

Limited resources and unlimited usage.
How can we save it?

Newsletter



**Conserve the energy,
Save our climate!**

March - 2018

Issue : 17

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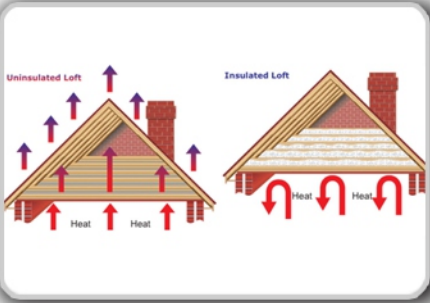
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Why ???

We the people on the earth are gifted with wonderful energy sources by the nature, which has made our routine much more smother & easier... However, this gift of the nature is ' limited '. What we have done is, with the growth of science & technology, we have started using it extremely, because of which the energy resources are going to finish in near future. Hence, let us take the pledge to conserve the energy - save the energy!!!


Tips of the Month




Uninsulated Loft **Insulated Loft**

Insulate your roof

An insulated ceiling makes a big difference to your energy bills. If you already have insulation installed, check that it is properly installed and has the right rating (measured in 'R-value')



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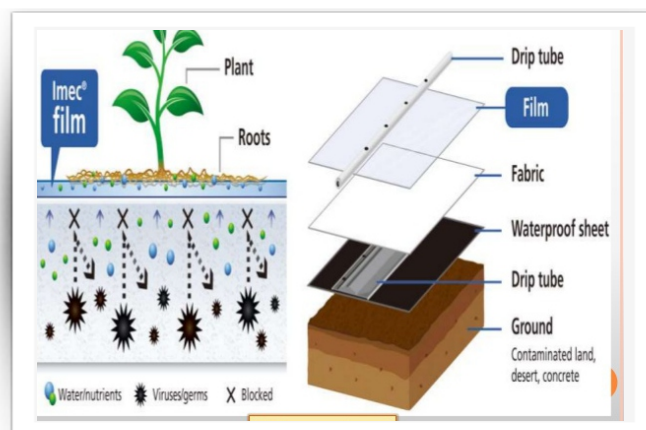
Article - 1 : Film Farming

Film farming refers to an alternative method of organic farming that uses a hydro membrane composed of a water-soluble polymer (hydrophilic booster, SkyGel) and a hydrogel-based IMEC film as opposed to traditional soil. SkyGel acts as a reservoir and fertilizer for the plant, holding water up to 1,000 times its weight. The IMEC film and the SkyGel work together to reduce the plant's water intake by 90% while increasing crop yield and plant productivity. The produce grown with the hydrophilic booster is exceptionally nutritious and rich in sugars, GABA and Lycopene. Additionally, crops grown using film farming technology are resistant to pathogens. The hydro membrane absorbs the water and nutrients provided by the culture medium but it does not release any to the plant side. The surface of the hydro membrane cannot be penetrated by bacteria or viruses so pesticides become unnecessary. Plants grown with a hydrophilic booster have proven to be more resilient with enhanced seed germination and an improved plant survival rate.

This unique method of farming was invented in 2009

by Dubai-based Company Agricel, founded by Yalman A. Khan and Kunal G. Wadhwani. The Agricel network is primarily based in Japan but it has extended to China and Australia. Agricel's vision seeks to feed the future by promoting film farming and the use of hydrophilic boosters in an effort to limit the use of water and to fight world hunger. With the addition of a greenhouse, agriculture can be utilized anywhere in the world with film farming and hydrophilic technology.

Source: http://www.appropedia.org/Film_Farming



*Image source: https://en.wikipedia.org/wiki/Airborne_wind_turbine

Article - 2 : BioLite

BioLite is a first camping stove that can burn wood for cooking and recharging USB-enabled electronic devices. The CampStove was launched in 2012 and is predominantly used by outdoor enthusiasts. The BioLite Camp Stove is a top loading wood stove suspended on a fold-out stand. It comes with an orange battery pack and power converter which converts the heat from a fire into electric power and powers an integrated fan that is used to intensify the heat produced by the wood stove.

Renewable biomass fuels such as sticks, pinecones, and brush power the stove, replacing resources like charcoal or petroleum. The CampStove can boil water in five minutes. Smaller than the Home Stove, the CampStove is 8.25" tall and weighs 33 oz, but like the larger model, excess heat is converted into energy. BioLite sells stoves in over seventy countries. The CampStove has also been used as an emergency preparedness tool. In the aftermath of Hurricane Sandy, tables were set up in New York City, offering those without power hot drinks and a chance to charge their cell phones.

Temperatures can reach between 1200-1600 degrees F in the BioLite. The BioLite Portable Grill, released in

2013, is designed to work with the CampStove. Features include a fuel intake lid for fire maintenance, compact design with foldable legs and a travel cover for transportation. The travel cover can additionally function as a serving dish or cutting board. The steel grill grate has three temperature zones for searing, cooking, and toasting. The grill weighs in at just less than 2 lbs (0.9 kg).

Source: http://www.appropedia.org/Film_Farming



*Image source:

https://www.ems.com/on/demandware.static/-/Sites-vestis-master/catalog/default/dwca01daf9/product/images/1309/498/1309498/1309498_915_alt2.jpg

Article - 3 : Airborne Wind turbine

An airborne wind turbine is a design concept for a wind turbine with a rotor supported in the air without a tower. This new generation of systems employs flying tethered wings or aircraft in order to reach winds blowing at atmosphere layers that are inaccessible by traditional wind turbines.

It is more benefiting from more mechanical and aerodynamic options, the higher velocity and persistence of wind at high altitudes, while avoiding the expense of tower construction, or the need for slip rings or yaw mechanism. Airborne wind turbines may operate in low or high altitudes; they are part of a wider class of Airborne Wind Energy Systems (AWES) addressed by high-altitude wind power and crosswind kite power. Towers are often too low to catch the best winds. By flying remote-controlled wind turbines where winds are stronger and more consistent, a lot more energy can be harvested, and it's clean energy from an endless source.

With Airborne wind turbines, isolated communities in South American jungles or Alaskan islands could have easier, cheaper access to technology that most take for granted.

Electricity would be available to pump clean water from central wells, preventing waterborne diseases.

Refrigeration would be possible in hot climates to keep food fresh and store life-saving prescription drugs. Even cell phone communications might be possible in some places, if cellular repeaters could be integrated into the high-flying turbines.

Source: <http://edition.cnn.com/2014/05/12/tech/innovation/big-idea-airborne-wind-turbines/index.html>



*Image source: <http://www.techaw.com/imec-technology-growing-plants-without-soil/>

Article - 4 : Plant Lamps” Turn Dirt and Vegetation into a Power Source

Researchers at the Universidad de Ingeniería y Tecnología (UTEC) have developed a technique for capturing the electricity emitted from plants. Actually, to be fair, it's Geobacters a genus of bacteria that live in the soil that do the grunt work.

Nutrients in plants encounter microorganisms called 'geobacters' in the dirt, and that process releases electrons that electrodes in the dirt can capture. A grid of these electrodes can transfer the electrons into a standard battery. UTEC has partnered with global ad agency FCB to produce 10 prototypes and distribute them to houses in the rainforest village of Nuevo Saposoa. Each contains an electrode grid buried in dirt, in which a single plant grows. The grid connects to a battery, which powers a large LED lamp attached to an adjustable arm on the outside of the box.

UTEC has a tradition of this sort of humanitarian innovation.” A while back, it found a way of growing plants on platforms using clean moisture pulled from the air in a region whose groundwater and ground has been ruined by pollution.” It's worth noting that UTEC's researchers are hardly the first to make use of Geobacters they're some of biotech's most talented

microbes. In 2009 Time named the “electric microbe” one of its 50 best inventions of the year. Recent research confirms they're electrically conductive to boot, which means in theory they can act like nano wires for transmitting electricity. In addition to power generation, Geobacters have also garnered attention for their ability to metabolize pollution like radioactive material.

Source: <https://www.technologyreview.com/s/543781/plant-lamps-turn-dirt-and-vegetation-into-a-power-source/>



*Image source: <https://thenextweb.com/creative/2017/07/22/dutch-startup-turns-plants-batteries/>

Conserve the Energy,
Save our Climate!

Conserve™
The Energy



It's
Tomorrow™

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