



# HARVEST CLEAN NEWS

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Issue 2

## *GEBERT®4 PROVIDES A GRAIN CLEANING SOLUTION FOR THE DEPARTMENT OF AGRICULTURE WA*

In May 2006, advice was sought from Harvest Clean on a grain cleaning problem the Dryland Institute in Merredin had with some of its research grain.

The problem entailed the contamination of mustard seed with wheat, radish, lupins and straws which had been stored in a silo. The silo contained about 8 tonne of this grain which was to be destined for crushing for biodiesel research, but due to its high contamination, the mustard was under serious threat from being rejected and used

for feed or transported to a fixed plant seed cleaner about 50 kms away.

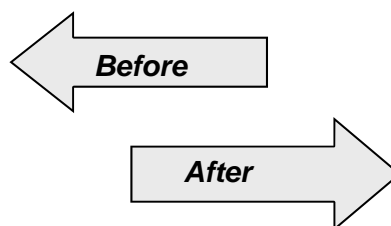
David Gebert, of Harvest Clean was confident his grain cleaning machine could separate the impurities and render the mustard seed useable once more for their biodiesel trials.

The Gebert®4 grain cleaning machine was towed to the Department grounds and commenced its grain cleaning process. About three quarters of an hour later, the finished product was achieved.

This time included assessing the problem, setting up the machine and cleaning up after the separation of grain had been completed. Leanne Young, a research officer for the Department of Agriculture WA was there to supervise the process and was completely surprised with the transformation from an unusable grain to a now perfectly clean sample. An entire truck full of high quality mustard is now making its way to biodiesel trials to a crushing plant in Newdegate. Problem solved.



Wheat, radish, lupins and straws



Clean Mustard

[www.harvestclean.com.au](http://www.harvestclean.com.au)

## From the Factory Floor-Edition 2.....

Things have been busy in the last 12 months since setting up factory premises and the launch of the Gebert®4 at Dowerin GWN Machinery Field Days 2005.

Thanks to input from field days and from the marketplace, further development and revision has occurred to the product. A new prototype, the Gebert®2 was displayed at Wagin in February 2006 but it was in a limited format. This product is now complete and the first to use the innovative and patented a new way of scalping grain or "OPS" (one pass operation), making it a 2 in 1 machine, in addition to the screening option. This also was the first Gebert product to have fluid motion technology applied. In future all Gebert machines will be powered by hydraulic motors.



David Gebert

In one year, Harvest Clean has radically altered its grain cleaning products to excel in further providing extra safety features and a machine that is time and cost efficient to ensure maximum profits out of the crop.

I would like to stress that my products are only as good as the input and improvements I can make every year. My products are in a constant state of "flux" and are constantly receiving research and development.

I believe I am able to deliver this to my future customer base because of years of experience and expertise in the grain cleaning industry.

Field trials have continued, including assistance in providing grain cleaning solutions for a large sample of mustard seed ready for bio-diesel crushing at the Department of Agriculture and Food in Merredin.

One of the highlights of this year so far, has been the recognition by the WA State Government by rewarding my product as a finalist in the Inventor the Year competition. This has given me enormous confidence and a belief in my product as a positive solution in value adding for the primary producer and assisting their growth in delivering quality food production to our world economy.

As I write this, I am waiting to see the results of this award, but certainly it has given me confidence to strive for future growth. This means that we are sourcing research and development funding and are working on networking for this to be achieved which will further benefit this West Australian born and bred product.

At Dowerin this year, I have entered and will be exhibiting in the Best Australian Agricultural Machinery award and the Farm Innovations Award. It certainly is true from my experience that WA has some truly imaginative, yet practical and talented people.

I look forward to catching up with you at Dowerin and seeking more input in development for 2007, which is already well underway.

**David Gebert**

### OUR PRODUCTS — WHAT SUITS YOU

<b><u>GEBERT®2</u></b>		<b><u>GEBERT®4</u></b>	
Rotors	: 2	Rotors	: 4
Screens	: 6	Screens	: 12
Bin	: 10.5T	Bin	: 13.5T
Ton/hour	: Max 30/hour	Ton/hour	: Max 50/hour
Motor	: Petrol (Diesel option)	Motor	: Petrol (Diesel option)
Fluid Power	: Yes	Fluid Power	: Yes
Output Augers	: Will unload into a 4.5 tonne field bin	Output Augers	: Will unload into a 4.5 tonne field bin
Size of Auger	: All output Augers are 203mm in diameter	Size of Auger	: All output Augers are 203mm in diameter
Scalping (ops)	: Yes	Scalping (ops)	: Yes

\*OPS - One pass system.....see article over →

## **TOWING NEEDS OF THE GEBERT®**

- Gebert®4** - Approximately 4 metres wide and hence will need an escort vehicle both with orange lights and oversize signs, drivers must be able to communicate via two-way radio.
- Gebert®2** - Will be less than 3.5 metres wide and hence will only need an orange light and oversize sign but no escort vehicle.



## **BIODIESEL TAKE CONTROL OF YOUR OWN FUTURE**

It is quite surprising in a highly developed country like Australia, that we have not readily adopted renewable fuels such as biodiesel which uses vegetable oil, animal fat or used cooking oil and become less dependant on crude oil or fossil fuels.

In our globalised economy, biodiesel has been well used overseas and it appears we have some "catch up" to do in addressing renewable fuels. Renewable fuels reduces green house gas emissions and can be in, the case of biodiesel, produced locally by "cookbook chemistry". Oils that can be used are canola, soybean, sunflower, palm oil, tallow and used cooking oil such as that used to cook fish and chips.

What is good for the primary producer is the fact that they will have another future use for the crops, if only to be self reliant for its fuel needs on-farm.

Not only do we lower exhaust emissions but we can use the by products in the making of the biodiesel process, that is glycerine for a cleansing and wetting agent.

It is actually meant to be better for your engine extending the length of your vehicle life without changing the torque, power and fuel economy, without modifications to your diesel engine. Of course, you should check with the car's manufacturer for their variations.

Imagine making your own batch of fuel and being self reliant, never having to worry about the state of the world's affairs and their growing economies and population and how it will impact on our fuel costs.

Not only will we be helping ourselves we will be improving our world that is rapidly growing warmer which everyone is experiencing quite vividly at present.

The author was a sceptic, but must say has only come up with a handful of downsides in the research. One downside is, if you have a raw oil with particles in it then it may clog your fuel filter or pump, this means more cleaning of the oil prior to use in the biodiesel process. It may also be wise to change the oil more frequently. There are limited storage times for the product and it is apparently sensitive to humidity and extremities of temperature.

Of course, everyone should do their own research to satisfy themselves before using the product, however, the author has purchased a 150 Liter/day processing plant (a small cost that I am confident will be recouped) and will be making fuel and putting it in my diesel vehicles, starting with a clean canola oil and further experimentation with other cheaper oils when confident with the process. There are local organisations that will now assist with your own biodiesel production. So, take some control over the rising cost of fuel.

### **BIODIESEL USED BY HARVEST CLEAN**

This company is proud to support the lowering cost of greenhouse emissions in an effort to contribute to the slowing down process of climate change. Harvest Clean currently operates its vehicles when towing its Gebert range of products with a 100% blend of biodiesel and is committed to producing its own in 2007 for its own use.

*Diesel motors are offered on all Gebert products as an optional extra.*



### **WHAT IS "OPS"?**

Whilst "scalping" is not a new process, this new system provides a unique one pass operation (OPS), not yet seen in other products. This system incorporates better safety aspects and ease of use through a one person operation. Specifically, the use of winches, front end loaders and other lifting devices is now made redundant and is replaced by a simple sliding mechanism and supplementary auger system which allows the primary producer to interchange between scalping and screening within a short period of time.

This innovation has enhanced the range of GEBERT® products by providing a 2 in 1 machine, providing complete versatility to the primary producer.

The OPS system has been **patent pending**.

## STATE RECOGNITION FOR GEBERT® PRODUCT

In the month of August this year, Harvest Clean entered the Inventor of the Year 2006, which is a State Government competition. Over 160 entrants from varied projects entered the program and were eliminated to just 30. Harvest Clean with its new prototype, the Gebert was one of the elimination finalists.

Designer and innovator, David Gebert, was fortunate to be involved in a mentoring program and presented his product for consideration in front of a panel of five judges, ranging from patent attorneys to engineers, who then asked their own questions on the product and why it should be the worthy winner. ✓

Harvest Clean has also entered into this years Dowerin Field Day competitions, The Best Australian Agricultural Machinery Award and the Farm Innovations Award.

## HARVEST CLEAN SCREENS

*Available in multiple sizes for*

Wheat      Barley  
Canola      Lupins

**CAN BE MADE TO SUIT ALL MACHINES**

## WORLD BEER MARKETS GROWING

As China continues to develop at a staggering rate, the growth of the middle class and urbanisation is changing the shape of diets in the population to consumptions with a dependence on grains to increasing consumption of milk, fruit, poultry, meat and in particular, beer. Standards of living are increasing including these consumption preferences. This trend will continue to develop, as the economy grows stronger and hence its beer consumption should rise.

Not only has China emerged, India also another growing market, along with other developing nations where these trends are likely to also eventuate.

This has an impact on the grain growers of Australia and in particular Western Australia which produce barley crops. Over 1 million tonnes of barley is produced in WA and sold for malting, which is primarily exported overseas.

This also means greater benefits of profit margins, compared to other crop options.

In a year such as 2006, this is a comforting sign for farmers who grow barley crops.



## GRAIN CLEANING WORKING TOWARDS A SOLUTION FOR ACHIEVING QUALITY ASSURANCE

Harvest Clean, based in Moora, designs and manufactures products specifically suited to assist the primary producer to value add to their grain before and after harvest.

Harvest Clean currently produces two products called the "Gebert®2" and the "Gebert®4", specifically designed to clean grain, in particular meeting the increasing demands of world markets for high quality grains for use in food, beverages and fuel products.

Harvest Clean recognises the importance of trends for future quality assurances to our export markets and in assisting the primary producer in achieving this outcome. The Gebert range of products provides mechanisms in delivering a quality product where there is now a trend for ownership past the paddock gate.

The Gebert®2 is the entry level product with a smaller screening capacity, with the Gebert® 4 being the flagship of the stable offering premium capacity needs to the large primary grain producer. Both products provide a 2 in 1 feature of screening and scalping, utilising hydraulic technology. The range is on display at Dowerin Field Days, site 232 a. Come and talk to designer David Gebert about your own farm value adding requirements or visit [www.harvestclean.com.au](http://www.harvestclean.com.au).



**HARVEST CLEAN**  
BIG • STRONG • FAST

[www.harvestclean.com.au](http://www.harvestclean.com.au)