

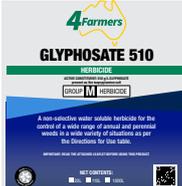
In this year of uncertainty: Uncertainty is the new Certainty!

Farm Chemicals



2,4-D
ester 800
returns
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New Product



New release
premium
Glyphosate
510
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COVID19 virus is undoubtedly the international story of the year – and with it comes supply chain uncertainties.

It has highlighted the vulnerability of globalised supply chains for critical inputs like farm chemicals.

Over the years we have had a variety of supply shocks, but this year COVID 19 is the most profound.

SO, WHAT'S AHEAD?

Fortunately the major international supplier of chemicals, China, seems for now, to be past the worst of its COVID 19 episode and is returning back to normal.

India's situation appears to be improving and so too are countries like Singapore where shipping passes through.

Even if COVID was completely under control who knows what the next disaster looming around the corner may be!

Sino-Australian political tensions, another too frequent industrial accident, energy shortages over the northern winter, industrial actions, raw material shortages on certain products...who knows?

Aside from the risk of unknowns, there is also the ongoing background of tough environmental controls in China that are not abating.

LOW STOCKS LOCALLY

Farmers may be frustrated by the low levels of stock being held locally, however it is unsurprising considering the risks of holding large amounts of inventory in the hope of 'maybe selling it' especially when there are such tight margins.

Tightening credit terms from overseas suppliers in these tough economic times does not help either.

PLAN EARLY

The reality is that the only practical way for farmers to manage their supply of inputs is to take more control and plan ahead.

Farmers need to calculate their basic requirements for farm chemicals and the important products likely to be needed in the next season.

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4Farmers Products

with cross reference to similar trade name products

Herbicides	Similar Product
2,4-D Amine 625	Amicide 625 [®]
2,4-D Ester 680	Estercide Xtra 680 [®]
2,4-D Ester 800	Estercide 800
2,4-D plus Picloram	Tordon™ 75-D
Amitrole 250	Amitrole T [®]
Atrazine 600SC, 900WG	Gesaprim [®]
Bromacil 800	Uragran [®]
Bromox MA	Bromicide MA [®]
Bromoxynil 200	Bromicide 200 [®]
Brown Out 250	Spray.Seed [®]
Butafenicil 200	LogranB [®]
Butoxydim 250 WG	Factor [®]
Carfentrazone 240EC	Hammer [®]
Carfentrazone 240EW	Affinity Force [®]
Chlorsulfuron 750 WDG	Glean [®]
Clethodim 360EC	Select [®]
Clodinafop 240	Topik [®]
Clopyralid 300,	Lontrel [®]
Cyanazine 900 WDG	Bladex [®]
Dicamba 500	Dicer 500 [®]
Diclofop-Methyl 500	Hoegrass [®]
Diflufenican 500	Brodal [®]
Diflufenican/Bromoxynil	Jaguar [®]
Diquat 200	Reglone [®]
Diuron 900 DF	Various
Fluazifop 212	Fusilade [®]
Flumetsulam 800 WG	Broadstrike [®]
Fluroxypyr 200	Starane™
Glufosinate-Ammonium 200	Basta [®]
Glyphosate 450 MEA	Roundup [®]
Glyphosate 470, 510	Roundup [®]
Glyphosate 540	Roundup [®]
Glyphosate 875	Roundup Dry [®]
Haloxyfop 520	Verdict [®]
Ipic 240	Flame [®]
Imazamox 700 WG	Raptor [®]
Imazethapyr 700 WG	Spinnaker [®]
I-PYR 750	Arsenal [®]
Linuron 450	Linurex [®]
LVE MCPA 570	LVE Agritone [®]
LVE MCPA/ Diflufenican	Tigrex [®]
MCPA 750	Agritone [®]
MCPA/Picloram	Trooper 242 [®]
Metolachlor 960	Dual [®]
s-Metolachlor 960	Dual Gold [®]
Metribuzin 750 WG	Lexone [®] , Sencor [®]
Metsulfuron Methyl 600 WDG	Ally [®]
Oryzalin 500	Surflan [®]
Oxyfluorfen 240	Goal [®] , Striker [®]
Paraquat 250	Gramoxone [®]
Pendimethalin 330, 440*	Stomp [®] , Argo [®]
Picolinafen 750 WG	Sniper [®]
Propyzamide 500 SC	Kerb [®] , Edge [®] , Rustler [®]
Prosulfocarb 800 EC	Arcade [®] , part Boxer Gold [®]
Quizalofop-p-ethyl 100	Targa [®]
Simazine 900	Gesatop [®]
Sulfometuron 750 WG	Oust [®]
Sulfosulfuron 750 WG	Monza [®]
Terbutylazine 750	Terbyne 750 [®]
Terbutryn 500 SC	Igran [®]
Tralkoxydim 400 WG	Achieve [®]
Tri-allate 500 EC	Avadex [®]
Triasulfuron 750	Logran [®]
Tribenuron Methyl 750	Express [®]
Triclopyr 600, 755	Garlon [®]
Trifluralin 480	Treflan [®]
Tri-pick	Grazon [®]
Turf Control	Spearhead [®]

**70%
formulated in
Australia
by 4Farmers**

Seed Dressings	Similar Product
Fluquinconazole	Jockey Stayer [®]
Imidacloprid 600	Gaicho [®] , Emerge [®]
Imid-Triadimenol	Zorro [®]
Iprodione 500	Rovral [®]
Metalaxyl-M 350	Apron XL [®]
Procymidone 500	Sumislex [®]
Tebuconazole 25T	Raxil [®]
Triadimenol liquid/WP150	Baytan C [®]
Triticonazole 200 C	Real 200 [®]
Fungicides	Similar Product
Azoxystrobin 250 SC	Amistar WG [®]
Azoxystrobin 500	Amistar WG [®]
Azoxy Cypro	Amistar Xtra [®]
Carbendazim 500 SC	Bavistin [®] , Spin [®]
Chlorothaloril 720	Bravo [®]
Epoxiconazole 125	Opus 125 [®]
Flutriafol 500 SC	Impact [®] , Intake [®]
Iprodione 500	Iprodione Aquaflow [®]
Mancozeb 750	Penncozeb 750 DF [®]
Procymidone 500	Sumislex [®]
Propiconazole 500	Tilt [®] , Throttle [®]
Proteb*	Prosar [®]
Tebuconazole 430 SC	Folicur [®]
Tebuconazole 800 WG	Turbulence [®]
Triadimefon 125	Triad [®] , Slingshot [®]
Triadimefon 500 Dry	Unique to 4Farmers
Triadimenol 250	Bayfidan [®] , Shavit [®]
Insecticides	Similar Product
Alpha-Cyber 100EC, 250SC	Dominex [®]
Al Phosphide tablets, blankets	Phostoxin [®]
Bifenthrin 100	Talstar [®]
Bifenthrin 300 EC	Talstar [®]
Chlorpyrifos 500	Lorsban [®]
Dimethoate 400	Rogor [®]
Fenamiphos 400	Nemacur [®]
Fipronil 800	Regal [®]
Fumigation Blanket	Celphide Fumigation Blanket
Imidacloprid 200	Confidor [®]
Lambda-Cyhalothrin 250	Karate Zeon [®]
Omethoate 290	Le-mat [®]
Pirimicarb 500 WG	Aphidex [®] , Pirimor [®]
Rodenticides	Similar Product
Zinc Phosphide Mouse Bait	MouseOff [®]
Strychnine Alkaloid Crystals	
1080 Vermin Baits	
Other Products	Similar Product
Boom Cleaner	
Foam marker	
Metaldehyde Snail/Slug Bait	
Adjuvants	Similar Product
Ammonium Sulphate	Liaise [®]
Citric Acid	
Farm Pro 700	LI 700 [®]
Penetrator	Pulse Penetrant [®]
Speedy Spray Adjuvant	Hasten [®]
Sunshade Spray Adjuvant	AntiEvap [®]
Take Up	Uptake [®]
Turbo Charge	Supercharge [®] , Uptake [®]
Wetter 1000	
Trace Elements	
Zn Chelate EDTA 14.5%	
Cu Chelate EDTA 14.5%	
Mn Chelate EDTA 14.5%	

*RP – Registration pending

Continued
from Page 1

In this year of uncertainty: Uncertainty is the new certainty!

A POINT TO NOTE:

Securing these products earlier, or out of their normal high demand periods can sometimes attract substantial discounts.

It is not always the case that early purchased chemicals will be the cheapest, but it is far more costly if you don't have them when required.

SUPPORT LOCAL MANUFACTURERS

Another concern is the loss of pesticide manufacturing capacity in Australia. This is a reflection of a highly competitive market being squeezed by cheap imports.

We have seen pesticide companies in the Eastern States announcing that they are closing their manufacturing facilities in Australia due to their inability to compete with imported products.

Local formulation still requires importing the raw materials required for manufacturing, but at least it is one more step in the supply chain that we can control.

BACKWARD INTEGRATION CHALLENGING

Diversifying supply chains away from China is problematic when China is the only source for some raw materials required in the manufacturing process.

There has been some divestment in recent years to countries like India, but progress if feasible, happens very slowly at best. The capital required to establish this new capacity can be significant and high risk.



CONCLUSION

- ✓ The critical lesson from 2020 is to plan now and buy early.
- ✓ Secondly, continue supporting local, Australian-made products and localised manufacturing.

This ensures more supply control being maintained locally, better servicing, and more money being kept in Australia.

4Farmers can help you on both accounts.

Farmers have always trusted 4Farmers to be good value and right now we have stocks of many products - available for immediate delivery on great terms.

4Farmers formulate over 70% of our products here in Australia and every product is quality tested in our own lab.

We urge you to buy smart for 2021 and buy from 4Farmers now.

NB: It's not just us issuing warnings: See below

Shipping company issues warnings on supplies and costs

The following are extracts of an email sent to 4Farmers from Intergroup Shipping (WA) Pty Ltd explaining the challenges in global logistics at the moment.

'2020 is getting crazier by the week and is difficult to predict outcomes.

Despite countless reports of world economies shrinking, demand for shipping space and containers is at a level I have not seen for many years.

Containers are in short supply because they are not moving freely around the world due to lock-downs at some ports and patchy economic activity.

Shipping is highly inconsistent because many scheduled shipments have been cancelled which has resulted in a battle to get materials onto the ones that are operating.

To give you an idea this month, we had a major carrier only provide two sailings ex a major Chinese port. They would normally provide four sailings.

With ports in China and many other Asian countries now open, getting goods into

containers and onto the fewer ship sailings to meet demand has become extremely difficult.

THE CARRIERS LIKE IT

The shortage means that the vessels that sail are generally full and are knocking back cargo. This in turn means they can control the rates, and at present, are charging more for the tonnage.

The irregularity of schedules and tonnage is causing great difficulties at transshipment ports like Singapore.

Though less tonnage is moving globally, the inconsistent surging of full ship arrivals is creating (from time to time) major port congestion problems which is adding to the delays of anywhere from one to three weeks.

Added to this level of chaos, the Asian summer typhoon season is heading



Due to lockdowns in various ports there is a major shortage of containers

towards its peak. This further increases changes and delays to vessel schedules and space allocation.

The end result of all this is likely to be inconsistent deliveries and pressure on freight rates'.

**Mid De Sousa, Managing Director,
Intergroup Shipping (WA) Pty Ltd**

The best is back this summer: 2,4-D Ester 800

Exciting news! One of the most popular knock-down herbicides is back!

In spite of dumping duties and other barriers, 4Farmers 2,4-D IB Ester 800 is expected to be available again this summer.

However, farmers need to be getting prepared now with orders so they don't miss out.

WHY HV ESTER 800 IS SO GOOD

Amine formulations are water based and are slow to penetrate the waxy coating on leaves. Esters on the other hand have a solvent base that can break through waxy leaves more easily.

High volatile esters (HVEs) are superior to low volatile esters (LVEs) because the chemical composition of HVEs allows them to be more rapidly absorbed than LVEs.

Also, the vapour created by HVEs means weeds can be killed without even having

droplet contact which is great if there are stubbles or other shadowing of the spray coverage.

VAPOUR DAMAGE EXAGGERATED?

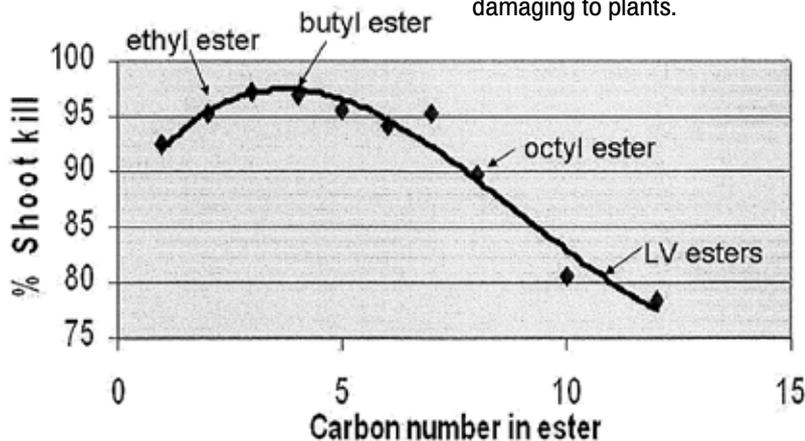
The two ways chemicals can leave a site after application is drift in small droplets or vapour. Droplet drift is quite manageable. Vapour drift can be more problematic - thus the scrutiny on HVEs.

John Moore (Dept Ag & Food WA, 2008) in a review of 2, 4-D ester formulations concluded that there were very few substantiated cases of off target damage due to 2, 4-D vapour.

John found that vapour drift was highly localised.

He found there was more chance of farmers incurring damage due to poor droplet management.

Extremely low level concentrations of vapour might move many kilometres - but there was no evidence that these were damaging to plants.



Correlation of chain lengths of ester molecules and their efficacy. 4Farmers Ester 800 is made from Butyl ester.



IBE FORMULATION SUPERIOR

Ester 800 can be made from either of two different active constituents; Isobutyl Ester (IBE) which is what 4Farmers product is made from, or Ethyl Ester.

The advantage of 4Farmers Ester 800, formulated using IBE, is that it still creates vapours, but they are less volatile than Ethyl Ester... thereby further reducing the concerns people may have about damaging vapours moving off site.

ESTER 800 INCREASES CANOLA YIELD

To put the potential effect of damage to neighbouring susceptible crops into perspective, it should be understood that low doses of chemical might show signs of damage - but this does not mean final yields are affected.

With Ester 800 on Canola for example, John Moore points out that the data suggests very low doses at early stages are actually more likely to increase yields before yields reduce, and higher rates eventually kill a plant.

New Release! Premium Glyphosate 510

4Farmers Glyphosate 470, renowned for its quality and value amongst clients, has evolved a step further with a Glyphosate 510 version.

Independently proven in carefully controlled lab trials, 4Farmers Glyphosate 470 has on average 10% better weed control efficacy than other Glyphosate products it was tested against.

Like Glyphosate 470, the new 510 is an Isopropyl amine (IPA) salt containing the same high quality synthetic surfactant.

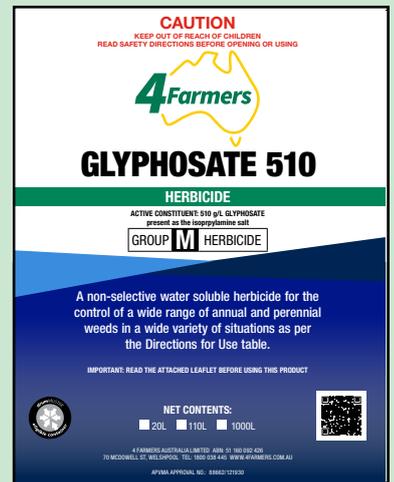
This new product will provide the same outstanding paddock efficacy and great mixing capabilities.

The main difference between these products is that Glyphosate 510 has an additional 40g/l of active glyphosate packed into it, making it even more powerful.

The quality of a Glyphosate is largely determined by the quality and amount of adjuvant it is manufactured with.

4Farmers Glyphosate 510 contains the same high quality surfactant package that has made our Glyphosate 470 such renowned value.

If you would like to experience the best - call 4Farmers now to secure your glyphosate 510 supply for 2021.



Water Quality: A vital aspect for spraying efficiency

Using the cleanest water possible when spraying is important. Rainwater or scheme water that is not too cold is the closest to ideal.

You need to be aware that sub-quality water can cause problems with certain chemicals.

Tip: If you have to deal with substandard water it is generally better to use it as quickly as possible and not let your chemical sit in the tank for an extended period of time.

Ref: GRDC and AgWA



Situation	Benchmark	Evaluation	Comment	e.g. Where Not Recommended
Hard	>200ppm CaCO3	Won't lather with soap but will with shampoo.	<ul style="list-style-type: none"> Water with excess calcium and magnesium salts. These ions can cause some chemicals to precipitate. Hard water can also affect the balance of the surfactant system and affect properties such as wetting, emulsification and dispersion. 	Glyphosate, Paraquat
Saline	1000mS/NaCl	Tastes salty	<ul style="list-style-type: none"> High levels of sodium chloride (NaCl) These ions interfere with chemicals by inactivation, breakdown or precipitation. 	Esters, Sulfonylureas (SUs), Triazines
High pH	>8pH	pH meter	<ul style="list-style-type: none"> Alkalinity affects the rate of hydrolysis or breakdown of chemicals in water. 	Glyphosate, Diflufenican
Low pH	<5pH	pH meter	<ul style="list-style-type: none"> Acidity affects the rate of hydrolysis or breakdown of chemicals in water 	Trisulfuron
Turbid		Can't see the bottom of 10L bucket	<ul style="list-style-type: none"> Suspended clay or silt particles (colloids) can have large surface area and bind on to some chemicals making them ineffective 	Paraquat, Brown Out, Glyphosate
Temperature	<10C	Thermometer	<ul style="list-style-type: none"> Can result in poor solubility and gelling. Granules may be more difficult to mix. If using an oil adjuvant be cautious with mineral oil and consider vegetable oil. Increase agitation time 	Mineral Oil with Clodinafop

Water Hardness

Total water hardness is a measure of the amount of cations (positive ions) such as calcium, magnesium, sodium, iron and carbonates in the water, usually expressed in parts per million (ppm or milligrams per litre (mg/L) of calcium carbonate equivalents.

'Hard water' at just 330ppm reduces the efficacy of Glyphosate by 74%. Ammonium sulphate is the best product to help mitigate water hardness.

pH

It is generally best to aim for a near to neutral pH.

Alkaline water can cause problems with pesticides such as alkaline hydrolysis and increased breakdown of the product, plus poor droplet contact with the target and reduced performance or stability from some formulations and adjuvants.

Using an acid such as 4Farmers citric acid or Farmpro700 will lower the pH while the addition of an alkaline product such as potassium hydroxide will increase the solution's pH level.

Very acidic water can affect tank mix stability and lead to gelling of some salt based products such as 2,4-D amines, particularly in tank mixes containing other salt based and flowable products.

Salinity

High levels of salinity can result in some chemicals precipitating out of solution and others being inactivated. High salinity can also make it difficult to adjust the pH levels of the solution.

Turbidity (Cloudiness)

Products like Paraquat and Glyphosate can bind to colloids (soil particles in the water) making the chemical inactive.

Adding aluminium sulphate or gypsum can correct turbidity. Take care with both of these products as an antagonism could occur with glyphosate. Ammonium sulphate can nullify this antagonism.

Temperature

Cold water can make some chemicals difficult to mix, particularly granulated products. Other chemicals may become insoluble and gel.

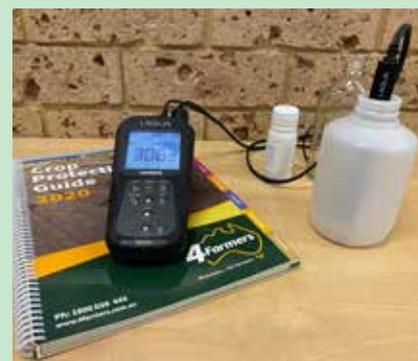
Tips for dealing with cold water:

- Drawing from a larger tank rather than a small tank can help.
- Switching to a vegetable oil adjuvant rather than a mineral oil in cold water can be helpful.
- Increasing agitation time can also be a useful tip.

4Farmers offer a comprehensive water testing service to help maximise your chemical dollars.

- pH
- Temperature
- Turbidity
- Salinity
- Conductivity

Call 4Farmers today to organise your on-site water testing.



Are you aware that forklift operators require a licence?

Forklifts have become a common piece of equipment on farms as they're particularly useful when handling IBCs and pallets of chemicals. If you have one - are you aware that by law, forklifts require an operator to have an appropriate High Risk Work Licence (HRWL) to operate?

A licence to perform High Risk Work using a common forklift truck is referred to as an "LF" licence.

A forklift is defined as any piece of equipment with lifting abilities made up of a mast and an elevating load carriage to which is attached a pair of fork arms.

Employers, including farmers, must ensure that all operators of forklifts have a valid "LF" license.

A High Risk Work Licence expires every five years and an operator must not carry out high risk work until the licence has been renewed.

In addition, employers must ensure that operators are also provided with additional training, instruction and information on forklift operation, hazards, risks and control measures relevant to the work-place.

QUALIFICATIONS

Wherever you operate in Australia, a standard age limit applies. A person wishing

to be assessed for operation of a forklift must be over 18 years of age.

An unqualified trainee can only operate a forklift under direct supervision and be within sight and hearing range of an appropriately qualified forklift operator or assessor who holds the relevant qualifications.

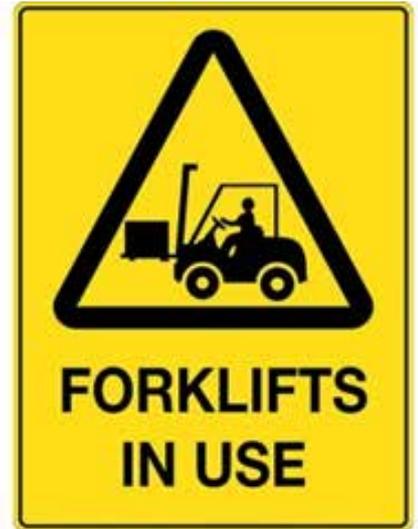
DANGEROUS EQUIPMENT

The dangers of instability and the risk of forklifts tipping over are regarded as the biggest hazards for an employee using a forklift.

If an employee jumps or falls from an unstable forklift, the chances of serious harm are high.

A forklift can tip over by rolling, overturning sideways or by pitching forward when the back wheels are lifted off the ground.

Most tip-over incidents involve unloaded forklifts which are more unstable than a loaded forklift where the load is carried low.



Around a quarter of all forklift related injuries occur when an operator is simply getting on or off the forklift.

OBTAINING A LICENCE

An 'LF licence' is readily obtained from a registered training organisation. These organisations are easily searched for online.

For beginners with little forklift experience these training sessions are conducted over two days and cost around \$360 plus a \$100 Worksafe fee.

More experienced operators can do the course in a single day for less than \$250 plus the \$100 Worksafe fee.



We know quality matters.

There is no mistaking the 4Farmers devotion and dedication to Australian farmers and our focus on providing local knowledge, quality product and the best price possible. We also know the importance of time, efficiency and convenience.

Call us today on **1800 038 445** or visit **4farmers.com.au** for your local distributor.

Supporting Australian farmers since 1994.

