

**Editor's
Notebook**



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**The Exciting World
Of New Energy Ideas**

High energy prices have inspired an amazing new generation of inventors. This issue features a wide variety of latest new ideas, such as the following:



To produce hundreds of tons of algae, water is pumped through a series of clear plastic bags hanging from the roof of a greenhouse.

"Algae Oil"

Algae oil might be the fuel of the future, says Glen Kertz, scientist at Vertigro Energy, a company that's come up with an innovative way to produce up to 100,000 gal. of algae oil per acre per year. (In contrast, corn yields about 500 gal. of ethanol per acre.) The El Paso, Texas, company pumps water through clear plastic bags suspended in tight rows in greenhouses. As algae forms, it's siphoned off and refined into fuels. Vertigro scientists are currently identifying which variety of algae is best suited for the purpose. The company claims that if an area the size of 1/10th of the state of New Mexico could be converted to greenhouse algae production, it would produce enough oil to meet the transportation needs of the entire U.S. (www.globalgreensolutionsinc.com).

Biodiesel "Breakthrough"

A Minnesota college student has made quite a splash in the biodiesel world by coming up with a new way to produce fuel out of plant material. Brian Krohn, 21, teamed up with his college chemistry professor, Arlin Gyberg, to design a process that can squeeze oil from a wide variety of products, from animal fat to algae to distillers grains left over from ethanol production. What's unique about the new process is that it uses very little water and doesn't produce a lot of waste.

Normally, companies make biodiesel by mixing soybean oil with a sodium hydroxide "catalyst" in a tank that's heated to a high temperature. The "batch" process takes hours to complete and produces waste that must be neutralized with either hydrochloric or sulfuric acid. The new method, called the Mcgyan method, uses a metal oxide catalyst that's added to feedstocks inside a tubelike reactor, using a continuous flow method that's much more efficient and produces little waste.

A \$5 million production plant is under construction by StarTec Corp. in Isanti, Minn., which has licensed the technology. The plant will produce 3 million gal. of fuel a year using the process. It's slated to go into production in October of 2008.

Hybrid Car To Get 113 Mpg

Toyota's Prius hybrid car has been around for about 10 years now and hundreds of thousands have been sold. If you've had a chance to ride in one, you know it has plenty of power and maneuverability.

The British magazine AutoExpress recently reported that Toyota engineers are targeting fuel mileage of 113 mpg for the next generation of Prius hybrids, with 0 to 60 acceleration of less than 10 sec. When the new models are introduced in 2009, they'll have smaller and lighter lithium ion batteries, which have more capacity than nickel hydride batteries. The more powerful batteries will allow the hybrids to run more on electricity and less on gas.

Air Car Hits The Market

A French-designed car powered by compressed air can go 70 mph and has a range of 125 miles on flat roads. It uses high pressure air to drive two pistons and you can breathe the car's exhaust. The Midi car has been on the market on a limited basis in France for a couple years. Recently, India's Tata Motors bought rights to build and sell the cars in India.

The Midi's engine weighs just 80 lbs. Fuel is compressed to 4,350 psi but the company, Negre's Motor Development, says that in a collision the tank would harmlessly split down the sides with no explosion. Because of its limited range, compressed air filling stations will obviously have to be close by wherever the cars are sold.

A U.S. company, Zero Pollution Motors in New Paltz, N.Y. (www.zeropollutionmotors.com), plans to roll the car out in the U.S. in 2010 for \$18,000.



Quotable Quotes

- "Live each moment as if your hair is on fire." *Suzannah B. Troy*
- "I've always wanted to be somebody. But now I see I should have been more specific." - *Jane Wagner*
- "I don't know the key to success, but the key to failure is to try to please everyone." *Bill Cosby*
- "The thermometer of success is the level of jealousy from the malcontents." *Salvador Dali*
- "I cannot believe that the purpose of life is to be 'happy'. I think the purpose of life is to be useful, to be responsible, to be compassionate. It is, above all, to matter: to count, to stand for something to have made some difference that you lived at all." *Leo Rosten*
- "If you think health care is expensive now, wait until you see what it costs when it's free!" *P. J. O'Rourke*
- "The key to wisdom is this - constant and frequent questioning ... for by doubting we are led to question and by questioning we arrive at the truth." *Peter Abelard*
- "Everyone should keep a fair-sized cemetery in which to bury the faults of his friends." *Anonymous*

Hydrogen Companies "Swamped"

Three stories in the last issue of FARM SHOW about add-on hydrogen kits designed to boost fuel mileage, sparked tremendous interest amount readers. The companies featured have been swamped with orders and inquiries.

We've recently talked to the people behind all three stories and the message from all of them is: Please be patient.

All three hydrogen innovators said they're working on getting back to people and trying to fill orders. One of the hydrogen injectors featured, from Robert Ferreira (robmadferreira@xtalwind.net), is not on the market. He developed it for his own use but is considering putting detailed plans together over the next couple months. The other two companies featured, Eagle Research (www.eagle-research.com) and Stan McDonald (smcdonal@kos.net) are in production and shipping units.

One note: FARM SHOW purchased a hydrogen kit from Eagle Research and we're installing it on a vehicle for road tests. Once we have a few thousand miles under our belt, we will report the results. So stay tuned.

A farmer was approached by a stranger one day who asked how much the farmer thought his prize bull was worth. The farmer thought for a moment, looked the stranger over, then said, "That depends. Are you the tax assessor or has she been killed by your car?"

For most of life, nothing wonderful happens. If you don't enjoy getting up and working and finishing your work and sitting down to a meal with family or friends, then the chances are you're not going to be very happy. If someone bases his happiness or unhappiness on major events like a great new job, huge amounts of money, a flawlessly happy marriage or a trip to Paris, that person isn't going to be happy much of the time.

If, on the other hand, happiness depends on a good breakfast, flowers in the yard, a drink or a nap, then we are more likely to live with quite a bit of happiness.

Andy Rooney

Definitive explanation of the word UP that you may think confusing: A drain must be opened UP because it is stopped UP. We open UP a store in the morning but we close it UP at night. We seem to be pretty mixed UP about UP! To be knowledgeable about the proper uses of UP, look the word UP in the dictionary. In a desk-sized dictionary, it takes UP almost 1/4th of the page and can add UP to about thirty definitions. If you are UP to it, you might try building UP a list of the many ways UP is used. It will take UP a lot of your time, but if you don't give UP, you may wind UP with a hundred or more. When it threatens to rain, we say it is clouding UP. When the sun comes out we say it is clearing UP. When it rains, it wets the earth and often messes things UP. When it doesn't rain for awhile, things dry UP. One could go on and on, but I'll wrap it UP because my time is UP, so...it is time to shut UP!

Liberty Quotes

- "Ye shall know the truth, and the truth shall make you mad." *Aldous Huxley*
- "The deterioration of every government begins with the decay of the principles on which it was founded." *Charles-Louis De Secondat*
- "Freedom does not always win. This is one of the bitterest lessons of history." *A. J. P. Taylor*
- "Man is not free unless government is limited ... as government expands, liberty contracts." *Ronald Reagan*
- "A government big enough to give you everything you want, is strong enough to take everything you have." *Thomas Jefferson*
- "As long as men are free to ask what they must, free to say what they think, free to think what they will, freedom can never be lost and science can never regress." *J. Robert Oppenheimer*
- "Express everything you like. No word can hurt you. None. Not being able to express an idea or word will hurt you more. Like a bullet." *Jamaica Incaid*
- "It is clear that thought is not free if the profession of certain opinions make it impossible to earn a living." *Bertrand Russell*
- "One's first step in wisdom is to question everything - and one's last is to come to terms with everything." *Georg Christoph Lichtenberg*

Ole was terribly overweight, so his doctor put him on a diet. "I want you to eat regularly for 2 days, then skip a day, and repeat this procedure for 2 weeks. The next time I see you, you should have lost at least 5 pounds." When Ole returned, he shocked the doctor by having lost nearly 25 pounds! "Why that's amazing!" the doctor said, "You followed my instructions?" Ole nodded and said... "I tell you though, I taut I was gonna drop dead dat 3rd day." The doctor asked, "From hunger, you mean?" "Nope. Yust from all dat skippin'!"

An older gentleman was on the operating table awaiting surgery and he insisted that his son, a renowned surgeon, perform the operation. As he was about to get the anesthesia he asked to speak to his son. "Yes, Dad, what is it?" "Don't be nervous, son; do your best and just remember, if it doesn't go well, if something happens to me, your mother is going to come and live with you and your wife."

A stranger in a small town wanted to get acquainted with folks, so he went over to the village square and saw an old-timer sitting by a mean-looking German Shepard. He looked at the dog a little tentatively and said, "Does your dog bite?" The old-timer said, "Nope." So the stranger reached down to pet him and the dog lunged at him and practically took off his arm. The stranger, as he was repairing his shredded coat, turned to the old-timer and said, "I thought you said your dog doesn't bite." The guy says, "Ain't my dog."