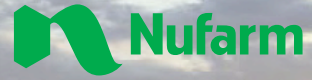


FACTOR  
TECHGUIDE



AUSTRALIAN  
THROUGH  
& THROUGH

# TARGETING GRASS WEEDS





Nufarm's Factor is a uniquely Australian herbicide built for Australian farmers to control one of Australia's most troublesome weeds -annual ryegrass. Butroxydim, the active ingredient of Nufarm's Factor, was first designed, synthesized and then developed in Australia. Nufarm's Factor has demonstrated control of annual ryegrass where other products struggle.

Nufarm's Factor can be mixed with other grass selective herbicides to give greater control of troublesome grass weeds. Nufarm's Factor can be used on a wide range of broadleaf crops including both summer and winter pulses, oilseeds and pastures.

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# NUFARM'S FACTOR - FEATURES AND BENEFITS

## FEATURES AND BENEFITS

### Superior "dim" chemistry

Annual ryegrass populations are becoming increasingly resistant to fop and/or dim herbicides. However trials conducted by independent weed researchers have shown that in many of these situations Nufarm's Factor can still achieve good control.

The use of Nufarm's Factor will not avoid the development of resistance, nor will it bring on resistance quicker than any other grass herbicide. Nufarm's Factor maximises your Group A options for grass control in broadleaf crops.

### Granular formulation with excellent dispersion properties

Nufarm's Factor granules disperse easily when simply poured into a half full spray tank with the agitation engaged.

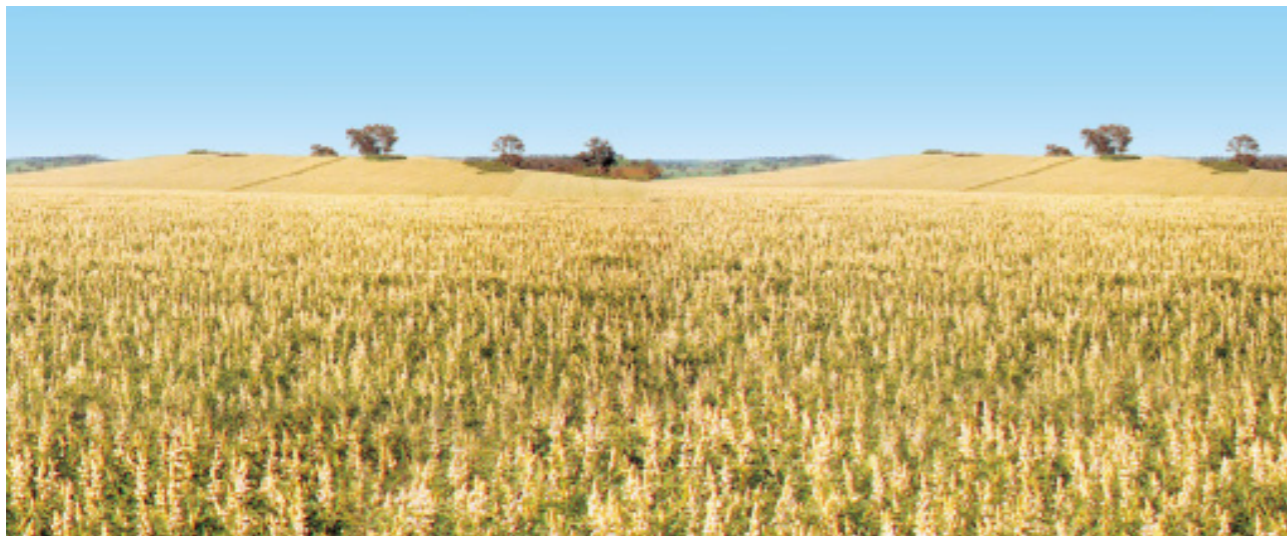
### Rainfast within 30 minutes

This is a handy feature considering that most spraying is being carried out in the middle of winter when rain can easily interrupt operation.

## CROP REGISTRATIONS

Nufarm's Factor is now registered on all the major winter and summer oilseed, grain legume and pasture legume species grown in Australia.

- Canola (conventional, TT, "IMI" varieties)
- Chickpeas
- Cotton
- Faba beans
- Field peas
- Lentils
- Linseed
- Lucerne
- Lupins
- Mung beans
- Navy beans
- Peanuts
- Soybeans
- Sunflowers
- Vetches
- White and subterranean clover
- Medic pastures



# WEED CONTROL

## ANNUAL RYEGRASS CONTROL

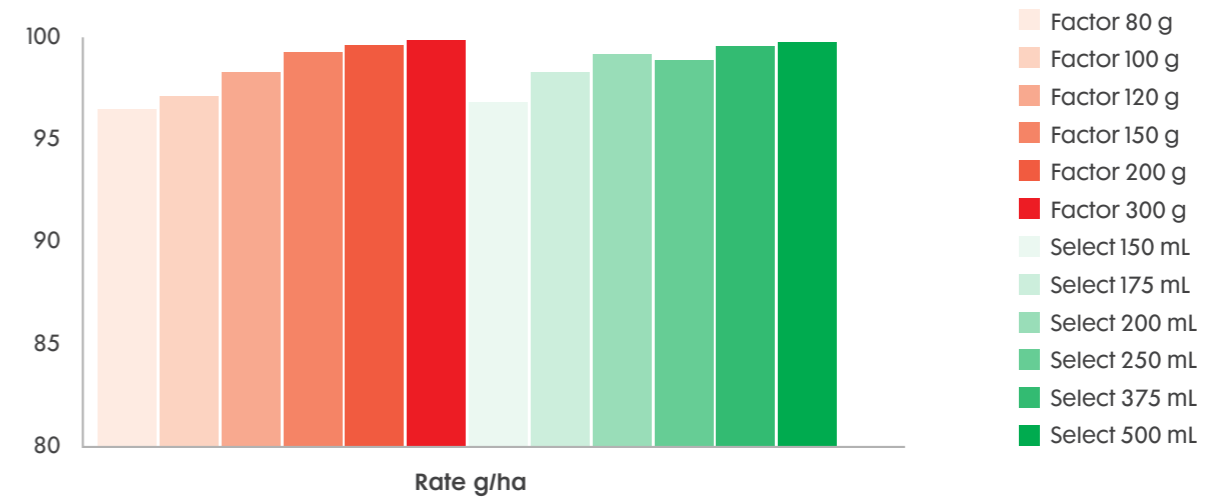
One of the major objectives behind the design and development of Nufarm's Factor was to boost the control of annual ryegrass to a level beyond that available from any other selective grass herbicide in the market.

Fifteen field efficacy trials on annual ryegrass show varying levels of control by Group A (fop and dim) herbicides were conducted in a range of pulse crops in WA, SA, Vic and NSW. The aim was to identify rates of Nufarm's Factor which would provide adequate ryegrass control.

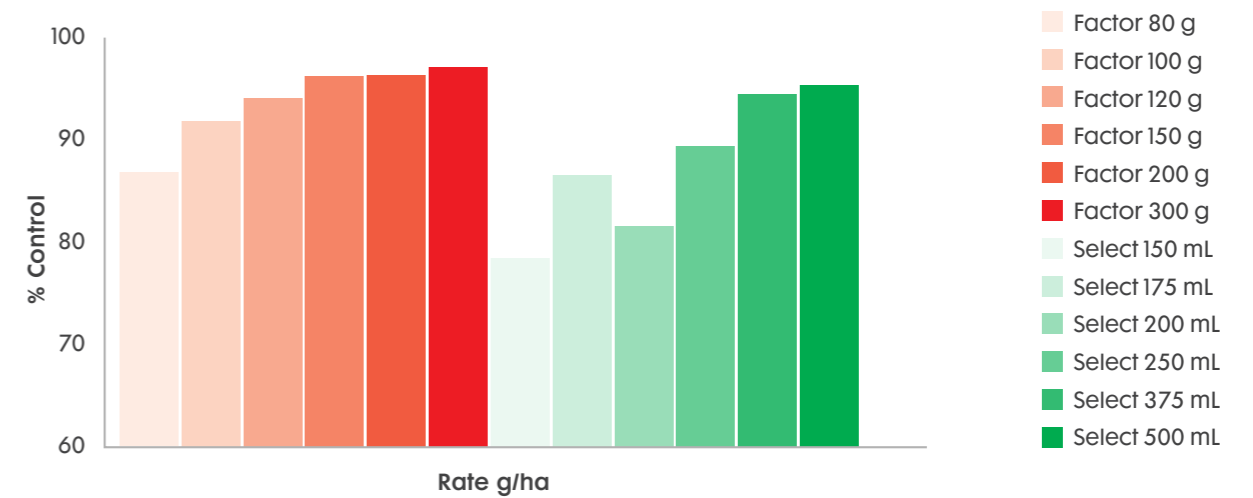
The trials covered 15 different populations of annual ryegrass. Weed control generally improved with an increase in the rate of butoxydim applied per hectare. The field trials showed activity increased up to a level of around 180g/ha with a smaller improvement as the rate was increased to 300g/ha.

Nufarm's Factor has a label rate range of 80 – 180g/ha which will provide good to excellent control of annual ryegrass (susceptible and fop resistant biotypes only). For annual ryegrass suspected of possessing a low level of resistance to dim herbicides the maximum label rate for the crop should be used. If possible conduct a resistance test first.

**Figure 1a: Annual ryegrass (*Lolium rigidum*) control in winter pulse crops susceptible ryegrass spikes/m<sup>2</sup>**



**Figure 1b: Annual ryegrass (*Lolium rigidum*) control in winter pulse crops resistant ryegrass spikes/m<sup>2</sup>**



# NUFARM'S FACTOR AND ANNUAL RYEGRASS RESISTANCE

Annual ryegrass resistance is widespread across most broadacre cropping regions in southern Australia. For weed resistance management, Nufarm's Factor is a Group A herbicide; the active ingredient butroxydim is a member of the cyclohexanedione (dim) group.

Some naturally occurring weed biotypes resistant to Nufarm's Factor and other Group A herbicides may exist through normal genetic variability in any weed population. These resistant individuals can eventually dominate the weed population if group A herbicides are used repeatedly. The development of resistant weed populations is generally governed by previous herbicide use.



Resistant ryegrass populations may exhibit differing levels of resistance to different Group A herbicides. Recent research has helped to explain why this happens. There are two main mechanisms whereby plants develop an ability to tolerate a previously lethal herbicide. These are known as "Metabolic" and "Target" site resistance.

## Metabolic resistance

Metabolic resistance is the mechanism whereby the cereal selective Group A herbicides Achieve® (tralkoxydim) and Hoegrass® (diclofop) are tolerated by cereals. A range of cytochrome P450 oxidase enzymes within the cell contents detoxify the active ingredient before it reaches the meristem or growing point.

## Target site resistance

Target site resistance is the main mechanism in annual ryegrass responsible for the failure of previously potent herbicides. The target site of the enzyme upon which the herbicide acts is altered due to random mutations thus rendering a previously effective herbicide ineffective.

For Group A herbicides which all inhibit ACCase there are now known to be at least 7 mutations in the amino acid sequence which confer resistance to one or more members of this mode of action group.

This explains why in the field differential responses to fops and dims can be seen, depending on which mutation is present. Butroxydim and clethodim appear to be the least affected by these 7 mutations, the exact reason why is not known.

The rate of herbicide used can also play a large part in the level of weed control achieved. Weeds containing only one copy of the resistant gene will be better controlled if a robust rate is used. Weeds with two copies of the resistant gene will not be well controlled. However just increasing rate is not a substitute for adoption of a sound integrated weed management strategy to help manage annual ryegrass.

## POT TRIALS

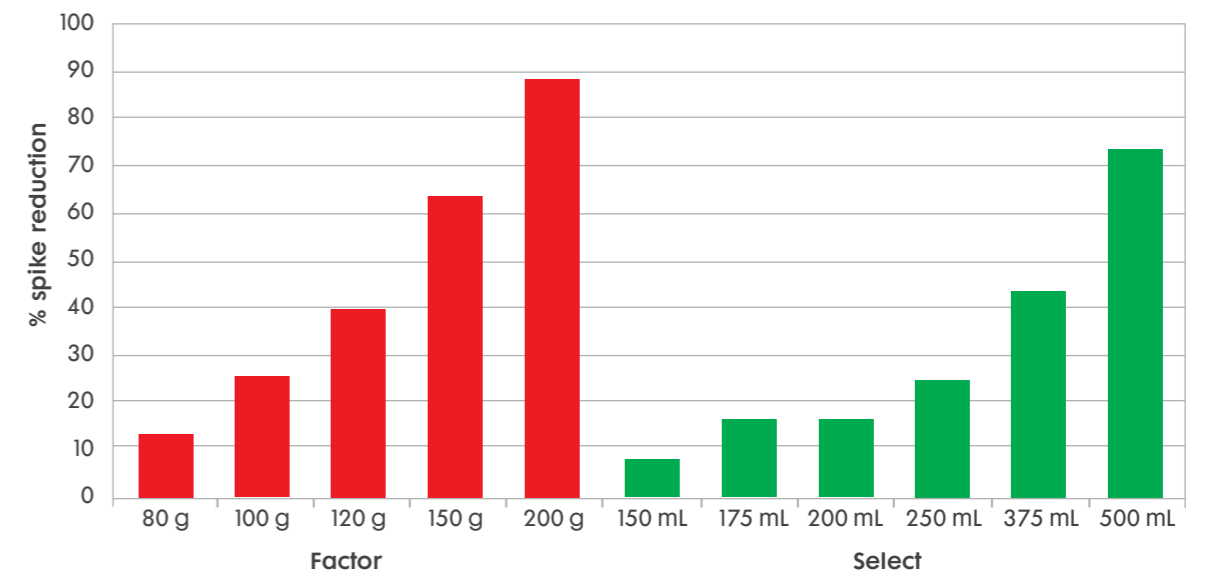
Pot trials were conducted by Plant Science Consulting in Adelaide to test the response of a range of ryegrass populations to the more effective dim herbicides Nufarm's Factor. These populations had been identified from commercial resistance testing to be less responsive to Select.

In the trial that appears below 10 populations, 6 from WA, 3 from SA and 1 from Vic were tested. The summary by Dr Peter Boutsalis who conducted the trial was as follows: "Ten Select-resistant annual ryegrass biotypes were treated with a dose range (3.5 g ai/ha to 122 g ai/ha) of Select and Nufarm's Factor. Verdict® (Exert 520) was also included to confirm Group A fop resistance. The trial was conducted outdoors in early spring. All of the biotypes except for the sensitive control biotype were highly resistant to the fop herbicide Verdict. Nufarm's Factor was the most effective herbicide on the resistant ryegrass biotypes.

**In Summary,**  
Nufarm's Factor maximises your chance of controlling annual ryegrass with a Group A herbicide.

The use of Nufarm's Factor will not avoid the development of resistance, nor will it bring on resistance quicker than any other grass herbicide.

**Figure 2: Control of 10 biotypes of annual ryegrass (*Lolium rigidum*) in a pot trial, 2005**



Location: University of Adelaide glasshouse

# IS 2 BETTER THAN 1?

## SHOULD I USE CLETHODIM OR BUTROXYDIM?

Herbicide resistance testing has shown that it is not uncommon to find populations of annual ryegrass plants within the same paddock that express multiple mutations in the amino acid sequence.

This can make the decision of which dim to choose for each paddock a difficult one. Herbicide resistance testing may assist in understanding each situation. This will only be accurate if the sample size is large enough. Trial data from the past 5 years indicates that where there are multiple mutations present in a paddock, a mixture of 2 dims can give a better result than using only one or the other, as shown in the trials below. All trial work has had the addition of 1% Supercharge® Elite to ensure the most robust weed control can be achieved.

Figure 3: % ARG control 49 DAA Walkaway, WA

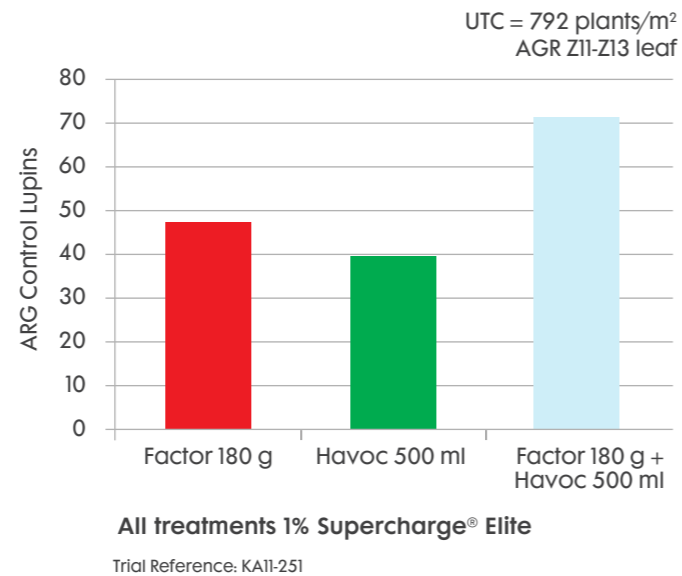
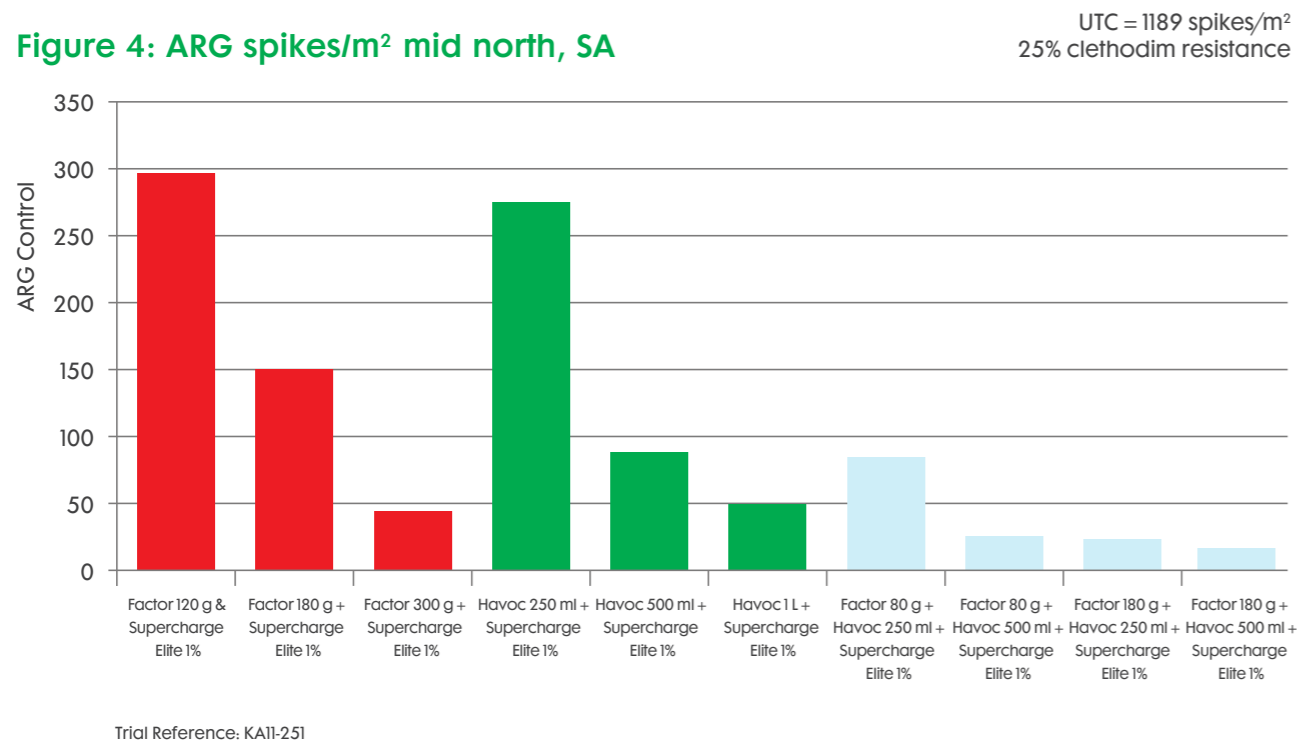


Figure 4: ARG spikes/m<sup>2</sup> mid north, SA



# HOW TO GET THE BEST OUT OF NUFARM'S FACTOR

## GROWTH STAGE FOR CANOLA CROPS

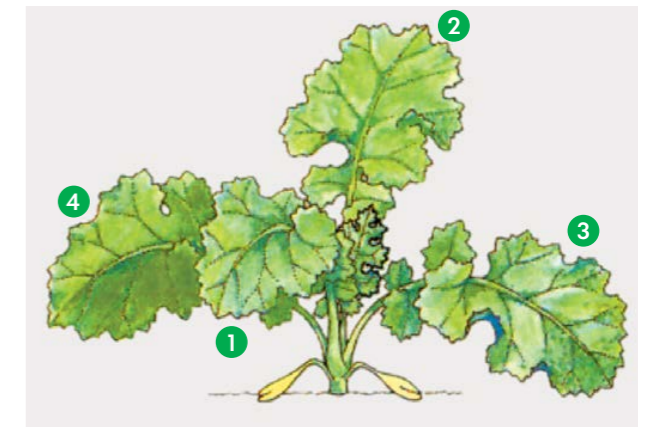
To minimise leaf symptoms, do not apply to any variety before the majority of plants are at the true 4 leaf stage (4th leaf expanded, 5th leaf emerging) Figure 5. Apply no later than the end of leaf development (Stage 1) and prior to stem elongation (Stage 3). Refer to Table 1.

Under certain conditions, all varieties may exhibit leaf symptoms and/or reduced early competitiveness. If this occurs canola yield is usually unaffected but in some instances may be reduced. Avoid spraying stressed crops, as crops growing under stress will show slower recovery. Avoid spraying practices that lead to over application such as double overlap, and spraying out corners.

For all other registered crops, Nufarm's Factor can be applied once they have reached the 2 true leaf stage (3rd leaf emerging), and prior to flowering.

Figure 5: 4 true leaf stage.

To minimise leaf symptoms, do not apply to any variety before the majority of plants are at the true 4 leaf stage (4th leaf expanded, 5th leaf emerging). Apply no later than the end of leaf development (Stage 1) and prior to stem elongation (Stage 3).



## METHOD OF APPLICATION

Good spray coverage is essential for maximum results. Spray equipment must be checked and calibrated accurately prior to application.

## BROADACRE USE

Water volumes per hectare will depend on nozzle selection and ground speed but should be in the range of 50 - 100 L/ha. Use higher volumes of spray (min 85 L/ha) to achieve better coverage of dense, vigorous weed infestations and/or if the nozzles used produce coarser than a fine spray quality (measured with water).

## AERIAL APPLICATION

The product may be applied through boom or Micronair units in 20 - 30 L of water per hectare. The use of the higher volume is preferred due to more reliable results.

# STAGES OF GROWTH DEVELOPMENT IN CANOLA

Table 1. The phenological growth stages and BBCH-identification keys of canola are:

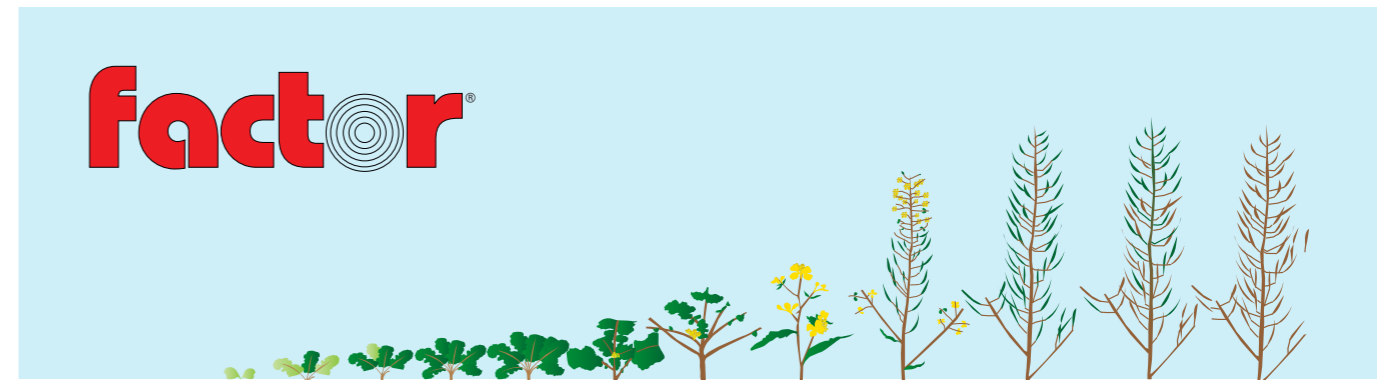
GROWTH STAGE	CODE	DESCRIPTION	GROWTH STAGE	CODE	DESCRIPTION
0: Germination	00	Dry seed	6: Flowering	60	First flowers open
	01	Beginning of seed imbibition		61	10% of flowers on main raceme open, main raceme elongating
	03	Seed imbibition complete		62	20% of flowers on main raceme open
	05	Radicle emerged from seed		63	30% of flowers on main raceme open
	07	Hypocotyl with cotyledons emerged from seed		64	40% of flowers on main raceme open
	08	Hypocotyl with cotyledons growing towards soil surface		65	Full flowering: 50% flowers on main raceme open, older petals falling
	09	Emergence: cotyledons emerge through soil surface		67	Flowering declining: majority of petals fallen
1: Leaf development <sup>1</sup>	10	Cotyledons completely unfolded	7: Development of fruit	71	10% of pods have reached final size
	11	First leaf unfolded		72	20% of pods have reached final size
	12	2 leaves unfolded		73	30% of pods have reached final size
	13	3 leaves unfolded		74	40% of pods have reached final size
	14	4 leaves unfolded		75	50% of pods have reached final size
	19	9 or more leaves unfolded		76	60% of pods have reached final size
3: Stem elongation <sup>2</sup>	30	Beginning of stem elongation: no internodes ("rosette")	77	70% of pods have reached final size	
	31	1 visibly extended internode	78	80% of pods have reached final size	
	32	2 visibly extended internodes	79	Nearly all pods have reached final size	
	33	3 visibly extended internodes	8: Ripening	80	Beginning of ripening: seed green, filling pod cavity
	39	9 or more visibly extended internodes		81	10% of pods ripe, seeds dark and hard
5: Inflorescence emergence	50	Flower buds present, still enclosed by leaves		82	20% of pods ripe, seeds dark and hard
	51	Flower buds visible from above ("green bud")		83	30% of pods ripe, seeds dark and hard
	52	Flower buds free, level with the youngest leaves		84	40% of pods ripe, seeds dark and hard
	53	Flower buds raised above the youngest leaves	85	50% of pods ripe, seeds dark and hard	
	55	Individual flower buds (main inflorescence) visible but still closed	86	60% of pods ripe, seeds dark and hard	
	57	Individual flower buds (secondary inflorescences) visible but still closed	87	70% of pods ripe, seeds dark and hard	
	59	First petals visible, flower buds still closed ("yellow bud")	88	80% of pods ripe, seeds dark and hard	
			89	Fully ripe: nearly all pods ripe, seeds dark and hard	
			9: Senescence	97	Plant dead and dry
				99	Harvested product

e, P.D.; H. Bleiholder, P. Langeluddecke, R. Stauss,

## Timing for Nufarm's Factor

1. Stem elongation may occur earlier than stage 19
2. Visibly extended internode n develops between leaf n and leaf n+1

References: Weber, E.; H. Bleiholder (1990). "Erläuterungen zu den BBCH-Dezimal-Codes für die Entwicklungsstadien von Mais, Raps, Faba-Bohne, Sonnenblume und Erbse - mit Abbildungen." Gesunde Pflanzen 42: 308–321. Lancashire T. van den Boom, E. Weber, A. Witzten-Berger (1991). "A uniform decimal code for growth stages of crops and weeds." Ann. Appl. Biol. 119 (3): 561–601.



## RAINFASTNESS

Nufarm's Factor is rainfast 30 minutes after application.

## ADJUVANTS



Always use Supercharge Elite at 1 L/100 L (1%) for ground application and 1 L/ha for aerial application.

The addition of a water conditioner such as ammonium sulphate (eg. Liase®) in the presence of high bicarbonate levels may improve product performance.

## MIXING NUFARM'S FACTOR

- Ensure that all in-line strainer and nozzle screens in the sprayer are 100 mesh or coarser.
- Fill the spray tank to between 50% - 75% with clean water.
- Engage and maintain agitation throughout the entire mixing and spraying procedure.
- Slowly add the required amount of granules directly to the spray tank by pouring as you would with a liquid. DO NOT dump the granules into the tank.
- DO NOT PRE-MIX THE GRANULES - the dispersion agents within the granule can be inactivated in insufficient water. The resulting 'slurry' may not disperse readily when added to the spray tank.
- Add the tankmix partner if tankmixing
- Add the required volume of Supercharge Elite
- Fill tank to desired volume
- Maintain agitation throughout spraying
- Do not leave spray solution standing overnight

## COMPATIBILITY

When broadleaf weed, insects or diseases are present in conjunction with grass weeds it is often desirable to tank mix Nufarm's Factor with other products to obtain the most efficient application. Nufarm has conducted compatibility testing of likely mixing partners.

The following recommendations are based on results from field and laboratory tests, all with 1% Supercharge Elite. Compatibility is defined as acceptable physical mixing, nil or generally transient crop effect and grass control within 10% of that from Nufarm's Factor alone. Performance of any tank mix will be better if the maximum rate of Nufarm's Factor is used and the weed growth stages are according to the label.

### INSECTICIDES

Pulses, canola, pasture

Astound Duo®, Imidan®, WG (pirimicarb), Dimethoate®.

### FUNGICIDES

Pulses

Penncozeb 750 DF, Fortress® (procymidone), SpinFlo®.

### TRACE ELEMENTS

Canola, pulses, pasture

EDTA chelates of Cu, Mn, Zn (such as Agrichem Supa range); sulphates of Cu, Mn, Zn (good quality, such as Agrichem Balance range).

Nufarm's Factor is not compatible with Lorsban® (reduced grass weed control); Brodal® or Eclipse® (increased crop effect).

Do not tank mix Nufarm's Factor plus Supercharge Elite with more than one of the above products before doing a jar test. However physical compatibility does not guarantee biological compatibility. Do not tank mix with other products or minerals without reference to a Nufarm representative.

**Table 1: A guide to the area treated by Nufarm's Factor**

FACTOR Rate/ha	Hectares covered by					
	1 kg	2 kg	3 kg	4 kg	5 kg	10 kg
80 g	12.5	25	37.5	50	62.5	125
100 g	10	20	30	40	50	100
150 g	6.7	13.3	20.0	26.7	33.3	66.7
180 g	5.6	11.1	16.7	22.2	27.8	55.6

## STORAGE CONDITIONS

Nufarm's Factor should be stored in a cool, well ventilated area. **DO NOT store in direct sunlight.** If stored in these conditions, Nufarm's Factor can be used with confidence.

## BOOM SPRAY HYGIENE

Canola and other broadleaf crops are extremely sensitive to sulfonylurea herbicides (eg. Glean®, Ally®) and Unity® residues. Concentrations as low as 1 ppm can cause significant damage. Plant back periods should be adhered to before sowing sensitive crops such as canola. Residue damage in crops can also be greater in the presence of grass selective herbicides.

Good boomspray hygiene is essential to alleviate risk of damage to sensitive crops following sulfonylurea application. The following steps should be adhered to before applying Nufarm's Factor or other grass herbicides to broadleaf crops:

1. Decontaminate immediately after using a sulfonylurea herbicides.
2. Drain tank then flush tank, boom and hoses with clean water for a minimum of 10 minutes.
3. Fill the tank completely with clean water then add 300mL household chlorine bleach (containing 4% chlorine) per 100L water. Prime the boom and hoses then allow to stand for 15 minutes with agitation engaged, then drain.
4. Always use fresh chlorine bleach (within 6 months of manufacture).
5. Repeat step 3. Leave to stand overnight for an especially thorough cleaning.
6. Nozzles and screens should be removed and cleaned separately.
7. To remove traces of chlorine bleach, rinse the tank thoroughly with clean water and flush through hoses and boom.



## STRESS CONDITIONS

Stress conditions occur when conditions are not optimum for plant growth, and therefore result in reduced uptake of the selective herbicide. Moisture stress is most common and is a particular problem, whether caused by drought or short term water deficit caused by high temperatures and/or low humidity or by prior use of herbicides resulting in stunted root growth of weeds. If possible, wait for an effective rain or irrigation before spraying to improve weed control.

Other stress situations to be aware of are those caused by frost, insect damage, waterlogging and extended cold conditions.

For best results spray younger plants that are not stressed, "dim" chemistry works best under warmer conditions.

### CAUTION:

**DO NOT use chlorine bleach with ammonia.**

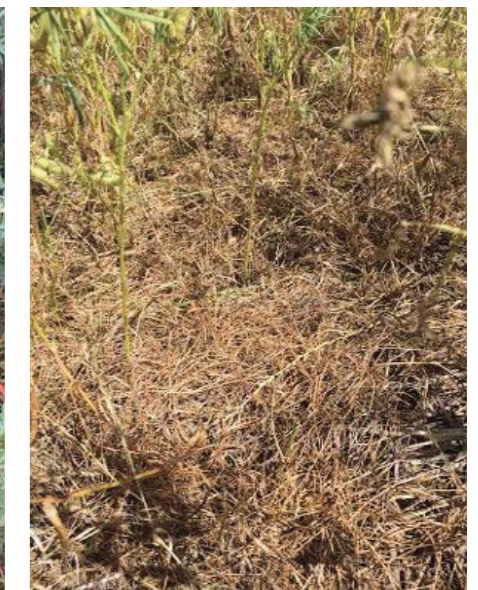
**For further details on how to decontaminate after using each product, please read the product label.**



Lupin crop with heavy annual ryegrass infestation



4 to 5 week after application of 180 g/ha Nufarm's Factor + 500 mL/ha clethodim + 1% Supercharge Elite



The final result

Images courtesy of Mitchell Tuffley 2015

# DIRECTIONS FOR USE

CROP	WEEDS CONTROLLED	WEED STAGE	STATE	RATE PER HECTARE	CRITICAL COMMENTS
Chickpeas Faba beans Field peas Lentils Linseed Lucerne Lupins Vetches ( <i>Vicia</i> spp.) White and Subterranean clover and Medic pastures	Annual ryegrass ( <i>Lolium rigidum</i> ) Barley grass ( <i>Hordeum</i> spp.) Wild oats ( <i>Avena</i> spp.)	2 leaf to early tillering Zadoks 1223	All States	80 to 180 g*	Use the lower rates for younger weeds growing actively under ideal conditions. Use the higher rates for weeds that are predominantly at early tillering, or where denser populations are present or under less than ideal growing conditions or where some weed resistance to Group A herbicides is suspected. Because of the extreme variation of cross resistance present in annual ryegrass populations there is no guarantee that Nufarm's FACTOR will always provide consistently high levels of control but trials have shown that higher rates may be expected to perform better than lower rates.  For all crops apply in not less than 50 L water/ha.
	Annual ryegrass ( <i>Lolium rigidum</i> ) together with any of the following grasses Annual phalaris ( <i>Phalaris</i> spp.) Barley grass ( <i>Hordeum</i> spp.) Brome grass ( <i>Bromus</i> spp.) Volunteer cereals Wheat ( <i>Triticum aestivum</i> ) Barley ( <i>Hordeum vulgare</i> ) Oats ( <i>Avena sativa</i> ) Triticale ( <i>x Triticosecale</i> ) Wild oats ( <i>Avena</i> spp.)			80 to 180 g* # plus an effective rate of a fop herbicide such as fluazifop, haloxyfop, propaquizafop, or quizalofop	# Refer to the label of the partner herbicide for rates and specific directions for use.  Nufarm's FACTOR has good activity on barley grass and wild oats but is weaker on brome grass and volunteer cereals so the addition of a partner fop herbicide is generally recommended where any of these other weeds occur together with annual ryegrass.  For the partner herbicide use rates at the lowest end of the range recommended for the particular grass weed. Guidance can also be obtained from labelled tank mixes of the partner herbicide with other dim herbicides.

CROP	WEEDS CONTROLLED	WEED STAGE	STATE	RATE PER HECTARE	CRITICAL COMMENTS
Canola (conventional, TT, "IMI" varieties)	Annual ryegrass ( <i>Lolium rigidum</i> ) together with any of the following grasses Annual phalaris ( <i>Phalaris</i> spp.) Barley grass ( <i>Hordeum</i> spp.) Brome grass ( <i>Bromus</i> spp.) Volunteer cereals Wheat ( <i>Triticum aestivum</i> ) Barley ( <i>Hordeum vulgare</i> ) Oats ( <i>Avena sativa</i> ) Triticale ( <i>x Triticosecale</i> )	2 leaf to early tillering Zadoks 1223	All States	80 g* # plus an effective rate of a fop herbicide such as fluazifop, haloxyfop, propaquizafop, quizalofop	Always apply with Supercharge® Elite at 1 L/100 L of spray solution. For aerial application apply Supercharge® Elite at a rate of 1 L/ha.  Warning Canola can be sensitive to Nufarm's FACTOR. DO NOT use more than 80 g/ha on canola.  To minimise risk of crop damage, do not apply to any variety before the majority of plants (80%) are at the true 4 leaf stage (4th leaf expanded, 5th leaf emerging).  Apply no later than the end of leaf development (Stage 1*) and prior to the commencement of stem elongation (Stage 3*). Refer to Crop Safety section. Under certain conditions, all varieties may exhibit leaf symptoms and/or reduced early competitiveness. If this occurs, canola yield may be reduced.  Avoid spraying stressed crops as crops growing under stress will show slower recovery.  Avoid spraying practices that lead to over application such as double overlap, and spraying out corners.  Nufarm's FACTOR has good activity on barley grass and wild oats but is weaker on brome grass and volunteer cereals. The addition of a partner fop herbicide (eg. Exert® 520) is generally recommended where any of these other weeds occur together with annual ryegrass. Use the partner at the lower end of the range recommended for the particular grass weed.  Guidance can also be obtained from labelled tank mixes of the partner herbicide with other dim herbicides.

## RESTRAINTS:

- DO NOT treat weeds that are not actively growing or are growing under stress. Under such circumstances the biological processes of the weeds slow down and Nufarm's Factor transport in the weed can be drastically reduced, resulting in an incomplete kill or suppression only of the weeds.
- DO NOT apply to crops or weeds which are suffering moisture stress (waterlogged or drought affected), insect, disease or nutritional disorders, under conditions of prolonged high temperatures or frost affected (or if frosts are imminent) or stress from previous herbicide or foliar fertiliser treatment.
- DO NOT apply to annual grass weeds after mid-tillering.
- DO NOT apply at flowering stage of weeds.
- DO NOT apply at flowering stage of crop.
- NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.



CROP	WEEDS CONTROLLED	WEED STAGE	STATE	RATE PER HECTARE	CRITICAL COMMENTS
Lucerne Mungbeans Navy beans Peanuts Soybeans	Echinochloa species - Awnless barnyard grass ( <i>E. colona</i> ) - Barnyard grass ( <i>E. crus-galli</i> ) - Japanese millet ( <i>E. utilis</i> ) Digitaria species - Crab grass ( <i>D. sanguinalis</i> ) - Summer grass ( <i>D. ciliaris</i> ) Chloris species - Feather top Rhodes grass ( <i>C. virgata</i> ) - Windmill grass ( <i>C. truncate</i> ) Setaria species - Dwarf setaria ( <i>S. italica</i> ) - Whorled pigeon grass ( <i>S. verticillate</i> ) Brachiaria species - Green summer grass ( <i>B. subquadripara</i> ) - Velvet grass ( <i>B. windersii</i> ) Volunteer Crops - Maize ( <i>Zea mays</i> ) - Sorghum ( <i>Sorghum bicolor</i> ) Crowsfoot grass ( <i>Eleusine indica</i> ) Dinebra ( <i>Dinebra reflexa</i> ) Early spring grass ( <i>Eriochloa pseudoacrotricha</i> ) Johnson grass ( <i>Sorghum halepense</i> ) (seedling) Liverseed grass ( <i>Urochloa panicoides</i> ) Spiny burr grass ( <i>Cenchrus incertus</i> )	2 leaf to early tillering Zadoks 12-232	QLD, NSW, VIC & NT only	120 g or 180 g*	Use the lower rate for the control of seedling grasses at the pre-tillering growth stage and growing under good conditions. Use the higher rate for control of grasses at the early tillering (2 to 3 tillers) growth stage. Aerial application - see Spraying Instructions.



CROP	WEEDS CONTROLLED	WEED STAGE	STATE	RATE PER HECTARE	CRITICAL COMMENTS
	Eragrostis species - Elastic grass ( <i>E. tenuifolia</i> ) - Mexican love grass ( <i>E. mexicana</i> ) - Stink grass ( <i>E. cilianensis</i> )	2 leaf to 5 leaf but prior to tillering		120 g*	For the control of pre-tillering grasses only. Do not apply to tillered grasses.
	Volunteer cereals - Wheat ( <i>Triticum aestivum</i> ) - Barley ( <i>Hordeum vulgare</i> )			180 g*	For the control of grasses from 2 leaf to early tillering only (max. 2 tillers), prior to stem elongation or booting.
	Other grasses Coast button grass ( <i>Dactyloctenium aegyptium</i> ) Grader grass ( <i>Themeda quadrivalvis</i> )	2 leaf to 5 leaf but prior to tillering		180 g*	Use for suppression only of pre-tillered grasses. Do not apply to tillered weeds.

## WITHHOLDING PERIODS

WITHHOLDING PERIOD PRIOR TO HARVEST NOT REQUIRED WHEN USED AS DIRECTED

Canola, chick peas, clover, faba beans, field peas, lentils, linseed, lucerne, lupins, medics, mung beans, navy beans, peanuts, soybeans, sunflowers, vetches: **DO NOT GRAZE OR CUT FOR STOCK FEED FOR 14 DAYS AFTER APPLICATION**

Cotton: **DO NOT GRAZE OR CUT FOR STOCK FEED. DO NOT FEED COTTON TRASH TO LIVESTOCK**

\* Always apply with Supercharge Elite at 1 L/100L of spray solution of spray solution. For aerial application apply Supercharge Elite at a rate of 1 L/ha.

Note: Does NOT control winter grass (*Poa annua*), silver grass (*Vulpia spp.*), nut-sedge (*Cyperus spp.*) and broadleaf weeds.



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