

Product feature

HerbiGuide
The Pesticide Expert on a disk

HerbiGuide: an under-rated source of information for weed control.

3

Farmer experience



Glufosinate: a knockdown alternative becomes more viable

4

Information



IBCs deliver significantly lower cost chemical

6

LOW PRICES RAISE FEAR OF LOW QUALITY CHEMICALS

Low prices for commodity chemicals like Glyphosate are great news for farmers. However, it is setting off some cautionary alarm bells regarding quality.

Barring fire sales or loss leaders, there are broadly three ways chemical can be cheaper;

1. Low cost of goods – buying or producing the same quality product better.
2. Low running costs – more efficient supply chains.
3. Quality – shaving costs in formulation to barely meet specifications of the label.

If prices barely cover the supply costs, then you cannot help but be suspicious as to how a margin is being made.

Could poor quality standards be a factor?

GLYPHOSATE EXAMPLE

The table below shows the cheaper cost of Glyphosate 450 from a Chinese supplier if 4Farmers was prepared to substitute a quality surfactant package for an inferior package.

Cost savings of inferior Surfactant Packages for Glyphosate 450 (\$AUD/ Litre)

Wetter Content	Huntsman	Chinese
8%	-\$0.13	-\$0.27
12%	Benchmark	-\$0.21

If the formulator shaved active but still kept within specifications, another \$0.08/L AUD could be saved. Add the savings in wetter above and the total difference in the current market is approximately AUD \$0.35/L.

Cutting costs might give the trader a sustainable margin but not the best product for the farmer.

Paddock Performance

Paddock performance can be meaningless. If you are applying, say a 20% higher rate than required to do a job, it won't expose a subtle difference in quality.

Only at marginal rates are differences in efficacy likely to show up. Even then, it can

be hard for the farmer to know if it wasn't some other factor - like resistance or spray conditions.

Sadly, sometimes good product is punished when the real problem was under-dosing or other factors (see HerbiRate article for possible surprise).



Trenton Browne, a member of SAS Buying Group, says testing chemicals gives his farmer group confidence in the products they buy. 4Farmers has always tested well.

Farmer testing of chemicals gives greater confidence

The SAS farmer buying group, based at Gnowangerup WA, refuses to blindly trust what's written on a label.

SAS has been buying chemicals for the last 23 years. They know "chemicals ain't chemicals" and have had their own quality testing for over 20 years to prove it.

To counter the possibility of being skewed

to buying cheap inferior generic products, quality control has been important to them. Tests have usually been for just active content, though on occasions testing has been for other properties as well.

CONTINUED PAGE 3

4Farmers Products

with cross reference to similar trade name products

Herbicides

2,4-D Amine 625, 750
2,4-D Ester 680
2,4-D Ester 800 (RP)
2,4-D plus Picloram
Amitrole 250
Atrazine 900, 600
Bromacil 800 WP
Bromox MA
Bromoxynil 200
Brown Out
Carfentrazone 240 EC
Chlorsulfuron 750
Clethodim 240
Clodinafop 240
Clopyralid 300, 750
Cyanazine 900
Dicamba
Diclofop-Methyl 500
Diflufenican 500
Diflufenican/Bromoxynil
Diuron 900
Fluazifop 212
Flumetsulam 800
Fluroxypyr 200
Glufosinate-Ammonium 200
Glyphosate 470,450,540
Glyphosate 875
Haloxypyr 520
Ipic 240
Imazethapyr 700
Imazapyr 750
LV MCPA 570
LVE MCPA/ Diflufenican
MCPA 500, 750
Metolachlor 960
S-Metolachlor 960
Metribuzin 750
Metsulfuron Methyl 600
Oryzalin 500
Oxyfluorfen 240
Paraquat 250
Pendimethalin 330
Propyzamide 500
Quizalofop-p-ethyl
Simazine 900
Sulfometuron 750
Sulfosulfuron 750
Terbuthylazine 750 (RP)
Terbutryn 500
Tralkoxydim 400
Triclopyr 600 (755RP)
Trifluralin 480
Tri-pick
Turf Control

Similar Product

Amicide 625[®]
Estercide Xtra 680[®]
Various
Tordon™ 75-D
Amitrole T[®]
Gesaprim[®]
Uragran[®]
Bromicide MA[®]
Bromicide 200[®]
Spray.Seed[®]
Hammer[®]
Glean[®]
Select[®]
Topik[®]
Lontrel[®]
Bladex[®]
Dicer 500[®]
Hoegrass[®]
Brodal[®]
Jaguar[®]
Various
Fusilade[®]
Broadstrike[®]
Starane™
Basta[®]
Roundup[®]
Roundup Dry[®]
Verdict[®]
Flame[®]
Spinnaker[®]
Arsenal[®]
LVE Agritone[®]
Tigrex[®]
Agritone[®]
Dual[®]
Dual Gold[®]
Lexone[®], Sencor[®]
Ally[®]
Surflan[®]
Goal[®], Striker[®]
Gramoxone[®]
Stomp[®], Argo[®]
Kerb[®], Edge[®]
Targa[®]
Gesatop[®]
Oust[®]
Monza[®]
Terbyne 750[®]
Igran[®]
Achieve[®]
Garlon[®]
Treflan[®]
Grazon[®]
Spearhead[®]

70%
formulated in
Australia
by 4Farmers

Seed Dressings

Imidacloprid 600
Imid-Triadimenol
Procyimidone 500
Tebuconazole 25T
Triadimenol liquid/WP150
Triticonazole 200

Similar Product

Gaicho[®], Emerge[®]
Zorro[®]
Sumislex[®]
Raxil[®]
Baytan C[®]
Real[®]

Fungicides

Azoxystrobin 500
Carbendazim 500
Chlorothaloril 720
Epoconazole 125
Flutriafol 250, **500**
Iprodione 500
Mancozeb 750
Procyimidone 500
Propiconazole 500
Tebuconazole 430
Triadimefon 125
Triadimefon 500 Dry
Triadimenol 250

Similar Product

Amistar WG[®]
Bavistin[®], Spin[®]
Bravo[®]
Opus 125[®]
Impact[®], Intake[®]
Iprodione Aquaflo[®]
Penncozeb 750 DF[®]
Sumislex[®]
Tilt[®], Throttle[®]
Folicur[®]
Triad[®], Slingshot[®]
Unique to 4Farmers
Bayfidan[®], Shavit[®]

Insecticides

Alpha-Cyber 100, 250
Aluminium Phosphide
Fumigation Pellets
Bifenthrin 100
Chlorpyrifos 500
Dimethoate 400
Fenamiphos 400
Fipronil 800
Imidacloprid 200
Lambda-Cyhalothrin 250
Omethoate 290
Pirimicarb 500

Similar Product

Dominex[®]
Phostoxin[®]
Talstar[®]
Lorsban[®]
Rogor[®]
Nemacur[®]
Regal[®]
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 Cleaner
Citric Acid
Farm Pro 700
Foam marker
Metaldehyde Snail/Slug Bait
Penetrator
Speedy Spray Adjuvant
Sunshade Spray Adjuvant
Turbo Charge
Wetter 1000

Similar Product

LI 700[®]
Pulse Penetrant[®]
Hasten[®]
AntiEvap[®]
Supercharge[®], Uptake[®]

New Product

(RP) denotes products with Registration Pending at printing

HerbiGuide: An under-rated source of pesticide information!

HerbiGuide is a software program that offers recommendations on pesticides in a wide range of crop, horticulture and other situations.

It was designed for advisers and farmers requiring rapid, tactical weed and pest control information to make their decisions.

There's data on over 200 crops, 600 weeds, 100 insects and 250 diseases with solutions drawn from over 1000 herbicide, insecticide and fungicide products, covering some 300 active ingredients.

A typical enquiry involves entering the crop and weed and their growth stages and/or insects and diseases. Herbicides, insecticides and fungicides that can be used in this situation are displayed. Both label and trial rates are presented for each solution together with the constraints that are likely to influence the choice of pesticide, such as varietal sensitivities and conditions required for best results.

It will advise on compatibility of pesticides and assistance to consider least cost options.

To assist with identification there are photographs, diagrams and descriptions provided for weeds, insects and diseases.

REVERSE

HerbiGuide can also be used in reverse, where a particular combination of herbicides and insecticides is entered and the crops on which they can be used and the weeds and pests that they will control are presented.

The professional version of HerbiGuide that can be downloaded to computer costs \$495 inc GST. There is also an android app and online versions.

More information or ordering can be found at www.herbiguide.com.au

The program was originally developed by WA Agricultural Pest Scientist John Moore and his son Corey over 20 years ago. It is reviewed and updated annually.

It is an under rated and under used resource, with its usefulness dependent upon users becoming comfortable with software tools and technology.



HerbiRate might surprise you for knockdown rates

Farmers thinking that 2L/ha of Glyphosate 450 or Brown Out 250 for the control of young Ryegrass is a high end for knockdown rate, need think again, and ideally get a copy of HerbiRate.

HerbiRate is one of several useful decision making tools out of the same family that produced HerbiGuide.

Users load into HerbiRate all relevant conditions for a given location including temperatures, rainfall, weed situation, and nutritional status (weather data can come from BOM databases).

With this information a knock-down rate for Glyphosate 450 or Brown Out 250 is determined.

EXPLAINING POOR KNOCKDOWN EFFICACY

HerbiRate is also useful as a diagnostic tool where poor weed kill has occurred. For example, WA readers could cast their mind back to the difficult conditions prior to planting in 2015.

Many areas had early rains which established weeds, followed by a long dry spell with warm temperatures.

In these circumstances Glyphosate rates of nearly 3L/ha would be required on 50mm high Ryegrass with 4-8 leaves. It was no wonder there was a spate of Glyphosate failures.

Fast forward to this year which was contrasted with mostly cool, moist conditions, the same weeds could have been controlled with rates of less than 1L/ha.

CONTINUED FROM PAGE 1

4Farmer's products generally test well within specification and we have confidence in them," says member, Trenton Browne who crops over 7500ha at Nyabing.

"An interesting paradox is that products testing below the stated active, but within the allowable tolerance, are just as likely to be from a recognised trade name brand as a generic product. "So for example, if it was a product supposed to have 470g/L of active, then a brand like 4Farmers will likely test close to the stated label active or even above. In contrast, another brand might have just enough to be within the allowable 5% tolerance at 447g/L."

"Aside from the lab testing, we also critically monitor chemical quality in the field. Again, 4Farmers has performed well."

"As a result, the learning in our group over a long period of time is that purchasing a recognised trade name brand is no guarantee of

quality. I encourage farmers to randomly test for themselves."

"We have trust in 4Farmers as a brand that compares well on quality, and often on the high end."

BUYER BEWARE

If you have any questions about quality, or assistance in testing the product you have purchased, or would like possible free testing from 4Farmers, please call us.

All 4Farmers products are tested for quality in our own laboratory and samples retained. A lot of product is manufactured by 4Farmers, an Australian company owned by farmers.

You should be aware that at the other end of the scale are buck chasing fleabag traders, importing dubious foreign product, with no creditable QC.

GLUFOSINATE: A KNOCKDOWN ALTERNATIVE BECOMES VIABLE



Glufosinate, another tool Colin Green is using for tackling herbicide resistance.

A recent price fall in the cost of Glufosinate-Ammonium 200, a Group N non-selective spray, is sure to spark some interest in using it as an alternative knock-down to Glyphosate and Paraquat.

The product is especially of interest to farmers with access to sprayers with optical spray technology, like Colin Green who crops 12,500ha at Hyden, WA.

“We tried Glufosinate between November and March last year over several paddocks at rates up to 6L/ha”, says Colin.

“Our main weed was Wild Radish. The Glufosinate did a good job”.

“With my Weed-It® sprayer, I effectively sprayed less than 10% of the paddock.

If I used the same rate, with the new chemical cost being less than \$10/L, then the cost will be comfortably under \$6/ha.

“I have some paddocks with some seepage and waterlogging. These are the paddocks I’m getting a blow-out of Ryegrass with Glyphosate resistance. (No surprise here because when we’ve sprayed with Glyphosate, the plants have been too advanced and in large numbers).

“Using Glufosinate in late spring to early autumn suits the chemical because it works much better in warm humid situations.”

A high draft pick agronomist

If there was a #1 draft pick in agronomists, 4Farmers believe they might have it with Richard Stone.

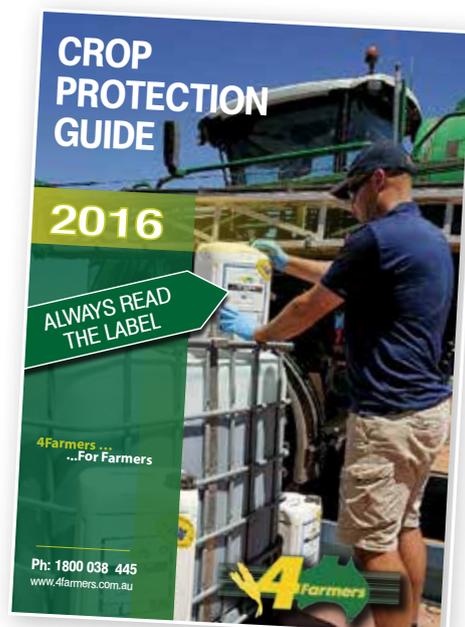
Richard has a Dalwallinu farming background including having worked on the family farm, plus horticultural experience in Queensland, and experience in the transport industry.

In June this year he completed a decorated Bachelor of Agribusiness degree from Curtin University.

He won subject awards in science and was in the Vice Chancellor’s List of the top 1% of undergraduate students for three semesters.

Richard is fast coming up to speed assisting with enquiries, research projects and assisting our other agronomist, Nathan Dovey.

One project he is undertaking is the 2017 Crop Protection Guide which will be our best yet. It’s already a must-have free publication for our clients but the next one promises to set a new benchmark.



Our highly acclaimed 2016 Crop Protection Guide. If you don’t have a copy, call us as it’s not too late – we still have a few left.

The 2017 edition is being worked on by Richard and will undoubtedly be the best yet.

COMMUNICATING WITH PLANTS

A healthy cereal crop with sufficient nutrition will be dark green and have long floppy leaves. If not, try to communicate with your plants; they are the silent witnesses.

Concerning signs to look out for are:

- Lack of tillering
- Soft floppy leaves in contrast to vertical leaves
- Short or pale colour leaves
- Dead lesions on leaves
- No root hairs or discoloured roots.

CHEMICAL NUTRIENT INTERACTIONS

Group A and B chemicals that inhibit the growing tips of plants can induce nutrient deficiencies particularly zinc, copper and manganese. However the chemical is not the primary problem.

The underlying issue is a marginal nutrient status.

Prior to seeing nutrient symptoms you

could be losing around 20% of your yield.

“To highlight crop deficiencies, particularly like zinc, I actually recommend clients spray crops with Diflufenican sprays like Tigrex® with oil”, says Wayne Smith of Agronomic Acumen who recently ran a workshop on understanding nutritional deficiencies and crop symptoms.

“The DFF with oil is like a farmer interrogation for intelligence. A healthy crop will stay looking healthy after this application”, he said.

“Another strategy I strongly recommend is turning off the phosphate fertiliser for a strip at seeding. If the unfertilised crop is very short then phosphate is probably the main issue. If it grows to the same or similar height then this will isolate nutritional problems to other nutrients”.

“In reality there can be a combination of deficiencies”.

To learn more, contact Agronomic Acumen for future ‘Plant Language Workshops’.



Zinc deficiency: Lesion middle of middle leaf.



Manganese deficiency: Pale, floppy patch of plants.



Copper deficiency: Tipped, twisted top leaf.

Element	Deficiency symptom and notes
Phosphate	Short, erect, slow growing plants. Red base on stem Older leaves dying at bottom but green on top new leaves. Lower leaves dieback from tip in straight line
Nitrogen	Lower leaves dead and white-pale colour. Not shriveled. Top leaves pale or normal. Lower leaves die back from tip in straight line
Potash	Dead areas have reddish tinge. Lower leaves die back from tip down the side to form an arrow
Sulphur	Lower leaves green- top pale. Opposite to Nitrogen. Deficient plants can be scattered next to sick ones. Red stem on the side facing the sun
Copper	Top leaves tipped and twisted. Spindly plants, few tillers that wilt early. More Nitrogen will reduce yield.
Zinc	Dead spots in the centre of the middle leaves, causing fold. Slow growth, poor tillering, droughted and sickly in appearance.
Manganese	Patches of whole plants pale and floppy. First signs pale striping on bottom half of new leaf. Flecking in some crop varieties.
Molybdenum	Very difficult to pick. Can be similar to copper but not twisted. Cupping of leaves in some crops

Reference; Learning Plant Language, Agronomic Acumen, agronomy.com.au

IBCS DELIVER SIGNIFICANTLY LOWER COST OF CHEMICALS

In the farm chemical market, the lower costs of 1,000L IBCs (Intermediate Bulk Containers) have not always been transparent in pricing.

Savings on IBCs should be passed on otherwise they simply cross subsidise more costly smaller packaging.

INDICATIVE DRUM COSTING

The table below gives indicative costing

per litre of chemical in various drum sizes and types. Easily, the most significant of the accounted costs is for the drum itself.

The table below illustrates that chemical in a blue ring 110L drum should cost at least \$0.50/L more than the same chemical in an IBC, and nearly \$0.70/L more if product is in fluorinated 110L orange ring drums.

The extra cost of purchasing product in 20L drums compared to IBCs is similar.

Drum Type	IBC	Blue	Orange	White	Grey
Treatment	Unflorinated	Unflorinated	Florinated	Normal Plastic	Barrier Layer
Litres capacity	1,000	110	110	20	20
Litres/pallet	1,000	550	550	800	800
Drum & Label	\$0.18	\$0.53	\$0.71	\$0.55	\$0.70
Pallet		\$0.05	\$0.05	\$0.03	\$0.03
DrumMuster				\$0.04	\$0.06
Fill,wrap,store	\$0.03	\$0.05	\$0.05	\$0.06	\$0.06
Transport	\$0.10	\$0.18	\$0.18	\$0.13	\$0.13
Total costs/Litre	<u>\$0.31</u>	<u>\$0.82</u>	<u>\$1.00</u>	<u>\$0.81</u>	<u>\$0.96</u>
Difference V IBC		\$0.50	\$0.69	\$0.50	\$0.65

DIY DECANT AND SAVE!

If the extra cost to buy a product in a small pack was say \$0.60/L or \$12/20L, then over 1,000L this represents a lazy saving to a farmer of \$600 just for a little extra effort of decanting into their own recycled 20L or 110L drums.

When the saving is put in this perspective, it is no surprise some farmers who want 1,000L or more of a product in a season will buy an IBC and decant

it themselves if they prefer it in smaller drums. This is especially common with adjuvants like Turbo Oil or Wetter.

DRUM DEPOSITS

Most players in the industry have adopted the same approach as 4Farmers and done away with drum deposits. Beware if it is still a factor with your supplier.

Check with your 4Farmers sales person for details.

Please note 4Farmers pays DrumMUSTER® on all 20L drums and smaller, giving you an environmentally friendly option to dispose of these.

This levy is voluntary.

Please check and boycott manufacturers that don't pay it. These will usually be certain generics and smaller importers.



COST OF EMPTY DRUMS

Another cost and scourge for some farmers is a mounting pile of empty drums of all sorts. This should be no issue for 4Farmers' clients.

4Farmers 1,000L and 110L drums are all recyclable.

If we have transport going to your farm and are making deliveries, we can even collect empty drums; sometimes those from other companies as well.

The best value Australian made farm chemicals are just a phone call away!

Call 4Farmers on 1800 038 445 from anywhere in Australia for your farm chemical requirements to be delivered to you... or for referral to your closest local distributor!

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

