower yields and less desirable fruit quality than full-season varieties. However many early maturing varieties have a lot of appeal, according to Gene Miyao, University of California Extension farm adviser for Sutter, Sacramento and Yolo Counties.

More than Just Earliness

"People used to think that the main advantage of early varieties was just earliness, and there was a price to be paid in low soluble solids. But, many early maturing varieties are very high yielding and have good fruit quality characteristics," Miyao says.

Early varieties also give the grower a seven- to 10-day shorter grower season which means that plants get less exposure to pests and diseases pressures. And in the event there are problems with stand establishment or problems because of rain delays, growers can always make up for lost time with early varieties, Miyao says. There's also the potential to double crop, he continues. Growers could potentially follow an early wheat crop or another type of early maturing crop with a planting of tomatoes.

"Growers prefer to have a shorter season and if they can achieve equivalent results with less weather risks and less exposure to pest problems, and the chance to double crop, that's always a plus," Miyao says.

Joe Rominger from Winters, Calif., grows early varieties on his farm, including Shasta, which is 108 to 110 days and Apt410 which is 110 days to 114 days. Rominger, who grows tomatoes in the lower Sacramento Valley, says that he's in the ideal microclimate for early varieties.

"We have nice hot pockets here, so we have a niche in the early market and are usually the first ones arriving at the cannery," Rominger says. "The advantage is that we get the early contracts and we don't get as much exposure to pests and bad weather. The disadvantage is that we don't always get the high yields that other growers with the 130- to 140-day varieties get."

Grower Interest Remains High

Growers are still interested in early varieties, although there haven't been many new early varieties that have come out in the past couple of years, says Scott Picanson, a sales representative for TS & L Seeds. However, some growers who live in warmer areas of California, such as Kern County, can take a mid-season variety like Sun6366 and plant it earlier.

"Growers in these microclimates can grow these varieties earlier and harvest them sooner, without having to use early varieties," Picanson says.

Last year in California, Sun6366 was the most widely planted variety, Picanson says.

"Sun 6366 has got really good fruit sugars, high production and a little bit of earliness," Miyao says.

The good news about Sun 6366 is that it

also seems to have a certain level of powdery mildew tolerance.

"For the last couple of years, we've had high powdery mildew disease pressure, and this variety looks like it might have had a little bit of tolerance to it," Miyao says.

One relatively new variety that seems to show some powdery mildew tolerance is CXD255, Picanson says.

"I say tolerance, because there aren't any resistant varieties yet," Picanson acknowledges.

The CXD255 variety also seems to have some extended field storage characteristics that should be appealing to growers and processors.

Three other varieties—AB314, PX650 and Heinz 8504—also seem to have high yields with EFS characteristics that work well in the mid to late seasons, Picanson says.

Scott Stoddard, a farm adviser for the University of California Cooperative Extension in Merced and Madera counties, says that there are other new varieties on the horizon that might be resistant to diseases, such as tomato spotted wilt virus (TSWV). These TSWV varieties have successfully been used in other parts of the country, but haven't been widely tried in California yet, Stoddard says.

"We haven't needed these varieties because TSWV is a relatively new problem," Stoddard says. "But now we're going to test these varieties to see if they will work in California."

Varieties with Higher Lycopene

In addition to looking at powdery mildew resistant varieties, breeders are also spending time working on developing varieties that have higher lycopene levels—an important health benefit of tomatoes—and also tomatoes that have lower Ph levels. The lower Ph levels have gotten to be a bigger concern over the past several years, ever since growers began switching from furrow to drip irrigation, Stoddard says.

"Increased production (because of drip irrigation) means that Ph levels have been creeping up across the board," Stoddard says. "When you're getting 50 tons an acre on a field that used to get 35 tons, you have more acidic stress in the fields," Stoddard says.

Because of varying Ph levels, processors sometimes need to add acid to tomatoes at the processing plants.

"And that's something we would rather not have to do," Stoddard says. 🍅



A photo of this year's UC tomato variety trials. Photo courtesy of Lisa Lieberman



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2011 Buyers' Guide

RESEARCHERS LOOKING AT NEW VACCINE TO CONTROL CURLY TOP VIRUS

By Lisa Lieberman

Curly top virus (CTV), one of the most damaging tomato diseases in California, has been a problem for growers since at least the mid 1990s. The disease, which is vectored by sugar beet leafhopper, stunts tomato plants and can decrease yields anywhere from 10 to 70 percent. Up until now, the main defense growers have had against the disease has been a government spray program which knocks back leafhoppers and keeps the disease in check.

“But it’s likely that the government spray program will eventually be discontinued for economic and environmental reasons,” said Bob Gilbertson, a University of California, Davis plant pathologist.

Damages Running High

This could end up causing a real problem for growers, especially in the foothills of the San Joaquin Valley where the leafhoppers and CTV are most prevalent. As an example of the damage the disease can do to the industry, CTV caused \$20 million in damage in the 2008 season when the state temporarily suspended

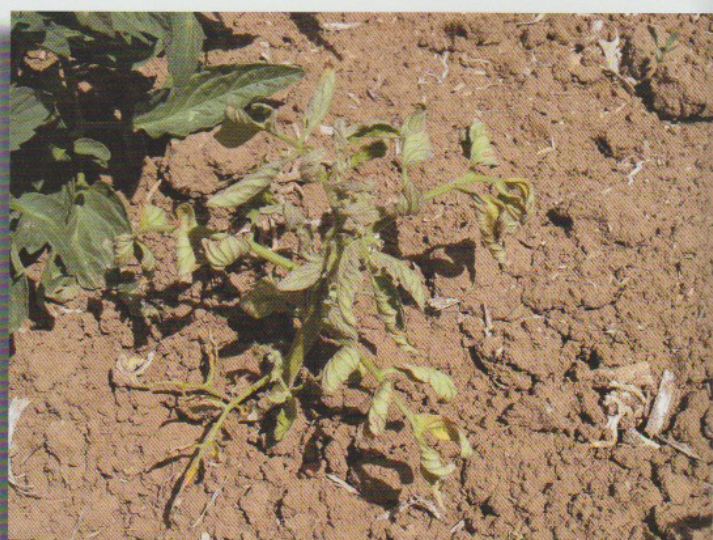
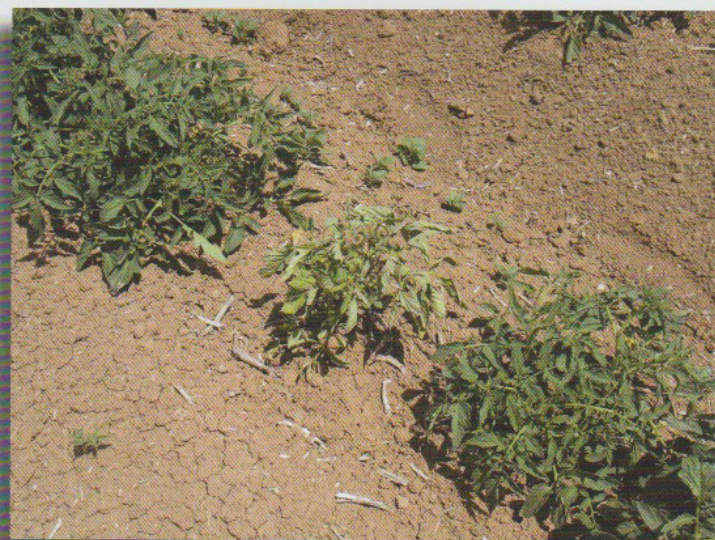
the spray program due to environmental reasons, says Jim Rudig, project supervisor for the CDFA’s CTV Control Program.

“And that was just one growing season,” Rudig says.

The beet leafhoppers, which vector the disease, overwinter in the foothills and then spread during the spring as the insects migrate to Valley crops. CTV can be taken up by tomatoes, sugar beets and 300 other plant species within an hour after initial contact. The virus is actually composed of four species known as the curtoviruses and including beet curly top, beet severe curly top, beet mild curly top and pepper yellow spot.

Over the years, the industry has developed CTV resistant varieties of sugar beet. However, since no CTV resistant tomato varieties have been developed, tomato growers still rely heavily on the government spray program.

Now researchers are looking at the possibility of creating a new type of vaccine that would essentially



Curly Top Virus is one of the most damaging tomato diseases in California. Photo courtesy of Bob Gilbertson, UC, Davis

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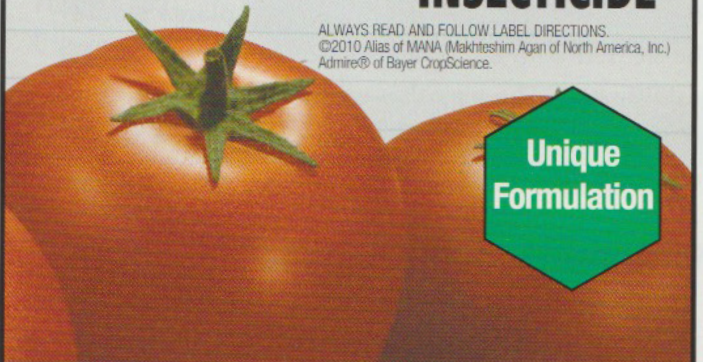
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A Meister Publication

The supermarkets that have organics in both their grocery and produce department seem to attract more customers.

The Organic Price

Organics continue to grow in popularity.

By Lisa Lieberman
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Despite higher food prices these days, the good news for the organics industry is that the demand for organic produce continues to increase.

"Conventional food sales rise one or two percent a year while organics have been rising about 20% a year since the 1990s," says Ronnie Cummins, national director of the Organic Consumers Association [www.organicconsumers.org] in Finland, MN.

That 20% may soften slightly with the economic turndown this year. "But people who are committed to buying organic produce are going to keep buying organic," Cummins says.

In general, there are two types of organic produce buyers — the occasional buyer and the core buyer, Cummins says.

"The core organic consumers are cutting back on eating out and on buying processed organic foods, but they're not cutting back on organic fruits and vegetables, since it's such an essential part of their belief systems," Cummins says.

Ironically, the recent increases in overall food prices may actually boost organic sales, says Bob Scaman Jr., president of Goodness Greeness [www.goodnessgreeness.com] in Chicago, IL.

"Commodities are at an all-time high across the board, whether you're talking about organics or conventional, and the gap between organic prices and conventional prices has dramatically closed," Scaman says.

So, if people have to pay higher prices for both organics and conventional, it's easier to make the decision to spend a little more for organics, Scaman says.

Not only are people buying more organic produce, but they're also buying a wider variety of organic produce, says Samantha Cabuluna, director of communications for Earthbound Farm/Natural Selection Foods in San Juan Bautista, CA.

"We've noticed that the longer consumers have been

buying organic produce, the more adventurous they get and the more they're looking for more gourmet or exotic kinds of items, such as mache or arugula," Cabuluna says.

"Conventional food sales rise one or two percent a year while organics have been rising about 20% a year since the 1990s"

Ronnie Cummins

Organic Consumers Association Director, Finland, MN.

Robert Schueller, communications director at Melissa's World Variety Produce [www.melissas.com] in Los Angeles, says that organics is one of the fastest growing divisions at Melissa's.

"About 60% of all the new products we've been introducing have been organic," Schueller says.

One reason the organic produce category is growing so fast is because there's also a greater availability of organic food items in the grocery section of supermarkets.

The supermarkets that have organics in both their grocery and produce department seem to attract more customers since they're filling more people's needs, Schueller says.

"Organic shoppers strive to buy organics throughout the store, not just at the produce level. In the past, shoppers were willing to go to several different stores to buy their groceries and produce. But in the past couple of years with gas prices rising, more retailers are trying to offer consumers more of a one-stop-shop shopping experience." Between increased availability and more comparable prices, 2009 could be a very good year for organics. 🍌

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Consumers demand more niche tomato varieties.



By Lisa Lieberman
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While California is best known for its mature green, roma and yellow tomatoes, there's been a growing demand for more "unique" tomatoes, "whether it's shape, color or some sort of other uniqueness to them," says Jeff Dolan, field manager for the DiMare Co. in Newman, CA.

For large scale producers like Dolan, it's challenging to come up with open field production systems to grow some of these unique varieties since most niche tomato varieties are grown on smaller scales or in hothouses. "But that doesn't mean that we're not trying," Dolan says.

Bill Wilber, president of Oceanside Produce, Oceanside, CA, says his company mostly does vine ripe tomatoes. "We don't do any mature greens. We grow round tomatoes on poles and aim to have them ripen naturally from the inside out."

The overall trend in the US is that mature greens are used for foodservice while vine ripe and roma are sold at retail, reports Wilber.

While consumers continually hunger for something different, it's still the traditional round and roma tomatoes that account for the bulk of tomatoes on retailers' shelves.

Competition for these markets are stiff, though, especially since there's

year-round supply available from Mexico and steady supplies from Midwestern states in the US during the summer months.

"It's ironic that when you go into California stores, there's an absence of California tomatoes. I think there's a lot of talk about buying local and sustainability, but at the end of the day, especially on the retail end, it comes right down to price," Dolan says.

Dolan is part of the California Tomato Growers Exchange, a cooperative that was formed almost three years ago and produces 85% of the state's tomatoes.

Harry Singh & Sons' tomatoes are sold and marketed by Oceanside Produce, CA.



In search of unique tomatoes

Heirloom tomatoes are becoming increasingly popular at retail stores for customers who are looking for something different, says Robert Schueller, assistant marketing director at Melissa's World Variety Produce, Inc., Los Angeles, CA.

"Heirlooms are the biggest trend in the tomato category," Schueller says. "People know more about them because they've seen them at their farmers' markets and they want to be able to buy them at retail stores."

As a result, heirloom tomatoes have become more popular at upscale as well as more mainstream stores.

In addition to the well known Brandywines, Green Zebras, and Purple Cherokees, in the past few seasons, there have also been heirloom cherry, tear drop, and strawberry shaped tomatoes. "These salad sized heirloom tomatoes are some of the newest things in the market," Schueller says. "They used to be available in the summer months. Now, they're also available in fall and winter."



Photos courtesy of Melissa's World Variety Produce, Inc.

"The tomatoes that we grow are grown to a higher standard than other California tomatoes. We have the only government-mandated food safety inspection program in the state," Dolan says.

With this comprehensive food safety program, Dolan hopes to expand his California markets as well as markets in the rest of the country.

"We now have a number of major customers in North America mandating that their repackers supply them only with tomatoes that come from the California Tomato Growers Exchange, not only because of the food safety program, but because of the supply and the quality amongst the members of the cooperative," Dolan says. 🍅

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#1, 2009 Series
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Good, Ripe

and Ugly

See to Servings

Good tomato flavor comes in all sizes and shapes.

By Lisa Lieberman
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Whoever first said “looks aren’t everything” must have been thinking about tomatoes. Take the UglyRipe™ tomato, for instance. It’s misshapen, has a concave stem, ridged shoulders and cracks coming from the stem end. In short, it’s not pretty to look at, but it is — many people say — delicious to eat. “It’s a tomato that tastes like a tomato and reminds people of the tomatoes their grandparents used to grow in their backyards,” says Chris Cunnane, national sales director for Santa Sweets Inc., the exclusive producer of this variety.

Until recently, flavor was not the most important consideration when breeding new tomato varieties. Uniform good looks, high yields, and good shelf life were the primary factors. But now consumers are more concerned about flavor and are willing to experiment with all different sizes and shapes of tomatoes to get it. “In the past, people used to pick fruits and vegetables by how good they look. Now, in certain demographics people are picking fruits and vegetables by how good they don’t look,” Cunnane says.

Santa Sweets Inc. [www.santasweets.com] is the exclusive grower and packer of UglyRipe™ tomatoes, grown in Florida, New Jersey and North Carolina. The UglyRipe™ is a beefsteak heirloom variety tomato with a thin skin and a rich, meaty flavor, crossed only once for disease resistance. Since UglyRipe™ is “ugly,” it was a challenge at first getting them into stores. “But once people try them, they like them,” Cunnane says. “For most of the past five years, demand has exceeded supply.”

In addition to UglyRipe™ and other heirloom varieties, grape tomatoes have also been big sellers in the tomato category, reports Douglas Kling, senior vice president of sales and marketing at Village Farms, Eatontown, NJ.

Kling points out that because grape tomatoes are so small and so high in sugar, they’re perfect for snacking and for salads. The big challenge with grape tomatoes, though, is consistency. Recently, Village Farms released its new grape tomato Hydrobites™, which has high brix levels, a strong shelf life and more consistent flavor.

“We just launched these in the Southwest and we’re slowly fazing them into the rest of the country,” Kling says.

While sales of hydroponic and hothouse tomatoes continue to remain high, Gary Hodge, president of Ripe Thing! of Crescent Springs, KY [www.ripething.com], maintains that particularly because of growing food safety concerns, field grown vine ripened tomatoes still have their place at retail.

Photos courtesy of Ripe Thing!



Ripe Thing! tomatoes are grown the old fashioned way — in the dirt and in the sun and left on the vine, until they reach peak color and flavor.

“Hot house tomatoes used to have great flavor, but they’re expensive to grow, so growers have sacrificed flavor in favor of higher-yielding varieties. Our whole marketing niche at Ripe Thing! is that we grow tomatoes the old fashioned way — in the dirt and in the sun. And we leave them on the vine until they reach peak color and have a great flavor,” Hodge says.

Truly vine-ripened tomatoes and other varieties grown more for flavor than yield may ultimately cost consumers more. The question is, how much are consumers really willing to pay for good tasting tomatoes?

“Consumers are getting choosier with their produce in this economic climate,” explains Cunnane. “We’ve found that many people are still willing to buy the ‘higher end’ tomato varieties if they perceive they are still a value, which means working with retailers to advertise at lower prices and reduce regular retails when market opportunities are present.”