



Overwatch® Herbicide

READ SAFETY DIRECTIONS BEFORE OPENING OR USING

ACTIVE CONSTITUENT:

400 g/L BIXLOZONE

CONTENTS:

20 L – 1000 L

GROUP **13** HERBICIDE

SC FORMULATION TYPE
Suspension
Concentrate

For control of certain grasses and broad leaf weeds in Wheat, Barley, Canola, Faba Beans and Field Peas as per the Directions for Use Table.

SAFETY DIRECTIONS

May irritate the skin and eyes. Avoid contact with skin and eyes. When opening the container and preparing the product for use, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing). Wash hands after use. After each day's use, wash contaminated clothing.

FIRST AID

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.

SAFETY DATA SHEET

Additional information is listed in the Safety Data Sheet available from www.fmccrop.com.au

GENERAL INSTRUCTIONS

Overwatch® Herbicide is a soil applied, pre-emergence herbicide that is absorbed by the roots and shoots of germinating plants. It is upwardly transported via the plants xylem / transpiration system. Overwatch® Herbicide mode of action is through blocking carotenoid biosynthesis. After absorption of Overwatch® Herbicide, susceptible germinating plants are deprived of protective carotenoids which disrupts their ability to photosynthesise. Weed seedlings that have absorbed Overwatch® Herbicide 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 tines and press wheels. Activity of Overwatch® Herbicide 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 either 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® Herbicide 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® Herbicide 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® Herbicide 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® Herbicide 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® Herbicide. 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® Herbicide 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® Herbicide.

ENVIRONMENTAL CONDITIONS

Overwatch® Herbicide requires adequate soil moisture for effective weed control. Overwatch® Herbicide is most effective when applied evenly to moist soils just prior to incorporation by sowing. Sufficient rainfall soon after application allows Overwatch® Herbicide 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 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® Herbicide 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® Herbicide is applied to dry soil with limited soil/carbon absorption taking place. In light soils, prolonged, transient 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 COMPATIBILITY, 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® Herbicide 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® Herbicide. 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.

RESISTANCE WEED WARNING

GROUP	13	HERBICIDE
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Overwatch® Herbicide is a member of the is oxazolidinone group of herbicides. 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® Herbicide or Group 13 herbicides.

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® Herbicide to control the resistant weeds.

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.

To prolong the development of weed resistance it is strongly advised that growers use Overwatch® Herbicide 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.

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® Herbicide be applied in at least 80 L/ha as a minimum coarse quality spray.

The most preferred application regime for Overwatch® Herbicide 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® Herbicide is formulated as a suspension concentrate. It has been shown to be physically compatible with the following herbicide products:

Atrazine, Crucial® Herbicide, Weedmaster® DST, Mentor® Herbicide, Sencor® 480 SC Selective Herbicide, Tenet® 500 SC Herbicide, Stomp® 440 Herbicide, Rifle® 440 Herbicide, Rustler® Selective Herbicide, Rustler® 900 WG Herbicide, Arcade® Herbicide, Nufarm Avadex® Xtra Selective Herbicide, Triflur X® Selective Herbicide, Trilogy® Herbicide, Terbyne® Xtreme 875 WG Herbicide, Sakura® Flow Herbicide, Sakura® 850 WG Herbicide, Chaser® S Herbicide. Overwatch® Herbicide is not physically compatible with high-load glyphosate present as potassium salt formulations.

When Overwatch® Herbicide 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® Herbicide. Ensure that all precautions on the label of the tank mix partner are closely followed.

A comprehensive physical compatibility guide is available online (www.fmccrop.com.au), from your local agronomist, or refer to your local FMC representative for further advice on compatibility.

Ensure sprayer and nozzle filters are clean before preparing the spray mixture. Half or three-quarter fill the spray tank with water, and with the agitators in motion, add the correct amount of Overwatch® Herbicide directly to the spray tank. Complete filling with agitators in motion. Agitation must continue before and during spraying.

When mixing Overwatch® Herbicide 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)/ Dry flowable products (DF);
3. Wettable powders (WP);
4. Flowables or suspension concentrates (e.g. Overwatch® Herbicide)
5. Emulsifiable concentrates (EC);
6. Water-soluble concentrates (e.g. glyphosate);
7. Surfactants and oils (e.g. Canopy®, Dead Sure®, BS1000®);
8. Soluble fertilisers.

Physical compatibility with Overwatch® Herbicide should be determined prior to mixing with a product not listed above, or when mixing Overwatch® Herbicide as a component of a 3-way tank mix. Always read the product label 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 the quality of spray tank water varying with location, all spray mixtures should be jar test 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.

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® Herbicide 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® Herbicide 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 recropping 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 recropping 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® Herbicide 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® Herbicide 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.

PRECAUTIONS

RE-ENTRY PERIOD

No re-entry period applies to Overwatch® Herbicide.

INTEGRATED PEST MANAGEMENT

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.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

Very toxic to aquatic life. **DO NOT** contaminate wetlands or watercourses with this product or used containers.

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well-ventilated area. **DO NOT** store for prolonged periods in direct sunlight.

5 – 200 L

Triple-rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point.

If not recycling, break, crush, or 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.

1000 L

Empty contents fully into application equipment. Close all valves and return to point of purchase or collection point for refill or storage.

RESTRAINTS:

DO NOT apply Overwatch® Herbicide by aircraft.

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

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

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® Herbicide 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 kilometres 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	Not required	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, Field peas and Faba beans	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>), 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>)	1.25 L/ha	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. 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. Refer to GENERAL INSTRUCTIONS for recommendations of best use. CAUTION: Where soil factors are typically expected to result in less vigorous or lower yielding crops, the use of Overwatch® Herbicide may result in incidences of elevated crop phytotoxicity. Efficacy of Overwatch® Herbicide can be reduced by the following factors (alone or in combination): <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® Herbicide 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. Avoid overlapping spray swaths. Especially in corners and headlands as this may increase crop phytotoxicity. Heavy stubble load (>50% ground coverage) may lead to increased levels of phytotoxicity in the emerging crop. Refer to 'General Instructions' in this label for more crop safety recommendations.

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

WITHHOLDING PERIODS:

HARVEST:

BARLEY, CANOLA, WHEAT, FABA BEAN AND FIELD PEA: NOT REQUIRED WHEN USED AS DIRECTED

GRAZING / STOCKFOOD:

BARLEY, CANOLA, WHEAT, FABA BEAN AND FIELD PEA: DO NOT HARVEST, GRAZE OR CUT FOR STOCK FOOD OR FOR SEED FOR 8 WEEKS AFTER APPLICATION.

NOTICE TO BUYER

To the extent permitted by the Competition and Consumer Act (2010) or any relevant legislation of any State or Territory (the "Legislation") all conditions and warranties and statutory or other rights of action, whether arising in contract or tort or whether due to the negligence of FMC or Seller, which buyer or any other user may have against FMC or Seller are hereby excluded provided however that any rights of the buyer pursuant to non-excludable conditions or warranties of the Legislation are expressly preserved. FMC hereby gives notice to buyer and other users that to the extent permitted by the Legislation it will not accept responsibility for any indirect or consequential loss of whatsoever nature arising from the storage, handling or use of this Product. Where permitted by the Legislation FMC's liability shall in all circumstances be limited to the replacement of the product, or a refund of the purchase price paid therefor.

The Product must be used and applied strictly in accordance with the label instructions and other directions for use. It is impossible to eliminate all risks associated with the use of this product. Such risks may arise from factors such as weather conditions, soil factors, off target movement, unconventional technique, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of FMC or the Seller. Buyer accepts these risks

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