



KELPIE P-QUAT ADVANCE

250g/L PARAQUAT & 10g/L Amitrole

INFO SHEET

KELPIE® P-QUAT Advance, 250g/L Paraquat & 10g/L Amitrole, is a non-selective post emergent herbicide absorbed by plant foliage, providing broad-spectrum control of broad-leaved weeds and grasses in crop and pasture situations.

These two actives, Paraquat and Amitrole, are able to inhibit both the photosystem 1 and carotenoid biosynthesis pathways and the two mode of actions have proven to be complementary in their effects. The internal plant metabolism of Amitrole delays the direct action of the Paraquat. This promotes broader translocation of the Paraquat active within the target resulting in a greater Paraquat burn and weed kill. Amitrole enhances the translocation of the Paraquat active delivering greater weed control.

KELPIE® P-QUAT Advance - Key Product Features



15 Minute Rainfast period

Increased Control Efficiency, Especially on Larger Weeds

Kelpie P-QUAT Advance has a unique co-formulation. The Amitrole active slows down the uptake of Paraquat which allows greater translocation of the active. Traditional Paraquat formulations burn down quickly often allowing larger more difficult weeds to recover. This co-formulation increases control efficacy especially on larger weeds.

Manage Glyphosate Resistance

KELPIE P-QUAT Advance incorporates group L and Q herbicides with both a photosystem I inhibitor and an inhibitor of carotenoid biosynthesis modes of action. This cost effective formulation with leading market performance provides an alternative mode of action to glyphosate.

Optimal Performance

KELPIE P-QUAT Advance contains a unique quality surfactant to provide optimal performance.

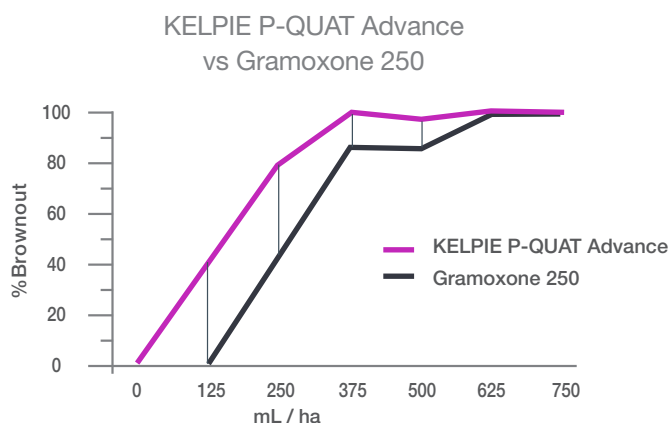
Compatibility

KELPIE P-QUAT Advance is tank mix compatible with atrazine and simazine. It is also compatible with Penetrate Wetter, Diquat, Dicamba 500g/L, 24d Amine, MCPA 500, Chlorosulfuron 750g/kg, Oryzalin/Trifluralin 250g/L.

Independent Trials

Independent trials conducted by Dr Peter Boutsalis of Plant Science Consulting in Adelaide, South Australia found KELPIE P-QUAT Advance to have superior control percentage of annual ryegrass to Gramoxone 250 at a range of doses under controlled conditions.

Figure 1: (right) Dose response as measured by the percentage burndown, of Annual Ryegrass to applications of KELPIE P-QUAT Advance and Gramoxone at a range of doses under controlled conditions 26 days after treatment (DAT).



In another trial conducted by Dr Peter Boutsalis of Plant Science Consulting in Adelaide, South Australia the Lethal dose 50% response of annual ryegrass, wild radish and silver grass to KELPIE P-QUAT Advance, Gramoxone® and Spray Seed® was compared. The calculated Lethal Dose 50% values is the amount of product required to cause death of 50% of a population of a species and is used for comparing product efficacy, with lower values indicating an increased response.

The results demonstrated an above average improvement in efficacy of 25% over spray seed and Gramoxone 250.

KELPIE P-QUAT Advance vs Spray Seed and Gramoxone 250

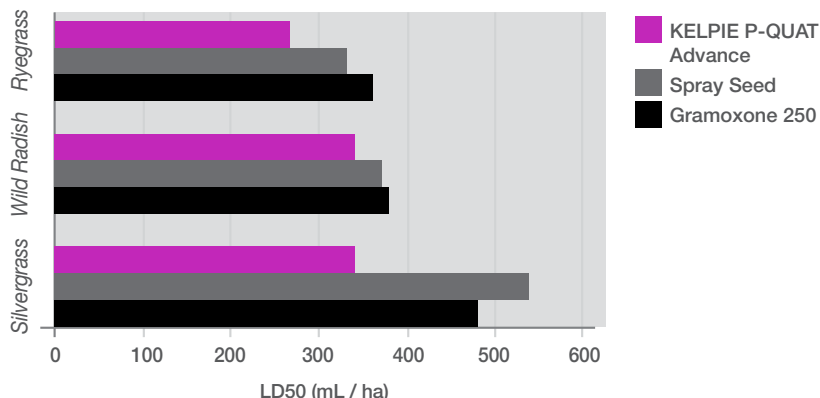


Figure 2: Calculated Lethal Dose 50% response (LD50) of Ryegrass, Wild Radish and Silvergrass to KELPIE P-QUAT ADVANCE, Gramoxone and Spray Seed. LD50 is the amount of product required to cause death to 50% of a population of a species.

Source: Boutsalis P, 2014

Trials assessing the brownout percentage of general fallow weeds at various trial sites consistently supported that KELPIE P-QUAT Advance applied at 75% of the Paraquat 250 rates consistently provided equivalent or better control.

KELPIE P-QUAT Advance vs Paraquat 250 on Sowthistle

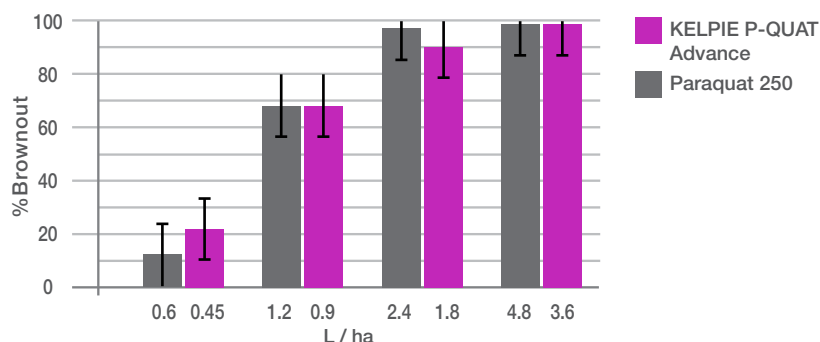


Figure 3: Comparative efficacy of KELPIE P-QUAT Advance (Pink) applied at 75% Paraquat 250 (Grey) rates on Sowthistle (Sonchus spp.) as assessed by percentage brownout (inc LSD) 25 days after treatment (DAT) at Padthaway, SA.

Source: Kalyx 2015, KA 15-0999

KELPIE P-QUAT Advance vs Paraquat 250 on Flaxleaf Fleabane

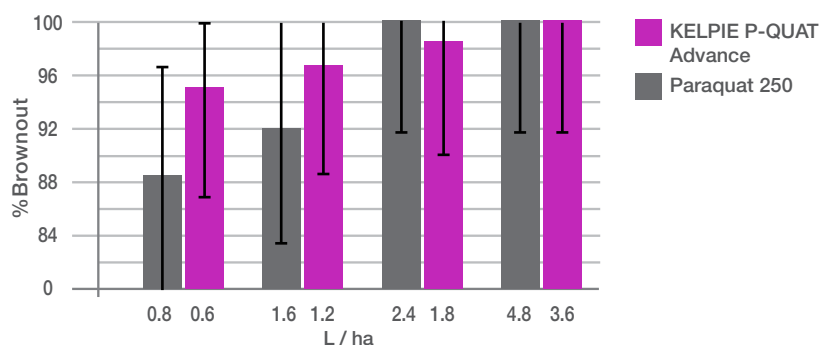


Figure 4: Comparative efficacy of KELPIE P-QUAT Advance (Pink) applied at 75% Paraquat 250 (Grey) rates on Flaxleaf Fleabane (Conyza bonariensis) as assessed by percentage brownout (inc LSD) 15 days after treatment (DAT) at Narrabri, NSW.

Source: Eurofins Agrisearch, 2015

Application

- Application must be of medium spray quality.
- Avoid spraying plants under stress from waterlogging, frost and drought or covered with dust and soil.
- KELPIE P-QUAT Advance is inactivated by soil or heavy dew. KELPIE P-QUAT Advance contains wetting agent.