



**Organic Seed Alliance**

*Advancing the ethical development and stewardship of seed*  
PO Box 772, Port Townsend, WA 98368

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# 2012 California Organic Variety Trial Report

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## INTRODUCTION

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In 2012 Organic Seed Alliance conducted variety trials in Arcata, CA, and in San Juan Bautista, CA. Between the two locations, we evaluated close to 100 varieties, including varieties of broccoli, kale, Swiss chard, green beans, and Japanese cucumber. Data were collected throughout the summer and fall.

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## MATERIALS AND METHODS

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### *DeepSeeded Community Farm*

DeepSeeded Community Farm is located in the bottoms of Arcata, CA, on silt loam soil. Arcata experienced a cool, foggy summer in 2012, with high temperatures in June, July, August, and September of 63° F, 65° F, 68° F, and 68° F, respectively.

We evaluated 10 varieties of broccoli, 13 varieties of green beans, and 9 varieties of Japanese cucumbers.

We planted two replications of each set of varieties, which means that each of these varieties was planted twice, in two different parts of the field. All of the varieties were planted from June through July (see the trial data at the end of this report for specific planting dates). They were planted at normal spacing for DeepSeeded. The beds were of a standard width and had ample fertility. All cultural

methodology was done using DeepSeeded's standard practices.

Data were collected using measurements or by visual scoring using a 1 to 9 scale where 1 was always the poorest score for any particular trait and 9 was the best score.

### *Coke Farm*

Coke Farm is located in San Juan Bautista, CA, in the San Juan Valley. The trial site was on clay soil. San Juan Bautista's weather in August and September was slightly below normal, with the August high of 76° F and a September high of 76° F. However, San Juan Bautista experienced a late heat wave in early October, reaching 101° F on October 2nd.

We evaluated 8 varieties of broccoli, 12 varieties of green beans, 17 varieties of Swiss chard, 8 varieties of kale, and 21 varieties of lettuce.

We planted two replications for most varieties. These replications were planted as successions, approximately two weeks apart. All of the varieties were planted from the beginning of August through the beginning of September (see the trial data at the end of this report for specific planting dates). They were planted at normal spacing, with standard width beds and ample fertility. All cultural methodology was done using standard organic farming practices.

Data were collected using measurements and scoring on a 1 to 9 scale as we did in Arcata.

For more information on conducting on-farm variety trails, you can download OSA's free publication: *On-farm Variety Trials: A*

*Guide for Organic Vegetable, Herb, and Flower Producers*, available at <http://www.seedalliance.org/Publications/>.

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## RESULTS AND RECOMMENDATIONS

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For these trials, the results with recommendations will be described in a location-by-location and crop-by-crop fashion. The varieties that we recommend are based on the conditions in which they have been tested. Trials represent an annual “snapshot” of variety performance. The following recommendations are based primarily on the results of the 2012 trials.

### ***DeepSeeded Community Farm***

#### ***Japanese Cucumbers***

We rated Japanese cucumbers based on their appearance, flavor, marketable fruits, and weight. ‘**Summer Dance**’ was overall the best performing variety, combining good appearance and flavor with solid yields. ‘**Summer Top**’ performed slightly



*Eddie Tanner explaining the cucumber variety trial during a field day at DeepSeeded Community Farm*

less well, but was also an overall good choice. We had two open-pollinated varieties in the trial: ‘Japanese Climbing’ and ‘Yamato Sanjaku.’ ‘Japanese Climbing’ was very disappointing in this trial, producing almost no fruits. At first we were also disappointed with ‘Yamato Sanjaku’ because of its intense bitter flavor. However, once we realized that they taste quite good *as long as they are harvested early*, they produced abundant yields. If you do consider growing ‘Yamato Sanjaku,’ keep in mind that the fruit type is not standard – instead they produce long, curved fruits.

#### ***Green Beans***

The green bean traits that Eddie Tanner of DeepSeeded Farm was most concerned about were straight pods throughout the fruit set, white mold resistance, flavor, and yield over a two-week harvest window. Oregon State University (OSU) public plant breeder Jim Myers has developed several new lines of green beans based on the ‘Bush Blue Lake’ type. Myers’ ‘**OSU 5402**’ stood out in this trial, yielding well over both weeks of harvest, as well as having good flavor and appearance. However, its texture was slightly tougher than some of the more tender varieties like ‘Pike’ or ‘Savannah’. The OSU line ‘OSU 5630’ also performed adequately, but we would not recommend ‘OSU 91G’ in similar climates due to its susceptibility to *Botrytis* mold. Of the commercially available varieties, Harris Moran’s ‘Pike’ and ‘Lewis’ were the overall best performers.



## ***Broccoli***

DeepSeeded produces broccoli for its CSA shareholders using a dense 15" hexagonal spacing. On this farm the broccoli needs to be able to produce full heads at that density. The broccoli also needs to be able to hold in the field in order to accommodate the timing of CSA harvests. The broccoli field experienced fairly severe bacterial soft rot pressure over the course of the trial, getting worse later in the season. The earliest varieties, 'OSU Composite' and 'Umpqua,' were harvested early enough to avoid the soft rot. Otherwise all the other varieties showed soft rot damage. Although this was not a controlled disease trial, 'Gypsy' and 'Premium Crop' seemed to be the most susceptible. Overall, **'Green Magic'** was the best performer among the early maturing varieties, **'Belstar'** and **'Arcadia'** were the best performers for mid-maturity, and **'Imperial'** was the best performer for the late season.

## ***Coke Farm***

### ***Swiss Chard***

We evaluated four color classes of Swiss chard for bunching: red, green (white stem), gold, and multicolor. The traits we were most concerned about included stature (how upright the leaves were), petiole thickness, petiole color, leaf color, degree of leaf savoyedness, and height.

Red: Finding a consistently good performing red chard has become problematic over the last few years. All strains of 'Rhubarb' or 'Ruby' seem to have a higher percentage of early bolters and green plants than they used to. The 'Rhubarb' strains from Omega

and Terra Organics had several bolters by mid October, which demonstrates extreme bolting susceptibility considering that this trial was planted in early August and temperatures there rarely go below 55 degrees at that time of the year in the mid-coast region! (It is usually repeated temps below 50 degrees that causes premature bolting in biennials.) The only 'Rhubarb' w no bolters was the **Alf Christianson 'Rhubarb'** strain, though it is bolting early in many other locations. It is also plagued with a fairly high proportion of green plants. Alf Christianson's new experimental hybrid chard, 'BEF236', had nice upright leaves, tall plants, and bright green leaves: all important traits. Unfortunately, the petioles were narrow with a curve that is reminiscent of a celery stalk that would not make a handsome bunch. 'BEF236's petioles are also a paler red with some light stripes that make it look like beet stems. OSA's breeding population 'Fire Engine Red' had petioles that were very thick with a good solid red hue; however, the color is still too variable with a mix of vibrant magenta colors. Another drawback at this time is that the



*Swiss Chard variety trials at Coke Farm*

leaf stature is still too short and the leaves did not retain a dark green color late into the harvest season (December).

**Gold:** All of the gold chards currently on the market have too much petiole color variation in the stems. This held true for the two varieties evaluated in our test. The golds are also more susceptible to leaf spotting diseases than most of the other colors. In this trial the **'El Dorado'** plants had less disease symptoms. They were also slightly taller with more and larger leaves than **'Golden'** from Wild Garden Seeds.

**Green:** **'Fordhook Giant'** has long been the standard variety of this stalwart crop with large savoyed leaves and snow white petioles. The problem is that all of the strains of this variety seem to have lost vigor and much of their savoyedness in the recent past. Of the three **'Fordhook'** strains that we grew, **Alf Christianson's 'Fordhook'** was the tallest with the best savoyed leaves, though it was still too variable for serious commercial growers and exhibited more disease symptoms than the other two versions. All three versions also had a percentage of plants with greenish stems that would ruin a bunch where white stems are expected. **'Silverado'** is cosmetically the best overall green chard, with its snow white broad petioles and dark green savoyed leaves. Unfortunately, **'Silverado'** has two serious flaws: 1) it lacks vigor, which results in plants with a shorter stature and a slower regrowth when stripping leaves for bunching, and 2) it is very susceptible to several leaf spotting diseases which can make the crop un-sellable. In this trial both of these defects were obvious.

**Multi-colored:** Of the three rainbow chards, the industry standard, **'Bright Lights'**, was overall the best, with a good range of colors, green leaves, and decent height. The newest entry **'Celebration'** lacked the full range of colors possible, with a dichromatic mix of various red hues and gold-orange hues. The petiole thickness of **'Celebration'** was also disappointing as it was narrower than **'Bright Lights'**.

### ***Lettuce***

We looked at three broad classes of head lettuce in our trials at Coke Farm: red leaf, green leaf, and romaine. The traits we evaluated in our lettuce trials at Coke Farm included size and growth rate, color quality, savoyiness and blister, uniformity, and flavor. We also noted any obvious signs of downy mildew (*Bremia lactucae*), red aphids (*Nasonovia*), and an early season die-off syndrome that may have been lettuce drop (*Sclerotinia*). Although many of the varieties we evaluated showed some degree of susceptibility to downy mildew, very few were so damaged as to be unmarketable as head lettuce.

**Red Leaf:** **'Ruby Sky'** was an overall great performer, large, uniform, with nice blistering and excellent resistance to red aphids. **'Merlot'** had the best color of the trial, a deep brilliant red. **'Antaris'** was large and very sweet for a red leaf lettuce. However, its variability limited the number of heads that Coke Farm felt it could market.

**Green Leaf:** **'Starfighter'** was the overall best green leaf lettuce, growing large, uniform, and rich green heads.

Romaine: **'Holon'** had excellent, sweet flavor, and produced large, uniform heads. It does have a very light green/yellowish color. The best dark green variety was **'Crisp Mint,'** which, while less uniform than some of the standard varieties, rapidly grew nicely colored heads with decent flavor.

### ***Green Beans***

The traits that we considered when evaluating green beans at Coke Farms were plant height, yield, flavor, color, and tenderness. **'Valentino'** far and away out-yielded the other varieties in this trial, yielding nearly 50% more beans than the runner-up **'Savannah.'** However, 'Valentino' was lacking in flavor and tenderness, while 'Savannah' was flavorful and tender. Unlike in the DeepSeeded green bean trials, none of the three new OSU lines did well at Coke Farm.

### ***Broccoli***

The broccoli varieties in the Coke Farm trial suffered extensive flea beetle damage in their early growing period. Although the plants did recover, they produced smaller than normal heads. When interpreting the results, keep in mind that these varieties were evaluated based on their performance in these adverse conditions, which, hopefully, will not be typical of your farm. Of the varieties evaluated at Coke Farm, **'Gypsy'** produced the greatest proportion of marketable heads, with good, tight beads and nicely shaped heads. 'Green Magic' also did well in the first planting, although many of the plants in the second planting had still not produced heads at the time of evaluation.



*Broccoli variety trial at Coke Farm*

### ***Kale***

The majority of the kale trial at Coke Farm consisted of the Lacinato (sometimes called "dinosaur") kale types, although we did evaluate two standard green curled kales for comparison. The kales suffered from strong flea beetle pressure, with some varieties appearing more susceptible than others. The kales were evaluated for their vigor, height, and insect resistance.

**Green Curly:** Both curly green kales showed very little flea beetle damage. Of the two kales we evaluated, the old standard variety **'Winterbor'** was the more vigorous and taller.

**Lacinato:** This trial was an incredible opportunity to observe the range of phenotypic or physical differences between a series of open-pollinated strains (and one hybrid) of what most people think of as essentially one variety. As much as any trial we have ever conducted, this trial demonstrated the real performance differences that can exist in different strains or versions of the same crop type or variety. This trial was planted on the edge of a field w

what appeared to be extreme flea beetle pressure near the road. The two varieties most affected by the insect damage were 'Lacinato' from Omega and 'Nero di Toscano' from Ansemi, and this was true in the replicates of these varieties that were away from the road! In contrast, **Wild Garden Seed's 'Lacinato'** exhibited significantly less insect damage near the road than all of the other varieties and was virtually free of symptoms away from the road. It also scored higher than 'Black Magic', the new hybrid that only scored in the mid-range for resistance to these flea beetles, which was in the same range as 'Toscano' from Johnny's. Indeed, Wild Garden Seed's 'Lacinato' produced nice sized plants with excellent vigor and long, harvestable leaves in a trial where several varieties did not produce any harvestable product due to the insect pressure.

All of the trait values are averages across all replications for which we collected data. Values colored green are within 20% of the highest value for that trait. Values colored red are within the lowest 20%.

The comments are recorded in the following format: "Comments for first replication; comments for the second replication."

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## TRIAL DATA

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### *How to read the trial data*

On the following pages you'll find the complete trial data collected by our evaluators.

Most of the traits are scored on a 1 to 9 scale, where 1 is the poorest score for any particular trait and 9 is the best score. A few traits, such as yield, were measured. In those cases, the units will be on the data sheets.

A checkmark (✓) indicates a variety that stood out in this trial.



Evaluation: Harvest Evaluation

Planting Date: 7/27/2012

Evaluation Date: 10/1/2012

Crop Type: Japanese Cucumber

Location: Arcata, CA

Farm: DeepSeeded Community Farm

Evaluator: Eddie Tanner and Jared Zystro

	Source	Variety	Appearance (1-9)	Flavor (1-9)	Total Marketable Fruit per plant (lbs)	Total Weight per plant (lbs)				
	Kitazawa	Tasty Queen	7.00	8.00	1.43	0.84				
	A little thick, uneven, no bitter, spongy; Fat, even, pretty straight, little sweet, soft									
✓	Kitazawa	Summer Top	8.00	7.50	1.44	0.91				
	A couple were pinched & curly but most were nice, crisp, no bitterness, interior soft; Dark, smooth, curly, crisp, great texture, mild flavor, a little bland									
	Seed Savers Exchange	Japanese Climbing	2.50	3.00	0.12	0.05				
	Pickle looking, crisp, bland, no bitterness, watery; Bland, crisp, little sour, similar flavor to watermelon rind									
	Kitazawa	Southern Delight	9.00	7.00	1.50	0.78				
	Only one plant in plot, no bitterness, a little less sweet, skin harder to bite; Dark, crisp, sour									
✓	Kitazawa	Summer Dance	8.50	8.00	1.74	1.02				
	Some curl, even diameter, crisp, a little sour, not as sweet but good, no bitterness; Ground spots, juicy, sour, little sweet, crisp									
	Kitazawa	Tasty Green	5.00	5.50	1.09	0.70				
	Straight but pinched, spongy, a little sour; Pinched, long, spongy, a little bland									
	Kitazawa	Soarer	5.50	7.50	0.63	0.36				
	Pinched, sweeter, florally; Pinched, spongy, mild									
	Kitazawa	Tasty Jade	5.00	9.00	1.70	0.97				
	Thick, bulbous, crispy, sweet, juicy; Little pinched, crisp, a little sour									
	Kitazawa	Yamato Sanjaku	1.00	4.50	0.97	0.51				
	Not to type, skinny, curly, yellow. Bitter! Need to only harvest small fruits; Long, curvy, does not meet appearance criteria, crisp, sweet if harvested young									

Evaluation: Harvest Evaluation

Planting Date: 7/11/2012

Evaluation Date: 10/8/2012

Crop Type: Bush Green Beans

Location: Arcata, CA

Farm: DeepSeeded Community Farm

Evaluator: Eddie Tanner and Jared Zystro

Source	Variety	Weight - 1st Pick (lbs)	Weight -2nd Pick (lbs)	Total Weight (lbs)	Flavor (1-9)	Appearance (1-9)	Texture (1-9)
Johnnys / Novartis	<b>Jade</b>	<b>3.19</b>	<b>2.93</b>	<b>6.12</b>	<b>4.00</b>	<b>9.00</b>	<b>6.00</b>
Large, some curl, even diameter, bland;							
Harris Moran	<b>Crockett</b>	<b>0.62</b>	<b>3.59</b>	<b>4.21</b>	<b>7.00</b>	<b>7.00</b>	<b>8.00</b>
Not mature, even diamter, some curl, straight in 2nd pick;							
Osborne / Harris Moran	<b>Caprice</b>	<b>2.95</b>	<b>1.82</b>	<b>4.77</b>	<b>3.00</b>	<b>3.00</b>	<b>4.00</b>
Lumpy, short, hard to bite, beany;							
Harris Moran	<b>Savvanah</b>	<b>0.64</b>	<b>1.35</b>	<b>1.99</b>	<b>7.00</b>	<b>6.00</b>	<b>8.00</b>
Not mature, some bulbous, uneven maturity;							
Oregon State	<b>OSU 5630</b>	<b>5.96</b>	<b>3.52</b>	<b>9.48</b>	<b>5.00</b>	<b>7.00</b>	<b>6.00</b>
Even, pale, matte, straight in 2nd pick;							
High Mowing / Asgrow	<b>Bronco</b>	<b>1.52</b>	<b>1.31</b>	<b>2.83</b>	<b>2.00</b>	<b>1.00</b>	<b>5.00</b>
Botrytis mold, pale, short, curled, bulbous;							
Harris Moran	<b>Pike</b>	<b>2.63</b>	<b>4.34</b>	<b>6.97</b>	<b>5.00</b>	<b>7.00</b>	<b>9.00</b>
Long, even, glossy, some curl, bland, straight in 2nd pick;							
Osborne / Harris Moran	<b>Lewis</b>	<b>4.82</b>	<b>2.40</b>	<b>7.22</b>	<b>7.00</b>	<b>7.00</b>	<b>5.00</b>
Some bulbous, straight;							
Johnnys	<b>Fresh Pick</b>	<b>3.16</b>	<b>3.59</b>	<b>6.75</b>	<b>4.00</b>	<b>6.00</b>	<b>2.00</b>
Flat shape, glossy;							
Oregon State	<b>OSU 91G</b>	<b>4.04</b>	<b>1.42</b>	<b>5.46</b>	<b>8.00</b>	<b>4.00</b>	<b>6.00</b>
Botrytis mold, curved, odd shape, pale;							
Johnnys	<b>EZ Pick</b>	<b>2.88</b>	<b>2.69</b>	<b>5.57</b>	<b>7.00</b>	<b>8.00</b>	<b>3.00</b>
Easy to pick, even diameter, curl, dark;							
✓ Oregon State	<b>OSU 5402</b>	<b>5.45</b>	<b>4.64</b>	<b>10.09</b>	<b>8.00</b>	<b>7.00</b>	<b>5.00</b>
Flatter and shorter than other BBLs, even and straight, sweet, firm, straight in 2nd pick;							
Osborne / Harris Moran	<b>Concesa</b>	<b>1.50</b>	<b>3.03</b>	<b>4.53</b>	<b>6.00</b>	<b>6.00</b>	<b>6.00</b>
Not mature, dark glossy, more beany, less sweet, crisp;							

Evaluation: Harvest Evaluation

Planting Date: 6/27/12 (seeded), 7/25/12 (transplanted)

Evaluataion Date: 10/1/2012

Crop Type: Broccoli

Location: Arcata, CA

Farm: DeepSeeded Community Farm

Evaluator: Eddie Tanner and Jared Zystro

	Source	Variety	# of marketable plants (out of 33)	Field holding (9 is best)	Maturity (9 is latest)				
	Oregon State	OSU Composite	12.50	1.00	2.00				
	;								
✓	Johnnys / Sakata	Green Magic	32.00	8.00	3.00				
	Variable bead size, some bead yellowing; Slight soft rot								
	Adaptive Seed	Umpqua	4.00	1.00	1.00				
	; Poor field holding, variable, no soft rot - but harvested while disease pressure low								
	Snow Seed / Sakata	Gypsy	29.50	5.00	4.00				
	Variable head size, variable head shape, bacterial soft rot set in early; Soft rot, misshapen								
✓	Johnnys / Sakata	Arcadia	30.50	8.00	7.00				
	Odd shape head, tight beads, soft rot;								
	Snow Seed / Sakata	Imperial	30.00	8.00	9.00				
	Soft rot, but disease pressure by the time heads were mature; Some soft rot								
✓	Johnnys / Bejo	Belstar	32.50	6.00	7.00				
	Soft rot; Variable size, Soft rot, look good								
	High Mowing / Bejo	Fiesta	32.50	6.00	7.00				
	Plants fell over, Soft rot, some undersized heads; Soft rot								
	Harris Moran	Premium Crop	18.50	3.00	4.00				
	Not uniform, soft rot set in early; Ugly heads, Soft rot								
	Stokes / Syngenta	Windor	31.50	3.00	5.00				
	Variable bead size, some undersized; Soft rot, small heads								

<b>Evaluation: Harvest Evaluation</b>					<b>Evaluation Date: 10/17/12 (Steve Peters on 12/7/12)</b>				
<b>Crop Type: Swiss Chard</b>					<b>Location: San Juan Bautista, CA</b>				
					<b>Farm: Coke Farm</b>				
					<b>Evaluator: John Navazio and Steve Peters</b>				
Source	Variety	Stature	Petiole Thick	Color Type	Petiole Color Quality	Leaf Color	Savoy	Height	
Osborne / Alf Christianson	<b>BEF236</b>	<b>8.00</b>	<b>5.00</b>	<b>Red</b>	<b>5.00</b>	<b>8.00</b>	<b>5.50</b>	<b>7.00</b>	
disease: , Stripecy, 1 bolt; disease: t, Steve's comments: petioles have average width but are extremely thick; beautiful dark green, glossy leaves									
Snow / Omega	<b>Ruby Red</b>	<b>8.00</b>	<b>5.50</b>	<b>Red</b>	<b>6.50</b>	<b>5.00</b>	<b>4.00</b>	<b>9.00</b>	
disease: t, ; disease: t+, Steve's comments: tall plants with high biomass; narrow, long petioles; variable leaf color (red to green); two bolted plants									
Johnnys	<b>Rhubarb (JSS)</b>	<b>7.00</b>	<b>5.00</b>	<b>Red</b>	<b>7.00</b>	<b>5.00</b>	<b>6.00</b>	<b>7.00</b>	
disease: , 5 whites									
✓ Snow / Alf Christianson	<b>Rhubarb (AC)</b>	<b>8.00</b>	<b>5.00</b>	<b>Red</b>	<b>6.50</b>	<b>4.00</b>	<b>5.00</b>	<b>8.00</b>	
disease: , 5 whites; disease: t, Some beet petiole type, lots of whites, Steves comments: about 50% of leaves have turned red									
Osborne / Terra Organics	<b>Rhubarb (TA)</b>	<b>9.00</b>	<b>3.50</b>	<b>Red</b>	<b>8.00</b>	<b>4.00</b>	<b>5.50</b>	<b>9.00</b>	
disease: t+, 5 bolters; disease: t, 1 bolter, Steve's comments: tallest plants; lots of variable colors and leaf types; one bolted plant									
Wild Garden Seed	<b>Rhubarb (WGS)</b>	<b>7.00</b>	<b>5.00</b>	<b>Red</b>	<b>7.50</b>	<b>2.50</b>	<b>5.50</b>	<b>6.50</b>	
disease: , ; disease: t, Steve's comments: attractive, consistently red leaves; relatively short plants									
Osborne / Tozer	<b>Intense</b>	<b>5.00</b>	<b>3.00</b>	<b>Red</b>	<b>9.00</b>	<b>2.00</b>	<b>4.50</b>	<b>5.00</b>	
disease: , ; disease: t, Spotty and cracking leaf, Steve's comments: tall plants with high biomass; narrow, long petioles; almost all leaves turned red									
Organic Seed Alliance	<b>Fire Engine Red</b>	<b>6.00</b>	<b>9.00</b>	<b>Red</b>	<b>8.00</b>	<b>4.50</b>	<b>2.50</b>	<b>6.00</b>	
disease: , Segregating magenta and red; disease: t, Steve's comments: most distinctively unusual variety; widest petioles, shortest plants, least savoyed leaves; brilliant, very succulent red petioles but some (10-20%) magenta color; most leaves turned red but some are green									
Wild Garden	<b>Golden</b>	<b>7.00</b>	<b>5.50</b>	<b>Gold</b>	<b>6.00</b>	<b>5.50</b>	<b>5.50</b>	<b>6.00</b>	
disease: t, ; disease: +++, Steves comments: very short plants with thin petioles; low biomass									
✓ Osborne / Alf Christianson	<b>El Dorado</b>	<b>7.50</b>	<b>5.00</b>	<b>Gold</b>	<b>5.50</b>	<b>6.00</b>	<b>6.50</b>	<b>7.00</b>	
disease: t, ; disease: t+, Steve's comments: variable height; many glossy, dark green leaves; some leaves are olive-green which doesn't mix well with orange petiole color									
Snow / Alf Christianson	<b>Silverado</b>	<b>8.00</b>	<b>8.00</b>	<b>Green</b>	<b>9.00</b>	<b>8.00</b>	<b>9.00</b>	<b>5.00</b>	
disease: ++, black leaf edge rot; disease: t+,									
✓ Snow / Alf Christianson	<b>Fordhook (AC)</b>	<b>6.50</b>	<b>8.00</b>	<b>Green</b>	<b>7.50</b>	<b>5.50</b>	<b>7.00</b>	<b>7.50</b>	
disease: t 1/2, ; disease: ++, Segregating for stature, Steve's comments: distinctly different than Omega's Fordhook; much taller plants and more savoyed leaves									



	Source	Variety	Stature	Petiole Thick	Color Type	Petiole Color Quality	Leaf Color	Savoy	Height	
	Johnnys	Fordhook (JSS)	5.00	7.00	Green	5.00	7.00	6.00	5.00	
	disease: t,									
	Osborne / Omega	Fordhook (OM)	1.00	9.00	Green	7.50	7.00	2.00	1.00	
	disease: , Can't bunch; disease: t+, Steve's comments: very short plants and relatively smooth, flat leaves									
	Siskiyou Seeds	Prismatic Rainbow	4.00	5.00	Multi		7.00	3.00	3.00	
	disease: t, Not many blended colors except green blends									
	Osborne / Alf Christianson	Celebration	7.00	4.00	Multi		3.00	4.00	6.00	
	disease: , Few blends - better than prismatic; disease: t, Very low color blends, weak overall color, Steve's comments: 50% red leaf & red petiole; 50% gold/orange petioles & variable leaf color									
✓	Johnnys	Bright Lights	3.00	7.00	Multi		6.00	5.00	5.00	
	disease: t, Too pale reds / less intense									

<b>Evaluation: Harvest Evaluation</b>				<b>Planting Date: 8/28/2012</b>			<b>Evaluation Date: 10/17/12</b>		
<b>Crop Type: Lettuce</b>							<b>Location: San Juan Bautista, CA</b>		
							<b>Farm: Coke Farm</b>		
							<b>Evaluator: Jared Zystro</b>		
	<b>Source</b>	<b>Variety</b>	<b>Size</b>	<b>Color Quality</b>	<b>Blister</b>	<b>Uniform</b>	<b>Flavor</b>	<b>Type</b>	
✓	Johnnys / Rijk Zwaan	<b>Ruby Sky</b>	<b>8.00</b>	<b>7.00</b>	<b>7.00</b>	<b>9.00</b>	<b>5.00</b>	<b>Red leaf</b>	
	DM-								
	Johnnys	<b>New Red Fire</b>	<b>7.00</b>	<b>5.00</b>	<b>7.00</b>	<b>8.00</b>	<b>4.00</b>	<b>Red leaf</b>	
	DM-, red aphids								
	Wild Garden Seed	<b>Redina</b>	<b>6.00</b>	<b>6.50</b>	<b>6.50</b>	<b>5.50</b>	<b>3.00</b>	<b>Red leaf</b>	
	DM, dieoff;								
✓	Wild Garden Seed	<b>Merlot</b>	<b>4.00</b>	<b>9.00</b>	<b>7.00</b>	<b>5.50</b>	<b>5.00</b>	<b>Red leaf</b>	
	DM, dieoff; dieoff								
	Wild Garden Seed	<b>Lollo di Vino</b>	<b>2.00</b>	<b>7.50</b>	<b>8.00</b>	<b>5.00</b>	<b>1.00</b>	<b>Red leaf</b>	
	DM, dieoff;								
	Wild Garden Seed	<b>Antaris</b>	<b>9.00</b>	<b>3.00</b>	<b>1.50</b>	<b>1.00</b>	<b>7.00</b>	<b>Red leaf</b>	
	DM, virus?; Good flavor, highly variable								
	Osborne / Takii	<b>T1-223</b>	<b>5.50</b>	<b>5.00</b>	<b>4.50</b>	<b>6.50</b>	<b>6.00</b>	<b>Red leaf</b>	
	DM-;								
	Vitalis	<b>Lovelock</b>	<b>5.50</b>	<b>3.50</b>	<b>4.50</b>	<b>8.50</b>	<b>2.00</b>	<b>Red leaf</b>	
	DM-;								
✓	Osborne / Rijk Zwaan	<b>Starfighter</b>	<b>5.50</b>	<b>5.00</b>	<b>2.50</b>	<b>8.00</b>	<b>5.00</b>	<b>Green leaf</b>	
	;								
	Osborne / Vitalis	<b>Muir</b>	<b>2.50</b>	<b>2.50</b>	<b>5.00</b>	<b>6.50</b>	<b>4.00</b>	<b>Green leaf</b>	
	; DM-								
	Vitalis	<b>Tropicana</b>	<b>5.50</b>	<b>4.50</b>	<b>2.50</b>	<b>8.00</b>	<b>3.00</b>	<b>Green leaf</b>	
	DM;								
	Snow / Enza Zaden	<b>Bergmans Green</b>	<b>4.33</b>	<b>3.33</b>	<b>2.33</b>	<b>6.00</b>	<b>3.00</b>	<b>Green leaf</b>	
	DM-; DM-								

	Source	Variety	Size	Color Quality	Blister	Uniform	Flavor	Type		
✓	Vitalis	Holon	6.00	3.00	1.00	8.00	7.00	Romaine		
	DM									
	Rijk Zwaan	Salvius	3.00	7.00	2.00	7.00	4.00	Romaine		
	Stunting?									
	Vitalis	Thoreau	3.00	5.00	1.00	8.00	5.00	Romaine		
	DM-, stunting?									
	Wild Garden Seed	Plato II	3.50	6.00	2.00	4.50	7.00	Romaine		
	DM-; DM-									
	Wild Garden Seed	Sucrine	3.00	4.50	1.00	8.50	2.00	Romaine		
	Wild Garden Seed	Dark Green Romaine	3.50	7.00	1.50	2.00	2.00	Romaine		
✓	Wild Garden Seed	Crisp Mint	8.00	6.50	3.50	4.50	5.00	Romaine		
	Vitalis	Steiner	6.50	7.00	1.00	6.00	4.00	Romaine		
	Wild Garden Seed	Brown Golding	2.00	2.00	1.00	4.00	7.00	Romaine		
	DM-; virus?									

<b>Evaluation: Harvest Evaluation</b>				<b>Planting Date: 8/9/2012</b>			<b>Evaluation Date: 11/2/12</b>		
<b>Crop Type: Bush Green Beans</b>							<b>Location: San Juan Bautista, CA</b>		
							<b>Farm: Coke Farm</b>		
							<b>Evaluator: Jared Zystro</b>		
	<b>Source</b>	<b>Variety</b>	<b>Plant Height</b>	<b>Yield (beans per 5 plants)</b>	<b>Flavor</b>	<b>Color</b>	<b>Tenderness</b>		
	Johnnys / Novartis	<b>Bronco</b>	<b>9.00</b>	<b>7.00</b>	<b>5.00</b>	<b>3.00</b>	<b>7.00</b>		
	Harris Moran	<b>Fresh Pick</b>	<b>4.00</b>	<b>23.00</b>	<b>4.00</b>	<b>5.00</b>	<b>5.00</b>		
	Osborne / Harris Moran	<b>EZ Pick</b>	<b>8.00</b>	<b>22.00</b>	<b>4.00</b>	<b>4.00</b>	<b>4.00</b>		
	Harris Moran	<b>HMX5105</b>	<b>3.00</b>	<b>21.00</b>	<b>5.00</b>	<b>7.00</b>	<b>4.00</b>		
	Oregon State	<b>Lewis</b>	<b>5.00</b>	<b>15.00</b>	<b>8.00</b>	<b>7.00</b>	<b>7.00</b>		
	High Mowing / Asgrow	<b>Jade</b>	<b>6.00</b>	<b>22.00</b>	<b>6.00</b>	<b>5.00</b>	<b>6.00</b>		
	Harris Moran	<b>Provider</b>	<b>4.00</b>	<b>25.00</b>	<b>4.00</b>	<b>2.00</b>	<b>5.00</b>		
	Matured early								
✓	Osborne / Harris Moran	<b>Valentino</b>	<b>4.00</b>	<b>47.00</b>	<b>3.00</b>	<b>7.00</b>	<b>3.00</b>		
✓	Johnnys	<b>Savannah</b>	<b>3.00</b>	<b>32.00</b>	<b>6.00</b>	<b>6.00</b>	<b>7.00</b>		
	Oregon State	<b>OSU 91G</b>	<b>1.00</b>	<b>25.00</b>	<b>3.00</b>	<b>3.00</b>	<b>6.00</b>		
	Johnnys	<b>OSU5630</b>	<b>5.00</b>	<b>17.00</b>	<b>3.00</b>	<b>2.00</b>	<b>5.00</b>		
	Oregon State	<b>OSU5402</b>	<b>6.00</b>	<b>15.00</b>	<b>6.00</b>	<b>2.00</b>	<b>6.00</b>		



Evaluation: Harvest Evaluation

Planting Date: 8/23/12

Evaluation Date: 12/7/12

Crop Type: Broccoli

Location: San Juan Bautista

Farm: Coke Farm

Evaluator: Steve Peters

	Source	Variety	% Mktble Plants	(9 is latest) Maturity	(9 is smallest) Head Size	(9 is best) Overall rating			
	Snow/Sakata	<b>Imperial</b>	<b>0.33</b>	<b>5.50</b>	<b>9.00</b>	<b>4.00</b>			
	nice, domed heads, lots of foliage & large leaves; no heads formed								
	Johnnys/Sakata	<b>Green Magic</b>	<b>0.70</b>	<b>4.00</b>	<b>8.00</b>	<b>8.00</b>			
	domed heads with some concave areas, 1 loose head; many small plants with no heads								
	Oregon State	<b>OSU-2011</b>	<b>0.38</b>	<b>1.00</b>	<b>5.50</b>	<b>2.00</b>			
	most plants in full flower, 1 plants already harvested, plants not harvested have very loose heads tallest variety (~24"), most purple color; a few heads over-mature, many OK heads but still a bit loose, a single head includes several small florets, presence of a small amount of bacterial soft spot								
✓	Snow/Sakata	<b>Gypsy</b>	<b>0.80</b>	<b>4.00</b>	<b>7.00</b>	<b>9.00</b>			
	nice, domed heads, tallest hybrid (~18"), biggest heads in trial; nice heads, good size								
	Snow/Sakata	<b>Patriot</b>	<b>0.75</b>	<b>3.00</b>	<b>7.00</b>	<b>6.50</b>			
	starting to get over-mature, OK domes but lots of concave areas; lots of small heads, irregular dome & so-so quality								
	Snow/Sakata	<b>Patron</b>	<b>0.66</b>	<b>3.00</b>	<b>7.00</b>	<b>6.50</b>			
	almost identical to Patriot; many heads too small								
	Osborne/Sakata	<b>Emerald Crown</b>	<b>0.54</b>	<b>5.00</b>	<b>8.00</b>	<b>5.00</b>			
	consistent, beautiful domes, nicest heads in trial, shortest plants (12-14"); heads are small but nice domes								
	Osborne/Seminis	<b>Castle Dome</b>	<b>0.61</b>	<b>2.00</b>	<b>8.00</b>	<b>3.00</b>			
	many heads already harvested, nice domes, but some heads are too loose, 2nd shortest variety in trial; nice domes, similar to Emerald Crown but slightly bigger								

Evaluation: Harvest Evaluation

Planting Date: 8/9/12

Evaluataion Date: 10/17/12

Crop Type: Kale

Location: San Juan Bautista

Farm: Coke Farm

Evaluator: John Navazio

	Source	Variety	Vigor	Height	Insect Resist				
	Johnnys / Bejo	<b>Darkibor</b>	<b>7.00</b>	<b>7.00</b>	<b>9.00</b>				
✓	Johnnys / Bejo	<b>Winterbor</b>	<b>9.00</b>	<b>9.00</b>	<b>9.00</b>				
	Upright leaves								
✓	Wild Garden Seed	<b>Lacinato (WGS)</b>	<b>7.00</b>	<b>7.50</b>	<b>7.50</b>				
	; Roadside plot								
	Siskiyou Seeds	<b>Black Tuscan</b>		<b>6.00</b>	<b>6.00</b>				
	Johnnys	<b>Tuscano</b>	<b>5.00</b>	<b>9.00</b>	<b>5.00</b>				
	Osborne / Tozer	<b>Black Magic</b>	<b>4.00</b>	<b>7.00</b>	<b>4.00</b>				
	;								
	Omega	<b>Lacinato (OM)</b>	<b>2.00</b>	<b>5.50</b>	<b>2.50</b>				
	; Roadside plot - most stressed								
	Snow / Ansemi	<b>Nero di Toscana</b>	<b>1.00</b>	<b>8.00</b>	<b>3.50</b>				
	; Roadside plot								

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Completed 2013

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