AgNotes

BARON® 400 WG

Selective Herbicide

Selective weed control in onions, vegetable brassicas and pyrethrum

AgNOVA TECHNOLOGIES

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BARON® 400 WG

Selective Herbicide

BARON® WG benefits over other formulations

- Season-long weed control with excellent crop safety
- Broad weed spectrum
- Effective control of many tough weeds including wireweed, nightshade & fumitory
- Dust-free granule for easier transport and handling than other products
- Non-scheduled product for OH&S

Active ingredient

Baron WG contains 400 g/kg oxyfluorfen (Group G Herbicide) in a formulation that is uniquely different to EC formulations of oxyfluorfen.

Mode of action and general instructions

Baron WG has very little contact activity on emerged weeds and for best results should be applied to a weed-free soil which has fine tilth. Baron WG forms a film on the soil surface that provides an effective barrier to a wide range of emerging weeds.

Baron WG will remain effective for a number of weeks depending on the rate used, time of year, soil moisture, and other factors.

As a general rule, Baron WG should be used at low rates in winter and higher rates in summer. The rate of Baron WG applied will depend on a range of factors including soil type. Guidelines are included on the following page.

Rainfall or irrigation is required within 7 days to achieve good residual control.

Baron WG is insoluble in water and leaching into the soil profile is therefore minimal. The principal means of breakdown is by sunlight, hence Baron WG will last longer during dull, cloudy, wet conditions (winter), and have a relatively short life in bright, sunny weather (summer).

Baron WG must be applied alone, with NO surfactants or other products added.

Soil disturbance

For optimum residual weed control, the area treated with Baron WG should be left undisturbed during the time period for which weed control is desired. Inter-row cultivation will reduce weed control. It may be necessary to spot treat with knockdown herbicides or use follow-up applications of approved herbicides for weed escapes and perennial grasses.

Soil type and crop safety

Baron WG should NOT be used on very sandy soils or new crop varieties until small-scale tests show that the product will not cause crop damage.

Some leaf spotting can occur due to the activity of the spray, or from rain splashes from the soil following application and the extent of damage may vary between varieties.

Baron WG for brassicas

(Cabbages, Cauliflower, Broccoli and Brussels Sprouts only)

Baron WG should be applied to weed-free soil immediately after transplanting. If more than 3 days have elapsed since transplanting, Baron WG must NOT be applied. If weeds are present in the area to be planted, they should be sprayed with a knockdown herbicide prior to transplanting.

Baron WG should be applied at 0.5 - 1.0 kg/ha, and ONLY ONCE per brassica crop. The low rate should be used under cold, wet conditions (winter) or on light to medium soils and the higher rate in warmer weather (summer) or on heavier soils.

Various factors may affect the selectivity of Baron WG, including the size and age of transplanted seedlings; smaller and /or younger seedlings are potentially more susceptible. Growers should conduct small - scale crop safety tests prior to treating large numbers of plants.

The selectivity of Baron WG to transplanted seedlings may also be affected by applications of adjuvants (e.g. wetting agents, oils, etc) to the leaves up to 10 days before or after the application of Baron WG.

Untreated plot with wild radish **Treated plot (Baron WG)**

Trial conducted in brassicas with Baron WG

Application checklist

Rate: 0.5-1 kg/ha for cabbages, cauliflower, broccoli, brussels sprouts and pyrethrum.
150-300 g/ha for onions.

Timing: Brassicas up to 3 days after transplanting.
Onions after 2-3 leaf stage.
Pyrethrum after harvest in autumn.

Apply to weed free soil.

No tank mixes, wetters or adjuvants

If using new varieties and / or in very sandy soils, conduct a small-scale crop safety test prior to widespread use.

BARON WG for onions

Baron WG can be applied to onions from the 2 - 3 true leaf stage onwards. Up to 4 applications may be required to maintain a weed-free crop, however this will vary depending on prevailing conditions. For more details on application, rates, timing and critical comments, refer to page 4.

BARON WG and follow crops

Baron WG is a residual herbicide, and growers should carefully consider options for crops following those to which the product has been applied. Follow crops can be damaged by oxyfluorfen residues, and should not be sown or transplanted into previously treated soil within 6 months of the last application without prior germination testing.

A germination test involves planting approximately 20 seeds or seedlings of the intended follow crop into soil taken from the treated paddock and monitoring subsequent growth. If the follow crop is to be grown from seed, then seed should be used in the test; if seedlings are to be grown, then seedlings should be used. After 10 to 14 days, any damage from residual oxyfluorfen should be evident.

The test should include an untreated sample of the same soil; this means testing soil not previously sprayed with Baron WG, such as that found near a fence line in the sprayed paddock, or in an adjacent paddock.

Table 1 (below) was developed from actual re-cropping trial data and shows the relative safety of follow crop options in this particular trial. At label application rates, zucchini, carrot and lettuce crops are more tolerant than onion and cabbage.

Table 1. Re-cropping trial data showing relative follow crop safety after Baron WG application.

Rate	Plant back (Months)					
	3	4	5	6	7	8
0.5 kg	Zucchini, carrot and lettuce	Onion and cabbage				
1.0 kg	Zucchini, carrot and lettuce			Onion	Cabbage	
2.0 kg		Zucchini and carrot	Lettuce		Onion	Cabbage

For more information on Baron WG and follow crops, refer to the Baron WG product page at agnova.com.au

The following is an extract of the product label and does not constitute the complete directions for use. The product label should be read thoroughly before opening the packaging:

BARON® 400 WG
Selective Herbicide

Crop Situation	Weeds Controlled	Time of Application	Rate	Critical Comments
Transplanted Cabbages Cauliflower Broccoli Brussels sprouts	Amaranthus spp. Amsinckia *(Amsinckia* spp.*)* Apple of Peru *(Nicandra physaloides)* Barley grass *(Hordeum* spp.*)* Barnyard grass *(Echinochloa* spp.*)* Bellvine *(Ipomoea plebeia)* Blackberry nightshade *(Solanum nigrum)* Bladder ketmia *(Hibiscus trionum)* Buckshorn plantain *(Plantago lanceolata)* Burrgrass *(Cenchrus australis)* Caltrop *(Tribulus terrestris)* Capeweed *(Arctotheca calendula)* Cleavers *(Galium aparine)* Crowsfoot grass *(Eleusine indica)* Deadnettle *(Lamium amplexicaule)* Dock *(Rumex spp)* Fumitory/pinkweed *(Fumaria* spp.*)* Giant pigweed *(Trianthema portulacastrum)* Green amaranth *(Amaranthus viridis)* Groundsel *(Senecio vulgaris)* Ivy-leaf speedwell *(Veronica hederifolia)* Liverseed grass *(Urochloa panicoides)* Lovegrass *(Eragrostis* spp.*)* Pigeon grass *(Setaria* spp.*)* Pigweed *(Portulaca oleracea)* Prickly lettuce *(Lactuca* spp.*)* Rayless chamomile *(Matricaria matricarioides)* Red Natal grass *(Rhynchelytrum repens)* Red root *(Amaranthus* spp.*)* Redshank *(Amaranthus cruentus)* Ryegrass *(Lolium rigidum)* Sesbania pea *(Sesbania cannabina)* Shepherd's purse *(Capsella bursa-pastoris)* Smallflower mallow *(Malva parviflora)* Sow thistle *(Sonchus oleraceus)* Speedwell *(Veronica persica)* Starburr *(Acanthospermum hispidum)* Stinkgrass *(Eragrostis cilianensis)* Summer grass *(Digitaria* spp.*)* Thornapple *(Datura stramonium)* Twin cress *(Coronopus didymus)* White eye *(Richardia brasiliensis)* Wild carrot *(Daucus carota)* Wild hops *(Nicandra physaloides)* Wild mustard *(Sisymbrium* spp.*)* Wild turnip *(Brassica rapa)* Wireweed *(Polygonum aviculare)* ***Suppression only*** Chickweed *(Stellaria media)* Wild radish *(Raphanus raphanistrum)*	Immediately after transplanting and no later than 3 days after transplanting to a weed free soil	0.5 to 1 kg/ha	Apply Baron® as soon as possible after transplanting and no later than 3 days after transplanting to a weed free soil. Rain or irrigation is required shortly after application, preferably within 7 days, to activate the product and maximise residual weed control. Some leaf spotting on the older leaves may occur on some varieties. Note: Some Brussels sprouts varieties e.g. 'Speedia', growing in light soils may be damaged and result in some seedling failures. Under cool humid conditions, some varieties of broccoli and cabbage may be damaged resulting in yield reductions, particularly at higher rates. Consequently, small areas should be tested first. Use the lower rate under cold, wet conditions (mid-winter) or on medium soils and higher rate in warmer weather (summer) on heavy soils. Make only one application per crop. Do not use on light sandy soils unless small scale testing has proven BARON to be safe to the variety. DO NOT mix any surfactants or any other pesticide with BARON as serious crop damage may occur.
Onions (seeded)	Apple of Peru *(Nicandra physaloides)* Blackberry nightshade *(Solanum nigrum)* Buckshorn plantain *(Plantago lanceolata)* Caltrop *(Tribulus terrestris)* Cleavers *(Galium aparine)* Deadnettle *(Lamium amplexicaule)* Dock *(Rumex spp)* Fumitory/pinkweed *(Fumaria spp.)* Groundsel *(Senecio vulgaris)* Pigweed *(Portulaca oleracea)* Red root *(Amaranthus retroflexus)* Sow thistle *(Sonchus oleraceus)* Twin cress *(Coronopus didymus)* Wild hops *(Nicandra physaloides)* Wireweed *(Polygonum aviculare)*	Begin applications no sooner than the onion 2 true leaf stage (excludes 'flag' or 'hook' leaf) to weed free soil	150 to 300 g/ha	Apply BARON to a weed free soil, once onions have at least 2 true leaves. If weeds are present, treat these first with a suitable contact herbicide. Use the low rate when onions are small and conditions are wet and cold. The higher rate can be used once onions have 3 true leaves. Repeat the applications at 4 to 6 week intervals as required. Do not use more than 1.2 kg/ha per crop. Treat any emerged weeds with suitable contact herbicides, if required, prior to the BARON application. DO NOT mix any surfactants or any other pesticide with BARON as serious crop damage may occur.
	Fat hen (*Chenopodium album*)		300 g/ha	
Established pyrethrum	Amaranthus spp. Amsinckia *(Amsinckia spp.)* Barley grass *(Hordeum spp.)* Barnyard grass *(Echinochloa spp.)* Blackberry nightshade *(Solanum nigrum)* Buckshorn plantain *(Plantago lanceolata)* Capeweed *(Arctotheca calendula)* Cleavers *(Galium aparine)* Crowsfoot grass *(Eleusine indica)* Deadnettle *(Lamium amplexicaule)* Dock *(Rumex spp)* Fumitory/pinkweed *(Fumaria spp.)* Groundsel *(Senecio vulgaris)* Ivy-leaf speedwell *(Veronica hederifolia)* Redshank *(Amaranthus cruentus)* Ryegrass *(Lolium rigidum)* Shepherd's purse *(Capsella bursa-pastoris)* Smallflower mallow *(Malva parviflora)* Sow thistle *(Sonchus oleraceus)* Speedwell *(Veronica persica)* Wild carrot *(Daucus carota)* Wild mustard *(Sisymbrium spp.)* Wild turnip *(Brassica rapa)* Wireweed *(Polygonum aviculare)* ***Suppression only*** Chickweed *(Stellaria media)* Wild radish *(Raphanus raphanistrum)*	Prior to weed emergence in autumn	0.5 – 1.0 kg/ha	Apply BARON in the autumn following harvest and just prior to autumn weed germination. Applications following autumn rains may result in crop damage. Use the lower rate on medium soils and higher rate on heavy soils. DO NOT mix surfactants or any other pesticides with BARON.

Crop safety

Apply this product carefully. Spray drift may cause serious damage to other desirable plants. DO NOT use on sandy soils until small-scale tests show that the product will not cause crop damage. Some leaf spotting can occur due to the activity of the spray, or from rain splashes from the soil following application, and the extent of damage may vary between varieties. The size and age of transplanted seedlings may also affect the selectivity of Baron WG, with younger seedlings potentially more susceptible. Conduct small - scale crop safety tests prior to treating large numbers of plants.

CAUTION

The selectivity of Baron WG to transplanted seedlings may be affected by applications of adjuvants (e.g. wetting agents, oils, etc) to the leaves up to 10 days before or after the application of Baron WG. Check with your seedling supplier prior to applying Baron WG.

AgNova Technologies Pty Ltd
PO Box 2069 Box Hill North
Victoria 3129 Australia
Ph 03 9899 8100