Newsletter 2 Summer 08/09

Welcome everyone to the second edition of the Sizzling Solar Systems newsletter.

It has been a remarkable six months for Brisbane solar cooking. Following our displays at community events in July and August we have been inundated with requests to do presentations at schools and fairs ranging from the Sunshine Coast to Brisbane as well as an invitation from a group in Melbourne. We were able to accommodate most requests and have been kept busy cooking up tasty sample dishes. It is gratifying to see the interest being shown in solar cooking and observe the growing awareness of solar energy in general.

The largest event we have been privileged to participate in this year was the three day inaugural **Greenfest** in Brisbane which was held 10-12 October 2008. The official opening was conducted by internationally renowned primatologist **Dr Jane Goodall** who entranced the audience with her uplifting speech departing the stage to an ovation of cheers, stamping feet and loud applause.
This 'free to the public' festival will now be held annually at the Brisbane Botanical Gardens commencing 5th June 2009 (environment day weekend) promising to get bigger and better. Music, film, food, speakers and over 150 green exhibitors were a feature of the three day event.

A big thanks to **Colman Ridge** the festival organizer, whose invitation and prime spot location was greatly appreciated and ensured maximum exposure and engagement with the public (local, interstate and international). A big thank you to friends, family and interested parties who helped man the display over the three hectic days. Our exhibit ran hot from 10am to 10 pm daily despite all three days being cloudy making it impossible to cook any food. Contacts made at this festival led to an ABC radio interview and many other on the spot interviews which tested the knowledge and nerves of our band of volunteer helpers.

Greenfest volunteers at the exhibit

With every community engagement we are delighted that some people show great interest and come up with suggestions for new designs. Students at many of the schools we have attended have come up with good ideas which they have incorporated into their own school solar cooking projects. One enterprising young man at Caloundra State High School visualized the four sided reflector (attached to our box cooker) as a light weight cooker in its own right. This could be easily folded and taken on scout camps. He and several others left the display full of inspiration and motivation to follow through with this idea. The enthusiasm of young people when presented with the concept of solar cooking and energy of the suns rays has been a great reward and motivator for our selves.

New designs of the last 6 months

-PIZZA BOX OVEN- Making an efficient **pizza box oven** which could be easily made by any student using a standard pizza box, became a challenge and this led to the design and construction of a well functioning oven which can cook small quantities of food eg eggs, or six patty sized quiches in about 20 minutes and reach a temp of 120ºC. It is important to present students with achievable, easy to make designs which will actually work, because a solar project which does not produce edible food within a reasonable time can wrongfully give the impression that solar energy is slow and inefficient. (a design 'handout' is available though not yet included on the web site). This design concept is not original but I have proven to myself that all claims of success are well founded.

Quiche cooking in pizza box oven

-FOOD DRIER- A solar food dryer has recently been added to our complement of apparatus. Finding of a timber framed glass cabinet door was the inspiration for this project with a box being built to fit the door. With vent holes located top and base, painted black internally and five wire storage shelves, it was attached to an old golf buggy (in place of the golf bag) which allows for easy mobility, and voila! A fruit dryer. We have had success with apples, pears, strawberries, kiwi fruit, bananas and other common fruits. A hot summer day produces around 60ºC temperatures in the box and this is hot enough to dry the fruit in one day without cooking it. Experiments are still in progress but there have not been too many failures. Techniques for drying tomatoes are our next focus. Pears keep their whiteness well while apples tend to get a little brown as they dry though this does not detract from the flavour of the finished product. Because no sulphur dioxide is used as a whitener or preservative, the dried fruit is kept in the refrigerator for storage. We have a volunteer to do an extended road test on this device and produce usable data which will eventually be published. We are looking for suggestions and information from people with experience in this field. (store bought dried foods have a little too many chemical additives for my liking)

Solar fruit drier attached to golf buggy

SUPPORT GROUP In September we held the second meeting of the Brisbane Solar Cooking Support Group. Though numbers were small many issues were covered and several problems were solved. We gave ourselves a little challenge to make the smallest possible solar cooker capable of heating up a can of food, or enough water for a cup of tea as well as being easily transportable. Next time we get together hopefully we will have some designs to test and evaluate. With any luck we hope to have a cook out some time in the new year and have some fun with any one who is interested.

CURRENT DESIGN DEVELOPMENTS Several designs which we have been using mainly in the winter months are now being tested in summer conditions where the sun is much higher and catching the rays is proving a problem with efficiency. Our large box cooker needs readjustment of the angle of solar entry which will mean a redesign and more research and development.

USEFULL SURVIVAL HINT ! Whenever you travel the outback or remote locations it's advisable to take along a large clear plastic bag or sheet (several would be safer), which can be used for many purposes. Utilize it as a carry bag, water resistant container, water carrier, but most importantly it can be used to obtain drinking water where no visible water exists. Fill the plastic bag or sheet with green foliage or place it over a leafy tree or shrub branch, tie off the end and wait. With the heat of the sun the foliage will expire moisture which will condense on the bags inner surface and collect at the base. You will be amazed at how much water can be collected. Used with other survival tactics it could make the difference between tragedy and survival. Try it at home first so that you have no false expectations.

CONCLUSION 2009 is promising to be a very busy year. Our web site is slowly taking shape and will soon have lots of designs and plans of how to make solar ovens. We will be seeking volunteers to assist with some of our larger displays in the coming year.

Wishing everyone a happy and sunny new year
Stan and Jane