

New Zealand experiences – Learning from others

The Table below shows some of the experiences of biofuel users in New Zealand. This information has been assembled by BANZ through a users survey. The information presented has been given to BANZ voluntarily and is not checked or verified. The table is regularly updated.

The biofuel users who responded to this survey indicate that the overwhelming majority had no reported problems using biofuels and were happy with their biofuel experiences.

The table shows that biofuels are being used in a wide range of activities, engine types, locations and blends. The majority of responses so far have been for biodiesel blends. Where possible the producer of the fuel is noted).

Please contact connie.crookshanks@bioenergy.org.nz if you would like to share your experiences with us (see end of table for more details and a data collection form).

Vehicle Use	Vehicle type (make, model and year)	Geographical location	Details of blend used e.g. B20, B100	Fuel origin / feedstock	Distance driven on biofuel (km)	When operating	Additional Information
Regular commute	Toyota Corolla 1992	Auckland	Gull force 10, E 10	(Gull)	10,000 km	Daily	
Around farm use	David Brown Tractor, Model 990, 1962	Bombay hills	Splash mix using B100 so in tank mix could be between B80 & B10	NZ Ester Fuels (used cooking oil)	30 hours yearly	Early 2009	
Town Tours	2 * DUKW 1944 running Mitsubishi Engines	Rotorua	B20	Used Cooking Oil	30,000 km	Daily use since 2008	
Rallying / Motorsport	Skoda Fabia RS 1.9 TDI 2005	National Championships 5 Rounds all over New Zealand	B10 as per Motorsport NZ Regulations	Blended used and virgin canola oils (Kiwifuels)	Each round is approx 600 - 800 kms	5 rounds per year from May - Sept	Web-site

(last updated 12 Oct 2010)

Contracting	Nissan RSR	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	16,000 km	2006 winter	
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Vehicle Use	Vehicle type (make, model and year)	Geographical location	Details of blend used e.g. B20, B100	Fuel origin / feedstock	Distance driven on biofuel (km)	When operating	Additional Information
Contracting	4WD QD32	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)		2006 winter	
Industrial haulage	Hino Ranger	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	45,000 km	2006 winter	
Industrial haulage	Mazda Titan	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	20,000 km	2006 winter	
Industrial haulage	Mazda Titan	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was	vegetable oil-based Biodiesel (BiodieselNZ)	15,000 km	2006 winter	

(last updated 12 Oct 2010)

			back up to B70.				
Industrial haulage	Toyota (8 ton)	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	10,000 km	2006 winter	

Vehicle Use	Vehicle type (make, model and year)	Geographical location	Details of blend used e.g. B20, B100	Fuel origin / feedstock	Distance driven on biofuel (km)	When operating	Additional Information
Industrial haulage	Toyota Toyace	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	12,000 km	2006 winter	
Industrial haulage	Hino Ranger	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	15,000 km	2006 winter	
Contracting	Mazda Bounty	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	15,000 km	2006 winter	

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Contracting	Mitsubishi Canter6 Ton	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	10,000 km	2006 winter	
Contracting	Nissan Condor7 Ton	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	10,000 km	2006 winter	

Vehicle Use	Vehicle type (make, model and year)	Geographical location	Details of blend used e.g. B20, B100	Fuel origin / feedstock	Distance driven on biofuel (km)	When operating	Additional Information
Contracting	Mitsubishi Fighter7 Ton	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	20,000 km	2006 winter	
Contracting	Isuzu Forward5 Ton	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	20,000 km	2006 winter	
Contracting	Isuzu Justin5 Ton	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	25,000 km	2006 winter	

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Contracting	Yuchai YC35 Digger	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	400 hours	2006 winter	
Contracting	Yuchai YC35	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	350 hours	2006 winter	

Vehicle Use	Vehicle type (make, model and year)	Geographical location	Details of blend used e.g. B20, B100	Fuel origin / feedstock	Distance driven on biofuel (km)	When operating	Additional Information
Contracting	IHI 1.5Ton Digger	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	300 hours	2006 winter	
Contracting	Yanmar V10-50 Global Digger	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	400 hours	2006 winter	
Contracting	Possi Track RC30 Digger	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	350 hours	2006 winter	

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Contracting	Possi Track RC30 Digger	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	350 hours	2006 winter	
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Vehicle Use	Vehicle type (make, model and year)	Geographical location	Details of blend used e.g. B20, B100	Fuel origin / feedstock	Distance driven on biofuel (km)	When operating	Additional Information
Contracting	Nissan Patrol	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	60,000 km	2006 winter	
Contracting	Daihatsu	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	25,000 km	2006 winter	
Contracting	V24 (1980)	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)		2006 winter	
Contracting	Isuzu Elf (6Ton) (1994)	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	3,000 km	2006 winter	
Contracting	Mitsubishi Pajero (1987)	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	31,000 km	2006 winter	

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Vehicle Use	Vehicle type (make, model and year)	Geographical location	Details of blend used e.g. B20, B100	Fuel origin / feedstock	Distance driven on biofuel (km)	When operating	Additional Information
Contracting	Mercedes 190D(1990)	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	10,000 km	2006 winter	
Every day use	Nissan Terrano (TD27) 1991	Canterbury / Christchurch / South Island	During the warmer months - a B90 blend; in the colder months - a B60 blend; by September it was back up to B70.	vegetable oil-based Biodiesel (BiodieselNZ)	5,000 km	2006 winter	
city bus routes	Leopard Coaches (brand new MAN powered buses) and Christchurch Bus Services (existing Cummins powered buses)	Christchurch	Initially a B5 (5%) blend and both plant oil and animal fat biodiesel will be used. This blend quantity may increase to a maximum of a B20 (20%) blend during the trial.	both plant oil and animal fat biodiesel	unknown	trial from October 2006 - May 2008; daily use on bus routes	Web-site
Bus fleet	using Bio-Diesel in all of its fleet effective Mid February 2010.	Canterbury	It is blended with standard diesel to form the B5 mix which is called 'Bio-Gold'.	cooking oil and oilseed rape	not specified	in contact use daily	Web-site
Boat Tours (land fleet also running on biodiesel)	Engines from Scania, Caterpillar, Volvo and MTU	Auckland	three boats on B20 and one on B10; next step B100	waste vegetable oil	not specified	daily since late 2009	Case Study

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Vehicle Use	Vehicle type (make, model and year)	Geographical location	Details of blend used e.g. B20, B100	Fuel origin / feedstock	Distance driven on biofuel (km)	When operating	Additional Information
Tours for tourists	Toyota Landcruisers (and a Toyota Prado)	Canterbury	For over a year the vehicles ran on B60 (a 60% blend of biodiesel with 40% ordinary diesel). Although that fuel worked very well, changes in the pricing structure of biodiesel meant it became more cost effective to run on B20 (a 20% biodiesel blend), which they switched to in 2009.	used cooking oil and canola	not specified	daily	Case Study Web story
Moving Company - fragile freight – a 50/50 split of domestic removals and commercial carrying.	Large haulage trucks; various engine makes including Scania.	North Island	Two trucks were trialed for six months on canola-based biodiesel – one on a biodiesel blend of 20% biodiesel with 80% ordinary diesel (B20), the other on 100% biodiesel (B100). After the successful pilot, all the trucks began running on B20. Soon moving to B100.	canola-based biodiesel	not specified	daily	Case Study

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Vehicle Use	Vehicle type (make, model and year)	Geographical location	Details of blend used e.g. B20, B100	Fuel origin / feedstock	Distance driven on biofuel (km)	When operating	Additional Information
Car and truck rentals	190 vehicles. Around 50 of those are diesel-fuelled commercial vehicles, mainly self-drive trucks and vans (typically used by people moving house) and 10- and 12-seater minibuses. The cross section of vehicles ranges from a four tonne truck to small commercial vans, and includes Toyota Hiace, Toyota Dyna, Ford Transit, Mitsubishi Canter, Isuzu Elf, Nissan Atlas, and Nissan Caravan.	Auckland	B20	waste vegetable oil	not specified	daily since Sept 2009	Case Study
Installation fleet vehicles and pool cars	Toyota Hiace vans x 2 (both 2007) and Hyundai Sonata x 2 (both 2008)	AKL and Chch	B40	waste vegetable oil and canola	More than 10,000k for total fleet	Summer only 2007 to 2008	
Regular commute	Nissan Mistral 1995	Auckland	B100	used cooking oil	+40,000 km	All year round since Oct 2008	
Rafting buses, ski buses and airport transfer vehicles	Varied: Nissan Civillian 1990-97, Hino HU 1987-93, Hino Liesse 1997-2004, Toyota Hiace 2004, Ford RJ 1976-1987, Isuzu JCR 1984-1987	Queenstown	B20	Oil seed rape, used cooking oil	Normally 50-150km per day	Daily use since June 2010 for most some ski buses, daily use since November 2009 for rafting bus (others just starting)	
Tour vehicle	1992 Toyota Hiace DX 4WD	Queenstown	B20	Used cooking oil	1500km	Occasional use since April 2010	
Tour vehicle	1998 Land Rover Defender 110 TDi	Queenstown	B20	Used cooking oil	1400 Km	Occasional use since April 2010	

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Vehicle Use	Vehicle type (make, model and year)	Geographical location	Details of blend used e.g. B20, B100	Fuel origin / feedstock	Distance driven on biofuel (km)	When operating	Additional Information
Tour vehicle	1998 Land Rover Defender 110 Tdi (2nd vehicle)	Queenstown	B20	Used cooking oil	1400 Km	Occasional use since April 2010	
Regular commuting	Holden Rodeo LT 2004	Queenstown	B20	Used cooking oil and oilseed rape	11,600km	Daily use since April 2010	

Other responses

Response from Gull Petroleum re user's experiences with ethanol blends:

"Ethanol users are in the main individuals so we do not get many touch points. However, Gull makes around 150,000 sales of ethanol blended fuel / month and our products were launched initially in Aug 2007. Since then we have only had two reported issues that can be attributed to fuel. This is on par with all fuel sold. Gull would note that the Ministry of Transport research on the testing of engine parts that showed no difference even under severely stressed conditions between ethanol blends and 100% petrol."

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Biofuel Users Survey – [data return form](#)