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CARBON DIOXIDE (CO₂) GOOD OR BAD?

There are two large schools of thought about carbon dioxide; one faction states that increased emissions will cause global climate change, while the other faction insists that we are at a historical low of carbon dioxide (ppm) in the atmosphere and weather patterns are controlled by other factors such as sun spots.

I received an email this week from the pro factor which stated the following:

Nature craves more carbon dioxide

□ Government policies to force drastic cuts in carbon dioxide (CO₂) emissions, out of fear of CO₂ as a 'pollutant', are insane a fact underscored by recent testimony before the U.S. Senate by award-winning Princeton University physicist Dr. Will Happer.

In the U.S. Senate Environment and Public Works Committee hearings on 25th February, Dr. Happer declared man-made global warming fears were 'mistaken' and noted that the Earth is currently in a 'CO₂ famine'.

Dr. Happer stands alongside more than 31,000 scientists who have signed a petition opposing the quack science of global warming a petition which makes the specific point that 'there is substantial scientific evidence that increases in atmospheric carbon dioxide produce many beneficial effects upon the natural plant and animal environments of the Earth.'

The global average atmospheric CO₂ concentration is currently a tiny 387 ppm (parts per million) just a trace gas and trees and plants are craving for more, yet fools are threatening to decimate our economy, in order to reduce this life-giving gas. In the last 600 million years of Earth's history, only the Carboniferous Period (approximately 300 million years ago) and our present age, the Quaternary Period, have witnessed CO₂ levels less than 400 ppm.

Commercial greenhouse operators are advised to add enough CO₂ to maintain about 1,000 ppm around their plants. Carbon dioxide generators for greenhouse operators produce CO₂ by burning liquid propane or natural gas. The healthy plants respond just as plants have responded for most of the history of life on earth when CO₂ concentrations were naturally this high, if not higher.

The dinosaurs survived just fine when CO₂ concentrations exceeded 2,000 ppm and 450 million years ago, late in the Ordovician Period, the earth went into an Ice Age when carbon dioxide levels exceeded 4,000 ppm so much for CO₂ induced global warming! Coral has thrived throughout these enormous natural climatic and atmospheric changes. Exhaled human breath contains about 4% CO₂. That is 40,000 ppm levels which carbon reduction fanatics would consider to be concentrated pollution.

It is a fact that in a controlled environment such as a glasshouse if you scatter dry ice (carbon dioxide) the plants growing there will receive a growth burst just like they received a big dose of nitrogen.

From a web site at www.expresswayonline.com/expwys/greening_earth.html we find the following:

In The Netherlands, researchers at the Glasshouse Climate & Technology Research Station for Floriculture & Glasshouse Vegetables grow vegetables such as cucumbers, tomatoes, eggplant, squash, lettuce and radishes at two to four times the atmospheric CO₂

level, that is, between 700 to 1,400 parts per million (ppm).

"The results of growing at elevated CO₂ levels are more rapid growth, earlier maturity, larger fruit size, greater weight, and a greater total yield of about 25 percent," said the station's chief, Gustaaf Anton van den Berg.

At the University of Florida, elevated CO₂ levels are stimulating rice growth and grain yield by factors of 30 to 40 percent. "We get increased carbon uptake through photosynthesis," said Dr. Jeffrey Baker, of the UF Agronomy Department. "We also get a decline in total water use, and all this translates into an increase in grain yield."

Higher CO₂ levels have greatly increased the growth of cotton crops, reports Dr. Bruce Kimball, Water Conservation Laboratory, U.S. Department of Agriculture. "We found that in enriching the crop to about 550 parts per million -- which is 200 parts per million above our control plots -- that the growth is increased by about 40 percent more."

There's no doubt that carbon dioxide levels now are higher in our atmosphere now than in the recent past. Atmospheric levels of carbon dioxide appear have risen from 272 parts per million (ppm) from 1700 A.D., as postulated from ice cores, to 348 ppm in 1998.

This is proportional to the increase in world population, from 0.5 billion in 1770 to 5.1 billion in 1998. This rise in carbon dioxide is due partly to accelerated human activity, but also comes from natural sources. More recently, carbon dioxide levels have risen from 300 ppm to 360 ppm in this century.

I noted with interest that during the recent bush fires in Australia a commentator stated that the increased CO₂ levels in the atmosphere had greatly increased the growth of trees and under bush which was a contributing factor to the size and intensity of the fires.

From the above web site they state the following:

But real-world conditions are complicating the climate change prognosticators and throwing computer forecasting models into error. For example, the degree of rise of CO₂ concentrations in the atmosphere is slowing from earlier estimates, due in part because the CO₂ is being locked up in the plant biomass through accelerated plant growth.

Also, other unpredictable or overlooked elements such as cloud cover, water vapor (comprising some 96 percent of all greenhouse gases), heat transport and sunspot cycles throw monkey wrenches into climate change predictions. To date, not a single computer model has predicted any current condition with any degree of accuracy, nor has there been any statistical evidence for a warming planet.

But we do know two things: That CO₂ levels in the atmosphere are increasing, and that higher CO₂ levels enhance plant growth. And that alone should be enough to make Mother Earth smile.

Likely you have noted that the growth of your garden plants in recent times has been extremely good in fact I have been amazed at how much growth has happened over the last few weeks.

Most of the country has received a good amount of rain so that is a factor to this increased growth.

Rain brings natural nitrogen to the plants and soil and not being chlorinated means it does not harm the vital soil life which also contributes greatly to the healthy growth of plants. Autumn is a great time to garden and with increased CO₂ levels it means that plants can gain more energy through photosynthesis which compensates for the shortening day light hours.

In other words; more energy gained as a result of increased CO₂ during shortening sun light time.

This makes for a longer growing season in some areas and faster maturity times; all to our advantage.

Problems ring me at 0800 466464 (Palmerston North 3570606)