December 1996/January 1997 $2.00

# EnvironS

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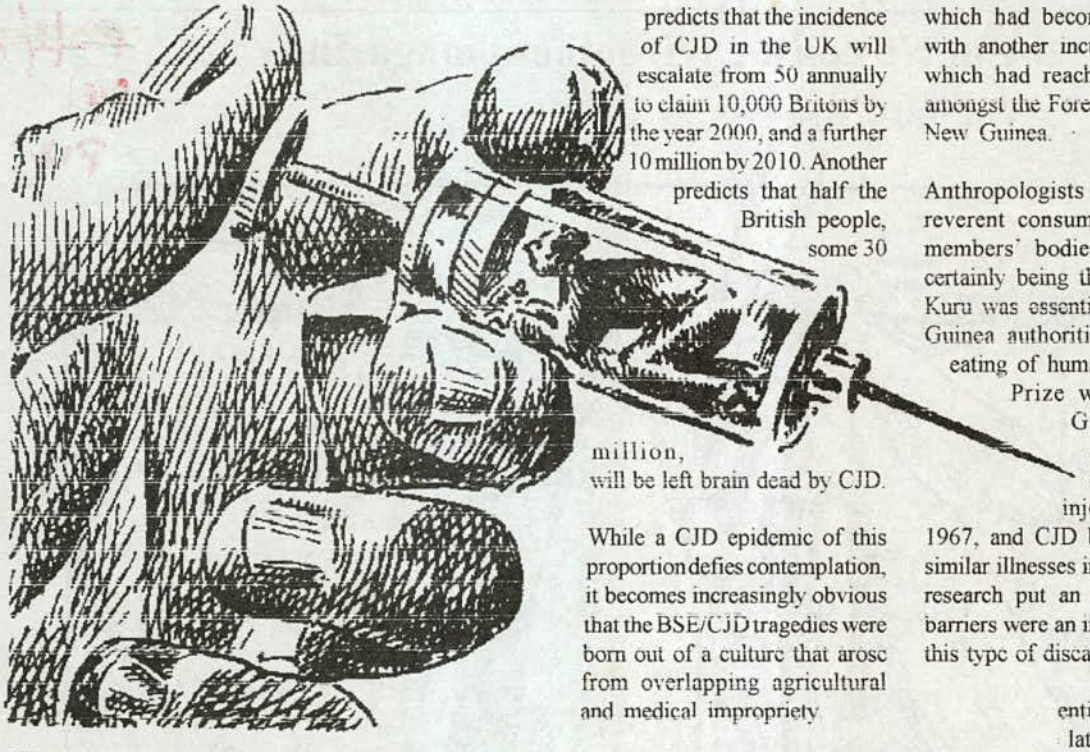
# Mad Cow Disease
# The Tip of the Iceburg

***By Lynette J. Dumble***



Revelations in Britain have brought a new dimension to the incurable brain infections, Creutzfeldt-Jakob disease (CJD) in humans and bovine spongiform encephalopathy (BSE) in cattle. Previously, science and health experts had maintained that humans could not catch CJD from eating BSE-infected beef. An announcement in the House of Commons on March 20 turned that assurance on its head with an admission that meat products from BSE-infected cattle had probably spread a novel form of CJD to humans.

Attracting less international attention, a landmark High Court ruling on July 21 deemed that the Department of Health had been negligent in permitting the human pituitary growth hormone treatment of short-statured children up until 1985, following warnings back in 1977 that the hormone was possibly contaminated with the agent of CJD. CJD was formerly a rare disease affecting less than one person per million in most countries. Now one worst case scenario predicts that the incidence of CJD in the UK will escalate from 50 annually to claim 10,000 Britons by the year 2000, and a further 10 million by 2010. Another predicts that half the British people, some 30 million, will be left brain dead by CJD.

While a CJD epidemic of this proportion defies contemplation, it becomes increasingly obvious that the BSE/CJD tragedies were born out of a culture that arose from overlapping agricultural and medical impropriety

## Man made epidemic

Malignant twists of nature, from bubonic plague to potato blight, have killed masses throughout the ages, but the present story of spongiform encephalopathies is unique in that the epidemic was largely man-made.

Scrapie (mad sheep disease), the sheep equivalent of BSE/CJD, has been around for two centuries. Human spongiform encephalopathy was unheard of before two German physicians, Creutzfeldt and Jakob, independently reported the initial cases in the 1920s. There is no acknowledged screening test to detect BSE or CJD infection, and there is no known medication that can cure or allay the diseases.

"Mad sheep disease" jumped the species barrier when a scrapie-infected food supplement brought a similar brain illness to farm mink in 1947. This news scarcely interested the medico-scientific community, which had become intensely preoccupied with another incurable brain illness, kuru, which had reached epidemic proportions amongst the Fore people in the highlands of New Guinea.

Anthropologists traced kuru back to the reverent consumption of deceased tribal members' bodies, with the brain almost certainly being the infectious denominator. Kuru was essentially eradicated when New Guinea authorities in 1959 outlawed the eating of human flesh. The 1976 Nobel Prize was awarded to Carlton Gajdusek, whose experiments had demonstrated that injections of kuru brain in 1967, and CJD brain in 1969, reproduced similar illnesses in chimpanzees. Gajdusek's research put an end to ideas that species barriers were an impediment to the spread of this type of disease.

entists from Yale University, late Eli Manuelides, went on to illustrate by 1975 that injections of human blood, like injections of brain taken from kuru and CJD victims, transmitted the disease across the species barrier to laboratory animals. Their unheeded message implied that blood was the vehicle that carried the agent of CJD around the body until it chanced upon a hospitable residence like the brain.

This meant that recipients exposed to human pituitary gland hormone injections, or to blood or organ transplants from a donor with CJD, risked becoming secondary CJD hosts. Even as the understanding of spongiform encephalopathy increased, human pituitary hormone programs in various countries were attracting hefty government sponsorships. Few of the programs' stalwarts caught on to the implications of the Manuelides' experiments, a notable exception being British scientist Alan Dickinson, a scrapie expert, who between 1978 and 1982 unsuccessfully attempted to filter the CJD agent out of the pituitary hormones being

injected into unsuspecting short-statured children and infertile women.

## Pituitary hormones

A British Royal Commission on Environmental Pollution in 1979 raised the possibility that the unregulated cycling of protein-rich sheep remains back into animal feed might spread scrapie to cattle, as it had done to farm mink three decades beforehand.

At the same time, the push to retrieve more and more human pituitary glands for growth hormone production reached into India. Millions of pituitaries were harvested from cadavers in the subcontinent and sent to government laboratories in Europe and North America. The promised repayment in kind, namely a supply of extracted growth hormone to treat short-statured children in India, was broken. Ironically, that broken imperialist promise may account for India's enviable present position of absence of CJD.

By 1985, the first of the fatal legacies from the medical complacency emerged with four cases of CJD in human pituitary growth hormone-treated children. Programs were immediately halted in most countries, the notable exception being France, where the treatment of children continued, based on the haughty assumption that the purity of the French hormone-extraction process accounted for the absence of CJD to that point. Four years later, during which time the number of French children at risk of growth-hormone-related CJD had doubled, the first French children fulfilled that tragic legacy; by 1996, France had half of the world's 90 cases of pituitary hormone-related CJD.

A wall of invisibility has been built around the women victims of the human pituitary hormone programs. Unlike growth hormone-treated children, whose years of injections made it impossible for paediatricians to avoid the clerical red tape that came with government sponsorship, women's gonadotrophin injections usually lasted for less than six months. As a result, there was frequently left-over hormone that infertility specialists could inject into new candidates without going through the bureaucratic application process for further supplies, and government records of women exposed to pituitary gonadotrophin were far from complete.

Additionally, in 1988 the National Institutes of Health in the United States concluded that the short-term nature of the gonadotrophin treatment precluded any risk of contracting CJD, and shredded the records of infertile women treated by some 250 US gynaecologists over the previous 15 years. A year later, the pituitary infertility hormone, gonadotrophin, snared its first CJD victim, a 40-year-old woman in Australia. By 1993, the CJD of another three Australian women, all aged within a year or two of 40, had been traced back to injections of pituitary gonadotrophin.

By the time news of pituitary gonadotrophin-related CJD hit the headlines in Britain in 1993, authorities were unable to answer inquiries, including one that came from a 32-year-old woman whose mother had died of CJD in 1975 after receiving five pituitary gonadotrophin injections in 1960, because whatever records had once existed had by then also been shredded.

Officially, 300 infertile British women were exposed to pituitary gonadotrophin, but medical literature from UK infertility circles, dating back to the 1960s, indicates that the number was probably much larger. While the risk of gonadotrophin-related CJD to Australian and British women has been highly publicised, the entire issue for American, German and Scandinavian women has barely been touched.

Third World children and women did not escape the insanity of human pituitary hormone programs. A medical report in 1991 linked the CJD death of a young Brazilian man, like those of five youthful New Zealand men and women, with a childhood treatment involving pituitary growth hormone obtained from the US. The fate of women in Mexico City whose breasts were injected with US pituitary hormones, in an appalling experiment to increase the volume of milk in lactating mothers, some already pregnant again, will never be known.

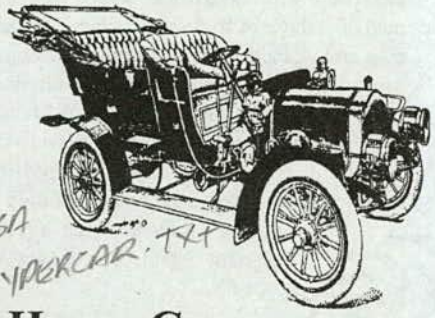
The opportunity to contain the CJD legacy of pituitary gonadotrophin injections has probably been lost as women unwittingly risk spreading their legacy via blood donation. Similarly, the possibility that women treated with pituitary gonadotrophin may have transmitted their CJD legacy to their children has been totally cast aside, and there is an overwhelming medical disinterest in investigating whether pituitary hormone treatments in the 1960s, 1970s and 1980s may account for the CJD deaths of women, aged a decade younger than the average age of sporadic CJD victims, which litter the pages of medical journals in the 1990s.

One year after the first cases of pituitary growth hormone-related CJD in 1985, the first of the protein-fed cattle came down with BSE. Advisory committees were set up around the world. Apparently none had the foresight to include public health experts trained to weigh policy in terms of both best- and worst-case predictions.

*Continued on page 7*

# The Good News Page

## Victories, Promising Developments and the Last Laugh



### Hyper Car

A Hyper car has been developed by an independent public charity in America called the Rocky Mountains Institute. The group is into fostering efficient and sustainable use of resources as a path to global security.

The car uses 1/5 to 1/20 the normal amount of fuel, is 100 to 1000 times cleaner, and can go 200-300 km/h and do 0-100 km/h in 7-8 seconds. It weighs only 400-500 kilos, but absorbs 5 times as much crash energy per pound as steel. Its so light because its made from carbon-fibre aerospace material and this lightness, or slipperiness means it doesn't take much to make it go. So the electricity needed to turn the wheels can be generated on board from any conventional fuel without the need for heavy, cumbersome batteries.

Not only that, but this clever group has floated the idea in public, rather than selling it privately and seeing it sit on a shelf. This different approach has meant that nervous capitalists are frightened of their competitors getting the jump on them and the result is that one billion US dollars have been invested so far, doubling in less than a year. The car should be on the market by 1999, give or take a year.

*(Hopefully they'll opt for a tasteful design. I'd love one that looked like an S Series Valiant, or an FE or HR Holden)*

*Source: Science Show, Radio National, via Tweed River Environment Echo.*

### Compak Strawboard

This is a fantastic new product that is totally formaldehyde-free. The fibre is glued with an MDI binder. It uses agricultural waste such as straw and bagasse (a by-product of sugar cane) which would normally be burnt. Compak is an environmentally benign product and cost competitive with particle board. Its very high moisture resistance and formaldehyde-free binding gives it the edge over traditional products. It comes in various thicknesses and some of its applications include flooring, wall panels, shelving, bench tops and door facings. There are two plants operating in Australia which sell through the national timber company Le Messurier. In Melbourne they can be found at 57-63 McNaughtons Rd, Clayton (ph 03 9562 7400). Their Sydney address is 84 Lilyfield Rd, Roselle (ph 02 818 3500).

*Source: Potoroo Review No 151.*

### Sunflowers Clean Up Radioactivity

Phytotech, a biotechnology firm in New Jersey USA, has found that sunflowers take up greater amounts of metals than other plants.

They grew sunflowers on rafts in a polluted pond near Chernobyl, then removed them after 4-8 weeks. Although the number of plants was too small to clean the pond of all radioactivity, the bioaccumulation in the plants showed that a greater mass could clean up all the caesium-137 and strontium-90.

After use the sunflowers are dried then "ashed" by burning. The ash is mixed with cement or sand to make blocks that can be stored without risk of leaching radioactive material.

*Source: Toxic Network News, October 1996.*

### Urban Biodiversity

The transition of the Australian garden from lawn and English cottage flowers to landscaped microclimates incorporating native species is symbolic of our growing national maturity. Besides the aesthetic and cultural benefits of native gardens, the bird poulation changes. Gone are the sparrows and starlings, back come the parrots, galahs,

parrakeets, lorikeets and other colourful native birds.

Bowraville residents Bruce and Margaret Butcher have identified 35 bird species in their garden, including a verified sighting of a Spiny Cheeked Honeyeater - which has not been previously sighted in the Nambucca valley, normally found inland and only coming to the coast at the QLD border.

Since moving in the Butchers planted various Grevillias, Acacias and Hakeas to attract birds; an existing Melaluca is also popular with the natives.

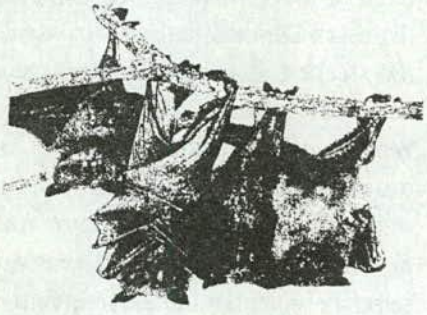

## Believe It Or Not

State Forests celebrated World Habitat Day by announcing the development of the "Bat Box".

State Forests wildlife researchers in Queanbeyan are conducting a trial using specially built wooden bat boxes. To survive bats need natural tree hollows to protect them from predators, the extremes of hot and cold and a place to roost and breed. Previous research has shown that bats have specific roosting requirements and the location of the bat boxes will have a bearing on the success of the program.

So rather than leaving an adequate number of habitat trees, the lads from State Forests can tack one of these little beauties onto a defective specimen and congratulate themselves for preserving wildlife. One can only wonder where this will end; kiddies swimming pools for sphagnum frogs? At least they're trying, I guess.

*Source: State Forest News Release, October 1, 1996.*





## Environmentally Friendly Office Paper

Currently there is no environmentally friendly office paper made in Australia. The Native Forest Network in Melbourne has been investigating the alternatives and has concluded that the only acceptable option is to use imported paper. If enough people use this type of recycled paper it should encourage Australian companies to respond to public demand (honestly).

While Australia actually exports large volumes of its post-consumer waste paper, Amcor is refusing to make genuine environmentally friendly paper from this resource! Their two lines called Renew 100 and Renew 80 are made largely from pre-consumer 'waste', that is paper which has never seen an office or been marked by ink (printers off-cuts or build up from the paper vat in the factory). The other small components are cotton linters and new or used milk cartons (5-20%). Spicers import paper made from Indonesian, Malaysian or Brazilian wood pulp. Some is sourced from rainforest wood fibre and some from plantations established over cleared rainforest.

Steer clear of these papers. Both America and Europe produce the genuine article but the European paper is cheaper and easier to obtain. Here are the options:

*Naudilaus or Cannon 100* - An Austrian archival quality paper suitable for copiers which produce up to 40 copies a minute. It contains at least 51% post consumer waste and is non-bleached. $7.50 per ream. Ph Cannon 131 393.

*Steinbeis or RC 100* - A German non-bleached recycled paper. It photocopies well and sells for $7.50 per ream from The Paper House (but this outlet is owned by the obnoxious Amcor). Ph (03) 9239 8880

*Cyclus* - A Danish paper sold in Australia through CPI and in Melbourne through an independent paper merchant, KW Doggett at Heidelberg West. It is made from 100% post consumer waste, is virtually dust and acid free and guaranteed for laser printers. Free deliveries for orders over $100. Sells for $8.25 per ream. Ph (03) 9459 4499.

If you'd like to know more contact Anthony Amis from the Native Forest Network in Melbourne (03) 9419 8700.

*Source: Native Forest Network via Potoroo Review No 152.*

# What The Guardian Would't Print

*The Nambucca Guardian News recently ran a Council forum on the Nambucca River, where local councillors were invited to voice their visions and/or concerns about the river's future. Councillor John Monro was unable to reply in time and sent his contribution in as a letter to the Editor, but unfortunately the Guardian declined to print it.*

## Dear Editor

I regret that short notice and pressure of business prevented me from meeting your deadline last week for the Council forum on the Nambucca River. European land management in farming, civil engineering and urban settlement has degraded the river severely within the sixty-five years that my family has been in this Shire. Deforestation and soil compaction have increased run-off, stream-velocity and flash-flooding. As Max Graham pointed out, we are now faced with bank collapse on the upper catchment and siltation in the estuary. To these I would add the problem of rising sea levels caused by global fuel burning and the Green House Effect. Unlike some Councillors my vision of the future does not rely on heavy engineering or waste of taxpayers money, but on respect for the needs of the river as a living system and on the acceptance of inevitable change.

Virtually the whole Shire discharges rain water into the river system. Therefore all of us are responsible for better land-management. I see the future in which NSW Forests (Forestry Commission), which controls the steepest slopes in the Shire, will decrease flood intensity by regenerating rainforest-buffers in gullies, controlling fire and by maintaining adequate canopy and ground cover. They will harvest selectively, gently and less frequently. Farmers in the middle catchment will fence stock away from the river, regenerate rainforest on the banks and reforest swamps and watercourses. Gravel will no longer be mined from river channels but from adequately banked quarries on the flood plain or from hard-rock quarries. The good news is that some of these changes have already begun and I heartily congratulate those contractors and LANDCARE groups who are leading the way.

Though conservation may reduce the amount of silt reaching the lower estuary there is no economically feasible way of removing the silt which has already been deposited. The world will go on burning fuel and will probably not plant or conserve enough forest to prevent global warming and a rising sea-level. Sea-water will continue to move further inland past Macksville, where it is already eroding banks, destroying trees and invading swamps and low-lying pastures. In the last few years the river mouth has widened dramatically and this will continue until a wide shallow bay is formed. Forsters beach will continue to erode and the ocean front may finally reach the western banks of Warrell Creek. Mangroves will flourish on the mud-banks in the new bay providing fish-habitat and some protection from the encroaching sea. The ecologically enlightened populace of the 21st Century will accept and make the best use of this new estuary and not waste money and resources in trying to dredge it. That generation may, however, increase energy efficiency conserve the forests and reduce fuel burning in order to slow down global warming.

Yours sincerely

John Monro
(Councillor)

## Man Made Mad Cow Disease

*Continued from page 3*

## The Cover-up

Instead, for the next 10 years authorities seized every chance to preserve the reputations and careers of eminent politicians, physicians and scientists, and managed to allay public anxiety by keeping news of their bungles out of the media. Public and animal health ran a very poor second to the market interests that had transformed cattle from BSE-free herbivores into BSE-infected carnivores. Even as BSE emerged in protein-fed British cattle in 1986, scientific advice that the epidemic could best be contained by the immediate destruction of the 10,000-odd infected cattle was dismissed solely on the basis of the financial cost.

An estimated 700,000 BSE-infected cattle entered the human food chain, chiefly because the animals' slaughter age, usually three years, predated the age at which they would show signs of BSE infection. For the same reason, there is no way of knowing the number of breeding stock that were exported before their sire or dam's BSE was subsequently discovered.

Britain was not alone in the cover-up. In September 1996, the French newspaper Libération revealed that a memorandum from French official Gilbert Castille had suggested back in 1990 that Britain ought to be asked not to publish its research results, saying "it would be better to minimise BSE by practising disinformation". Brussels — via Guy Legras, head of the European Commission's agricultural directorate — warned of the financial repercussions from a beef panic and hushed up news of the BSE situation.

Cattle may not be the only species within the meat industry that are harbouring the BSE/CJD agent. Until March 1996, no restrictions were placed on feeding cattle offal to pigs and hens. Together with a common practice whereby animal-feed manufacturers use the same equipment to mix both cattle and pig-feed, this approach reflects a glaring ignorance about the highly infectious nature of diseases such as BSE and CJD.

This background, together with the extreme resistance of BSE and CJD to high temperatures and caustic chemicals, may explain the disproportional share of CJD infection occurring in the farming community. It also brings the focus back to blood-transmitted CJD, and raises the prospect of simple kitchen injuries introducing BSE from meat products into the bloodstream of an unsuspecting public.

Some argue that the BSE panic is thinly supported by firm scientific evidence. Insults fly back and forth about mad cows and mad politicians. History will be the ultimate judge, but in the absence of a plausible alternative to BSE-infected beef that would account for the recent spate of unconventional CJD in youthful victims, both animals and humans deserve a policy that errs on the side of caution.

Medical impropriety has already destroyed the lives of 90 pituitary hormone recipients and their families; young lives have been snuffed out by an atypical, but equally cruel, form of CJD that appears to have come from herds infected by agricultural impropriety; and British cattle are at threat of extinction because of BSE inflicted on them during a period of financial megalomania.

Sixty years of underestimating the gravity of CJD/BSE issues for both humans and animals is enough. Notions that culling half of Britain's cattle population could make early inroads into global greenhouse targets, like those that propose restocking the sacred herds of India, or detonating Cambodia's and Afghanistan's land mines with BSE-infected cattle, are barbarous extensions of a brain-dead culture which told the public that "there is no evidence" of serious danger. More truthfully, there was "no way of telling", and it remains to be seen whether the final consequences will match those of the AIDS epidemic.

A worst case CJD epidemic will smash rather than stretch every available human resource. Wary of its use as a virtual dumping ground for nuclear waste, toxic chemicals and perilous medications, the Third World will not be caught out by the proposals of brain-dead imperialists to become a storage yard for manmade BSE. [Dr Lynette J. Dumble is senior research fellow, University of Melbourne's Department of Surgery, Royal Melbourne Hospital.]

*Source: Green Left Weekly Home Page.*

## Moruroa waste may be dumped at sea

**Greenpeace has released photographs of sea dumping of waste from previous French military operations in French Polynesia, giving credence to reports that waste from France's "clean up" at the Moruroa test site will be dumped at sea.**

**The photographs, given to Greenpeace in Tahiti by military personnel last year, show industrial waste from the Hao military base being dumped approximately eight kilometres from the atoll.**

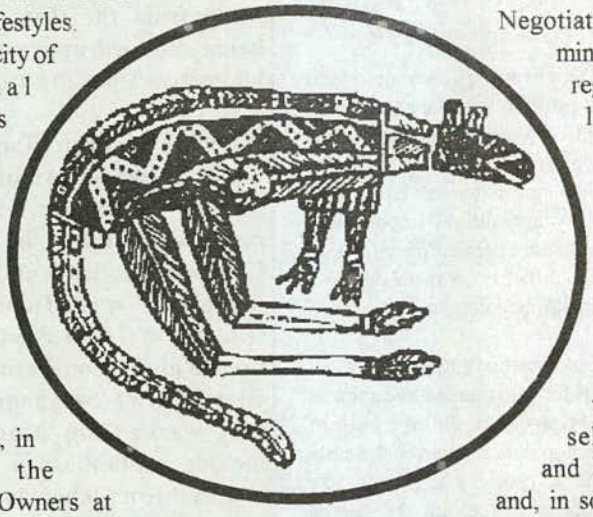
**Dumping of industrial and radioactive waste at sea is prohibited by the London Convention, which is due to meet in London in November. Greenpeace has condemned any dumping of waste from Moruroa at sea, and says that France may be in breach of the Convention.**
**Greenpeace's Stephanie Mills said that waste from Moruroa might include contaminated construction material from laboratories, bunkers and rigs where nuclear bombs had been put together and tested. Material could also have been contaminated by plutonium dispersed on the atoll during "safety" tests. Radioactive waste is reported to have been stored over a 30,000 square metre area on the north coast of the atoll.**

**Greenpeace is calling on the South Pacific Forum, the South Pacific Regional Environment Program and Pacific governments to ask France about its intentions regarding "disposal" of contaminated materials on Moruroa, Fangataufa and Hao.**

***Source: Green Left Weekly Home Page.***

# Indigenous Land and Uranium Mining

In Australia, uranium deposits often occur on Aboriginal land where the owners are able to lead traditional lifestyles. Yet the capacity of Aboriginal communities to determine whether or not uranium mining occurs is very limited.



For example, in 1977 the Traditional Owners at Ranger clearly expressed that they were opposed to uranium mining but the Fox Report stated that their views "should not be allowed to prevail". The subsequent Land Rights Act 1976 excluded the right to veto mining on existing mining leases or projects - Ranger, Jabiluka and Koongarra all fell into this category. It was in this situation that Aboriginal communities and their representatives were forced to negotiate terms.

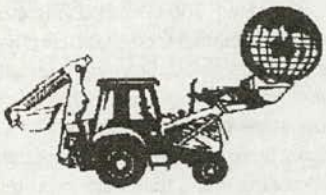
One anti-uranium slogan at the time was "Land Rights Not Mining", so when mining did go ahead, along with land rights, some environmentalists felt betrayed by the Aboriginal owners and the Northern Land Council. This led to the perception that environmentalists only supported the rights of indigenous peoples when it suited them.

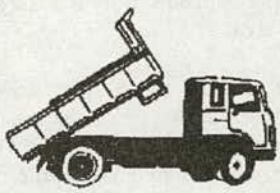
Negotiations at other mine sights in the region over the last 15 years have also caused considerable tensions. Some people see uranium mining as a way to achieve self-sufficiency and independence and, in some instances, basic access to services. Others believe that the economic benefits do not add up. Whatever the ultimate outcome, these communities have been placed under incredible duress in considering these issues.

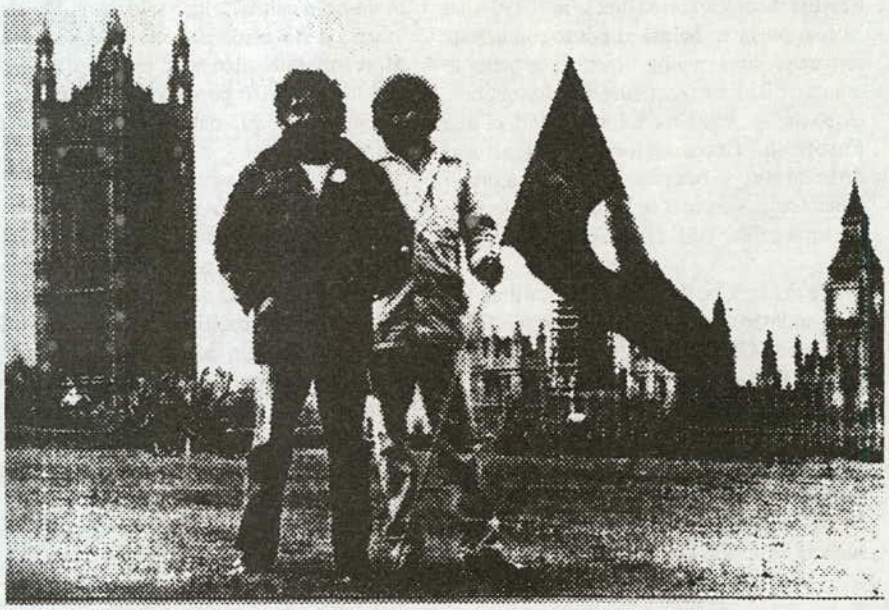
The Northern Territory remains the only place in Australia where the Traditional Owners have a right of veto. The Native Title Act only gives the right to negotiate. Until there is a right of veto the ability of Aboriginal people to determine what happens on their land and under what conditions is essentially limited.

Consistency in recognising the fundamental rights to land for Aborigines can provide an important basis from which to develop an environmental analysis. If environmentalists use this right as a 'campaign tool' when it suits them it is ultimately counter productive for the environment movement.

*Source: Chain Reaction No. 75*







# Watch Out Where the Liberals Go Don't You Eat That Yellow Cake

The Howard government's immediate endorsement of an expansion of uranium mining raises community suspicion of its real environmental intentions. How can a government "for all of us" leap so readily into the lap of the mining industry? It may also face general community opposition, especially from groups and organisations who see uranium mining as part of a general attack on people's environmental and social conditions for the sake of profit.

The former Labor Government deserves condemnation for its record on uranium mining. It should have set in place processes for all major projects, including uranium mines, to be openly and publicly assessed for their environmental and social impacts. The ALP could have legislated its policy, limiting uranium mines to those named (and no scope for expansion) increasing the accountability of the mines allowing, at least, for debate if an expansion in uranium mining was proposed.

Carmen Lawrence is now Opposition environment spokesperson. As premier of WA, she oversaw the excision of the Kintyre uranium deposit from the Rundall River National Park so as to make a uranium mine easier to develop.


Unfortunately the question is not whether the Liberals can be as ludicrous as Labor when it comes to Uranium mining; it's just how extreme they're prepared to be. Knowing that a further sell-out by Labor or a change of Government was inevitable, the mining industry has a swag of new sites just waiting for John Howards eyebrowes to raise in approval.

## Operating Mines

### Ranger

**Location:** Northern Territory, Jabiru, surrounded by the Kakadu National Park.

**Company:** Energy Resources of Australia. Major shareholders are: Peko Wallsend Ltd, North Ltd (of woodchip fame), Banks (through nominee companies), insurance companies and superannuation funds make up the majority of the top twenty shareholders.

**Uranium contracts:** ERA sells to energy utilities in Japan, South Korea,

France, Germany, Spain, Sweden, Canada and the US.

**Environment:** The Ranger mine operates next to Aboriginal sacred sites at Mt Brockman in a 79 square kilometre area surrounded by the Kakadu National Park. The mine is in the catchments of Coonjimba, Djalkmara, Georgetown and Gulungul Creeks which all discharge into the Magela Creek a major tributary of the East Alligator River.

## Roxby

**Location:** South Australia, Olympic Dam, 500km north of Adelaide.

**Company:** Western Mining Corporation. The top twenty shareholders are banks (eg ANZ, National Australia Bank, Westpac) throughnominee companies and superannuation funds.

**Uranium Contracts:** Long-term contracts with energy utilities in Canada, USA, Japan, South Korea, Finland, Sweden, Belgium and Britain.

**Environment:** The mine site is in the arid zone and prior to the mine development was utilised as a pastoral lease. Water for the mine's operations is drawn from the Great Artesian Basin, through bores to the north of the mine near various Mound Springs, an area for which environmentalists are seeking World Heritage status.

# Uranium Markets

Australian uranium exports in 1994-95 gained $188 million and accounted for 7% of world production. In the ten years to mid 1995 Australia exported over 43,000 tonnes of Uranium oxide concentrate with a value of almost $3,000 million to ten countries around the world.

A key argument by proponents of mining Australia's uranium is that with 30 % of the world's uranium reserves we actually only capture 10% or less of the world uranium market. According to an Access Economics study in 1994 Australia's uranium production could rise to over 20% of world output by 2004 if the '3 mines policy' was relaxed. This would involve a five-fold increase in export revenue to 1 billion per year. Much of this increase is based on projected increases in Asia.

However it is suggested that the chances of achieving this five-fold increase were not simply postponed, but actually diminished, the longer the policy remained in place, particularly if Canadian producers, who are vigorously expanding their production capacity, lock buyers into long-term contracts, which will mean that the market for the next decade or more may be effectively tied up. The potential of supplying 20% of the world's mine output of uranium by 2004 is due to production costs from new Australian mines being significantly less than Canada's, and there being opportunity for securing new contracts as utilities stockpiles diminish.

There are a number of questions about this supposed room in the market. Both Ranger and Roxby have been operating under potential for some years. With the spot price of uranium below Ranger's production costs, it has, since 1990, supplied some of its customers' contracts with uranium concentrates purchased from the Republic of Kazakhstan. In 1990, ERA Chief Executive Richard Knight argued that Jabiluka, then owned by Pancontinental, should not be allowed to proceed as a new Australian producer would erode ERA's profitability.

The expansion in uranium mines could also mean that world uranium prices would decrease due to an excess of uranium being available.

*Source: Chain Reaction, No 75.*

# Proposed Mine Sites

## Kintyre

**Location:** Western Australia, RudalRiver National Park, 1,200km NNE of Perth.

**Company:** Canning Resources Pty Ltd (subsidiary of CRA-RTZ).

**Environment:** The deposit is located on the edge of the Great Sandy Desert in the Pilbara region of WA. It is an area of exposed bedrock, low mesas and dry river beds. It was part of the Rudall River


National Park, which was established to contain an entire arid river system, but later excised. CRA's view is that since the mine area is separated by low hills from the catchment of the Rudall River system, operations will not compromise it.

## Jabiluka

**Location:** Northern Territory, Jabiluka

**Company:** Energy Resources Australia (ERA; see entry for Ranger). The Jabiluka orebody was discovered in 1971 by Pancontinental Mining (partnered by Getty Oil) which sold it to ERA in 1991 for $125 million.

**Environment:** The orebody extends east into the Arnhem escarpment and is covered six months each year by the Magela Creek floodplain in the west.

## Koongarra

**Location:** Northern Territory, 30km south of the Ranger uranium mine.



**Company:** Ownership remains with Denison Australia Pty Ltd, which effectively is Cogema (70%). Koongara was discovered by Noranda Australia Ltd in 1970, sold in 1980 to Denison Australia Pty Ltd, which is now a subsidiary of French state owned Compagnie Generale des Matieres Nucleaires (COGEMA).

**Environment:** Technically excised from the Kakdu National Park, it lies within the Nourlangie Creek catchment which is a major tributary to the South Alligator River. The deposit is located three kilomters east of Nourlangie Rock, a major Aboriginal cultural site and tourist feature.

## Yeelirrie

**Location:** Western Australia, about 500km north of Kalgoorlie.

**Company:** Western Mining Corporation (see Roxby Downs)

# Nuclear Industry Meltdown

Nuclear power generating capacity rose less than 3% between 1990 and 1995. As a result, nuclear power's contribution to the world's electricity supply has peaked at 17%. Only 34 nuclear power plants are under construction world-wide today, compared to 160 a decade ago - the nuclear power industry is in a meltdown.

The US completed its last nuclear power plant, at Watts Bar, Tennessee, in February 1996, ending a 40 year effort. Along the way, US utilities cancelled 120 nuclear plants planned or under construction (only 109 are operating today). In a 1995 poll of US utility executives, just 2% said that they would even consider building a nuclear plant.

In Western Europe only France is still building nuclear power plants, and its four are to be completed in 1998. Sweden completed its last plant in 1985, Spain in 1988, Germany in 1989 and Britain in 1995. In Eastern Europe and the former Soviet Union, there are four fewer nuclear power plants operating than there were a decade ago. Many nuclear plants have been abandoned. Only 10 nuclear reactors are under construction in the region - compared to 65 a decade ago.

East Asia is the one bright spot for the nuclear, but even there, the pace of construction has slowed. Only three countries in the region are building nuclear power plants, and the two most active, South Korea and Japan, have slowed the pace of construction after growing public opposition and a recent accident. China plans to build several more plants but even if these are completed, nuclear power will supply just 5% of the country's electricity.

The biggest problem facing nuclear power is its high cost. In an increasingly competitive power market, nuclear energy is two to three times as expensive as the least-cost alternatives, including a new generation of small natural gas-fired generators that can be installed inside a factory or even an office building. Meanwhile a host of renewable technologies that do not rely on carbon based fuels are entering the market. If current trends continue, the annual growth of wind generating capacity will overtake that of nuclear capacity by the end of this decade.

*Source: World Watch, May 1996 via Chain Reaction No. 75.*

**Environment:** A semi-arid region reliant on underground water.

## Manyingee

**Location:** Western Australia, 75 km south of Onslow.

**Company:** 83% owned by Afmeco Mining and Exploration Pty Ltd, a wholly owned subsidiary of Cogema Australia), 7.7 % Urangesellschaft Australia Pty Ltd, 9.3% Triako Resources Ltd.

**Environment:** Located in an old dry bed of the Ashburton River.

## Beverly

**Location:** South Australia, 520 km north of Adelaide.

**Company:** Heathgate Pty Ltd, a subsidiary of General Atomics.

**Environment:** Low rainfall area with sparse hard trees and shrubs. The mine was intended to be developed using the *in situ* leach mining process whereby acid is poured into the site to dissolve the uranium with the resultant liquor collected for processing. The South Australian government refused approval for Beverly in 1982.

## Honeymoon

**Location:** South Australia, 75 km north west of Broken Hill.

**Company:** MIM Holdings. Environment: Low rainfall area with

# Uranium Sales to France Increased

*By Marina Cameron*

On October 21, federal National Party leader Tim Fischer announced the lifting of an eight-year "ban" on Australian uranium sales to France. Greens Senator Dee Margetts responded on October 22, that, in fact, "Australia provided 400 tonnes a year of uranium during the so-called ban".

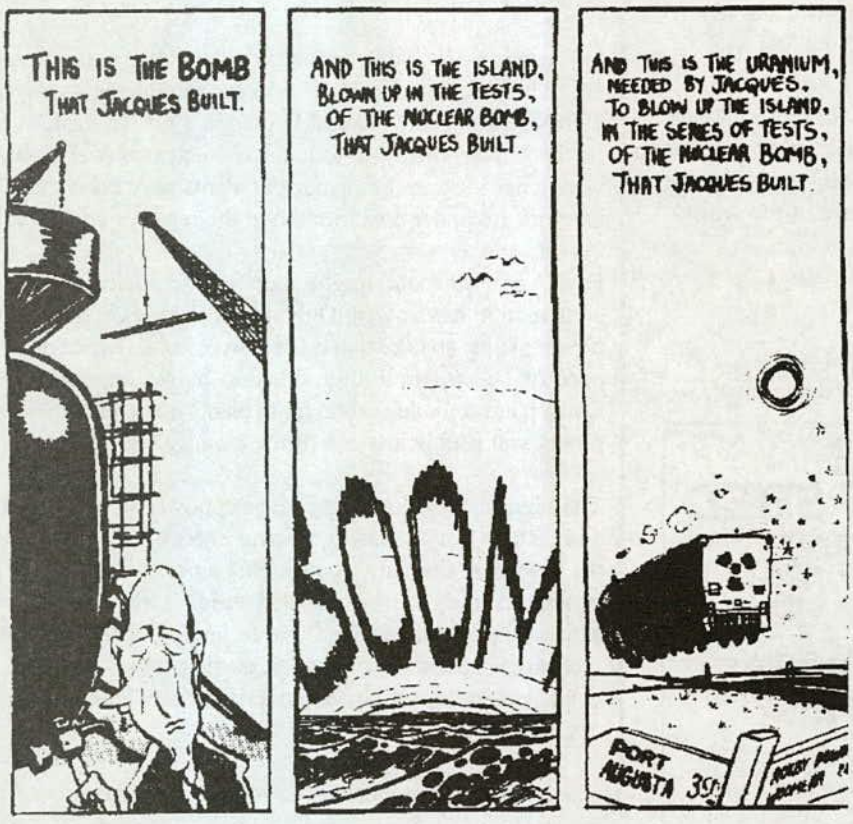
Just over a year ago, massive demonstrations occurred around the country to protest French nuclear testing in the Pacific. According to Margetts, the Australian Safeguards Office has admitted that "there was a strong possibility that Australian uranium may have ended up in French nuclear weapons tested in the South Pacific last year". Environmental groups have condemned the official lifting of the ban, pointing out that France will be supplied by expanding mines in the Kakadu and Rudall National Parks.

Friends of the Earth said: "Even as he [Fischer] speaks there are demonstrations taking place at weapons establishments in France ... Mr Fischer points out that France obtains 70% of its electricity from nuclear power. What he doesn't acknowledge is that France has the most costly power in Europe."

Environment spokesperson for the Democratic Socialists, Coral Wynter, said: "The government has attempted to justify the expansion of uranium sales because France has just signed the Comprehensive Test Ban Treaty. But the reality is that Australian uranium will still end up in nuclear weapons.

The basic motivation for the move is trade and profit, while the issues of environmental safeguards and protection, and the well-being of miners, nuclear power workers or those unlucky enough to be in the vicinity of an accident or test, are ignored."

*Source: Green Left Weekly Home Page.*



sparse hard trees and shrubs. The mine was intended to be developed using the *in situ* leach mining process proposed for Beverly. Tests of the process were carried out and a $3.5 million pilot plant built. The South Australian government rejected the mine's license shortly after the 1982 election.

### Westmoreland

**Location:** Queensland, 400 km north of Mount Isa.

**Company:** CRA Exploration Pty Ltd (48.56 %), Urangesellschaft (40.14%) and Hammersly (11.3%).

## The problem with tailngs

Tailings are a particular problem due to the volumes produced, their radio-activity and their long life. Large quantities of tailings are produced by uranium mining. For example, over the lifetime of Roxby about 180 million tonnes, or 400 hectares of tailings - eqal to about 150 football fields each 30 metres high - will be produced.

The tailings contain over 80% of the radioactivity of the original ore - in a form that can be easily dispersed into the environment. The longest lasting element in uranium tailings is thorium-230 which has a half-life of 80,000 years. Over time it decays into radium 226, which in turn decays to produce radon gas. The time taken for the radon output to dwindle to insignificant quantities could be 100,000 years or more.

It is an inescapable fact that the tailings will in fact remain hazardous for extremely long periods of time (hundreds of thousands of years) and that no assurances could be given that they would remain completely isolated. Thus they also represent an enormous risk of contamination to local communities and ecosystems via land, rivers, air and groundwater.

# Editorial

And so this is Christmas.....The silly season. A time of celebration, giving, navel gazing and the inevitable excess. At least this year we have the rain to console us (remember afternoon thunderstorms *with* rain?) as we try to teach the kids there's more to Christmas than consumerism, and assert our individuality with tofu kebabs at family barbecues.

Unfortunately, in politics, the silly season is an ongoing phenomenon. Our leaders, it seems, are obsessed with playing Santa Claus. John Howard is set to climb down the chimney of the mining industry with a sackful of uranium contracts, and Bob Carr (who must need a record number of pillows to pad him out) is on the brink of laying 10 years of resource security at the foot of a select few sawmillers' christmas trees. Due to past overcutting it looks like this gift will comprise mainly of forests identified by RACAC as required for a Comprehensive, Adequate and Representative reserve system, currently under "moratorium". Some estimates have it that by the end of next year there will only be moratorium forests left to log for sawlogs in Murwillumbah, Urbenville, Bulahdelah, Casino, Coffs Harbour, Dorrigo and Tenterfield Management Areas. Because this resource security only applies to select mills, there is a high probability that a lot of small sawmillers are going to go the way of the moratorium areas; sacrificed to an increasingly concentrated timber industry. Sir Humphrey couldn't have planned it so well.

That said, Environs wishes you all a Merry Christmas and a Happy, Healthy New Year. As long as we can fill a Good News Page, all is not lost. Perhaps a picnic in the Dunggir National Park is in order.

Om Gaia,
Tom.

# A Tale of Two Sawmills

*by Tom Goodwin*

When we think of the timber industry, we tend to think of Boral, FPA and CMFEU spokesmen advocating and/or threatening violence and plundered forests. This is fair enough, Boral holds 70% of the timber quota for NE NSW, and the views of the Dorbers of this world are echoed ad nauseam in pubs and on bumper stickers throughout the region. The NSW Government chose to look no further in its "New Future" for the NSW timber industry. However, nothing is ever that simple, that clear cut (except perhaps a regeneration gap).

All guarantees given to industry are related to quota holders, ie Boral and a few other mills who have managed to hold onto theirs. The $120 million forest industry structural adjustment package is also not available across the board, just to quota holders. So what are the other mills, generally smaller and locally owned, and what are they left with.

## Salvage Mills

Mills not having a quota are also known as salvage mills, ie they receive lesser quality, smaller logs than their quota counterparts, with no guarantee of supply. For this reason, salvage mills will usually be limited to cutting pallets, as the logs they receive from State Forests are too small to cut house framing (or scantling) lengths of hardwood. This has been the case since the then Forestry Commission abandoned light selective logging in the late 1960's and started cutting smaller and smaller trees. Having adapted to smaller logs, salvage mills are in an ideal position to use plantation timber, as species like blackbutt will, under favourable conditions, be suitable for use within 25 to 30 years.

## Overcutting

The switch from light selective logging to today's techniques has had other impacts on the timber industry besides smaller log sizes. Under lightly selective logging, trees under 7 1/2 foot diameter were not touched, and once logged, an area would not be harvested for another 25 years. With no lofty code of minimum size available for harvesting, the gates were thrown open for areas to be logged again and again and again.

## Up-River and Coastal Forests

As areas on the North Coast were settled and cleared, State Forests fell into two categories; the easily accessible coastal forests and the more remote up-river forests, at the top of the catchments. Because of their relative lack of accessibility, many up-river forests have only been lightly selectively logged for cabinet timber, or are old growth or wilderness areas. For this reason they are sought by the timber industry, however now that there are many environmental reasons (bio-diversity, water supply .....*hey, this is an environment magazine, you guys know what I'm talking about*) for not logging in these forests, State Forests are not able to harvest as they desire. For example, the wildlife corridor Compartment 366 in Mistake State Forest was meant to be harvested in 1994 yet remains unlogged. So how do State Forests manage their resource when they cannot get what they want from the up-river forests? Just go to your nearest coastal forest and have a look at the overcutting.

## The Future of Salvage Mills

With no guarantee of supply, no entitlement to compensation or restructuring assistance and a dwindling resource (in the short term at least), this sector of the timber industry is faced with going under. Mills are closing as the logs just aren't there any more. However because they can utilise smaller logs it is likely that they would be viable in the long term. Supply could come from:

**Plantations on private land.** There is an expanding private forest industry. Farmers faced with a downturn in prices for cattle and traditional crops are

considering farm forestry. Tax incentives and other government assistance is needed if this trend is to make a significant contribution to timber supply. It should be noted that State Forests involvement in private forests has arguably had a negative impact, as many "old-timers" are dubious of State Forests management techniques following the change from light selective logging.

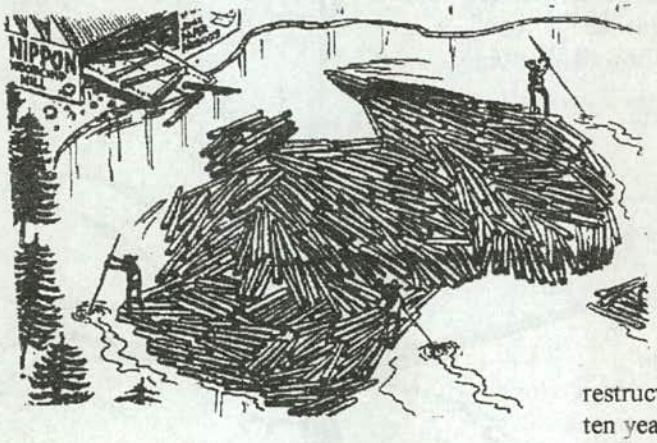
**Thinnings from regeneration projects**. As more landholders become ideologically committed to regenerating cleared land, through Landcare or similar ethos, small and large scale regeneration projects will become more common in the future. Although commercial timber production is not the primary purpose there will be scope for harvest of pioneer species and thinnings of eucalypts as the regeneration matures.

**Farming Niche Species.** Where most plantations are monocultures of either blackbutts or flooded gums, favoured for their high growth rates, there is also a move to growing slower, higher value trees like brushbox, turpentine, spotted gum, red cedar etc.

**Hemp.** While Governments continue to um and ah about low THC hemp as a resource, the case for using hemp products just gets stronger. Hemp fibre board is far superior to particle board, chip board and melamine flooring as a building material. Hemp takes six months to mature compared to 25-30 years for useable blackbutt. If salvage mills are to be forced out of the timber industry, perhaps hemp could be the answer.

# What's In It For The Environment

So far this discourse has ignored the impact of the timber industry on the environment. As the timber industry as we know it undergoes its latest metamorphosis, we must consider the likely outcome(s). The Government's strategy seems to be leading toward one where a government agency manages a public resource for a multinational company, with the opposition largely squeezed out as supply is rationalised. If this alone sounds unhealthy, consider this; following the fire at Boral's Bowraville mill in 1994, the company decided that it could only justify re-equipping for woodchipping, employing a fraction of its former workforce. Salvage mills provide a less threatening outlook, however due to the extent of overcutting some assistance would need to be provided in the short term if logging is to be conducted on a truly ecologically sustainable basis.




Ultimately the policy of flogging coastal forests while there are problems in getting timber from the up-river forests is a time-bomb for the industry, and is the biggest threat to the small locally owned mills that characterise the "timber towns" that industry propaganda is celebrating in its response to the Governments reform package. However the answer to the crisis is not to allow open slather on forests. The public, the people who actually own the forests, are increasingly appreciative of the environmental benefits of high conservation value forest and are no longer prepared to squander them. In short, once upon a time we wanted the forests to be exploited, now we are older and wiser and want what's left preserved.

Although this has been obvious for at least a decade, the previous conservative government and State Forests chose to respond to this fundamental change by ignoring it, denying it, denegrating it and ultimately to stand like King Canute before the ocean, ordering it to cease. The irresponsibility of their actions and lack of any foresight have signifcantly contributed to the industry's predicament now that conservation values *(to a certain extent anyway)* are being recognised by the Carr government.

There is a place for a sustainably managed, environmentally sensitive timber industry. There is a real need to maintain employment levels in country towns. There is a perogative to maintain infrastructure to utilise plantation and other resource when it becomes available, and to make sure that the benefits of that resource stay within the community that produces it. All possible, whether the vision and will to see it through can be imparted on a government more comfortable dealing with big business and big unions than the big picture is the challenge.

The opportunity is here for a serious and worthwhile restructuring of the timber industry. The ten years of resource security promised to the privelidged few are a short term measure, where high conservation value forests currently under moratorium will be logged to the maximum intensity to meet commitments in a vain attempt to delay the inevitable collapse of the timber industry as we know it. The Carr government is in a perfect position to plan for an industry considering its severely depleted resources, likely future resources, the economies of rural towns and the infrastructure still in place. If it refuses to do so, if it fails to learn from the mistakes of its predecessor, it will have ultimatlely failed the environment *and* the timber industry.

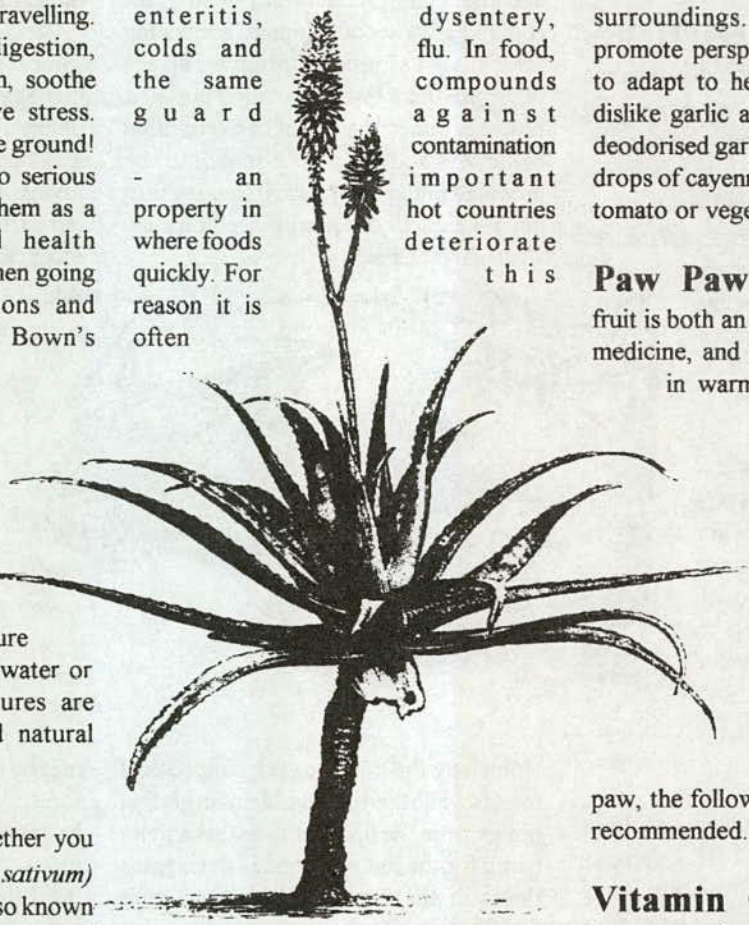
# Happy Holidays the Herbal Way
# A Natural Health Kit

*By Deni Bown*

Herbs can make a world of difference to your sense of well-being when travelling. Used wisely they can aid digestion, increase resistance to infection, soothe minor discomforts and relieve stress. But please keep your feet on the ground! Herbs cannot give immunity to serious diseases, so do not think of them as a substitute for the normal health precautions you should take when going abroad, such as immunisations and attention to hygiene is Deni Bown's advice.

**Ginger** Research has shown that ginger *(Zingiber officinale)* is effective in controlling motion sickness. Try chewing crystallised ginger, or take ginger capsules, tincture and ginger juice, diluted with water or herb tea. Capsules and tinctures are available from herbalists and natural pharmacies.

**Garlic and Chilli** Whether you love or hate them, garlic *(Allium sativum)* and chilli (*Capsicum annuum* also known as cayenne pepper when dried) are two of the best defences against infection. They contain antiseptic compounds effective against enteritis, colds and the same guard - an property in where foods quickly. For reason it is often gastro-dysentery, flu. In food, compounds against contamination important hot countries deteriorate this safer to east local foods, such as curry and chilli, than Western-style dishes which do not fare well in unhygienic surroundings. Garlic and chilli also promote perspiration, helping the body to adapt to heat and humidity. If you dislike garlic and/or chilli in food, take deodorised garlic capsules and add a few drops of cayenne or capsicum tincture to tomato or vegetable juice.



**Paw Paw** *(Carica papaya)*. This fruit is both an excellent food and useful medicine, and it is cheap and abundant in warm countries. It is rich in vitamins, especially Vitamin C, and it benefits the digestion, improving both constipation and diarrhoea. If you dislike the taste at first, try it with a squeeze of lime juice.

In addition to ginger, garlic, chilli and paw paw, the following natural remedies are recommended.

**Vitamin C** Daily requirements increase when coping with stress, exposure to sun or infection. Choose a slow release formula for maximum benefit.

**Ispaghula** High fibre plantain *(Plantago spp)* seeds, available under names such as Isogel, Fybogel and Isabgol. Regulates the bowels, relieving both diarrhoea and constipation. Treating bouts of diarrhoea with ispaghula, together with rest, ample clean water and fruits such as paw paw and apple cleanses toxins from the system. This is a far healthier approach than taking drugs to stop diarrhoea instantly.

**Papain preparations.** Available in tablet form, papain is the enzyme in paw paw that aids digestion.

**Sugar and Salt** Add one teaspoon of sugar and salt to 450 ml of boiled mineral water. This drink provides dehydration during serious fluid loss caused by diarrhoea, exposure or heatstroke.

**Oil of Cloves** *(Syzygium aromaticum).* Used to relieve toothache until dental treatment is available.

**Foot balm Gels** or creams containing soothing, healing herbs such as comfrey, marshmallow, lavender or tea tree, bring relief to sore, aching feet and protect against fungal infections. Those with added peppermint give a pleasant coolness. Remember to take a pair of flipflops for foot hygiene in showers and toilets.

**Lavender oil and tea tree oil** Both are valuable antiseptics for stings, burns and other minor injuries, all of which are potentially more serious in the tropic because of the risk of infection. Do not use waterproof plasters; allowing the skin to breathe reduces the risk of infection.

**Aloe vera gel** The sap of a tropical succulent plant, this makes a soothing, healing application for sunburn and skin irritation.

**Chickweed** *(Stellaria media)* ointment Used to relieve itching.

Herbal inhalation Choose a product containing antiseptic, decongestant oils such as cajuput, eucalyptus, peppermint and pine. Especially useful when flying, as congestion during changes in cabin pressure may cause hearing problems.

**Insect repellents** At all costs protect yourself against mosquitos, especially at night, when the malaria-carrying female is most active. Malaria is potentially fatal and anti-malaria pills only provide protection, not immunity. Many hotels supply insect-repellent coils. If you dislike these, and prefer not to use repellents containing diethyl toluamide, try citronella oil (from the tropical Asian grass Cymbopogon nardus). Some hotels are equipped with mosquito nets, or you can buy your own from specialist camping shops.

**Eyedrops with witch hazel** A natural antiseptic and astringent for sore eyes. Also useful to was out grit and dust particles when travelling on dusty roads.

**Herb tea bags** Take a range. Remember they are useful not only for drinks, but also as hair rinses, skin lotions and healing pads for skin problems.

*Extracted from "Health Tips for Travellers" by Deni Brown, a Culpeper House Herb Society booklet.*

## Some Other Indispensables

*By Elle Ficke-Rubin, editor of Herb Grower*

Wherever we travel, our family is never without a homoeopathic kit with the following contents:

**Arnica** for shock or accidents, be it mental or physical, also for over exertion (trekking or mountain climbing).
**Apis Mel** for insect bites.
**Rhus Tox** for sprains of joints or tendons
**Sedum** for animal bites, poisonous bites, dirty wounds
**Cina** for worms
**Arsen Alb** for food poisoning, diarrhoea ,vomiting
**Aconite** for sore throats and the beginnings of colds
**Belladonna** for heatstroke
**Merc Sol** for sore teeth and gums
**Silica** for abscesses and splinters
**Nat Mur** for sinus trouble and runny nose

We also take Rescue Remedy, citronella, lavender and tea tree oils, witch hazel and my home-made ointment which contains calendula, comfrey and other herbs. Goldenseal capsules are wonderful for deep wounds; just open up a capsule and apply the powdered herb to the wound.

If you're travelling with kids, you might consider additional remedies:

**Chamomilla** for teething babies
**Pulsatilla** for weepiness
**Ignatia** for home sickness, hysteria
**Cantharis** for burns and scalds before blisters form, and sunburn
**Nux Vom** for motion sickness
**Urtica Urens** for rash from stinging nettle or other plants, small burns, bee stings, burning, itching and tingling skin.

You will, of course, be sensible and contact a doctor when things look serious, or symptoms don't disappear quickly.

*Source: Herb Grower, November December 1996.*

# The Green Page

## Trees as a Spray Break

The use of trees as spray breaks between agricultural land and residential areas may be part of the compromise between the right to farm and the right for others not to have agricultural chemicals in their living space. However, trees must not be a barrier to wind, as this will cause air turbulence and agitate settling spray particles. The trees must allow wind to pass through the tree barrier. The solids are then filtered out by the leaves, twigs, branches and trunks of the trees.

An open planting of three or four rows with at least four metres by four metres spacings, and without draught-stopping shrubs, is more beneficial than a close, compact tree planting. Three to four rows of several species of trees provide a reasonable filtering of solids from the air. However, tree spacing and the number of rows, will vary according to space available and the situation itself.

The best trees are Casuarina spp - the variety will depend on soil type and water availability. Brush box, tuckeroo, banksia (in low fertility soils), paperbark tea tree, bloodwood and pine trees are also suitable. Trees that retain their lower branches are better than self pruning trees. Select species of trees and shrubs which grow fast and reach a height needed to provide effective screening. As these trees will be grown near houses, their ability to withstand hedging or topping is important.

Nature uses trees with fine leaves to filter salt from the air. This can be seen on land behind beaches and on headlands, where trees filter windborne salt from the air, protecting salt sensitive vegetation. On the north coast trees such as casuarinas, banksia, brush box, tea tree and bloodwood withstand and filter out high levels of salt from the air. These trees may also be able to filter out airborne agricultural chemicals.

*Source: NSW Agriculture Today, August 1996 via Herb Grower, November/ December 1996.*

## Environmental costs measured

*By Eva Cheng*

Every dollar of economic activity officially registered by Japan in 1990 has hidden unaccounted costs to the environment worth of at least $2.50, an international conference in Tokyo was told late last year.

The Japan Centre for Economic Research, which prepared the study, reported that the US$3.55 trillion of goods and services produced by Japan in 1990 -measured by gross domestic product - was achieved at the hidden price of at least $8.77 trillion of damage to the environment.

But that price (calculated by the extent of destruction of natural assets and the ecosystem as well as the costs in restoring those damages that are deemed recoverable), high as it is, captures only a partial picture. It has not taken into account the damage done by global warming, destruction to the ozone layer, overseas environmental destruction associated with Japanese imports or damage that isn't recoverable.

Centre spokesperson Yoichi Nakamura said the green GDP, which was proposed to the Japanese government late last year, was modelled after the system of national accounts proposed by the 1992 Earth Summit in Rio de Janeiro.

The environmental cost remains at an astounding level despite a decline, per unit of economic activity, in the five years to 1990, which was attributed to the halving of coal production in Japan. But air pollution caused by vehicle emissions, a main source of environmental damage during the period, rose by 6.9%, far exceeding the rate of economic growth.

The disregard of environmental damage is a fundamental flaw in the measurement of economic output in most countries today. Unpaid housework, performed primarily by women, is another glaring omission common from the prevailing measurement of national accounts.

*Source: Greenleft.news*

# Threat to Health Freedom

The Federation of Natural and Traditional Therapists (FNTT) say that vitamins and other nutritional substances may only be available by prescription in the near future. A GATT treaty signed by Australia unfortunately commits us to abide by certain European hardliners' ideas, which will not only benefit the doctors and the giant pharmaceutical companies but take away our freedom of choice regarding our own health!

According to FNTT the treaty involves the whole of the food supplement area including minerals, amino acids, herbs etc., and it is purely a commercial ploy. Limits to dosages will be enforced as is currently the case in Norway. In fact, the health food industry is being literally taken over by the drug companies there, and Sweden is rapidly going in the same direction.

As the holistic healing movement increases worldwide (worth a billion dollars in Australia) it is only too obvious why big business wants to cash in on it, leaving the small manufacturers fearful of their future. Spokesman for FNTT indicated that ministers in Canberra were concerned with the issue and they are trying to find ways around the dilemma of being prematurely controlled from overseas - against the wishes of ordinary Australians.

The natural therapy field is well supervised by health authorities to prevent any health risks and ill-advised advertising. The US has launched a big campaign against the European move and it now remains for the general public and interested parties here to act, otherwise it could be too late.

*Source: Herb Grower, November/ December 1996.*

# Plastic Facts

- Australians throw away 2 billion plastic shopping bags per year. That's 4000 a minute.
- Once a plastic bag becomes litter, it never goes away. Nature doesn't know how to break plastic down, because its a synthetic material.
- One quarter of the 1 million tonnes of plastic produced in Australia goes into packaging. Most is thrown away after a single use.
- There are around 46,000 pieces of plastic floating in each square mile of our oceans. Plastic kills up to 1 million sea birds, 100,000 sea mammals and countless fish each year.
- Most plastic shopping bags are made from polyethylene (low density polyethylene or LDPE)
- Benzene, a chemical that can cause cancer and may cause leukemia, is used in production of LDPE shopping bags.
- Of the 35,000 tonnes of LDPE plastic film used to make plastic bags, 25,000 tonnes is imported, adding to our foreign debt problem.
- Plastic shopping bags cost retailers between 3 and 5 cents. These costs are passed on to shoppers.
- Only 0.5% of consumer plastic is recycled.

*Source: Friends of the Earth, via Home Environmentalist, Vol 6 No 1.*

This month's cover... Christmas Bells - Blandfordia grandiflora
What better symbol of Christmas in Eastern Australia than our beautiful Christmas Bells! These wonderful waxy red & yellow bells flower profusely in summer & often cover vast areas of moist sandy soil in wetland areas on the coast & also on the tablelands. While most people think of them in red & yellow, they also occur in a pure yellow form - often growing together as they do at Red Rock, North of Coffs Harbour, where they cover a vast sandy wetland area, very close to the town. My cover drawing was done from photos I took there last summer.

Unfortunately many of their natural habitats have been drained & filled for development, so those that remain need protection as flora reserves. We can also make sure they stay around by growing some in our gardens - maybe in a damp place near the garden tap! Mine haven't flowered yet - but I look forward to seeing those lovely red & yellow bells - maybe next year!

Best Wishes for the Festive Season, and a Peaceful & Environmentally Healthy & Happy New Year from all of us at Environs...

Julie. (Thanks Georgie for the last two covers!)





**Environs**

the north coast environment news magazine

**Environs is published every other month on a voluntary basis to bring together reports from a large number of environmental organisations. Many groups are affiliated with Environs, including the Bellingen Environment Centre, and the Nambucca Valley Conservation Association.**

**Editorial contributions are welcomed. They should include the authors name and phone number and should be sent by mail to: Environs, PO Box 123, Bowraville 2449, or by fax to (065) 647 808. Subscriptions are $12 for 6 issues. Advertisements may be lodged with Julie Mozsny by phoning (065) 695 360. Editorial and layout for Environs is by Tom Goodwin (065) 647 881. Cover artwork is by Julie Mozsny.**

PRINTED BY: DALE PRINT
MACKSVILLE - 682 296

**Environs**
if undelivered return to:
PO Box 123, Bowraville 2449

SURFACE MAIL

POSTAGE PAID AUSTRALIA

Nimbin News P
PO Box 209
NIMBIN NSW 2480

Print Post Approved PP 228048/0001