



# Duality<sup>®</sup>

For the control of certain broadleaf weeds in fodder brassicas and radiata pine.

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<u>Active Ingredient:</u>	Contains 150 g/litre picloram and 225 g/litre clopyralid as the monoethanolamine salt, in the form of a soluble concentrate.
<u>Chemical Group:</u>	Substituted pyridine
<u>Formulation:</u>	Soluble concentrate
<u>Pack Size:</u>	5 Litre

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Duality is a highly cost-effective herbicide for the control of difficult-to-control broadleaves in fodder brassicas. The dual-active combination offers excellent weed control, with flexibility in weed-stage timing.



Duality<sup>®</sup> offers highly cost-effective weed control - with many key benefits:

Good control of Fathen, Black nightshade and Thorn apple ✓

Flexibility in timing ✓

Low use rate ✓

Highly cost-effective ✓



**adria**  
crop protection

**DIRECTIONS FOR USE - FODDER BRASSICAS:**

WEEDS	RATE (mL/ha)	COMMENTS
Fathen, Black nightshade, thorn apple, Redroot (suppression only)	350	Apply to actively growing 2-8 true leaf seedlings.  See Timing and Uptake Spraying Oil sections below.

**Uptake Spraying Oil:**

**Always apply Duality herbicide to fodder brassicas in mixture with Uptake Spraying Oil.**

Aerial and ground broadcast application: Use 500ml Uptake per 100 litres of spray mix. CDA application: Use 500ml/ha Uptake.

**Timing:**

Time of application should be determined by the growth stage and activity of the weed and not the crop.

**Soil Residues and Crop Rotations:****Crop****Comments**

Clovers

Establishment and growth are possible in pastures sown after brassicas treated with recommended rates of Duality herbicide.  
To minimise potential damage to clovers from picloram soil residues, allow a minimum of 6 months after treatment, deep plough and surface cultivate before sowing pasture.

Cereal crops

May be sown following brassicas treated with Duality herbicide.

Potatoes, peas, lucerne, beans, cucurbits, tomatoes and other crops which are highly susceptible to picloram.

Do not sow for at least 1 year and not until it has been demonstrated that it is safe to do so.

Do not use Duality herbicide if it will be necessary to sow susceptible crops within the above-suggested periods.  
Avoid repeat treatments of Duality herbicide to successive brassica crops as this can increase the potential for soil residues.

The rate of decline of soil residues is dependent on several factors (including soil type and rainfall) and will vary from district to district. Under low rainfall conditions (less than 800 mm per year) or in heavy, poor draining soil, delay planting of susceptible crops for at least 2 years. If in doubt regarding other crops, or for further information consult your local distributor.

**RADIATA PINE:**

WEEDS	RATE (L/ha)	COMMENTS
Gorse, Broom.	2.0 – 2.5	Add Boost penetrant (500ml/ha).
Woolly nightshade, fleabane, fireweed, foxglove, ragwort, tree Lucerne, wattles.	2.0	See Timing and Selectivity below.
Thistles	1.0	

**RADIATA PINE RELEASE FROM GORSE AND BROOM:****Aerial application:**

Apply 2.0-2.5 L/ha of Duality with 500ml/ha of Boost penetrant.

**Spot spray:**

Mix 200ml of Duality in 10L of water. Apply 10ml of mix per square metre over the tree. Do not add Boost penetrant to spot mixes.

**Timing:**

For maximum suppression of gorse and broom, apply during the period of soft active growth when there is good soil moisture. At treatment, gorse and broom should be no less than 10cm high and preferably no more than 50cm high. Application outside these conditions may result in reduced weed suppression. For effective weed suppression, do not apply beyond the end of February in the growth season. In some situations, retreatment during the following active growth season will be beneficial. Duality may not adequately suppress new regrowth from stumps or coppice.

**Selectivity:**

With accurate application, good selectivity to Radiata pine is achieved. In some instances some twisting of needles and stems may occur. This is transient and will not affect long-term growth of the tree. **Duality herbicide is injurious to legumes such as clovers and lotus.**

**Compatibility:**

Duality is compatible with Gallant<sup>®</sup> and Gardoprim<sup>®</sup> herbicides. Boost penetrant should not be used when Duality is mixed with other herbicides.

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Duality is registered pursuant to the ACVM Act 1997, Approval No. P7670