

Product Name: Overwatch eXL Granules Herbicide
APVMA Approval No: 89781/135745



Label Name:	Overwatch eXL Granules Herbicide
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Signal Headings:	READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	750 g/kg BIXLOZONE
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Mode of Action:	<table><tr><td>GROUP</td><td>13</td><td>HERBICIDE</td></tr></table>	GROUP	13	HERBICIDE
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Statement of Claims:	Statement of Claims: For control of Annual ryegrass, Bifora, Hogweed/wireweed, lesser loosestrife, silvergrass and sowthistle and suppression of Barley grass, Bedstraw, Brome grass, Capeweed, Phalaris, Prickly lettuce, Wild oats and Wild radish in wheat, barley, canola, faba beans and field peas.
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Net Contents:	1 kg - 20 kg
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Restraints:	This section contains file attachment.
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Directions for Use:	This section contains file attachment.
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Other Limitations:	
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Withholding Periods:	<p>Harvest: Barley, Canola, Wheat, Faba beans and Field peas: NOT REQUIRED WHEN USED AS DIRECTED</p> <p>Grazing/Stockfood: Barley, Canola, Wheat, Faba beans and Field peas: DO NOT HARVEST, GRAZE OR CUT FOR STOCKFOOD OR FOR SEED FOR 8 WEEKS AFTER APPLICATION</p>
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Trade Advice:	
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General Instructions:	This section contains file attachment.
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Resistance Warning:	<p>RESISTANCE WEED WARNING GROUP 13 HERBICIDE</p> <p>Overwatch eXL Granules is a member of the isoxazolidinone group of herbicides. The product has the inhibition of deoxy-D-xyulose phosphate synthase (DOXP inhibitors) mode of action. For weed resistance management this is a Group 13 Herbicide. Some naturally occurring weed biotypes resistant to Group 13 herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by Overwatch eXL Granules or Group 13 herbicides.</p> <p>Since the occurrence of resistant weeds is difficult to detect prior to use, FMC accepts no liability for any losses that may result from the failure of Overwatch eXL Granules to control the resistant weeds.</p> <p>Advice as to strategies and alternative treatments that can be used should be obtained from your local supplier, consultant, local Departments of Agriculture or Primary Industries, or FMC representative.</p> <p>To prolong the development of weed resistance it is strongly advised that growers use Overwatch eXL Granules as a part of an integrated weed management (IWM) program. Such programs incorporate different methods of weed management involving both chemical and non-chemical solutions. Weedsmart (weedsmart.org.au) and CropLife (croplifeaustralia.org.au) provide comprehensive information on IWM programs. Local agronomists and advisors should also be able to assist in implementing tailor made IWM programs for individual farming systems.</p>
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Precautions:	<p>RE-ENTRY PERIOD</p> <p>No re-entry period applies to Overwatch eXL Granules.</p>
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Protections:	<p>INTEGRATED PEST MANAGEMENT</p> <p>Toxic to beneficial arthropods. Not compatible with integrated pest management (IPM) programs utilising beneficial arthropods. Minimise spray drift to reduce harmful effects on beneficial arthropods in non-crop areas.</p> <p>PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT</p> <p>Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers.</p>
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Storage and Disposal:	STORAGE AND DISPOSAL
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	<p>Store in the closed, original container in a dry, cool, well-ventilated area, out of direct sunlight.</p> <p>Single-rinse or shake remainder into spray tank. Do not dispose of undiluted chemicals on site. Puncture and deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up for this purpose, clear of waterways, desirable vegetation and tree roots, in compliance with relevant local, state or territory government regulations. Do not burn empty containers or product.</p>
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Safety Directions:	<p>SAFETY DIRECTIONS</p> <p>May irritate the skin. Will irritate the eyes. Avoid contact with eyes and skin. When using together with other products, consult their label safety directions. When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and face shield or goggles. Wash hands after use. After each day's use, wash face shield or goggles and contaminated clothing.</p>
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First Aid Instructions:	<p>FIRST AID</p> <p>First aid is not generally required. If in doubt, contact a Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.</p>
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First Aid Warnings:	
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RESTRAINTS

DO NOT apply Overwatch® eXL Granules by aircraft.

DO NOT use disc-seeding systems when sowing barley or canola.

DO NOT apply by vertical sprayer.

DO NOT apply if heavy rains or storms are forecast within 3 days.

DO NOT irrigate to the point of field runoff for at least 3 days after application.

DO NOT apply within 3 metres of neighbouring non-target vegetation on all sides of the treated field to mitigate the risk of vapour drift following application.

Incorporate by sowing no later than 3 days after application.

DO NOT apply more than one application of Overwatch® eXL Granules per cropping season.

SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift.

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The buffer zones in the buffer zone table below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT apply unless the wind speed is between 3 and 20 kilometers per hour at the application site during the time of application.

DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.

DO NOT apply by a boom sprayer unless the following requirements are met:

- Spray droplets are not smaller than a COARSE spray droplet size category
- Minimum distances between the application site and downwind sensitive areas are observed (see the table titled 'Buffer zones for boom sprayers in the 'Mandatory buffer zones' section below).

Buffer zones for boom sprayers

Application rate	Boom height above the target canopy	Mandatory downwind buffer zones				
		Livestock areas	Natural aquatic areas	Vegetation areas	Bystander areas	Pollinator areas
Up to maximum label rate	0.5 m or lower	0 metres	0 metres	35 metres	0 metres	0 metres
	1.0 m or lower	30 metres	30 metres	110 metres	0 metres	0 metres

DIRECTIONS FOR USE

CROPS	WEED	RATE	CRITICAL COMMENTS
Wheat, Barley, Canola, Faba beans and Field peas	<p>Annual ryegrass (<i>Lolium rigidum</i>), Bifora (<i>Bifora testiculata</i>), Hog weed/wireweed (<i>Polygonum aviculare</i>), Lesser loosestrife (<i>Lythrum hyssopifolia</i>), Silvergrass (<i>Vulpia bromoides</i>) Sowthistle (<i>Sonchus oleraceus</i>),</p> <p>Suppression of: Barley grass (<i>Hordeum murinum</i>) Bedstraw (<i>Galium tricornutum</i>), Brome grass (<i>Bromus</i> spp), Capeweed (<i>Arctotheca calendula</i>), Phalaris (<i>Phalaris paradoxa</i>). Prickly lettuce (<i>Lactuca</i> spp.) Wild oats (<i>Avena fatua</i>), Wild radish (<i>Raphanus raphanistrum</i>)</p>	670 g/ha	<p>Apply prior to sowing and incorporate by sowing (IBS) with knife point tynes and press wheels. Use seeding systems that can ensure accurate seed placement and adequate spatial separation of seed and herbicide. The minimum sowing depth is 1.5 cm for canola, or 3 cm for all other crops.</p> <p>Only use in knife point tyne and press wheel seeding systems when planting Barley and Canola. Best results are achieved when applied to a moist soil profile and sowing occurs soon after application.</p> <p>Refer to GENERAL INSTRUCTIONS for recommendations of best use.</p> <p>CAUTION: Where soil factors are typically expected to result in less vigorous or lower yielding crops, the use of Overwatch® eXL Granules may result in incidences of elevated crop phytotoxicity.</p> <p>Efficacy of Overwatch® eXL Granules can be reduced by the following factors (alone or in combination):</p> <ul style="list-style-type: none"> • Excessively cloddy soil which create shadow areas that do not allow for uniform spray coverage of soil • Depth and distribution of weed seed. Weed seeds germinating from moist soil deeper in the profile may not be controlled. Also seeds that germinate from the base of an overturned clod of soil which has no treated soil to pass through. • Late germinating weeds. • Poor performance of the knockdown herbicide application on established weeds. Overwatch® eXL Granules does not control established weeds. • Heavy rainfall causing runoff removes the active from the desired soil area. Erosion of treated soil will also cause gaps in soil coverage allowing weeds to germinate unhindered. • Heavy stubble load (>50% ground coverage) may restrict the amount of active reaching the soil. This is especially true in cases where the stubble is lying on the ground. • Paddocks covered in ash following stubble burning • Insufficient soil moisture to move the active within the soil for ready uptake. This greatly depends on soil type, however, in dry conditions this factor will be amplified in soils with clay content over 35%. • IBS application timing displaces treated soil away from the seed furrow therefore reducing the amount of active present in the seed furrow or on the 'shoulder' of the furrow. <p>Avoid overlapping spray swaths. Especially in corners and headlands as this may increase crop phytotoxicity.</p> <p>Heavy stubble load (>50% ground coverage) may lead to increased levels of phytotoxicity in the emerging crop.</p> <p>Refer to 'General Instructions' in this label for more crop safety recommendations.</p>

**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS
AUTHORISED UNDER APPROPRIATE LEGISLATION.**

GENERAL INSTRUCTIONS

Overwatch® eXL Granules Herbicide is a soil applied, pre-emergent herbicide that is absorbed by the roots and shoots of germinating plants. It is upwardly transported via the plants xylem / transpiration system. The mode of action is through blocking carotenoid biosynthesis, after absorption susceptible germinating plants are deprived of protective carotenoids which disrupts their ability to photosynthesise. Weed seedlings that have absorbed Overwatch® eXL Granules commonly emerge with a bleached and/or purple appearance. The seedlings then rapidly desiccate over a few weeks when their seed energy store is depleted.

Apply prior to sowing and incorporate by sowing (IBS) with knife point tynes and press wheels (KPPW). Activity of Overwatch® eXL Granules requires placement near germinating seeds and in broadacre cropping this is most consistently achieved by mechanical incorporation. Best results are achieved when applied to a moist soil profile and sowing occurs soon after application. Weed control may be significantly reduced where there is insufficient soil moisture to mobilise the active for uptake of the germinating weed seedling. This can be exaggerated when the weeds germinate from depth and if there is sufficient moisture for sustained growth.

APPLICATION

Ensure complete and uniform spray coverage on soil. Reduced effectiveness may occur where there is reduced contact of the herbicide with the soil surface. Spray coverage may be compromised where application is made to a ridged or excessively cloddy soil surface or where cover of crop or weed residues restrict contact with the soil surface. Efficacy may be unsatisfactory if ground cover is shielded by heavy stubble. For example, stubble can be observed in header rows where stubble and trash has not been distributed evenly. Stubble lying horizontally on the ground will have higher active ingredient interception than standing stubble. It is best to delay application to recently burnt paddocks or windrows until rainfall occurs to disturb the layer of ash as Overwatch® eXL Granules may be strongly adsorbed to ash therefore inhibiting passage through to the soil.

Application to paddocks with excessive stubble load (>50% ground coverage) may lead to increased levels of bleaching to the emerging crop. The level of weed control achieved by Overwatch® eXL Granules depends on the positioning of weed seed relative to the layer of treated soil. Weeds that germinate from deeper within the soil profile may escape due to a lack of herbicide treated soil solution in that root zone. This occurs where the soil has undergone recent disturbance (e.g. tillage) whereby the weed seed was incorporated from the soil surface lower into the soil profile or where application is to a dry surface and the weed seeds are located deeper in the profile in sufficient moisture to provide vigour to break through the treated soil zone above. This is particularly relevant for weeds like Annual ryegrass which take up Overwatch® eXL Granules predominantly via their roots.

As with all pre-emergent herbicides, it is important that treated fields are constantly monitored for weed germinations throughout the season and treated with corrective post-emergent herbicides as required.

Avoid holding Overwatch® eXL Granules spray solutions overnight in equipment. If this occurs ensure that the spray solution is vigorously agitated so that the product is thoroughly resuspended.

In case of equipment breakdown, flush spray lines out and maintain agitation on the spray vessel to prevent settling.

SEED PLACEMENT & EQUIPMENT

Only apply prior to sowing at a minimum depth of 1.5 cm (canola), and of 3 cm (all other crops) below the soil surface. This requirement is to minimise phytotoxicity to the emerging crop. Sowing with knife points and press wheels is regarded as the safest sowing configuration when using Overwatch® eXL Granules. Crop safety when using disc seeding systems is variable based on seed placement and influence of stubble, whereby causing insufficient soil cover to the seed. Overwatch® eXL Granules should be applied prior to sowing and incorporated by sowing using knife point and press-wheel equipment. Incorporation with a knife point and press-wheel may result in reduced weed control in the drill row. If using a knife point and press-wheel planter, adjust working speed to avoid excessive soil throw into the adjoining seeding row. Weeds germinating from depth, weeds about to emerge or emerged weeds not controlled by knockdown herbicides may not be controlled by Overwatch® eXL Granules.

ENVIRONMENTAL CONDITIONS

Overwatch® eXL Granules requires adequate soil moisture for effective weed control and is most effective when applied evenly to moist soils just prior to incorporation by sowing. Sufficient rainfall soon after application allows Overwatch® eXL Granules to move with soil moisture into the weed's root zone therefore increasing uptake potential

CROP SAFETY

For all crops, there may be some risk of interim crop phytotoxicity. In most situations, phytotoxicity is expressed as bleaching of the older leaves. The effect is transient and generally localized as the new leaves emerge unaffected. Crop bleaching disappears and there is no yield penalty.

In serious cases of overdosing or unfavourable environmental conditions, phytotoxicity can also lead to stunting and a reduction in crop plant populations (or thinning). Incidences of elevated crop phytotoxicity may occur in the following situations:

- Overlapping of spray swaths effectively doubling the desired application dose rate
- Heavy rain, irrigation or strong wind soon after planting causing treated soil erosion or solubilised active moving into the seeding furrow concentrating Overwatch® eXL Granules on top of the germinating crop seedling
- High/heavy rainfall events in light soil types with low organic content leaching the active ingredient into the crop's root zone. This situation may also occur if Overwatch® eXL Granules is applied to dry soil with limited soil/carbon absorption taking place. In light soils, bleaching of crops can still occur >1 month after application if a heavy rainfall event occurs.
- Increased phytotoxicity may be observed when crops are stressed due to various factors such as:
 - exposure to other herbicides used in a tank mix, which may be causing a reduction in crop establishment, vigour or development (see COMPATABILITY, below)
 - excessively wet / waterlogged soils, drought conditions, unseasonal heat, severe frost
 - crop disease, nematode or insect damage
 - seed treatment / weathered seed stock causing poor and/or slow germination
 - depth of seed placement causing delayed and slow germination
 - variation in seeding depth due to damaged, worn or incorrectly set-up tines
 - soil type variation in the paddock that results in shallower seeding e.g. gravel rise
 - excessive soil alkalinity or acidity and/or poor or unbalanced nutrient status
 - sowing crops outside of the ideal sowing window (recommended by seed company)
 - compaction (e.g. wheel tracks)
- Above optimal operating speed of sowing – throwing treated soil into adjacent seed furrows
- Shallow seeding depth. Any seedlings germinating within 3 cm of soil may be at risk of increased crop phytotoxicity.
- When Overwatch® eXL Granules is applied in conjunction with other herbicides which may cause crop phytotoxicity. It is the responsibility of the end-user to understand all risks associated with using other herbicides in a tank-mix with Overwatch® eXL Granules. Ensure that all precautions on the label of the tank mix partner are closely followed. Refer to 'Compatibility' section of this label for further detail on tank-mix compatibility or contact an FMC representative.

SPRAY EQUIPMENT

Always ensure the sprayer is clean, using a suitable tank cleaner as directed. Defer to the most rigorous cleanout procedure if tank mixing with a partner. It is recommended that Overwatch® eXL Granules be applied in at least 80 L/ha and as a minimum **coarse** quality spray.

The most preferred application regime for Overwatch® eXL Granules involves use of:

- Standard boom ground sprayers fitted with by-pass or mechanical agitation
- TeeJet TTI nozzles operated at between 3 and 5 bar and angled backwards to direction of travel to reduce horizontal movement
- narrow nozzle spacing of 25 – 50 cm
- a minimum application volume of 60 L water/ha on bare soil; 80L/ha in light standing stubble and 100 L/ha in heavy stubble situations
- a maximum travel speed of 20 km/h, preferably 16 km/hr
- the minimum boom height that still ensures double overlap

COMPATIBILITY

Overwatch® eXL Granules is formulated as a water dispersible granule. It has been shown to be physically compatible with the following herbicide active ingredients:

Atrazine, Glyphosate (IPA salt formulations), Metribuzin, Metazachlor, Pendimethalin, Propyzamide, Prosulfocarb, Triallate, Trifluralin, Terbutylazine, Pyroxasulfone, S-Metolachlor.

When Overwatch® eXL Granules is applied in conjunction with other herbicides which may cause crop phytotoxicity, it is the responsibility of the end-user to understand all risks associated with using other herbicides in a tank-mix with Overwatch® eXL Granules. When mixing Overwatch® eXL Granules with other compatible products, refer to and follow the critical instructions on tank-mixing for any tank mix partner(s). This information will be available either on the mix partner product label or in supporting literature for these products.

A comprehensive physical compatibility guide for Overwatch® eXL Granules is available online (www.overwatchherbicide.com.au), from your Overwatch® accredited agronomist, or refer to your point of purchase or local FMC representative for further advice on compatibility with specific product formulations.

Ensure sprayer and nozzle filters are clean before preparing the spray mixture.

Half fill the spray tank with water, and with agitators in motion, add the correct amount of Overwatch® eXL Granules. If loading the spray unit from the top hatch, add Overwatch® eXL Granules slowly, without dumping the content of the bags all at once, into the spray tank. Once transferred to the spray tank, ensure that the product is fully dispersed before adding further products to the spray tank. Agitation of the spray tank must continue before and during spraying.

If transferring the product via batch handler, granny pot or granule hopper, only transfer the contents to the spray tank once it is half filled with water, and with agitators in motion. If batching in a nursery tank, never add another product to Overwatch® eXL Granules at this stage. Transfer the contents to the main tank only once all the rod-shaped granules have dispersed. Add the tank mix partner(s) to the main tank in the sequence listed below. Agitation of the spray tank must continue before and during spraying.

When mixing Overwatch® eXL Granules in a tank with other products suited for pre-emergent application timing, the following mixing sequence should be followed:

1. Water conditioning agents;
2. Water dispersible granules (WG) (e.g. Overwatch® eXL Granules);
3. Wettable powders (WP);
4. Flowables or suspension concentrates (e.g. Rustler® Herbicide)

5. Capsulated suspensions (CS) (e.g. Trojan® Insecticide)
6. Emulsifiable concentrates (EC); (e.g. Hammer® 400 EC Herbicide)
7. Water-soluble concentrates (e.g. glyphosate);
8. Surfactants and oils (e.g. Canopy®, BS1000^);
9. Soluble fertilisers.

Physical compatibility with Overwatch® eXL Granules should be determined prior to mixing with a product not listed above, or when mixing Overwatch® eXL Granules as a component of a 3-way tank mix. Always read the product label and any available technical advice for the manufacturer's tank mix recommendations and to determine individual product compatibility options and correct mixing orders for individual products. As tank mix partner formulations can vary substantially between manufacturers, and are beyond the control of FMC, and with the quality of spray tank water varying with location, all spray mixtures should be jar tested prior to mixing commercial quantities. Physical compatibility does not always guarantee biological compatibility and should be undertaken only with careful consideration.

SPRAYER CLEAN UP

To prevent settling of the product in the boom lines, please ensure that they are flushed in between loads. Ensure all dead spots in the lines have been addressed.

The sprayer must be decontaminated before being used to spray crops other than cereals and canola, faba beans and field peas. Ensure that the following operation is carried out in an area that is clear of waterways, homes and home gardens, desirable vegetation and tree roots, preferably in an area where drainings can be contained. If Overwatch® eXL Granules has been applied as part of a tank mix, adhere to the most vigorous Sprayer Clean Up process described for the tank mix partner products.

1. Drain sprayer completely and wash out tank, boom and hoses with clean water.
2. Drain again.
3. Fill the tank with clean water with agitation running and flush this rinse water through booms and hoses and allow the remaining water to agitate in the tank for 10 minutes.
4. Drain the sprayer completely.
5. Remove and clean filters in water.

Remove contaminated clothing after sprayer clean up, before entering areas where sensitive plants exist, e.g. home gardens, nurseries, greenhouses and other crops.

CROP ROTATION RECOMMENDATIONS

Overwatch® eXL Granules is predominantly broken down in the soil through microbial degradation. Microbial activity is typically favoured by moist and warm aerobic soils. Considerable variations in environmental, edaphic and agronomic factors affecting soil microbial activity, mean that it is not possible to eliminate all risks and potential for damage to following crops.

Minimum re-cropping intervals for Overwatch® eXL Granules have been recommended to minimise the risk of damage to rotational crops (see below). Rainfall less than the minimum rainfall required may result in extended re-cropping intervals. Prolonged dry periods and/or application to soils that do not favour breakdown (e.g. low organic matter) may impede microbial degradation, resulting in extended re-cropping intervals, even if interim rainfall exceeds the amount listed in the table below.

Phytotoxicity may also occur where crops are stressed (e.g. waterlogged) or not managed using good agricultural practices (e.g. excessive soil alkalinity or acidity and/or poor or unbalanced nutrient status) even if interim rainfall exceeds the amount listed in the table below.

Overwatch® eXL Granules treated areas may be replanted to any of the specified crops after the interval and rainfall indicated in the following table. For advice on crops and situations not listed in the table, contact FMC. If Overwatch® eXL Granules has been tank mixed, observe the re-cropping intervals for the tank mixture product.

Crop	Interval	Interim rainfall
Wheat	0 days	0 mm
Barley		
Canola		
Field pea		
Faba bean		
Chickpea	9 months	250 mm
Oats		
Sub clover		
Clover		
Medic		350 mm

^Provided there has been sufficient rainfall (estimated >250mm) after application to support microbial activity and degradation. Conditions that are not conducive to adequate soil microbial degradation may result in extended re-cropping intervals.

For advice on crops and situations not mentioned above, contact FMC.