



Image by Bogdan

What Cannabis Growers Know that Climate Scientists Don't Know

By Steve Goreham

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On November 3, the U.S. Global Change Research Program [released](#) the *Fourth National Climate Assessment*, a 477-page document filled with concern about Earth's changing climate. The study concluded that human emissions of carbon dioxide (CO₂) cause dangerous global warming. But cannabis growers know something that climate scientists apparently don't know.

The Fourth Assessment is an alarming document that uses the word “extreme” more than 700 times to describe storms, floods, droughts, precipitation, snowfall, temperature, and other weather variations. The Assessment concludes that “Reducing net emissions of CO₂ is necessary to limit near-term climate change and long-term warming.” Essentially, the report concludes that CO₂ emissions are dangerous.

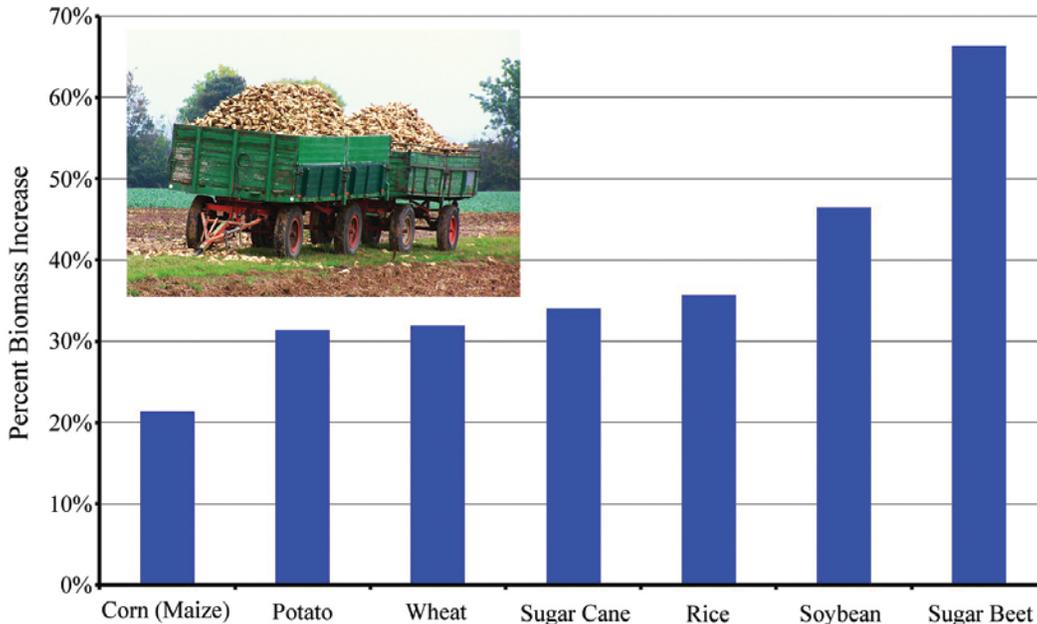
While the Assessment doesn't call CO₂ “pollution,” other parties use the report to do so. The American Academy of Sciences [states](#) that the Assessment “reinforces that warming temperatures and extreme weather” are “the result of carbon pollution from human activities.” *The Atlantic* [says](#) that the Assessment confirms that “Climate Change is real. It's caused by greenhouse gas pollution released by human industrial activity.”

But marijuana growers know that carbon dioxide isn't pollution—it's plant food! Any smart cannabis grower pumps carbon dioxide into the greenhouse to make the pot crop grow bigger and faster. Marijuana growers use canisters of CO₂ gas and CO₂ generators hang from greenhouse rafters to boost crop yields.

Hundreds of peer-reviewed studies show that plants grow bigger with higher levels of

atmospheric carbon dioxide. In 2011, Dr. Craig Idso, founder of the Center for the Study of Carbon Dioxide and Global Change, [compiled](#) the results of more than 1,000 scientific papers reporting on CO₂ enrichment experiments. He developed estimates of the mean crop growth rate in response to a 300-ppm increase in the level of atmospheric CO₂. The data shows that all 92 of the world's food crops grew larger with increased levels of carbon dioxide. The world's seven largest food crops, corn, potato, rice, soybean, sugar beet, sugar cane, and wheat, grew between 21 and 66 percent larger in controlled experiments.

Increased Food Crop Growth from Increased CO₂ (Additional 300 ppm Atmospheric CO₂ Concentration)



Data from Idso (2011), Image by Sven Wusch

Plants get bigger fruits and vegetables, thicker stems, and larger root systems with higher levels of atmospheric carbon dioxide. Higher levels of CO₂ also make plants more resistant to drought.

The recent rise in atmospheric CO₂ that climate scientists fret about is actually greening the Earth. A 2013 study led by Dr. Randall Donahue of Australia's Commonwealth Scientific and Industrial Research Organization [analyzed](#) plant growth using satellite data. After accounting for changes in precipitation, the study found an eleven percent increase in global leaf area from 1982–2010. Most of this increase was attributed to rising levels of atmospheric carbon dioxide.

Rather than a negative, rising levels of atmospheric CO₂ must be boosting global agricultural output. If there is one compound that humans can put into nature that is great for the biosphere, carbon dioxide is that compound. But today carbon dioxide is branded "pollution" and every company and every university foolishly tries to reduce CO₂ emissions.

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