



CENTRAL VALLEY FARMLAND TRUST LEGACY

What is the Top Non-green Veggie?



Sweet potatoes, of course! Over the last several years sweet potatoes have seen a resurgence in demand as consumers learn more about their health benefits and restaurants and markets are offering them in the form of fries to soups to mashers. Farmland dedicated to growing the sweet tuber has also increased to meet the need. Jim Alvernaz, owner of Alvernaz Farms, near Livingston says, "Twenty-five years ago California had 25,000 acres of sweet potatoes, then we dipped down to 8,000, and recently we are back up to 20,000 acres." Jim concluded that 2014 may see another dip due to drought conditions, but, "the demand is most certainly still there."

Jim and his family-run cooperative own their own packing shed and market their sweet potatoes all over the Pacific Northwest and cruise ships want them year-round. The cannery infrastructure is robust and there is a large demand for either the largest or smallest product to go to the cannery for products

like baby food. The more commercially marketable size, like a baked potato size or slightly larger, will be on your grocery market produce shelf.

Jim Alvernaz has been growing sweet potatoes his whole life. His grandfather came from the Azores to Atwater where he was a sheep herder. They soon began growing sweet potatoes among other crops. Joe Alvernaz, Jim's father, taught him everything he knows – and much of what he still does today. With some minor changes and additions, he continues to use his father's tractor for harvesting. Though when Jim was a boy it was still all hand work. "My dad used to cut the vines by hand in the field and then head to school. It was all hand cutting till the 1950s and I still use his original vine cutter."

Sweet potatoes are a very labor intensive crop that requires a lot of human interaction. "The same plant can be touched by the same human hands four times from planting to harvest," said Jim. Today, Jim runs up to a 34-person crew to plant, grow, and harvest his sweet potato crop. Much of that crew returns every year. The process begins in February where the plants are raised in hot beds and ends in October at harvest (see pictorial, sweet potato production on pages 4-5).

Sweet Potato Fields Forever...

The Alvernaz Farm was conserved in 2011 with a conservation easement through Central Valley Farmland Trust (CVFT). "The Alvernaz family has a special kind of passion for the land," said Bill Martin, executive director for CVFT. "They understand the significant importance of Central Valley farmland and have gone out of their way to ensure their land will remain in agricultural production forever." This third generation sweet potato farmer and his wife, Colette, can offer their children a future on the farm. "My wife and I have nine children. They are engineers, energy traders, architects, psychologists, journalists, all sorts of good things, and one is still in school. They may not want to come back to the farm having the careers they have now, but I went to school to be a journalist and here I am," said Jim. "But the farm is here and we have good soil. This crop is healthy and water efficient to grow, so I will keep doing it."

FALL 2014

#GivingTuesday
December 2 -
ALL DAY



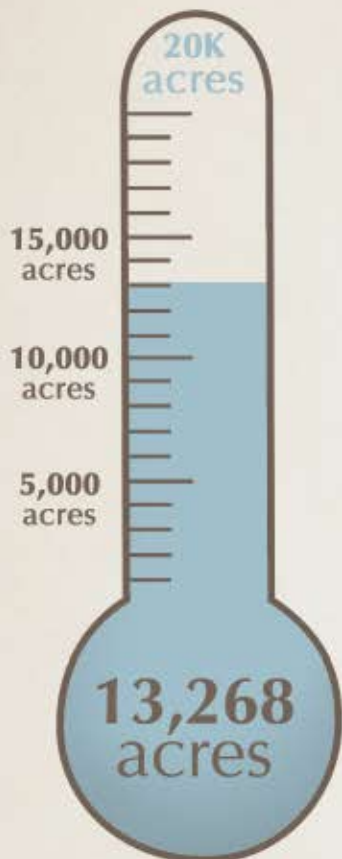
Crab Feed
February 7, 2015

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20,000
ACRES BY
2020



Harvest, Family and Avoiding the Tipping Point



Fall is a special time of year in many respects. In the farming world it is the culmination of the season's long hard days, guarded optimism regarding crop yields and market prices, a time to reflect on the year's successes and failures, and to start planning for next year. In the farmland trust world it is also a time for reflection. But more importantly it is a time to enjoy family gatherings around a table of freshly prepared food. In our culture, as well as many others, food is the thread which binds families.

Unfortunately, we do not have a full appreciation for how that food made it to the table in the first place. Many people believe that since supermarkets seem to have an endless supply of fruits and vegetables, we needn't worry. I guess I failed to mention another concern the farming world is facing; in the future will there be enough farmland available to produce that seemingly endless supply of fruits and vegetables?

Here is an indisputable fact: Farmland is required to produce food! Here in California we are blessed with millions of acres of farmland. Arguably, California's Central Valley is home to the most productive farmland in the world. It is THE common denominator for that food sitting on our table at Thanksgiving. If you really are not concerned about the future of farmland availability here in the Central Valley, no need to continue reading.

The Central Valley Farmland Trust is committed to ensuring Central Valley farmland is available for future generations of farmers and farming families. I assume most people agree it takes a farmer, in addition to farmland, to successfully produce food. We are also realists, knowing it is important to provide housing and services to people wanting to live in the Central Valley. The key is trying to keep the loss of farmland from reaching the tipping point. No one knows where the tipping point is, but you might ask LA County or the Santa Clara Valley. In my lifetime those two areas were once highly productive agricultural regions. Let's not let that happen in the San Joaquin Valley!

Please join us – together we can do this! Become a CVFT member to help reach our goal of "20,000 by 2020"! ☺



Brandstad Farm Walnut Orchard

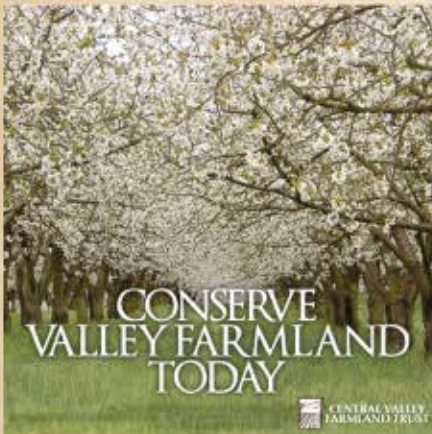
#GIVINGTUESDAY

Giving Tuesday – A Day of Giving

We have a day for giving thanks. We have two for getting deals. Now, we have #GivingTuesday, a global day dedicated to giving back. On Tuesday, December 2, nonprofits (like Central Valley Farmland Trust), families, businesses, community centers, and students around the world will come together for one common purpose: to celebrate gratitude, generosity, and to give.

Give – It Feels Good:

Giving is contagious. The feelings of warmth and connection we feel when we contribute to others encourages us to do it again and the recipients are often inspired to pay it forward. Those organizations that participate in #GivingTuesday not only want to motivate people to make generosity a part of their lives. Central Valley Farmland Trust also wants to be a part of a culture where each generation teaches the next that giving and caring for our fellow man and our resources is an accepted part of living a full and healthy life. Just like healthy, local, and fresh food is fuel for your body – gratitude and giving is part of our overall well-being – science says so!



The Science of Giving:

People who volunteer or give charitably are reported to be in better health than those who don't. Studies indicate that selfless generosity activates the mesolimbic pathway in the brain, which is also the part that processes internal reinforcement for things you enjoy, giving you a feeling of warmth and contentment. This "positive feedback loop" encourages individuals to make choices that improve their overall health and well-being while reducing stress and elevated blood pressure. Kindness and generosity also allows individuals to see others more positively, fostering a heightened community spirit, while also cultivating gratitude in the giver.

Choose Central Valley Farmland Trust:

At Central Valley Farmland Trust we are grateful to have a tremendously dedicated circle of givers - members and friends who support us throughout the year. Many of you are members of our Annual Giving program, make generous year-end gifts, attend our events,

and buy raffle tickets and auction items. Giving Tuesday is a way for you to share our organization with your friends, family and colleagues who may not already know us and give them an opportunity to become a part of the movement to save our precious farmlands.

Maybe you and a colleague or friend donate your specialty coffee or lunch money to save farmland on Giving Tuesday instead of going out? Or possibly you gather the kids around the dinner table and everyone thinks of their favorite local food and pitches in to help protect it. Every dollar counts when we are protecting farmland! At Central Valley Farmland Trust ninety-four cents of every dollar goes directly to protect farmland.

The Land:

We have approximately 1,000 acres of farmland waiting to be conserved. Will you donate on Giving Tuesday to help save those acres as forever farms? These 1,000 acres of vibrant farmlands will also help us reach our goal of 20,000 by 2020 - 20,000 acres of farmland conserved by the year 2020. Please consider getting online on December 2, visit our website or Facebook page and make a gift to farmland conservation. ♡

Visit our website or Facebook page on Tuesday, December 2 to make a special gift on this National Day of Giving



Alvernaz Sweet Potato Production: Sowing, Growing and Ready to Eat

February/
March



April

Prepared hot beds, that encourage growth and yield, are home to seedling sweet potatoes. Young leaves are a deep red color through April when foliage on plants is trimmed in preparation for transplanting to the fields.

May



In early May plants are pulled from their hot beds and roots are hand trimmed in preparation for field transplanting. Plants are loaded into crates, foliage may be trimmed again, and they make their way to the transplanting tractor.

Alvernaz Sweet Potato Production:

Sowing, Growing and Ready to Eat

May



Workers sort and feed plants into transplanter to be planted one at a time.
The tractor wheels pack dirt around each plant while the end of the tractor lays drip tape as it goes.
The result is a neatly planted sweet potato ready to set roots and grow.

Late June



The plant grows rapidly, pictured here approximately one month after transplant. Meanwhile, the hot beds are covered in plastic to prepare beds for next season's crop.

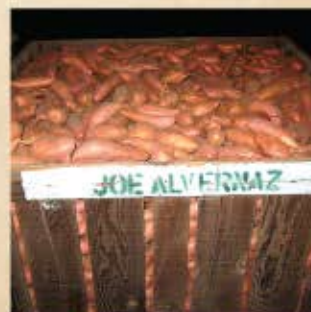
August/October



The harvester digs up the sweet potatoes with a blade at the base of the tractor and then pulls them up a conveyor belt to be hand sorted into bins.

Sorting Method:

- #1** – baking size or a bit larger, typically found in grocery stores
- Jumbos** – sometimes in stores, often used in canning, processing, or baby food
- Mediums** – small baking size or used for seed



Jim is proudly still packing this crop in his father's bins. And now they are ready to be shipped to market... and onto your table

Editor's note: This is the last article in a three-part series to appear in the Legacy on drought and other challenges farmers face that can be mitigated through a nutrition-based management approach. Our primary contributors to this series are: Dr. Thomas T. Yamashita ("Dr. Tom"), who has a Ph.D. in plant pathology and over 30 years of research and experience on the topic, and Duncan Smith, agricultural scientist at Sunburst Plant Disease Clinic, Inc.

BioFarming: the Middle Ground

California is underutilized for food production due to urbanization and lack of water allocation to grow food given its prime climate and infrastructure. A stable, peaceful society requires a healthy diverse food supply of fruits, vegetables, and nuts – all grown in high quality California soils. California produces the diversity of food people need to be healthy, but the healthiest foods entail the use of fewer pesticides. Fewer pesticides commonly come from organic production and genetically modified food.

However, organic production produces far less product yield than conventional production, can be cost-prohibitive to the consumer, and has health risks. Recent outbreaks of Salmonella and E. coli have been sourced to organic produce production. The industry is doing all it can to prevent future outbreaks and the current systems have many checks along the way for prevention, but alas the risks remain. Unfortunately, organic production alone will not yield the amounts of food needed to provide our growing population the fruits and vegetables necessary for a high quality and healthy lifestyle.

At the other end of the spectrum, the drawback of conventional farming production is the use of chemicals, such as pesticides, to increase production yields to meet demand. However, conventional agriculture has many tools in the use of mineral nutrition products and pest control measures which organic producers are not allowed to use.

In summary, organic production meets the desires by many consumers to buy food produced with no chemicals and conventional farming methods meet the demand to grow enough food to feed our growing population and global markets. But is there a way to produce the highest quality food, at the highest possible yield while using far less pesticides?

This is a serious dilemma facing agriculture today when you compound the problem with drought and sustainability issues of soil and water quality. Along with preserving farmland and water for farms to grow healthy, nutritious food, the agricultural community needs to produce more safe and sustainable food per acre than ever in history. Remember, our population is still exploding!

If society relied on all organic production we would run the risk of not having healthy food for everyone to eat. If we continue to rely on only conventional farming methods we run the risk of further degradation of soils and the market is calling for less pesticide use. In California, with the threat of less farmland to meet the needs of a growing population, it then follows: How will we produce more food on less land, with higher quality?

There is another way to farm that can meet societies demand for nutritious and healthy food. It is called "biofarming" also known as compensatory balanced nutrition (CBN). This approach implements advanced nutrition strategies to grow more food on less ground with less pesticides and less risk of disease outbreak.

Biofarming/CBN is the strategy of creating a healthy plant to ward off pests and disease and drive yields beyond what was thought. In biofarming, elevating plant physiology is primary versus the use of conventional pesticides. This strategy entails promoting unnaturally high microbial activity, balancing soil chemistry, superior foliar nutrition, feeding the plant over feeding the soil, and counter punching stress events with advanced plant nutrition techniques.

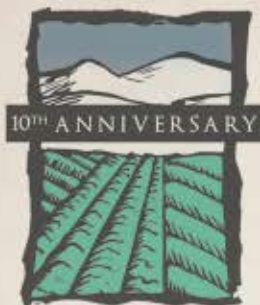
It can be likened to strengthening a human's own immune system to ward off disease or the effects of stress. A farmer can begin to transition to this style of farming by first ensuring that he/she is focusing on all factors within their control. For example, they cannot control location or water availability, but there are many other factors they can.

How will we produce more food on less land, with higher quality?

More directly, some initial steps a farmer can take include: Implement balance in fertilizer applications and follow a crop's mineral use curves; Increment fertility as much as possible. In the case of perennial crops, apply additional minerals with balance incrementation to support not only the current seasons crop but next year's crop. Choose fungicides wisely and adopt the mindset that plant nutrition has a strong correlation to disease incidence. Many fungicides have a negative impact on plant physiology. Like humans when our physiology is compromised, that's when we catch a cold. When a plant is not operating at an elevated physiology, disease incidence increases. This is especially true of diseases like Botryosphaeria. "Counter Punch" stress events with mineral and carbohydrate based nutrition. Heat or temperatures greater than 95 degrees denatures enzymes which ruin the most famous reaction in the world, photosynthesis. In the case of heat stress calcium and sulfur are critical. Also, minor and more exotic minerals, those minerals on the periodic table but not associated with crop production like selenium, cadmium, nickel, etc., stabilize the reactions so they continue operating during heat waves.

If farmers adopted more complexity to their plant nutrition it would ensure a more consistent supply of local food even when bloom or planting weather was not ideal for bumper crop. It also adds insurance to outbreaks of epidemic plant disease.

Additionally, the increased microbial activity aids significantly in cleaning the soils of toxic compounds (including pesticides and petroleum based products), which would otherwise be leached into groundwater or taken up and concentrated in the plants we eat. Often times, the middle ground has the best of both worlds. Possibly, biofarming is the wave of the future of crop production in California? 1



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Celebrating a Milestone



We loved celebrating one of our biggest milestones with so many of you in September! Our 10th Anniversary Celebration at Micke Grove Park was fun and memorable. The great tunes of Snap Jackson and the Knock on Wood Players were a perfect backdrop to our BBQ dinner with friends and family. As board member Ken Oneto would say, "Here's to 10 down and forever to go!" We are making 20,000 by 2020 happen together. Thank you! ☺

An Evening at the Carnegie to Benefit the Central Valley Farmland Trust



Our annual Evening at the Carnegie was a smashing success once again. Guests delighted in the private viewing of Joan Miro's artwork and they showed huge support in our silent auction. Thank you to our sponsor American AgCredit who donated a fire pit with all the trimmings necessary to light a perfectly toasty Fall fire - it was the most popular item of the night!

George Gomes, Central Valley Farmland Trust (CVFT) Trustee Council member, was our keynote speaker who shared with guests how difficult it was growing up on the farm. He related that experience to how difficult it was for CVFT to not only survive, but thrive over the last 10 years. He made specific mention of our founding members and the contributions they have made over the years to help guide CVFT along the path to success.

Special this year, we were honored to announce our inaugural Golden Plow Award recipient, Mike Tanner, at the event. This award is given to individuals or organizations that show exemplary dedication and stewardship to the mission of the Central Valley Farmland Trust. "Mike is a founding member and has been around since the beginning," said Bill Martin, executive director of CVFT. "He continues to generously offer his time and expertise by serving on our transactions committee and leads the Merced County monitoring team. Mike has been a strong advocate for the work we do and he continues to be a personal supporter and confidant to me. I consider him a good friend."

Please plan to join us at our annual Evening at the Carnegie next year in Fall 2015. ☺



CENTRAL VALLEY FARMLAND TRUST

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