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GRDC cosy with big companies: Other stakeholders ignored – Farmers pay the cost

Some GRDC grower funded research has been narrowly focused on new chemistry from big companies and ignored useful research on generic products. GRDC communication has also ignored important stakeholder input.

GENERIC CHEMISTRY OVERLOOKED

New chemistry is sorely welcomed but in some cases multi nationals' products have hijacked trials. They get a free ride on farmers' funds plus charge the farmer again at the shop. In the meantime potentially useful and much cheaper generic chemistry is overlooked.

One example is a recent Rhizoctonia trial that didn't consider a common in furrow fungicide like Triadimefon. 4Farmers Triadimefon Dry 500 is a very cheap, easy to use in furrow fungicide renowned for excellent control of various diseases including Take All.

There is antedoctal experience of Triadimefon control over Rhizoctonia, however the opportunity to test this belief in a rare and difficult trial was missed. Instead farmers subsidised a fungicide trial focused on only a couple of expensive multi national products.

Another GRDC funded trial looking at Sclerotinia control in Canola failed to screen a range of generic products. This gave a proprietary product like Prostaro® (a mixture of Prothioconazole and Tebuconazole) advertising you couldn't buy. It shouldn't have taken 4Farmers research to correct the record and do the basic screening of generic products last year to find potentially better and more cost effective alternatives.

CHEMICAL RESEARCH GAPS

There are gaps in pesticide research that could be best filled by GRDC. The value of a private company extending a generic



label is dubious, however the benefit of the industry investing to fill this gap is obvious. One opportunity has been extending Canola and Lupins crops on Propyzamide herbicide labels for all registrations. In the meantime a clean supply chain is dangerously jeopardised.

DEFICIENT CONSULTATION

It has been hypocrisy that GRDC consultation with important stakeholders has been deficient.

The best example of this is when 4Farmers did pioneering research at its own expense into the first Unsterilized ZnP Mouse Bait in 2011. This led to a desperately needed APVMA emergency permit to save farmers in eastern Australia from the 2011 mouse plague. This product gained the full registration in 2012 and 4Farmers have

offered farmers a plentiful supply of cheap mouse bait ever since.

The GRDC was missing when really needed up until 2011.

Yet in spite of the research and full product registration already done by 4Farmers in 2012, GRDC in their wisdom decided to waste \$0.72M to replicate the same research. Effectively white anting what a private company had just successfully solved.

Proper consultation could have also informed the GRDC that private research was already moving on to new and better technologies.

Adding insult to injury, inexperience lead to the trial design being botched and results put in doubt.

4Farmers Products

With Cross Reference to similar trade name products

Herbicides

Amitrole 250 (RP)
2,4-D Amine 625, 750
2,4-D Ester 800 (RP)
2,4-D Ester 680
2,4-D plus Picloram
Atrazine 900 WG 600SC
Bensulfuron 600 WG,
Bromox MA
Bromoxynil 200
Brown Out
Carfentrazone 240 EC
Chlorsulfuron 750 WDG
Clethodim 240EC
Clodinafop 240EC
Clopyralid 300EC, 750SG
Cyanazine 900 WDG
Dicamba 500 EC
Diclofop-Methyl 500
Diflufenican 500SC
Diflufenican/Bromoxynil
Diuron 900DF
Fluazifop 212EC
Flumetsulam 800 WG (RP)
Fluometuron 900WG
Fluroxypyr 200 EC
Glyphosate 470,450,360,540
Glyphosate 875
Glufosinate-Ammonium 200
Haloxypyr 520EC
Imazethapyr 700WG
Ipyr 750WG
Ipic 240
LV MCPA 570
LVE MCPA/ Diflufenican
MCPA 500, 750
MCPA/Picloram
Metolachlor 960 EC
Metribuzin 750WG
Metsulfuron Methyl 600WG
Oryzalin 500SC
Oxyfluorfen 240EC
Paraquat 250
Pendimethalin 330EC
Propyzamide 500SC, 900WG
Quizalofop-p-ethyl
Simazine 900WG
Sulfometuron 750WP
Sulfosulfuron 750
Tralkoxydim 400WG
Tri-allate 500EC
Triasulfuron 750WG
Tribenuron Methyl 750
Triclopyr 600EC
Trifluralin 480EC
Tri-pick
Turf ControlISC

Similar Product

Amitat®
Various
Various
Various
Tordon™ 75-D
Atradex®, Gesaprim®
Dupont Londax DF®
Bromicide MA®
Buctril®
Spray.Seed®
Hammer®
Glean®, Siege®
Select®
Topik®
Lontrel®
Bladex®
Dicer 500®
Hoegrass®
Brodal®
Jaguar®
Diurex WG®
Fusilade®
Broadstrike®
Nu-tron 900 DF
Starane™
Roundup®
BiDri700®, Roundup Dry®
Basta®
Verdict®
Spinnaker®
Arsenal®
Flame®
Nufarm LVE Agritone®
Tigrex®
Various and Agritone®
Tordon™ 242
Dual®
Lexone®, Sencor®
Ally®
Surflan®
Goal®, Striker®
Gramoxone®
Stomp®, Argo®
Kerb®, Edge®
Targa®
Gesatop®, Simagranz®
Oust®
Monza®
Achieve®
Avadex®
Logran®
DuPont™ Express®
Garlon®
Treflan®
Grazon®
Spearhead®

70%
formulated in
Australia
by 4Farmers

Seed Dressings

Imidacloprid 600 SC
Imid-Triadimenol
Iprodione 500 (RP)
Procymidone 500 SC
Tebuconazole 25T
Triadimenol 150 + WP
Triadimenol 150 liquid
Triticonazole 200

Similar Product

Gauche®, Emerge®
Zorro®
Rovral®
Sumislex®
Raxil®
Baytan®, Baymax®
Baytan®, Baymax®
Real®

Fungicides

Azoxystrobin 500 WG
Carbendazim 500
Chlorothaloril 720
Epoxiconazole 125 SC
Flutriafol 250SC, 500SC (RP)
Iprodione 500
Mancozeb 750 WG
Procymidone 500
Propiconazole 250EC, 500EC
Tebuconazole 430SC
Triadimefon 125EC
Triadimefon 500 Dry
Triadimenol 250EC

Similar Product

Amistar WG®
Bavistin®, Spin®
Bravo®
Opus 125®
Impact®, Intake®
Rovral®
Penncozeb 750 DF®
Fortress 500®
Tilt®250®
Folicur®
Triad®, Slingshot®
Tee-Fon 500®
Bayfidan®, Shavit®

Insecticides

Abamectin 18EC
Alpha-Cyber 100EC, 250SC
**Aluminium Phosphide
Fumigation Pellets**
Bifenthrin 100EC
Chlorpyrifos 500EC
Cypermethrin 260EC
Dimethoate 400EC
Fenamiphos 400
Fipronil 800 WG
Imidacloprid 200SC
Lambda-Cyhalothrin 250SC
Omethoate 290
Pirimicarb 500

Similar Product

Vertimec®
Fastac Duo®, Alpha Forte®
Phostoxin®
Talstar®
Lorsban®
Scud®, Sonic®
Rogor®
Nemacur®
Regent®
Confidor®
Karate Zeon®
Le-mat®
Aphidex®, Pirimor®

Rodenticides

Rat and Mouse Bait Pellets
Zinc Phosphide
Unsterilised Mouse Bait
Strychnine Alkaloid Crystals
1080 Oat baits

Similar Product

Talon®
MouseOff ZP®

Other Products

Ammonium Sulphate
Boom Clean Dry
Citric Acid
Ethephone 720 SL
Farm Pro 700
Foam marker
Metaldehyde Snail/Slug Bait
Glyphosate Wetter
Penetrator
Speedy Spray Adjuvant
Sunshade Spray Adjuvant
Turbo Charge
Wetter 1000

Similar Product

Galleon® Growth Regulator
LI 700®

Gly Wetter Plus Surfactant®
Pulse Penetrant®
Hasten®
AntiEvap®
Supercharge®, Uptake®

New Product

(RP) denotes products with Registration Pending at printing

Cutting edge technology to answer pest problems



The 'MyPestGuide' is an exciting new mobile phone application for identifying and reporting crop pests.

MyPestGuide has been developed by the Department of Agriculture and Food Western Australia (DAFWA) with funding assistance from the Council of Grain Grower Organisations (COGGO).

Though developed in Western Australia the app and the service is available for growers Australia wide.

Essentially, the tool is for identifying pests causing crop and stored grain damage.

The tool provides information to identify and understand the pest problem. The unique

aspect of the application is that it goes a step further by enabling users to take a photograph and submit it for expert identification.

The identified pest will be registered on the web site, MyPestGuide where you can view reports. Register, then log-in into the DAFWA reporting page via the link below.

The reporting of pest problems can be of enormous benefit alerting pest problems and improving general surveillance to maintain a quality supply chain.

For more information go to:
www.agric.wa.gov.au/mypestguide
 or scan the QR codes alongside.

25% cheaper wetter is a RIP OFF

The example of farmers being ripped off through the marketing of cheap inferior quality products is no better illustrated than by the Wetter 1000 product.

There are many Wetter 1000 products labelled with the active ingredient 1000g/l Non-ionic Alcohol Ethoxylate.

It's accepted knowledge many of these brands are fakes, substituted with inferior Ethoxylate compounds.

The substitutes are chemically similar but can have vastly different field performance.

The fake substitute doesn't usually spread like a quality wetter does. Besides that, it could

have harmful environmental and human health effects.

The inferior substitute costs about 25% less, hence the huge discrepancies in retail prices.

A similar concern occurs with 4Farmer's Farm Pro, similar to Li700°. Some competitors use cheap raw ingredients as substitutes to produce a poorer performing version of the product.

4Farmers supply and guarantee a top quality product.

If we're not the cheapest at least you can trust the quality of our product and know that it is great value.



John rewrites the book

John Borger, 4Farmer's new agronomist is busy rewriting the 4Farmers popular Crop Protection Guide for 2015.

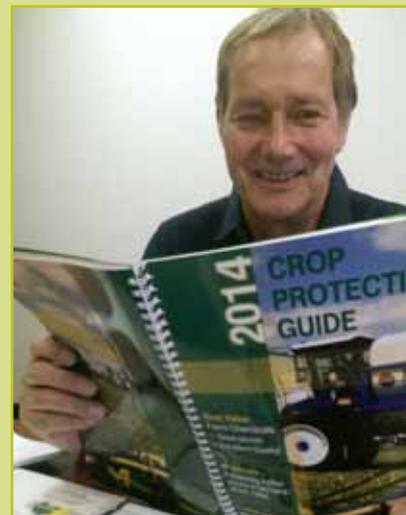
In John's over 30 years of professional agricultural experience he spent much of that time in the WA Department of Agriculture either as a district adviser at county posts, or as a research officer focusing on weed control to finish up as a Senior Development Officer.

"I can understand why this publication is so popular. It gives a wealth of concise information on the full 4Farmers range," says

John. "And 4Farmers range is so wide, it covers almost every chemical a broad acre farmer needs".

"We are reformatting the guide to make it easier to follow and we're also carefully reviewing the information, particularly the special comments for each product. It is a case of continuous improvement every year."

Right John Borger, 4Farmer's new agronomist



Potential fungicide alternatives for controlling Sclerotinia in Canola

Research conducted last year by 4Farmers in WA and NSW has suggested that the 4Farmers Procymidone 500 SC could be an effective part of a strategy to control Sclerotinia in Canola.

Procymidone 500 SC and Prosaro® (Prothiconazole 210g/l + Tebuconazole 210g/l) were the registered treatments in the trial. Unregistered fungicide treatments in the screening included Iprodine 500SC, Azoxystrobin 500WG and Tebuconazole 430SC.

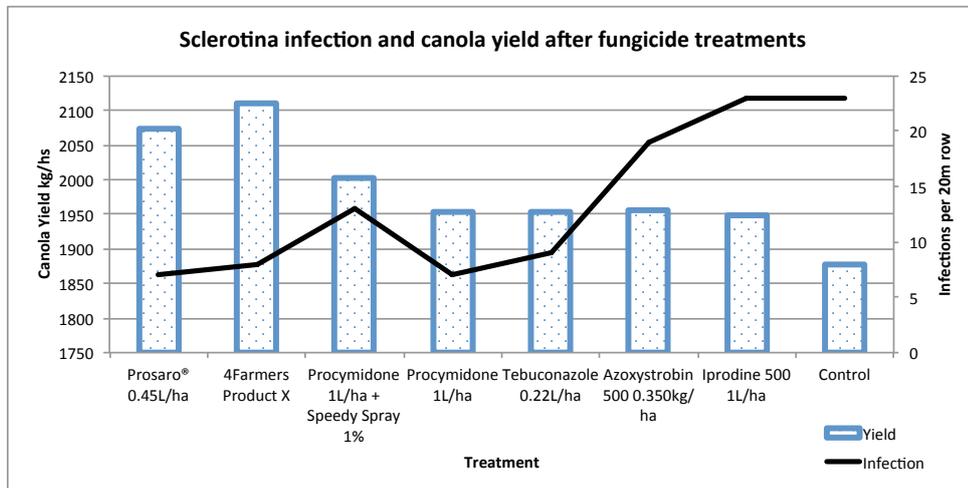
In the main independent trial conducted in Geraldton one application of each treatment was applied at 30% flowering on Canola variety GT50RR. Dry conditions following spraying on the 23rd July limited the Sclerotinia development.

Crop yields of treatments with a 4Farmers product 'X' (unregistered mixture) and Prosaro® were significantly higher than the control.

There was a good correlation in the trial between Sclerotinia infection and yield.

All treatments that included Procymidone significantly reduced the incidence of infection.

W.A. Agriculture Department trials conducted at Wagin in 2014 with



Procymidone at 1L/ha confirmed its potential by out-yielding Prosaro®.

Azoxystrobin is registered in Canada for Sclerotinia control in Canola, but we found it had little effect in this trial. Iprodine is registered on some labels for Sclerotinia in Canola but was also disappointing.

Tebuconazole significantly reduced infection, however it didn't translate to

statistically significant yield improvements in this trial. Given how cheap it is, it could be useful in mixtures as it is in Prosaro® with Prothiconazole.

Farmers considering using 4Farmers Procymidone this year will need to place orders as early as possible to avoid disappointment.

Treatment	Infections per 20m row	Crop Yield kg/ha	Yield increase over control kg/ha	Extra Grain value \$/ha @ \$500 /t	Cost of fungicide \$/ha	Net Value \$/ha
Prosaro® 0.45L/ha	7	2073	195	\$98	\$31.50	\$66.00
4Farmers Product X	8	2110	232	\$116	\$26.00	\$90.00
Procymidone 1L/ha + Speedy Spray 1%	13	2002	124	\$62	\$23.60	\$38.40
Procymidone 1L/ha	7	1953	75	\$38	\$19.10	\$18.40
Tebuconazole 0.22L/ha	9	1953	75	\$38	\$2.40	\$35.10
Azoxystrobin 500 0.350kg/ha	19	1955	77	\$39	\$18.90	\$19.60
Iprodine 500 1L/ha	23	1948	70	\$35	\$20.00	\$15.00
Control	23	1878	na	na	na	na
LSD 5%	7.7 count	134kg/ha				

Table - Sclerotinia infection, Canola crop yield and gross margin in response to various fungicide applied at 30% flowering

The differences between Glyphosate and Glyphosate

Farmers should be aware – there are significant differences in the qualities of Glyphosate.

Differences in Glyphosate start with the synthesis of the technical grade; either by what is known as the 'glycine route' or the 'IDA route'.

The Glycine route is more common. However, the IDA route produces a cleaner product better for the user and the environment. Despite the IDA route costing a little more it is favoured by 4Farmers.

The three primary things about different Glyphosate formulations;

1. Salt ion used
2. Surfactant package
3. Amount of active

SALT

The form of salt generally makes little difference to the efficacy of the product. If there's one that users find slightly better, it is mono ammonium salt.

The salt type can make a significant difference to compatibility with other products. Always be wary, double check compatibility of products you plan to use, and use good mixing procedure like having plenty of water in the tank before adding other chemicals.

In our experience Glyphosate 470 has had best compatibility.

SURFACTANT

The type of surfactant is not necessarily found on the leaflet or the MSDS because it is not the active ingredient, nor are they usually toxic or hazardous.

The quality of the surfactant package generally has a greater influence on the product's efficacy than the salt. All liquid Glyphosates have some surfactant. The surfactants range markedly in quality.

The 875WG doesn't have any surfactant because its glyphosate concentration is so high it cannot take any. This has the advantage of you being able to start from scratch so you know what surfactants are added.

An advantage of the 'natural tallow amine wetters' usually found in quality Glyphosate 450 is that it has humectants. These are needed in hot, humid northern Australian conditions.

Synthetic surfactants perform perfectly well in southern Australia.

In most situations 4Farmers 470 and 540 perform well without the addition of wetter, however more doesn't usually do any harm.

ACTIVE

Low cost, low quality Glyphosates are characterised by having borderline active content and the cheapest minimal surfactant package.

It is only when application becomes

IMPORTANT TO KNOW

Some general Glyphosate spraying tips are;

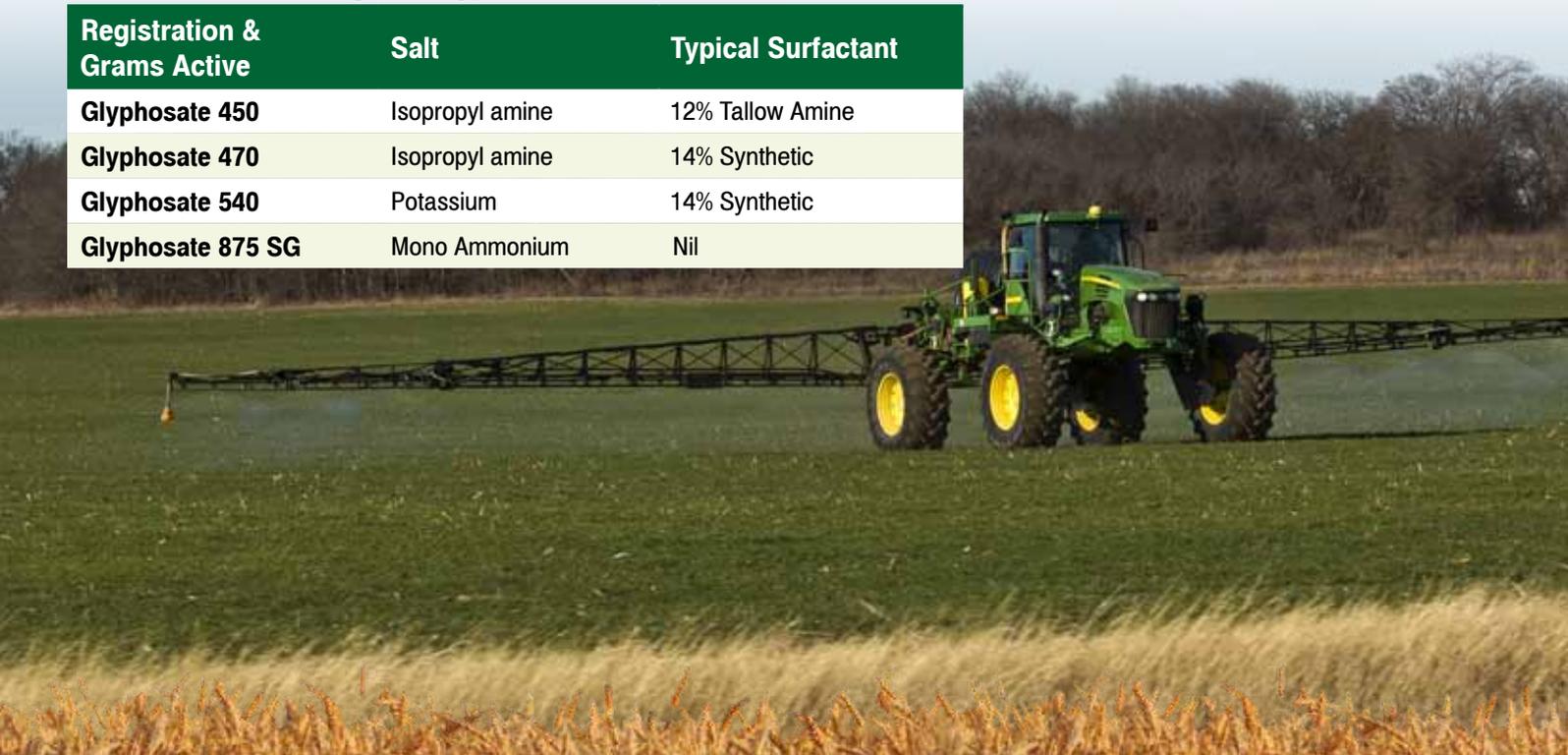
1. **Avoid mixing oils** as they tend to reduce the performance. Try to spray in low Delta T conditions so oil is less necessary.
2. **Ammonium sulphate** on the other hand is always recommended. Ammonium sulphate helps if water is hard, assists mixing with other chemicals and improves absorption of product into the plant.
3. **Reduce water pH if high.** Citric acid can efficiently lower pH. 4Farmers FarmPro can also assist in lowering pH plus provide supply surfactant.
4. **Use robust rates.** Low rates can be false economy and drive resistance.
5. **Don't rely on Glyphosate in any one growing cycle.** Use another chemical or cultural control method to control survivors to Glyphosate.

marginal for the conditions or weeds will these differences be noticed. Even then, a user might not realise the deficiencies of their product and blame it on conditions.

In other cases poor technique can mean a user blames failure on a very good glyphosate.

Table: 4Farmers range of Glyphosates

Registration & Grams Active	Salt	Typical Surfactant
Glyphosate 450	Isopropyl amine	12% Tallow Amine
Glyphosate 470	Isopropyl amine	14% Synthetic
Glyphosate 540	Potassium	14% Synthetic
Glyphosate 875 SG	Mono Ammonium	Nil



Weakening AUD puts pressure on chemical prices

The drop in the AUD of approximately \$0.16 from around AUD \$0.94 in early September last year to around \$0.78 has placed upward price pressure on imported inputs.

All things equal, this could mean an increase of over 20% of some chemicals.

The good news is the relatively greater price reduction of some material prices like Glyphosate and Paraquat. Therefore the retail price to farmers of some chemicals has fallen in spite of the weakened AUD.

GLYPHOSATE

In late 2013 the rising price of glyphosate was a concern. It didn't go out of control as we had predicted but the fall so early in 2014 did come as a pleasant surprise.

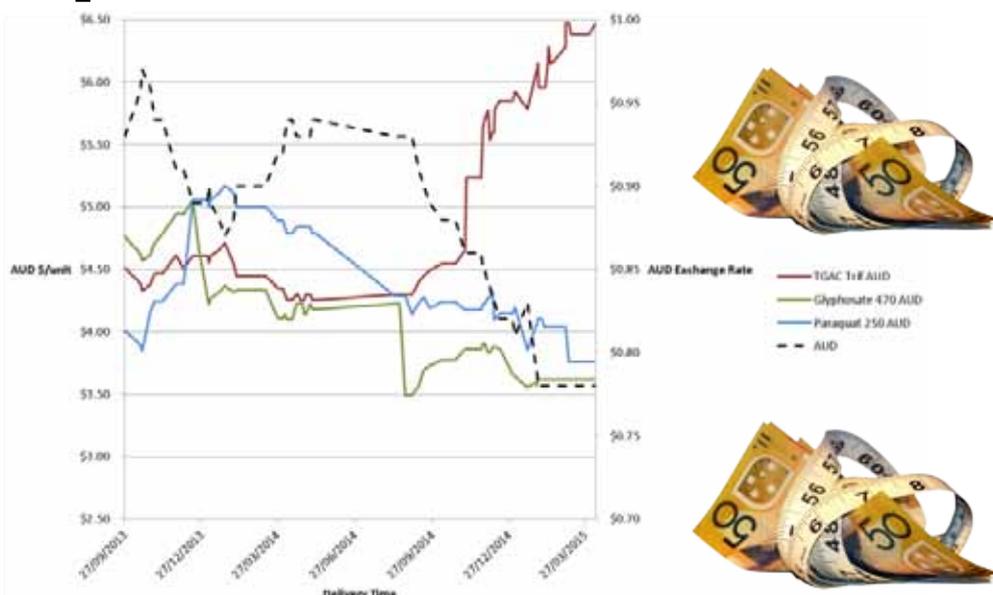
In spite of talk about environmental controls and low manufacturing margins in China, the price has eased to below US\$4/kg for Glyphosate TGAC. Longer term prices have been even lower around \$3/kg.

Converted to local dollars the TGAC is approximately AUD\$4.80/kg. After formulation quality Glyphosate 450 is approximately \$4.50/L exGST.

It is interesting to note that after a recent Chinese investigative documentary went viral exposing the pollution problems there, the Chinese Minister for Environment has been sacked.

It is a signal that we could be in for another round of tightening supply and rising costs of Glyphosate and other chemicals due to tougher environmental policies.

Glyphosate prices may start firming from this point.



PARAQUAT

Paraquat 250 prices peaked early 2014 at around US\$4.50/L when the Chinese domestic market accumulated product prior to the ban for use of the product there.

Prices have progressively eased since mid last year back to just below US\$3/L. Converted to a local price this equals approximately AUD\$3.60/L CIF. After supply chain costs the retail price is presently around \$5/L exGST. Prices may yet soften more before firming again.

TRIFLURALIN

Trifluralin material in contrast to Glyphosate and Paraquat has headed upwards since mid last year.

Last year Trifluralin TGAC was trading for approximately US\$4/kg. This recently peaked at about \$5/kg.

Thus the price of the TGAC has increased approximately US\$1/kg on last year's product. With no exchange rate change this would have made approximately \$0.50/L difference to the final product.

However, combined with the weakened AUD, this accounts for around \$1/L increase on formulated 480 g/L product on last year's prices.

A contributory factor to the jump in cost was low stock levels in Australia. It resulted in a sudden heavy demand, met by only a small base of factories. These factories have been under environmental regulation pressure because this product is quite polluting to produce.

The market price in recent weeks has shown some signs of easing. Hopefully, this may be the forerunner of a decreasing price cycle.

Your order is just a phone call away!

4FARMERS can supply chemicals to anywhere in Australia

Simply call your local 4Farmers distributor – or if there's no distributor in your area deal direct with head office – so easy!

Head Office 1800 038 445
www.4farmers.com.au

70%
formulated in
Australia
by 4Farmers

