



Midfield Meat International Pty. Ltd.
Midfield Meat Processing Pty. Ltd.
Midfield Meat Transport Pty. Ltd.
Midfield Co-products Pty. Ltd.
Midfield Pastoral Pty. Ltd.

MIDFIELD MEAT INTERNATIONAL P/L

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Diesel/Biodiesel Blends – Discussion Paper

Fuel and Used Oil Policy Section
Department of the Environment and Heritage
GPO Box 787
CANBERRA ACT 2601
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SUBMISSION: Setting National Fuel Quality Standards

INTRODUCTION

Midfield Meat International is a prospective producer of biodiesel using animal tallow as the feedstock, produced from raw material generated by the companies food processing business. Midfield is committed to producing consistent reliable high quality fuel.

SUBMISSION RESPONSE

Option 1 and 2 are both unacceptable on the basis that a B5 limit would reduce market opportunity for the biodiesel industry. Engine manufacturers around the world will embrace higher blends as engine studies are completed and the data made public.

This option does not support the increased use of higher blends that will bring greater environmental benefits and therefore it is not the best option available for the future.

Option 3 brings a comprehensive, expensive and unnecessary testing regime to the B20 standard.



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Option 4, a simplified B20 standard with an appropriate testing regime is the most suitable and practical option.

SUGGESTED TESTING REGIME

Property	Test method	Specification
Appearance	ASTM D4176B	Clear and Clean: Haze 1 max
Oxidation Stability	ASTM D2274	25 mg/l Max
Total acid number	ASTM D664	0.8mg KOH/L max
Filter blocking tendency	IP 387	2 max
CFPP	IP 309	report to customer
Biodiesel content	EN 14078	20 max

COMMENTS

Blends greater than 20 % should also be encouraged by way of a suitable testing regime. Density range should be expanded as part of this concept.

The objective of the standard should be to ensure that adulteration is prevented and engines are operated on good quality fuel.

Diesel and biodiesel should be the only content of the fuel and testing methods such as GC would certainly identify any other contaminants present in the fuel.

Fuel quality begins with feedstock and sound manufacturing process and control. Adoption of an Australian version of the US based BQ 9000 quality program should be encouraged as the industry code of practice.

Support from DEH in endorsing this system would assist in achieving the goal of high quality consistent fuel in the future.



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LABELLING

Biodiesel blends should be labelled as listed below

B5 contains biodiesel

B20 contains up to 20% biodiesel

B100 pure biodiesel

Report CFPP of blends and B100

B100 STANDARD TEST METHODS

The current test method for ester content EN 14103 can provide inaccurate results depending on the origin of the feedstock.

According to the standardised procedure, the limits for peak area integration are the methyl myristate peak (C14:0) and the peak representing nervonic acid methyl ester (C24:1). This leads to **problems** with biodiesel samples derived from feedstocks rich in other fatty acids.

So the methyl ester content of the biodiesel made from coconut or palm kernel oil tends to be low, as the contribution of short chain-chain fatty acids is not considered. On the other hand, the choice of methyl **heptadecanoate (C17:1)** as an internal standard might be problematic for samples naturally containing some amounts of the compound, such as **FAME from animal sources**.

Ref (Mittelbach and Enzelsberger, 1999)

Martin Mittelbach has investigated a modified EN 14103 method and should be consulted for specific expert opinion on this issue.

Producers of B100 from these feedstocks may have issues with compliance if the current standard was to remain without some ability to take these feedstocks into consideration. Tallow in particular is a feedstock that may have greater significance in Australia once technologies have been proven further and introduced into the mainstream. In the future vegetable oil prices will continue to escalate and this will bring other feedstocks into play.



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CONCLUSION

Midfield Meat International firmly believes that the responses outlined in this document are appropriate for the future of the Australian biodiesel industry.

The industry is still very much in it's infancy and careful management from the regulatory authorities is required to ensure that the industry is allowed to grow into a sustainable meaningful contributor to the Australian Economy and the Environment.

Andrew Westlake

Group Operations Manager