

Hemp to Butanol – Everything Else is Second Best

Intro to Green Energy

Hemp distilled into butanol is ultimately our only sensible alternative to oil for fuel. Understanding this requires education. There must be a willingness to accept that over 70 years of propaganda against hemp must end. Persecution of perhaps the most useful plant the Creator gave us must stop. It will take action by everyone here to make that happen. To one extent or another we are all part of the problem, and it's up to us to fix it.

Issues

Global Warming

Global warming is happening. Anyone who is well informed, or especially has studied geology or meteorology understands this fact. Examine the credentials or funding source for the entities that dispute this fact. You will understand their connection to industries actively participating in the production of the phenomenon. It's easy to understand why the problem is happening with a little study.

Fossil Fuel Source & Ramifications

Global warming is caused simply by the return of carbon dioxide to the atmosphere which was removed hundreds of thousands of years ago. When coal or oil is burned, carbon that was locked in ancient deposits is returned to the atmosphere. If we continue, this will ultimately recreate the same atmosphere – and weather – that existed then.

Economics

In order to allow a return to sensible behavior, the economics of hemp prohibition needs to be addressed. There are a number of factors and forces that went into making hemp illegal in the first place. Economics always plays an important part in any human activity. "Follow the Money" is now a phrase from popular culture, which does nothing to take away from its ability to arrive at the truth.

There are four major areas where hemp was undesirable competition for the economic powers existing at the time it was made illegal. Let's call these the four F's: fiber, food, pharmaceuticals, and fuels.

Cotton vs. Hemp

Cotton for clothing is shorter wearing than hempwear. The hemp decorticator was slower

coming than the cotton gin, and cotton got the market advantage. Slave labor made it even more economical despite the ethics. Ethics was not what made cotton self-proclaimed 'king' however.

Cotton farming is responsible for the presence of roughly half of the agricultural pollution produced due to the high amount of pesticides and fertilizers the plant requires to be grown in commercial quantities. Cottonseed oil may not be used as food because of this chemical pollution. Without these toxic chemicals, cotton would be much more expensive to produce. Compare the cost of organic cottonwear to its normal equivalent to check this.

DuPont and other large chemical interests are not looking forward to losing up to half of their agrochemical business, so guess what side they are on? Those who know hemp history understand that it may not be coincidence that DuPont patented Nylon® the same year its main fiber competitor hemp was made illegal. Would you advocate a solution that would take away half your current business? Follow the money.

Soy and Corn vs. Hemp

For food as well, hemp is superior. It was never used for food much here in the United States, so even though it contains the best highest concentration of essential fatty acids of any food we were given, it cannot be grown for that here.

The giant agrobusinesses have invested heavily in corn and soy. It is only natural that the solutions these businesses propose promote these products. Follow the money.

Pulpwood vs. Hemp

Those familiar with hemp history will know about DuPont's chemical interests and Mellon's oil interests. Using their colleague Hearst's newspapers which were printed on DuPont's relatively new wood pulp paper, hemp was demonized so that it could be made illegal in Congress. Now that the decorticator was available to capitalize on hemp's profound ability to produce superior quality fiber, something had to be done.

This original law, the Marijuana Tax Act, was found to be unconstitutional in the 1970's so other methods had to be used to make it illegal once again. This time the prohibition economy couldn't afford to be shut down. This has made the whole prohibition industry self-sustaining. Any information provided by the prohibition industry shows that same interest in self-preservation, despite facts to the contrary.

Pharmaceutical Industry vs. Hemp

After the Marijuana Tax Act was struck down, the excuse used to make hemp illegal *again* was

pharmaceutical. The claim was made that there were no known medical uses for the plant. This despite its inclusion in the United States Pharmacopoeia less than a century before, as well as literally thousands of years of history of such use. Because hemp is a natural herb, any product derived from it would be more difficult to patent. Without a patent, the guarantee of profit would not exist.

Oil and Corn Ethanol vs. Hemp Butanol

Following the history of these other commodities, we see that they may all just be byproducts of the real prohibition that has occurred. We have been prohibited from using the best possible source of food and fiber on the planet. What about fuel? Naturally, the oil interests are the most powerful forces against hemp. These forces helped make it illegal in the first place, and they are also responsible for distracting efforts from solutions outside their financial agenda.

As Ray Kallman suggests in his excellent recent essay "What Happened to My Country?," the war in Iraq is likely being fought to secure the future of the petrodollar. This is the unit of exchange which our economy has been based on since the dollar was taken off the gold standard. Thus, the securing of true energy independence is actually that of the highest National Security concern. We must find another way to keep our economy flowing and growing. The basis for our current economic prosperity does have an end in sight.

Law

Law was used as the mechanism to eliminate the choices we have been denied. It will have to be the solution to restore them as well. The lies that have been used to justify the demonization of hemp, probably the most useful plant on the planet, must be countered. New law that encourages responsible action that benefits mankind and the ecology must replace that which benefits only a limited number of arguably greedy entities.

To deny the use of hemp because it is also marijuana is simply stupid. Marijuana is not only not dangerous, it is botanically and medically non-toxic. One simply cannot ingest enough of it to do permanent or serious damage. If you believe otherwise, you're simply wrong, and I dare you to try to support your position with actual facts and peer-reviewed science. I know you can't do it, so I assume you have an agenda behind your erroneous position. How do you profit by it being illegal? How would you lose if it were legal?

Solutions brought by using Butanol from Hemp

Fortunately, there are independent scientists working on the problem. In Ohio there is a company called Environmental Energy run by Dave Ramey which has patented a new process for producing Butanol from any biomass. That means that there is an alternative to gasoline

for our cars that is best produced locally. Butanol distillation can help with a number of ecological, social, economic, and even National security issues we face today.

Butanol is a type of alcohol, and is nothing new. What *is* new is that there is now an efficient production process that allows the other advantages of Butanol to be realized economically. Because all of our choices about energy revolve around economics, it has taken a new process to allow the potential of the combination of hemp and butanol to be realized. The combination is our greatest hope for energy independence and freedom from worldwide petrodollar manipulation.

Carbon Cycle Management

Butanol also provides immediate benefit for carbon cycle management. This is because the carbon dioxide produced when butanol is burned was removed from the atmosphere in a previous season. Global warming is happening because the carbon dioxide produced when fossil fuels are burned was removed centuries and millennia ago. It is a simple cause and effect. We have the power to stop and even reverse the damage with more prudent energy choices.

Green Fuel

The prudent choice is of course to use green fuels and other environmentally sound methods such as wind, wave, and solar energy in conjunction with biomass energy. Since it's not likely we will wean ourselves of our automobiles anytime soon, we will have to find a better way of running them. The hurdles are economic, yet greatly dependent upon legal policy as well that currently favors bad choices.

Source

The source for the green fuel we use is of crucial importance. There are reasons why the most popular choice being discussed now is less than ideal.

Ethanol has problems

There are ethical problems with using food for fuel when so much of the world is starving - I disagree with the ethics of using corn for fuel of any type. Period.

Hemp grows in more places and in more marginal soils than corn. Ethanol produced from corn or similar crops is less desirable for a number of reasons – crop rotation issues, crop verticality (monocrop) problems, and the food as fuel ethical issue among others. Since hemp can produce as much or more weight per acre year as any other alternative crop, it is ideal for use as biomass for conversion to fuel in a butanol distillation process.

Ethanol cannot be used directly in gasoline engines without modification, and is more corrosive than butanol as well. The auto industry knows that if they push ethanol you'll have to buy more replacement parts for your engine. Butanol can also be shipped through existing pipelines designed for oil, whereas ethanol cannot. Ethanol is more dangerous than butanol as well because of its higher vapor pressure. Ethanol is lower in octane than butanol. Ethanol has lower energy content when used either directly as a fuel or as a hydrogen carrier in fuel cell applications.

Butanol has solutions

Raw or waste biomass used for butanol is far preferable to using corn for ethanol. There is no need to burn gas in our cars, let alone food, when we can burn grass in our cars. Using weeds or agricultural waste to produce energy makes much more sense than using food or fossil fuel. Farmed deliberately for biomass, there is no crop more productive than hemp in as wide a variety of arable locations. No other crop can be used in as many locations as either a primary or secondary energy crop.

Butanol has a higher energy content than ethanol, and is therefore more valuable than even wood-sourced ethanol. Because the biomass produced by hemp can fuel butanol distilleries in more locations than any other crop, law needs to be changed to allow its use. Hemp is probably the premiere biomass plant. Any part of the plant is useful, so the farming of industrial hemp for any other purpose need not leave any useless waste. There is no such thing when farming hemp. Butanol plays its role as the most promising product from hemp biomass.

Butanol instead of Gasoline Ramifications

Fossil fuel is environmentally unsound and should be made illegal for its proven detrimental first-hand effects and disastrous impact on our ecology and individual health. In contrast to its skewed carbon cycle, the near-zero-gain results produced by growing and fermenting our energy would make much more sense.

Decentralization of PetroAgroPharmæconomy

An industrial hemp crop can routinely produce more than one product when harvested carefully and processed properly. Because Cannabis is a superior source of food, fiber, and even pharmaceuticals, any of these other uses can be the primary reason the farmer grows industrial hemp. Local processing of waste products will ensure that any biomass not the result of primary farming efforts can still be distilled into butanol.

The "Fourth 'F'," Fuel, can be either a primary product or a way to recover virtually all so-called waste product from the plant. This is true whether the primary crop was grown to

replace cotton and its pesticides or wood pulp and associated deforestation. It is the more environmentally responsible choice each time.

Oil vs. Butanol from Hemp

Hemp is bulky and transporting it is expensive. This means hemp farming for biomass would revitalize small farms and lead to local production of the fuel as well. This would of course revitalize local economies currently under stress by producing lots of non-government jobs. There is ongoing research into creating butanol stills that are portable as well; such compact technology can allow the most remote communities to establish their own energy independence.

Butanol can act as a hydrogen store for applications in other green fuel technologies. Because of the extra hydrogen atoms relative to ethanol, it actually could help to solve certain transportation and storage problems associated with hydrogen fuel cell technology. The biggest benefit will be almost immediate – the ability to directly replace gasoline in any proportion, now, in whatever vehicle you're using it in.

Education instead of Indoctrination

The only thing in the way is a fraudulent law based on deliberate deception without scientific support against the most useful plant the Creator gave us.

Summary

Will you continue to be part of the problem or will you become part of the solution? If you think hemp is dangerous, you are dangerously misinformed. If you believe it should not be legal, your ignorance is harming my planet, my family and friends, and you need to feel obligated to educate yourself. I have a right to defend myself, and you don't want to be considered a threat.

The future of the planet and perhaps our species depends upon us making responsible choices now, as each of us can. Do you own an SUV? Why? Is it out of necessity, or arrogance? Do you know whether the stocks you own in your mutual funds or portfolio – even your 401k – are directed at immediate profit or long-term viability? Don't you think it's time you found out?