

# California Drought Update



**For November 10, 2016**

**by Patrick Ruckert**

**Published weekly since July, 2014**

<http://www.californiadroughtupdate.org>

<https://www.facebook.com/CaliforniaDroughtUpdate>

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## **A Note To Readers**

There shall be no mincing of words here. Had Hillary Clinton been elected the world would have been heading to World War III and Wall Street would continue to rampage over the American population. Instead this election became a vote for a fundamental change in the policies of our nation.

Immediately following the statement below is the section titled: "Trump and the California drought." As for the rest of the report, it follows and you can leap ahead to it or be surprised when you arrive at it.

Here the statement on the election from *LaRouche PAC*:

### ***A Global Shock to A Dead System***

*November 9, 2016*

*The stunning election victory of Donald Trump on Tuesday can only be properly understood in the context of global developments that all reflect a powerful popular repudiation of the system of war and usury that has dominated the trans-Atlantic region for the past sixteen years of the Bush and Obama presidencies. This revolt is international in character, and was reflected in June of this year when British voters rejected the European Union in the Brexit referendum. There are reflections of this revolt in Germany, where the Merkel government's anti-Russia policies are running up against a wall of opposition, including from leading German industrial circles that see trade and cooperation with Russia as an existential requirement.*

*The pattern extends beyond the significance of the U.S. events alone, which is not to diminish in the least the significance of the revolt of the American electorate against the Wall Street-Washington Establishment.*

*A sizable number of American voters saw Hillary Clinton as a continuity of the bad old policies of the past 16 years, and they furthermore saw her as someone who would bring about a war with Russia that could mean the end of life on this planet as we know it.*

*The Trump vote was a vote against the danger of war, which came increasingly to be associated with Hillary Clinton's anti-Putin diatribes throughout the campaign. It was a vote for an overhaul of U.S. economic policies, starting with the reinstatement of Glass Steagall bank separation, which Trump openly embraced during a major campaign speech in Charlotte, North Carolina, where he also warned that Hillary Clinton would start World War III if elected.*

*The mandate from November 8 is for a renewal of traditional American policies and values, starting with a revival of the real economy, through capital investment in infrastructure and industrial reconstruction.*

<https://larouchepac.com/20161109/global-shock-dead-system>

## **Trump and the California Drought**

Now, what will the election mean for the California Drought? That remains to be seen, since the only thing Trump said about it during the campaign was essentially a few throwaway lines. But even those lines have the environmentalists already up in arms. Here are a few examples, with excerpts:

### ***Trump's impact will be huge in California, where he was soundly rejected***

*By Michael Doyle and Sean Cockerham*

*McClatchy Washington Bureau*

*November 9, 2016*

<http://www.sacbee.com/news/politics-government/election/presidential-election/article113756023.html#storylink=cpy>

*Farmers from California's Central Valley invested big time in Donald Trump, and soon the president-elect could repay the debt.*

*During a Tulare County campaign event [in late August](#) that raised an estimated \$1.3 million, Trump heard about the farmers' need for water, among other issues. As president, he'll appoint the people who can turn the taps, at least a little.*

*"The good thing is, he is more up to speed on water infrastructure than any other president we've had," Rep. Devin Nunes, R-Visalia, said in an interview Wednesday. "Out here, everything is water, water, water."*

*Trump's hard-line immigration pledges, including an increase in deportations and construction of a border wall with Mexico, would, for instance, have a disproportionate impact on California. The state is home to an estimated 2.67 million immigrants who are in the country illegally.*

*Along with roundup costs, large-scale deportations would disrupt California's agricultural industry. More immediately Trump could follow through on his pledge to kill President Barack Obama's Deferred Action for Childhood Arrivals program, which has shielded hundreds of thousands of young immigrants from deportation.*

My comment on this article: Trump will have a tough act to follow on immigration, as Obama, the "deporter-in-chief," as so labeled by The National Council of La Raza-- the last significant immigration-

reform organization that defended his immigration policy-- attacked him in March for deporting more than two million illegal immigrants. <http://www.politico.com/story/2014/03/national-council-of-la-raza-janet-murguia-barack-obama-deporter-in-chief-immigration-104217>

## ***We're On Our Own: California's Environment and a Trump Presidency***

*By Chris Clarke*

*November 9, 2016*

*KCET*

<https://www.kcet.org/redefine/were-on-our-own-californias-environment-and-a-trump-presidency>

*In a campaign famously devoid of substance on most issues, Trump made specific pledges to eliminate the Environmental Protection Agency, to rescind the Obama administration's Clean Power Plan, and to "cancel the Paris agreement" on limiting greenhouse gases. He vowed to make the United States energy-independent, primarily through increased exploitation of coal, oil, and natural gas reserves, ending the moratorium on coal leasing, and increased drilling and mining on federal lands. He also promised, more vaguely, to end "unwanted" federal programs and "bloated government."*

*We can assume, in other words, that despite the best efforts of career agency staff, the federal government will increasingly be AWOL on protecting the environment.*

## ***What 'President Trump' might mean for Delta***

*November 9, 2016*

*By [Alex Breitler](#)*

*Record Staff Writer*

<http://www.recordnet.com/news/20161109/what-president-trump-might-mean-for-delta>

*On Wednesday, [Politico reported](#) that an attorney who represented the Westlands Water District on litigation involving the Delta and the Endangered Species Act will head Trump's transition team for the new Department of Interior, which oversees federal water and wildlife management in the Delta.*

*Trump hasn't said much about California water, but he did [tell a Fresno audience](#) at a rally in May that there is no drought at all, and that the water that farmers should have received was flushed out to sea in an effort to protect "a certain kind of 3-inch fish," a reference to the imperiled Delta smelt.*

*"Believe me, we're going to start opening up the water so that you can have your farmers survive," Trump said at the time.*

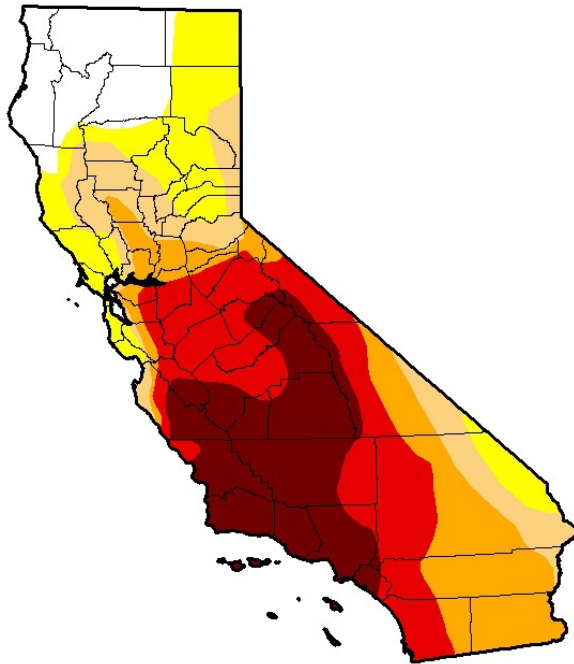
*"Opening up the water" implies increasing the volume of water exported south from the Delta, exports that are blamed in part for the long-term decline of the fragile river estuary west of Stockton. The Delta ecosystem suffers from a kind of perpetual drought because more than half of its fresh water historically has been diverted for human use.*

## **The U.S. Drought Monitor and State Reservoir Graph**

Due to rains over the last 30 days, moderate (D1) and severe (D2) drought over northeast California is one percent less severe this week compared to last week. These rains have been enough to improve long-term rainfall deficits, streamflow, and soil moisture.

# U.S. Drought Monitor California

**November 8, 2016**  
(Released Thursday, Nov. 10, 2016)  
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	12.03	87.97	73.04	60.27	42.80	21.04
<b>Last Week</b> 11/1/2016	12.03	87.97	75.26	61.38	42.80	21.04
<b>3 Months Ago</b> 8/9/2016	0.00	100.00	83.59	59.02	42.80	21.04
<b>Start of Calendar Year</b> 12/29/2015	0.00	100.00	97.33	87.55	69.07	44.84
<b>Start of Water Year</b> 9/27/2016	0.00	100.00	83.59	62.27	42.80	21.04
<b>One Year Ago</b> 11/10/2015	0.14	99.86	97.33	92.27	70.55	44.84

## Intensity:

■ D0 Abnormally Dry      ■ D3 Extreme Drought  
■ D1 Moderate Drought      ■ D4 Exceptional Drought  
■ D2 Severe Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

## Author:

Deborah Bathke  
National Drought Mitigation Center

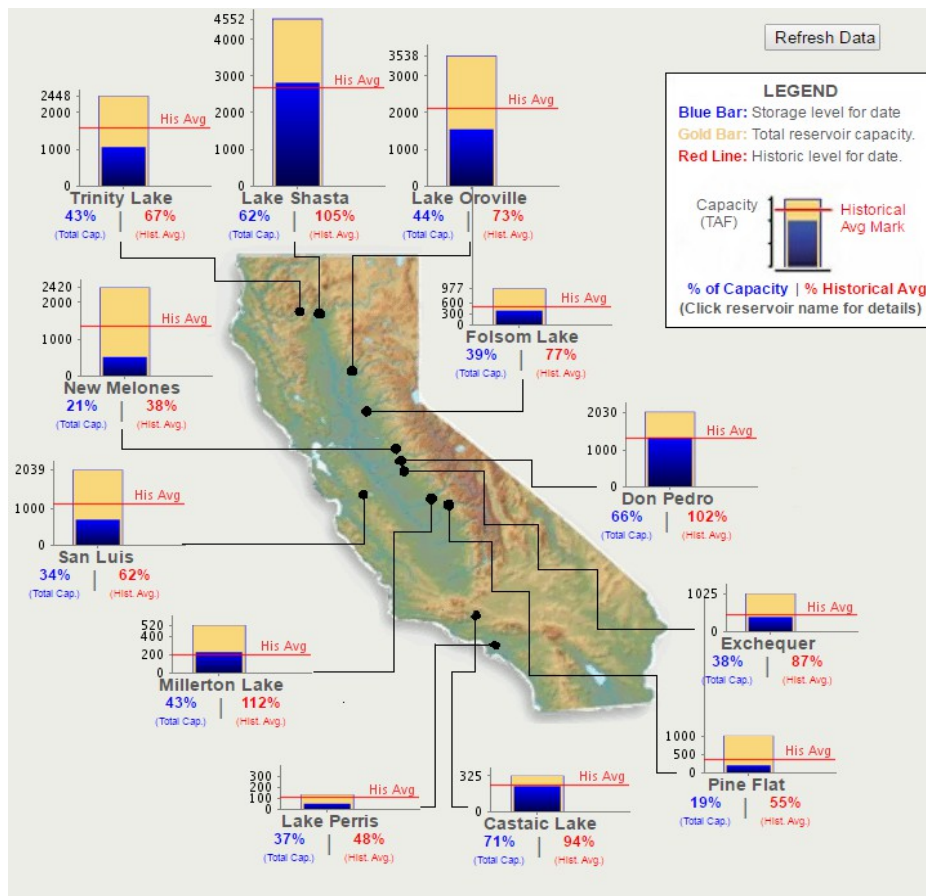


<http://droughtmonitor.unl.edu/>

## Current Reservoir Conditions

November 8, 2016

State Department of Water Resources





# The Forecast for the Winter? Again, Who Knows?

There were plenty of articles this past week highlighting the “great divide” in the state. While October rains were significant in the northern part of the state, Central and Southern California was pretty much left out of the fun. Also noted in a few articles is that nearly one-fourth of the state is no longer in drought. That one-quarter encompasses just the northwest corner of California. Another theme this past week is that, like last week, a wet October tells us nothing about what the rest of the winter shall bring. Here are some links with a few excerpts.

## ***1) Monitor: Drought ends in nearly one-fourth of California***

*By Ellen Knickmeyer and Olgar R. Rodriguez*

*Associated Press*

*November 4, 2016*

[http://hosted.ap.org/dynamic/stories/U/US\\_CALIFORNIA\\_EASING\\_DROUGHT?SITE=AP&SECTION=HOME&TEMPLATE=DEFAULT](http://hosted.ap.org/dynamic/stories/U/US_CALIFORNIA_EASING_DROUGHT?SITE=AP&SECTION=HOME&TEMPLATE=DEFAULT)

*SAN FRANCISCO (AP) -- A heavy dousing of autumn rain in Northern California has lifted a quarter of the state out of drought, the highest percentage in more than three years, according to a new federal report.*

*Water officials who oversaw mandatory water conservation by cities and towns emphasized three-fourths of the state remains in the five-year drought.*

*Three-fourths of California remains in drought, mostly in Central and Southern California, where most of the state's crops and the majority of its 39 million people reside. Twenty-one percent of the state - again in Central and Southern California - are in the most severe category of drought.*

## ***2) Drought continues: Wet October doesn't mean wet winter***

*By Guy McCarthy*

*The Union Democratic*

*November 4, 2016*

<http://www.uniondemocrat.com/localnews/4789639-151/drought-continues-wet-october-doesnt-mean-wet-winter>

*One of the wettest Octobers on record has eased drought conditions in Northern California, but Tuolumne and Calaveras counties remain in stages of severe, extreme and exceptional drought, according to scientists with the U.S. Drought Monitor.*

*The northern third of Calaveras County remains in severe drought, while the southern two-thirds of Calaveras and most of Tuolumne County remain in extreme drought.*

## ***3) Wet winter odds aren't good***

***Farmers tighten belt for what's likely to be another dry year***

*Seth Nidever, Staff Reporter*

*Hanford Sentinel*

[http://hanfordsentinel.com/news/local/forecasters-wet-winter-odds-aren-t-good/article\\_49d1552c-50d4-](http://hanfordsentinel.com/news/local/forecasters-wet-winter-odds-aren-t-good/article_49d1552c-50d4-)

[5c6a-9df9-e1320d65e03e.html](https://www.weather.com/content/5c6a-9df9-e1320d65e03e.html)

*Forecasters are calling for a weak La Nina to last into the spring. That usually means dry conditions in Central California.*

*La Nina refers to cooler sea water surface temperatures in the Pacific Ocean.*

*Scott Borgioli, a meteorologist at [www.WeatherAg.com](http://www.WeatherAg.com), estimated a 75 percent probability that Central California will have below-average precipitation during the upcoming rainy season.*

## **“Deconstructing the Current California Drought”**

The following link is to a presentation from the conference in Stockton on October 25, which I mentioned briefly in one of my reports. The conference was titled, “Drought and the Delta,” and was sponsored by the *Water Education Foundation and the Delta Conservancy*. Dr. Michael Dettinger, a Senior Research Hydrologist for the USGS National Research Program, presented much of interest on the drought, with many graphics, though with the underlying theme of global warming. The following link is to the same presentation as reported by *mavensnotebook.com* from an earlier conference.

### ***Deconstructing the current California drought***

*[November 3, 2016 Maven Conferences and Seminars](http://www.mavensnotebook.com/2016/11/03/deconstructing-the-current-california-drought/)*

*<https://mavensnotebook.com/2016/11/03/deconstructing-the-current-california-drought/>*

*At a brown bag seminar held in September of 2016, Dr. Michael Dettinger, a Senior Research Hydrologist for the USGS National Research Program, presented his analysis of the multi-year deficits that have accumulated during this drought including deficits in precipitation, snowpack, streamflow, reservoir storage, and hydropower generation. Dr. Dettinger said he had dug into these questions because he was trying to understand which parts of the system were being hit hard by the drought, and which ones weren't, and to trace the drought influences through the state's water systems.*

## **At Least the Title Is Exciting**

An extensive article on the climatic phenomenon perhaps facilitating and intensifying the California drought is this story from *vcreporter.com* on November 2. This is for those wishing to explore the complexities of climate and weather. I have excerpted the article a little more than usual.

### ***ON THE BRINK | Southern California faces dire, drier future***

*By Kit Stolz*

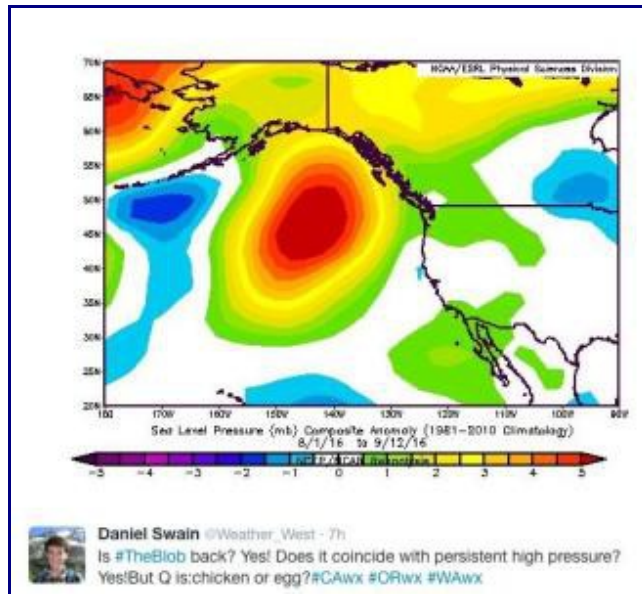
*Nov 2, 2016*

*<https://www.vcreporter.com/2016/11/02/on-the-brink-southern-california-faces-dire-drier-future/>*

*“In the fall of 2013 and early 2014, we started to notice a big, almost circular mass of water that just didn't cool down as much as it usually did, and by the spring of 2014 it was warmer than we had ever seen for that time of year,” said Bond, the state climatologist of Washington.*

*The Blob, which reached north into the Gulf of Alaska, was 1,000 miles across, 300 feet deep and as much as 7 degrees Fahrenheit above normal for ocean waters in the area. Arising from a marine heat wave that*

*moved slowly across the Pacific in 2013, The Blob's heat caused horror-movie-style havoc across the spectrum of marine life, from the tiniest of phytoplankton to the largest of mammals, including a mass death of whales in the Gulf of Alaska.*



Climate scientist Daniel Swain tweeted in October this image of The Blob, an extraordinarily large, warm circular mass of ocean water off Washington and the west coast of Canada up to the Gulf of Alaska.

*Nate Mantua, a scientist with the National Oceanographic and Atmospheric Administration (NOAA) in Santa Cruz who began his career studying warming trends in the Pacific to better understand what was happening to oceangoing fish, sees the continent-sized “marine heat wave” that spread slowly across the Pacific from the Indonesian seas as a tremendous issue.*

*“I think this is the largest ecological event of our lifetimes,” he said. “It’s bigger than the 1982-1983 El Niño, bigger than the 1997-1998 El Niño [which brought huge flooding to Southern California].”*

*A look at maps published by the U.S. Drought Monitor shows that Ventura County is at the epicenter of the worst drought in the nation. We live today in an “exceptional” dryness, according to measures of soil and plant moisture — the worst of the five categories of drought.*

### **WHY THE DRYNESS AND HEAT?**

*This August was the hottest on record in California, according to NOAA.*

*To explain why, meteorologists and climatologists point to an unusually persistent ridge of high pressure that has been blocking weather systems that might otherwise have brought cool winds and precipitation to California from the north.*

*“This high-pressure system has been sitting over the Southwest deserts for much of this summer,” said Eric Boldt, of the National Weather Service station in Oxnard. “This tends to push the storm track north, and creates a thicker atmosphere over our heads, which is why it’s known as a ‘heat dome.’”*

*Mantua, who co-authored the marine heat-wave study, said that although the cause of the drought in California has not yet been proven, many experts suspect a link between the marine heat wave, The Blob it helped spawn, and the persistent ridge of high pressure that brought us heat and drought in the summer and dryness in the winter.*

*“One way to look at it is to say that the same weather pattern that created the marine heat wave also created the big problems in the climate over the West Coast, including these heat waves,” said Mantua. “We have the continuation of the severe drought, record temperatures in 2015, and that’s stressed terrestrial ecosystems, including coastal oak forests and a massive die-off in the pine forests.”*

*Already, experts expect at least an additional 10 percent of the Southwest to dry out this century. "As the atmosphere warms, it can hold more moisture, and it gets this moisture from plants and soils over land. That lowers soil moisture. This would favor a shift in some semiarid systems to arid," said Jonathan Overpeck, who oversees the Institute of the Environment at the University of Arizona. "It's all about odds, and with continued global warming, the odds go up that many semiarid regions would dry out enough to become arid regions. Southern California includes such regions."*

## **The Delta Tunnels**

Very large projects commonly do not go as planned. The following from *KCET* on November 2 compares and contrasts the Delta Tunnels to the disastrous tunneling project in Seattle. This is more than important given that Brown has promised that the entire tunnel project's cost will be made by those agencies that receive the water. Some excerpts and a link:

### ***Delta Tunnel Planners Should Learn From Seattle's Expensive Goof***

*By Conner Everts*

<https://www.kcet.org/redefine/delta-tunnel-planners-should-learn-from-seattles-expensive-goof>

#### ***Seattle's Big Dig vs. the Delta Tunnels***

*The [Alaskan Way Viaduct \(Highway\) replacement tunnel project](#) in Seattle and the proposed [Delta tunnels](#) in California have some interesting parallels.*

*But one thing the two projects don't have in common is length. The Seattle Tunnel, a single tunnel, will eventually be just 1.7 miles long. The proposed twin Delta Tunnels would be 35 miles long, for a total of 70 tunnel miles.*

*The Alaskan Way Viaduct replacement tunnel will be a single, deep-bore tunnel that will contain two levels of traffic with a massive diameter of 57.5 feet.*

*The proposed Delta tunnels are pressurized water tunnels, each 44 feet in diameter with 6-foot-thick walls, which will require a boring diameter of 52 feet, making each Delta Tunnel similar in size to the Seattle Tunnel.*

#### ***Project Delays***

*STP had an \$80 million tunnel-boring machine nicknamed "[Bertha](#)" built especially for the Seattle tunnel project. Bertha began digging on July 30, 2013.*

*In December 2013, Bertha hit a metal pipe and overheated. The machine could not move backwards for repairs because it had laid a concrete wall behind it. Bertha had to be dug out of the ground, taken apart, repaired, and reassembled. That process took two years. The 1.7-mile, four-lane tunnel was originally supposed to open to drivers by the end of 2015. The project's new proposed completion date is early 2019.*

*Responsibility for Bertha's two-year delay is now before the courts. The contractor claims the state did not warn them of the metal pipe. STP filed claims of more than \$200 million. Who will pay the final costs may not be known for years. If STP wins this case, state taxpayers will pay these costs.*

*In July 2016, Washington taxpayers were told they will also be on the hook for another \$223 million in costs to keep staff and engineers engaged until 2019. Gasoline taxes, tolls, fees, or perhaps more transportation-fund debt would pay for those costs.*



While on the topic, here is a link to a question and answer format item from *scpr.org* introducing Southern Californians to the tunnel project.

## **8 things Southern Californians should know about the controversial Delta tunnels project**

By Emily Guerin

October 13, 2016

<http://www.scpr.org/news/2016/10/13/65576/8-things-southern-californians-should-know-about-t/>

## **Desalination: Progress on the Huntington Beach Plant?**

There appears to be progress on moving the proposed Huntington Beach desalination plant forward. The plant will be a virtual twin to the Carlsbad plant, which has been producing 50 million gallons of fresh water per day for almost a year now. Here is a link and excerpts from a November 3 article:

### ***Poseidon finds common ground with Coastal Commission, two other agencies***

By Parimal M. Rohit

November 3, 2016

<http://www.thelog.com/news-departments/poseidon-finds-common-ground-with-coastal-commission-two-other-agencies/>

### ***Joint agreement could allow plans for Huntington Beach desalination plant to move forward.***

*HUNTINGTON BEACH — Poseidon Water came to terms with two state agencies and a regional water board to streamline the permitting process for a planned desalination plant in Huntington Beach, it was announced Oct. 13.*

*The joint agreement included Poseidon Water, California Coastal Commission, California State Lands Commission and the Santa Ana Regional Water Quality Control Board.*

*A statement released by Poseidon claimed the joint agreement would “clearly define the remaining permitting process.”*

## **Hybrid Rice to Increase Yields, and Feed a Growing World**

*Nov. 7, 2016 (EIRNS)—One of the important discussions that took place at a meeting on Saturday, Nov. 5 in Kunming, China, was held among agriculture ministers from the China-Central and Eastern Europe countries, (CCEE). Under consideration was the critical contribution to ending world hunger that can be made by hybrid rice. As reported in today’s Global Times, China’s “father of hybrid rice,” Yuan Longping, stated that hybrid rice could help feed 70 million more people worldwide.*

*“Hybrid rice will play an important role in the new century,” Yuan said, “in terms of food safety and the furtherance of world peace.” Statistics reported in the article, from the United Nations Food Program, which most likely underestimate the problem, though still dramatic, show that about 795 million people do not have enough food to lead a healthy active life.*

*Yuan took on the argument by critics who say that the focus should be more on quality than quantity, to which he replied that both should be improved. The “green” argument was presented, that the hybrid rice*

*should not be promoted because it requires fertilizer and pesticides, which harm the "environment." (Never mind the "environment" of starving people...)*

*Yuan reports that hybrid rice can increase crop yield by 20%.*

*"Rice is the staple food for more than half of the world's population," he said. Rising population will require a 60% increase in rice production by 2030. Today, a one-hectare rice field can sustain 27 people. "That number has to reach 43 by 2050," he calculated. Today, about half of China's rice fields use hybrid rice species, producing 60% of the rice. Using Yuan's hybrid rice, China has increased output from 5.69 billion tons in 1950, to 19.47 billion tons last year.*

*According to Yuan, more than 4,000 technicians and agricultural officials from more than 100 countries have had training at the China National Hybrid R&D Center in central Hunan Province. Chinese Premier Li Keqiang sent congratulations to the meeting, in which he said that China will align its development strategies with the CEE countries, "and share development experiences to further promote the level of agricultural cooperation, and bring benefits to the people of all these countries."*

