

Food or Fuel?

Using crop land to produce transport energy instead of food for humans and livestock is one of the many responses to rising world fuel prices. In the next ten years, at least a quarter of the maize production in USA will go into biodiesel fuel tanks, not into mouths.

The biofuel required to power 7 million cars in USA is equivalent to how much grain is needed to feed 100 million people. It is the poor who suffer when food prices rise, largely because they import, not grow, most of their food.

Perhaps producing transport energy from food crops is just a transition to solar. Plants are inefficient energy fixers, only 0.5 to 1.5% of the sun's energy ends up as starch, sugar, oil or cellulose and little can be done to improve this. Solar cells can be 10 to 15 times as efficient as the photosynthetic process used by plants.

However, there are ways of processing biofuels from agricultural and forestry wastes and from non-food crops high in cellulose, such as reeds. These might be grown on marginal soils (salt-affected) irrigated with sewage wastewater or factory effluents for ethanol production, without risking food shortages caused by growing crops as first generation biofuels.

4 weeks to go...

Caboolture Sustainable Living Expo - Saturday 17 May 2008 -

for more information contact Wayne at CREEC. Phone - 3888 8751

Please recycle this newsletter by passing it to friends or neighbours.

This newsletter is produced and distributed by volunteers. We believe in its value in communicating information to members of our community who are interested in the environment and the work of CREEC. Contributions welcome

We thank the Moreton Bay Regional Council for their assistance.



**Caboolture Region
Environmental
Education Centre**

**This Newsletter is
on the web at
www.creec.org.au**

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Sustainable Living Expo

Preparations for the 9.00am - 3.00pm function at CREEC on Saturday 17 May are proceeding fast. A small but energetic committee of volunteers is finalising the plans to make sure there's something for everybody on the big day.

All stallholders need to have insurance cover, just in case something untoward happens. Permits for food suppliers are also part of the preparations for a range of tastes. Entertainment for all ages is arranged, from face-painting, train rides, dancing, music, walks and native animals.

Car parking has been upgraded, the grounds will be in excellent condition following the good rains. Locally adapted plants will be on sale, so now is the time to get spaces ready for planting, especially where weeds have to be removed.

The organic and permaculture displays and products have a special significance this year - as part of the sustainable living theme.

There are interesting speakers and workshops covering a range of topics; water-wise gardening, growing your own food, saving energy, affordable housing, transport, composting, urban wildlife

The speakers will be available to answer your questions and give advice during the day.

Bring the whole family!

Water Consumption



If you were running a public water utility, with no competition, i.e. have a monopoly over water and sewerage services, but a shortage of potable water, how would you handle the situation?

You would need to understand your customer's water needs, be able to manage demand, to modify their behaviour and attitudes to water use, be informed about the influence of pricing

mechanisms and socio-economic variables that drive high water usage and know the difference in impact between voluntary and statutory restrictions to meet water conservation targets.

You might need to understand when and where to use carrots (reward and recognition strategies) to achieve change, and how effective the stick (demand reduction strategies) might be, remembering, of course, that you are in the business of selling water to the highest value customers (perhaps).

A recent study of a sample of customers of a Melbourne water supplier with 580,000 customers found that there were many driving factors that limit water consumption and responses to services and marketing programs. These could be grouped under such headings as customer levels of water consumption, household demographics (age, income, size, composition) lifestyle (gardening, occupation, education), location and customer values and attitudes to conserving water.

It was found, among other things, that 17 different groups could be identified. The propensity to increase or decrease water use depended on pensioner status, level of current water use and household composition. Customers who were already the lower users of water had a tendency to decrease consumption, while the higher users used more being greedy. However it's the higher users of water who can make the biggest savings if their behaviour can be changed.

Don't forget that if you don't reward those customers who have lower usage patterns, they may give up, from frustration. They will need

were generally middle-aged and had no children at home. Only a third used it on gardens, 87% used grey-water.

The retrofitters - a sample of the 30,000 householders who have installed tanks with rebates under the Home Waterwise Scheme - were older (55-65) and had one tank with 3000 - 5000L of storage. 82% of the households used their water on gardens, 63% used grey-water. 68% responded that the land available for the tanks was the factor determining their size. Only 35% had fitted dual flush toilets and 40% low-flow shower roses. While 49% took shorter showers, only 20% didn't leave the tap running while brushing teeth.

The greenfield residents surveyed were generally younger with children, with a 2-3000L tank. Many were double income families, 51% earning over \$80,000 annually. 40% used tank water internally, 49% for toilet flushing and 37% for the washing machine. This group had the highest (60%) outdoor usage, for car-washing and house-cleaning, with 55% using the tank water on their gardens. They were the most likely to be water efficient, with shorter showers, full loads of washing, turning off taps when brushing teeth, dual flush toilets, not washing the car, water-efficient shower roses, shower timers, fitting flow limiters and tap aerators and front-loading washing machines.

It was evident that the presence of the mandatory tank heightened water awareness, with 17% of respondents nominating the reduction in flow of waste water to rivers and of greenhouse gas emissions from water infrastructure, as contributing to environmental benefits.

The survey team concluded that there is a clear need to address the effective use and maintenance of rainwater tanks and to promote the addition of plumbing connections for internal household use, i.e. more subsidies.

The most abundant enzyme in the world, rubisco, captures CO₂.
It is present in both the nucleus and the chloroplasts of green plants.

Water Reuse

We are getting used to the idea that treated urban wastewater can be used for non-potable purposes, such as for horticulture, sports grounds, parks and gardens, environmental flows and some industrial purposes such as in power station cooling-towers.

We are becoming more involved in the various issues of wastewater management – public acceptance, health concerns, environmental problems, appropriate technology to obtain an acceptable quality, costs, Government v private sector participation, how to make informed judgements, where to get reliable information, who to believe.

Success stories are starting to emerge, as more and more projects are put in place and the value of alternative sources of H₂O are demonstrated. The ingredients seem to be very closely related to the social capital available and employed – strong community involvement, a capacity to depend on local resources to make progress and an ability to use formal and informal networks to get things moving.

Other influences include having the confidence in the associated agencies to perform and deliver effectively plus the formation of good partnerships where mutual benefit and the formation of good partnerships where mutual benefit and the general public good are the desired outcomes. Obviously a favourable policy and regulatory regime are necessary, but how much carrot and how much stick will ultimately depend on the community's participation and cooperation.

Rainwater Tanks Survey

The Queensland Department of Natural Resources and Water has recently published the results of a survey of the motivations behind installing rainwater tanks. Comparisons were made between peri-urban residents who have to supply their own water, retrofitters who have bought tanks to supplement town water during the previous restrictions and greenfield residents required to install a tank in their new houses.

The periurban group mostly had several tanks, with more than 20kL storage. They lived in semi-rural environments for lifestyle reasons,

reassurance and recognition that they are doing the right thing to help the community. This also applies to energy and the use or protection of natural resources – but that's a different story.

Caring for our Country



The Australian Government has announced a new program to protect our unique natural environment and make faster progress towards the sustainable management of our natural resources. Various reviews have highlighted deficiencies in the results of investments in the National Heritage Trust, the National Action Plan for Salinity and Water Quality, Envirofund and the National Landcare Program. The new program, Caring for our Country will start its year of transition on 1 July 2008. It will focus on six areas –

1. The National Reserve system
2. Biodiversity and natural icons such as The Great Barrier Reef, world heritage areas, threatened species, feral animals and weeds
3. Coastal environments and critical aquatic habitats
4. Sustainable farming practices to improve the delivery of ecosystem services, greenhouse gas emissions and improve production
5. Natural resource management in remote and northern Australia, particularly for indigenous groups
6. Community skills, knowledge and engagement so as to form more effective partnerships to deliver landscape – scale change

The Government will invest \$2.25 billion over the next five years and deliver key election commitments. The existing natural resource bodies, such as SEQ Catchments, will remain central in delivering the program, but a reduced share is likely (60% of historical average funding) , with a capacity to access additional funds for delivery of the key national priorities, in a bidding process.

Caring for our Country is about addressing climate change, adopting cutting-edge technology to increase sustainability of farming practices, boosting production and environmental protection. www.nrm.gov.au and 1800 552 008 have more information.

Composting

Disposal of household garbage takes two forms, the expensive type where you pay someone to come and empty your roadside bin and take it to the “dump” and the more environmentally-friendly kind where you turn organic waste into compost for the garden.



A good garden soil, the kind you see on the home gardening TV programs, has 5 – 10% (more is better) organic matter, together with particles of sand, silt and clay, some air and water and nutrients, a few worms, various fungi and millions of bacteria i.e. it's alive.

By adding composted or partially decomposed organic materials, the soil can be improved in many ways – less surface crushing, improved drainage of clay soils, better water retention in sands, soil air and temperature regulation, reduced stormwater runoff, less soil loss, so less need for fertilizers, and improved soil structure. All of these contribute to better plant growth, some increase in disease resistance and weed repression, less need for cultivation and so less root disturbance.

There are some problems. Deciding whether to buy a bin or barrel, build an enclosure or a compost heap – flash or low tech (cheap). Deciding how wet, or how much air, when to aerate (turn it over) or start another batch. What not to add (meat, fat, oil, maggoty food, salt, some weeds and especially those with persistent seeds or fruit, dog and cat excrement, how big, when is it ready? Should you add lime, blood and bone, fertilizer, paper, old compost?

Since composting has been around for over 4000 years, it doesn't require a lot of expertise, just that some procedures are better than others. Talk to a neighbour (have a joint effort, even) or the Council. Better still, if you can wait, talk to the experts at the Sustainable Living Expo on 17 May at CREEC.

4 - 10 May is International Composting Awareness Week. See www.compostweek.com.au for nationwide workshops.

Achieving Common Goals

Groups of people quite often share time, knowledge and effort to achieve something that an individual regards as too hard, boring or complicated. Things like to improve profitability, build a hall, plant a garden, rescue wildlife, identify birds, raise project funds, coordinate an expo or work in Bushcare.

Some ideas from a recent survey of successful Landcare projects:

- The group is flexible and can identify a need and act quickly
- Committee members don't get special favours
- Anyone who's willing to listen and learn is welcome
- We use a collaborative approach, identifying shared objectives and involving everyone in prioritising targets
- Dedication, strong committed leadership and group diversity are key factors nominated by our members
- You need some social glue to keep people coming
- We keep the boring stuff for our executive meetings
- A demonstration will have more influence than 20 workshops
- The plan is owned and managed by the group. The core people work together with a common interest
- Being innovative creates a momentum in itself; a tidal wave of enthusiasm
- The members know how to rejoice in each others successes
- Being positive, open-minded and innovative are the key factors
- Differences between groups or members can be very damaging, so maintaining communication is vital
- Personality is a key factor in organisational success.

Friends of CREEC is on the lookout for positive people with personality, good communication skills, who are innovative, dedicated, willing to listen and learn, enthusiastic i.e. normal, with some free time.
