



LiqBio—liquid biofuels in New Zealand

The quarterly electronic newsletter from the Bioenergy Association of New Zealand (BANZ) on the Liquid Biofuels Sector http://www.bioenergy.org.nz/liquid_biofuels.asp

April 2009, Issue 2

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Welcome

Welcome to the second issue of ‘LiqBio’ the dedicated Liquid Biofuels in New Zealand newsletter. This issue follows hot on the heels of two significant biofuels events in Wellington in March. Interest in biofuels continues to grow and we are pleased to welcome several new Members to the Bioenergy Association with a particular interest in liquid biofuels. We also congratulate Mobil as it introduces its biofuel blend to forecourts in the Bay of Plenty. The Liquid Biofuels Interest Group has been working on a Position Statement with a view to meeting with Minister Brownlee. We are keen to work with the Minister to achieve the best outcome for the New Zealand Biofuels Industry. Check out our biofuels web-pages for more details on who is doing what in New Zealand on liquid biofuels. If your details are not on the site—[contact us](#).

Andre Hamman, Convener of the BANZ Liquid Biofuel Interest Group

New BANZ Members with a Liquid Biofuels Interest—Welcome!

Company / Organisation	Key Contact	Type of Membership
Lanzatech www.lanzatech.co.nz Barbara@lanzatech.co.nz (09) 373 4929 LanzaTech was founded in early 2005 to develop, and commercialize proprietary technologies for the production of lowest cost fuel ethanol from the carbon monoxide in low-hydrogen waste gases produced by the steel industry. The company is now ready to undertake the next stage on this critical path, the pilot-scale demonstration of its fuel ethanol production from both biomass syngas and industrial waste gas feedstocks. A pilot plant design has been developed that will allow ethanol production from each of these feedstocks to be demonstrated at scale over the next 12 months.	Sean Simpson	 Spearheading Biofuel Production Technology Full Corporate Membership (plus Membership of the Liquid Fuels Interest Group)
Gull New Zealand www.gull.biz daveb@gull.biz Gull retails 2 grades of biofuel in New Zealand (both E10) and operates a biofuel facility in Queensland as well as retailing biodiesel in West Australia.	Dave Bodger	 Ordinary Corporate Membership (plus Member of the Liquid Biofuels Interest Group)
LentiKat's a.s. http://www.lentikats.eu/en/# bouskova@lentikats.eu (09) 238 8939	Alzbeta Bouskova	Full Associate Membership (Member of the Liquid Biofuels Interest Group)
NZ Ester Fuels Ltd. http://www.nzef.co.nz/ andre@nzef.co.nz 0274 720 964, 021 677 511	Andre Hamman	Full Associate Membership (Member of the Liquid Biofuels Interest Group)
Ecodiesel gary.brockett@goecodiesel.com (09) 636 4240, 021 027 02928	Gary Brockett	Full Associate Membership (Member of the Liquid Biofuels Interest Group)
National Institute of Water and Atmospheric Research (NIWA) http://www.niwa.co.nz r.craggs@niwa.co.nz 07 859 1807	Rupert Craggs	Full Associate Membership (Member of the Liquid Biofuels and Biogas Interest Groups)
Solray Energy http://www.solventrescue.co.nz/	Chris Bathurst	Ordinary Associate Membership (plus Member of the Liquid Biofuels Interest Group)
The Renderers Group of the Meat Industry Association http://www.mia.co.nz/	Neville Cross	Ordinary Associate Membership (plus Member of the Liquid Biofuels Interest Group)
Longbay Petroleum Associates Ltd	Brian Casey	Individual Membership (plus Member of the Liquid Biofuels Interest Group)
Ministry of Transport	Tony Frost	Individual Membership (plus Member of the Liquid Biofuels Interest Group)
Transfield Worley Ltd	Markus Benter-Lynch	Individual Membership (plus Member of the Liquid Biofuels Interest Group)

Partnerships

This newsletter is supported by the Energy Efficiency and Conservation Authority



Biofuels in Wellington—March 2009

March saw two key biofuels events in Wellington back to back:

- The EECA Biofuels and Electric Vehicles Conference—Driving Choices, 24 March 2009, and
- The Bioenergy Association Workshop, The Current Status of Liquid Biofuels Supply in New Zealand - Addressing the Supply Opportunities', 25 March 2009.

The co-ordinated events meant that many delegates took the advantage of a special price and attended both events. A brief 'report back' for each is presented below with links to presentations

EECA Biofuels event—report back

The EECA Biofuels & Electric Vehicles Conference 2009 was held on 24 March in Wellington, with over 160 delegates attending for the latest on renewable energy for transport in New Zealand.



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With a host of key note international speakers presenting during the day, the conference was opened by the Minister of Energy and Resources, Hon. Gerry Brownlee and was followed by Richard Marshall Director Energy & Environment, GM Holden, Australia and Nick Goodall, CEO, Renewable Fuels Agency, UK.

With an average satisfaction rating of 4.2 out of 5 from delegates, the conference was a great success and provided some great global insights and learnings on how biofuels, and electric vehicles are an important part of New Zealand's future. The BANZ workshop the following day was a perfect complement to provide the big picture for biofuels in New Zealand.

For more information on the EECA Biofuels & Electric Vehicles conference go to www.eeca.govt.nz and to find out more about the [speakers](#) and [view their presentations](#).

BANZ Liquid Biofuels Event—report back

The BANZ Liquid biofuels Interest Group Workshop was held on 25th March in Wellington with 85 people in attendance. Brian Cox, Executive Officer of the Bioenergy Association and Andre Hamman, Convener of the BANZ Liquid Biofuel Interest Group welcomed delegates to the Workshop.



The theme for the BANZ event was 'quality and standards' with four sessions focussing on regulations and standards, energy crops, conversion technologies and innovation.

Attendees were given a clear message on the evidence of quality required by Gull and the issues around supplying a quality product time and time again on the station forecourt. Attendees were able to hear a range of speakers outline the potential that energy crops ranging from miscanthus to oil seed rape and tallow to willow offered to New Zealand. In the afternoon sessions were presented on the quality and process issues to be considered when producing biodiesel from tallow and the potential of second generation biofuels.

The event was a great success and facilitates (as intended) much discussion amongst key players in the sector. Presentations from the event are available on the BANZ web-site [here](#).

The 'Who's Who in Liquid Biofuels in New Zealand' from the Workshop is available [here](#). Details about a Liquid Biofuels Workshop later in the year will be available soon.

biofuels news

NZ—Biodiesel at the Pump—Mobil first—March 2009—Renewable transport energy in New Zealand is making progress, with biodiesel now on retail sale and approval granted for 85% ethanol blends in petrol. Mobil has become the first company in New Zealand to sell a biodiesel blend at the Pump. The B5 blend (5% biodiesel blended with ordinary mineral diesel) went on sale on a trial basis in the Bay of Plenty region. The biodiesel in Mobil's B5 blend is sourced from tallow, a by-product of meat processing. More details [here](#).

NZ—E85 is all go—March 2009—Ethanol-blended petrol is already on sale in New Zealand, but now another renewable biofuel choice is possible after the Environmental Risk Management Authority (ERMA) approved an application from EECA to allow E85 (an 85% ethanol blend with 15% petrol), with controls. More details on the ERMA decision to approve the application can be found [here](#).

Bioethanol made from British wheat is very much back on the agenda—Not only is it now seen as viable to produce the petroleum replacement from home-grown cereals but the byproduct from the distillation process looks likely to have a fundamental bearing on the availability of high-protein animal feedstuffs. A conference run by cereals levy board HGCA at Yarm in Cleveland yesterday was told the new £250million Ensus bioethanol plant at Wilton on Teesside should start production this summer and use more than a million tonnes of wheat a year. Click [here](#) for full story.

UK lags behind on biofuels—Britain needs to take bolder action to support biofuels and may struggle to convince the European Commission it will meet mandatory targets, Clare Wenner of the Renewable Energy Association said. "I think there is a belief that the rest of the world is racing ahead on biofuels and somehow the UK is scared of its own shadow," Wenner, REA's head of biofuels, said in an interview on the sidelines of a biofuels conference organised by the Home-Grown Cereals Authority. Click [here](#) for full story.

Shell goes to paradise in search of cheap biofuel—Last week a small company backed by the oil giant Royal Dutch Shell provided the first batch of a locally made oil to the American government for testing as aviation fuel. It has the combustion properties of fuel derived from crude oil but it is made from algae. The advantages over conventional biofuels are clear – it is not made from crops grown on agricultural land so it cannot be blamed for driving up food prices or using scarce fresh water. More [here](#).

Beware the wrong 'sort' of diesel—Millions of UK motorists could be in danger of unwittingly invalidating their car warranty by using the wrong fuel. This is the warning from consumer web site www.cleangreencars.co.uk which says there could be potential dangers associated with using high-blend biodiesel fuel, known as B30. Sold through 113 supermarket forecourts across the UK, it features a blend of up to 30 per cent biomass. This is said to be a much higher blend than the five % supplied through regular diesel pumps, which is recommended for use by all manufacturers. Click [here](#) for full story.

Crop management to reduce biofuels' carbon debt—It is widely considered that using biofuels produces less greenhouse gas (GHG) emissions than using fossil fuels. However, there are concerns that the possible effects of land use change (LUC) may outweigh these benefits. New research looks at the effects of sustainable crop management as a means of reducing the negative impacts of LUC. A recently published study by Michigan State University (US) highlights the important need to incorporate the effects of LUC when carrying out life-cycle analyses of biofuels. More [here](#).

Biofuel Cities Newsletter at: <http://www.biofuel-cities.eu/index.php?id=7073>

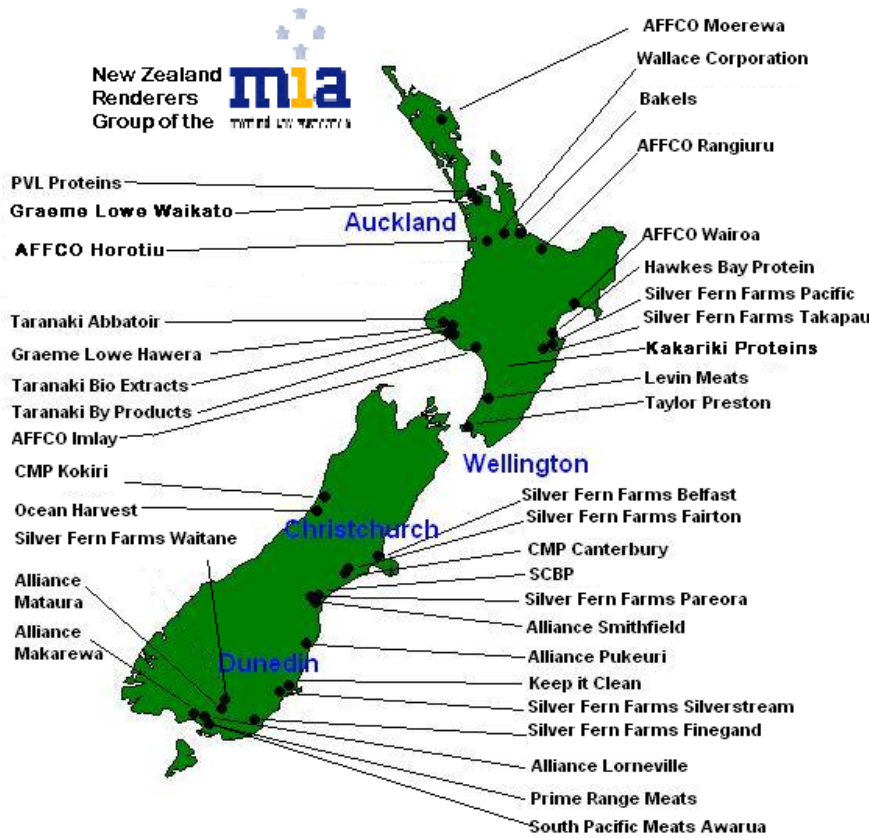
Liquid Biofuel Interest Group—Committee meeting—The LBIG Committee met last on the 24th March 2009. The meeting was an extended Committee meeting **open to all Interest Group Members and Guests**. Discussion at this meeting focused on the development of a Position Statement entitled "The Sustainable Production and Use of Liquid Biofuels in New Zealand – Advantages to the New Zealand Economy and a Proposed Tax Incentive to Facilitate Market Growth", March 2009. A summary of the position statement is set out on page 6 in this newsletter with a link to the full version which has been submitted to Minister Brownlee's office with a request to meet. If you are not a member of the Liquid Biofuel Interest Group and would like to join, contact [Connie Crookshanks](#) for further details.

The Rendering Factor—biodiesel from Tallow

We all know that the rendering process turns waste animal tissue into stable value-added resources—tallow and ‘meat and bone meal’. But what do we know about the rendering industry in New Zealand and how important it is in the biofuels equation.

The **New Zealand Renderers Group** is a semi-autonomous committee of the **Meat Industry Association of New Zealand Inc. (MIA)** and they are a new BAZ Member. The Membership consists of all members of the MIA (there are 23 rendering plants associated with meat processors), 14 independent processor or exporter renderers (active members) and 15 associate members (marketers and equipment suppliers).

The map below shows the location of rendering premises of the MIA Renderers Group.



The purpose of the New Zealand Renderers Group is to further the common interests of the rendering industry and to increase the returns from the New Zealand Rendering Industry through: Being recognised as a responsible, sustainable and an essential industry; Reducing cost of compliance; and Improved market access.

Rendering: What is it?

Rendering is a process that converts animal material into stable, value-added materials. The animal material used in rendering is generally animal fatty tissue, bones and offal and this is converted into purified fats (tallow) and a protein meals

such as meat and bone meal, poultry meal, blood meal and feather meal.

The majority of animal material processed comes from meat processors but also includes restaurant grease, butcher shop trimmings and the carcasses of animals that have died on farms. The most common animal sources in New Zealand are sheep, beef, poultry and pork. Rendering plants may also handle other materials, such as blood feathers and hair.

The process of rendering is to first grind the material, and then heat it to release the fat and drive off the moisture. The fat is then extracted leaving the solids, which are milled to make protein meals such as meat and bone meal. The heat treatment phase ensures that the meals and tallow produced are pathogen-free.

The fat (tallow) that is produced is predominantly used in soap manufacture, oleo-chemical manufacture and biodiesel production, and the meat and bone meal as a protein and mineral source in poultry, pig and aqua

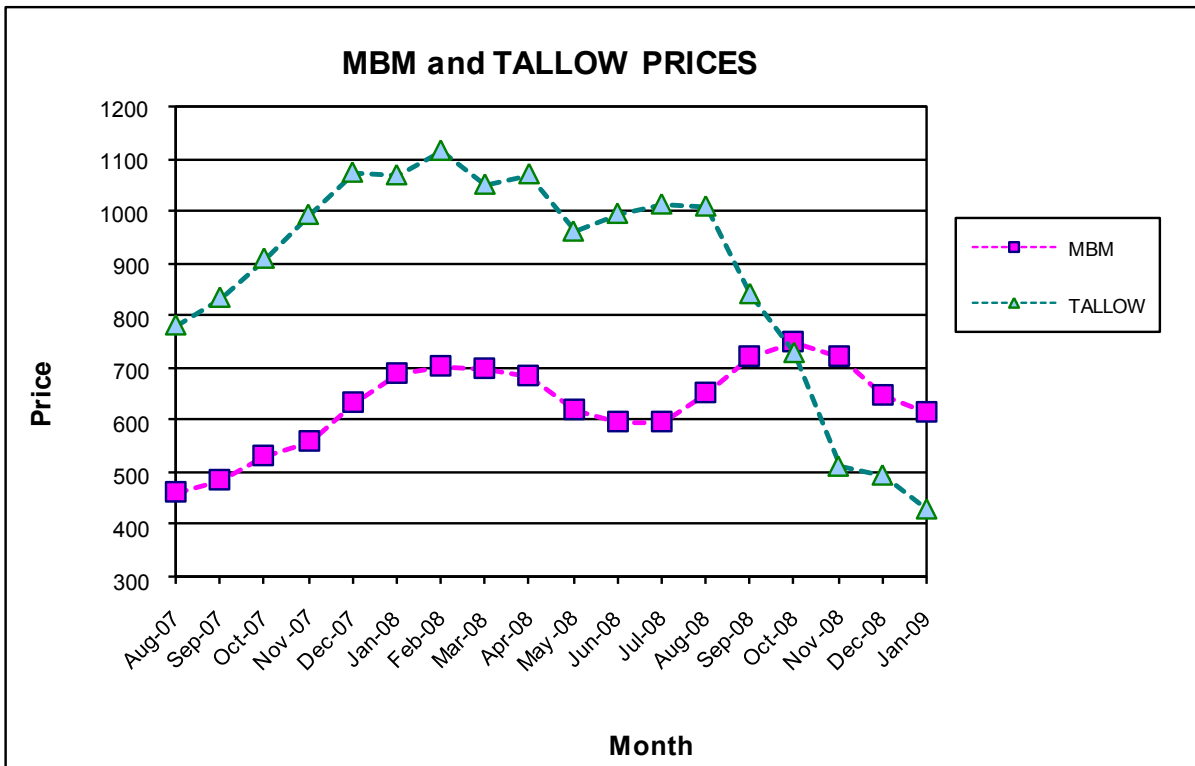
Culture feeds as well as in pet food.

Facts and Figures

Agriculture is a mainstay of the New Zealand economy and Rendering contributes to this by being an essential service in creating a valued product in a sustainable manner.

The 37 New Zealand Renderers produce per annum the following:

- 140 000 tonnes tallow;
- 200 000 tonnes meat and bone meal; and
- a small quantity of blood products.



The value of tallow exports for 2007/08 was \$192M and for meat and bone meal \$97M. However as can be seen from the graph below there can be significant changes which are dependant on supply, demand and the cost and availability of alternative products.

Contact Details

Further information on the NZ Renderers Group of the MIA including a list of members is available at:

www.mia.co.nz or by contacting:

Meat Industry Association

PO Box 345

Wellington

Tel: 04 473 6465.

Biofuels on the Radio—28 March 2009—Andy Matheson Renewable Energy GM at Solid Energy, responsible for wood pellets, biomass, solar water heating and biodiesel was interviewed by Kim Hill. Listen to the interview [here](#)

The Sustainable Production and Use of Liquid Biofuels in New Zealand – Advantages to the New Zealand Economy and a Proposed Tax Incentive to Facilitate Market Growth—Liquid Biofuels Interest Group Position Statement, March 2009

The Liquid Biofuels Interest Group has voiced its support for the recent Government announcements about a new tax incentive to support liquid biofuels to replace the Biofuels Sales Obligation which was repealed in December. The Group has also voiced its concern that the current 'policy vacuum' is going to harm the industry. Details of the so called 'incentive' are as yet unknown.

The Liquid Biofuel Interest Group has set out its views of the incentive that it considers will help the industry. In its position paper—*“The Sustainable Production and Use of Liquid Biofuels in New Zealand – Advantages to the New Zealand Economy and a Proposed Tax Incentive to Facilitate Market Growth”*, the Group sets out the following:

- Details about the BANZ Liquid Biofuel Interest Group and its Members,
- An insight into the current situation in New Zealand liquid biofuels,
- Sustainability and New Zealand liquid biofuels,
- Liquid biofuels – the New Zealand advantage, and
- Supporting biofuels – the Liquid Biofuel Interest Group proposal

In particular, the Statement notes the following advantages that producing biofuels presents to New Zealand Inc.:

- Enhanced security of fuel supply,
- Employment "green collar" jobs,
- Value maximisation of land,
- Reduction of 'wastes' to landfill,
- Positive health impact,
- Investment in R&D and biofuel manufacturing ,
- Value added New Zealand raw materials that are currently exported,
- Mitigating Kyoto agreement liability due to reduced net GHG emissions from transport,
- Tourism growth by reinforcing the NZ "Clean & Green" image .

In terms of the incentive to help the biofuels industry in New Zealand, the Group pragmatically recommends the following:

1. The Bioethanol tax incentive of 42.5c per litre ("cpl") be maintained, and that
2. A Biodiesel tax incentive of 42.5 c per litre be implemented.

The Position Statement can be accessed through the BANZ web-site on the Liquid Biofuel web-pages [here](#).

Membership—Liquid Biofuel Interest Group

Membership of the Liquid Biofuel Interest Group (LBIG) is open to Members of BANZ. If you are interested in Membership please contact [Connie Crookshanks](#).

- Individual Members interested in Membership of an Interest Group are subject to a charge of \$100 per Group.
- Associate and Corporate Members are permitted to have Membership of at least one Interest Group included in their Membership fee.

The Bioenergy Association of New Zealand Inc. (BANZ) comprises companies, research organisations and individuals who have an interest in markets for converting biomass or biomass residues into energy. To receive this newsletter regularly contact [Connie Crookshanks](#) for membership details. See [here](#) for more info.

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