

# Spread summer knockdowns with the right chemistry

*When choosing spray adjuvants to enhance summer herbicide efficacy, it's a case of 'oils ain't oils' according to Victorian Chemicals, a pioneer of wetting agents, surfactants and adjuvant technology for 80 years.*

While local manufacturing success stories may be thin on the ground, one worthy of wider recognition in rural Australia is Envoy spray adjuvant, made almost entirely from home-grown canola oil.

Launched in 2003 by Victorian Chemicals (a.k.a. Vicchem), Envoy was a bold move to acknowledge the quality and purity of Australian canola oil, giving growers a compelling reason to choose the premium brand over cheaper generics.

Vicchem's national sales manager, Chris Barry, said the local factor in this 'cause marketing' story had proved to be a winner.

"While there was mutual self-interest behind the Envoy initiative, canola growers appreciated the faith and confidence we put in their locally-grown produce," said Chris from the company's Coolaroo headquarters in Melbourne's north.



From left: Chris Barry, national sales manager for agricultural products; Peter Jones, technical development manager; and Peter Wrigley, general manager of Vicchem's manufacturing operations

"Ten years on, Envoy is widely used in summer fallows and other knockdown weed control programs – not just by canola growers but cereal, grain legume and cotton producers around the country."

Chris said that combined with patented wetting and buffering agents, Envoy delivered several unique benefits to growers.

"Envoy has the capacity to reduce spray drift and evaporation rates while improving rain-fastness and buffering against pH sensitivity, making it an ideal choice for summer use," he said.

## HOT-UP for knockdown efficacy

Technical development manager, Peter Jones, said Vicchem made two more premium adjuvants – Hot-Up and Infiltrator – specifically to cope with the typical hot, dry conditions of Australian summer.

"Hot-Up is based on patented technology, blending mineral oil, surfactant and ammonium sulphate, making it ideal to mix with knockdowns when the water is hard and air temperatures high," he said.

"Last year's trials in Nungarin WA showed that Hot-Up @ 0.25% improved the efficacy of Roundup\* Attack + Garlon\* Fallowmaster for control of melons and burr grass.

"Specifically, Hot-Up out-performed mixes of Empower + ammonium sulphate and LI-700\* + ammonium sulphate based on weed control levels achieved at 40 days after application.

"These latest results are consistent with those of previous trials in Trundle, New South Wales."

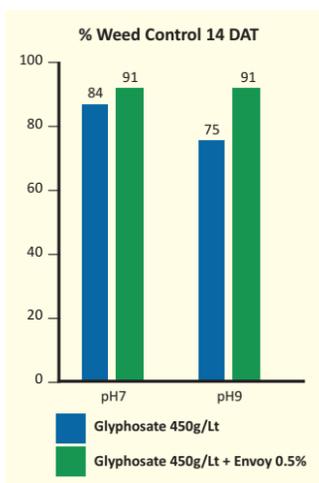
## The Right Chemistry for Every Summer Situation

SUMMER USES	ENVOY <sup>®</sup> SPRAY ADJUVANT	HOT-UP <sup>®</sup> SPRAY ADJUVANT	INFILTRATOR <sup>®</sup> SPRAY ADJUVANT	DELUGE 1000 <sup>®</sup> WETTING AGENT
KNOCKDOWN HERBICIDES	✓	✓	✓	✓
HARD WATER		✓		
HOT & DRY CONDITIONS	✓	✓	✓	
SPECIAL FEATURES	<ul style="list-style-type: none"> <li>✓ Made with Australian Canola Oil</li> <li>✓ Buffering agent</li> <li>✓ Compatible with ammonium sulphate</li> </ul>	<ul style="list-style-type: none"> <li>✓ Compatible with major summer herbicides</li> <li>✓ Compatible with ammonium sulphate</li> </ul>	<ul style="list-style-type: none"> <li>✓ Made with Australian Canola Oil</li> <li>✓ Penetrator for waxy weeds</li> <li>✓ Compatible with ammonium sulphate</li> </ul>	<ul style="list-style-type: none"> <li>✓ Suitable for many in-crop situations</li> <li>✓ BFA approved for Organic farming</li> </ul>

*When choosing spray adjuvants to enhance herbicide efficacy in summer, it's a case of 'oils ain't oils' according to Australian pioneer of adjuvant technology, Victorian Chemicals*

Peter said that Hot-Up was compatible with major knockdown actives including glyphosate, para-quat, diquat, triclopyr, clopyralid, atrazine and diuron. It is typically used at 0.25 – 1.0L/100L of spray volume. See label for more details.

Trial 1  
Affect of pH on spray performance



*This trial showed that adding Envoy at 0.5% significantly improved glyphosate efficacy on annual ryegrass, in both neutral and high pH water*

According to Peter, results from the two glass house trials conducted in 2013 also validated claims that Infiltrator improved rain-fastness.

"Of the four treatments applied, Infiltrator was the most effective at maintaining glyphosate efficacy.

"When rain was applied half an hour after application, Infiltrator increased efficacy of Gladiator on oats from 64 to 81%.

"Similarly, when rain was applied half an hour after application, Infiltrator increased the efficacy of Roundup Attack on variegated thistle from 63 to 77%."

Peter said Infiltrator was also compatible with all major knockdowns and ammonium sulphate mixes used during summer.

## DELUGE for fallows & crops

Deluge 1000 is a highly concentrated wetting agent ideal for spreading knockdown and in-crop herbicides, without risk of crop damage.

According to Peter, Deluge can be used in acid and alkaline sprays and will mix easily with most types of water used for agricultural chemical spraying.

"Being highly concentrated, Deluge is ideal for large-scale broadacre cropping applications within the typical use range of 100–200ml/100 L of spray volume.

"Deluge was recently field tested in a couple of wild radish control trials where Hussar was applied to a Victorian triticale crop and Broadstrike applied to a South Australian wheat crop.

"Our results show that Deluge reduces the surface tension of spray water and improves droplet retention on the target surface at initial impact, resulting in better droplet spread across the target surface."

Peter said all Vicchem products were manufactured using renewable, biodegradable materials according to a quality management system that ensures consistency and reliability of product performance.

## INFILTRATOR for waxy weeds

For those difficult-to-control summer weeds with waxy surfaces, Peter recommended Infiltrator, a reliable canola-based adjuvant designed for better adhesion and absorption in summer.

"Specifically designed for a wide range of summer knockdowns, Infiltrator works best in hot, dry conditions where the oil promotes larger droplets and reduces evaporation.

"The penetrative power of the methylated vegetable oil increases the initial uptake of herbicide active, reducing the risk of wash-off caused by rain after spraying.

"Using hard water levels ranging from 50 up to 300 ppm, our trials show that Infiltrator+Assert improves the efficacy of Roundup on oats compared with Assert alone."

According to Peter, results from the two



Chemists Spiro Fetsis and Maria Christou are employed in process optimisation and quality control at Vicchem's chemical laboratory at the head office site in Coolaroo, Victoria

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