

CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Nufarm
AVADExTRA
Selective Herbicide

ACTIVE CONSTITUENT: 500g/L TRI-ALLATE
SOLVENT: 471g/L LIQUID HYDROCARBON

GROUP J HERBICIDE

For the control of Wild oats in Wheat, Triticale, Barley, Chickpeas, Peas, Lupins, Faba beans, Linseed, Canola and Safflower and for use alone and in mixtures with TriflurX® for control of a range of grass and broadleaf weeds in no-till/min-till cropping systems, pre-sowing or incorporated by sowing (IBS) as per directions for use.

IMPORTANT: READ THE ATTACHED LEAFLET BEFORE USING THIS PRODUCT



Grow a better tomorrow.

Nufarm Australia Limited
 ACN 004 377 780
 103-105 Pipe Road
 Laverton North Victoria 3026
 Tel: (03) 9282 1000
 Fax: (03) 9282 1001
 nufarm.com.au

Contents: 20 Litres
 Contents: 110 Litres
 Contents: 200 Litres
 Contents: 1000 Litres

APVMA Approval No.: 56598/55835

STORAGE AND DISPOSAL

Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight. Triple or preferably pressure 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 bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm 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. Empty containers and product should not be burnt.

Envirodrum® 110L Mini Bulk Returnable Container

Store the original sealed Envirodrum in a cool well ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT tamper with the Micro Matic valve or the security seal. DO NOT contaminate the Envirodrum with water or any foreign matter. After each use of the product, please ensure that the Micro Matic coupler, delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the Envirodrum have been used, please return the empty Envirodrum to the point of purchase. The Envirodrum remains the property of Nufarm Australia Limited.

Refillable Containers: 1000L

Store in the closed, original container in a cool well ventilated area. DO NOT store for prolonged periods in direct sunlight. Empty contents fully into application equipment. Close all valves and return to point of sale for refill or storage.

SAFETY DIRECTIONS

Harmful if inhaled or swallowed. Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. DO NOT inhale vapour or spray mist. Avoid contact with eyes and skin. When opening the container and mixing and loading and preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length chemical resistant gloves and goggles and half facepiece respirator. When using the prepared spray wear cotton overalls buttoned to the neck and wrist or equivalent clothing and elbow length chemical resistant gloves. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, goggles and respirator and if rubber wash with detergent and warm water and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone 13 11 26). If swallowed, DO NOT induce vomiting. Give a glass of water. Avoid giving alcohol.

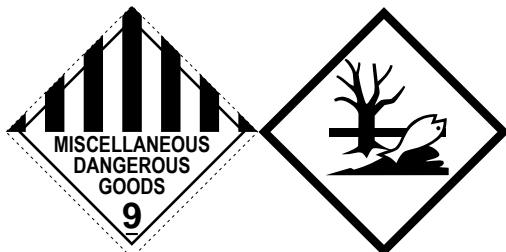
MATERIAL SAFETY DATA SHEET

For further information refer to the Material Safety Data Sheet (MSDS), which can be obtained from the supplier or the Nufarm website – www.nufarm.com.au

In case of emergency: Phone 1800 033 498 Ask for shift supervisor. Toll free 24 hours.

CONDITIONS OF SALE

"Any provisions or rights under the Competition and Consumer Act 2010 or relevant state legislation which cannot be excluded by those statutes or by law are not intended to be excluded by these conditions of sale. Subject to the foregoing, all warranties, conditions, rights and remedies, expressed or implied under common law, statute or otherwise, in relation to the sale, supply, use or application of this product, are excluded. Nufarm Australia Limited and/or its affiliates ("Nufarm") shall not accept any liability whatsoever (including consequential loss), or howsoever arising (including negligence) for any damage, injury or death connected with the sale, supply, use or application of this product except for liability which cannot be excluded by statute." BN / DOM / Barcode / /



ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CONTAINS TRI-ALLATE)
UN No: 3082
PACKING GROUP: III
HAZCHEM: 2 Z
IN AN EMERGENCY DIAL: 000 POLICE OR FIRE BRIGADE
IN AN EMERGENCY, SPECIALIST ADVICE NUFARM AUSTRALIA LIMITED 1800 033 498

"NOTE: MANUFACTURED IN AUSTRALIA – DG CLASS 9 MARKING ONLY REQUIRED FOR SHIPMENT TO TASMANIA – THIS IS DONE BY NUFARM LOGISTICS"

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READ COMPLETE DIRECTIONS FOR USE BEFORE USING THIS PRODUCT.

 **Nufarm** *Grow a better tomorrow.*

DIRECTIONS FOR USE

RESTRAINT: DO NOT apply by aircraft.

CROP	WEEDS CONTROLLED	STATE	RATE	CRITICAL COMMENTS
Barley, Triticale, Wheat Chickpeas, Faba beans, Lupins, Peas Linseed, Canola, Safflower	Wild oats	All States	1.6L/ha	<p>For use in full disturbance ('Conventional') seeding systems</p> <p>Apply immediately prior to or up to 3 weeks before sowing to a friable seedbed under conditions which will allow for the incorporation of the product to a depth of 2 to 4 cm with either a single or double pass of suitable Incorporation equipment (see Incorporation). A delay of 1 week between application and planting is recommended for Linseed.</p> <p>COMPLETE AND UNIFORM INCORPORATION OF Avadex[®] Xtra IS ESSENTIAL FOR WEED CONTROL. See GENERAL INSTRUCTIONS for details of incorporation.</p> <p>Avadex[®] Xtra may be used in crops undersown with legumes. For shallow-sown legume and oil seed crops, complete incorporation by cultivation to a depth of 5cm must be undertaken before planting.</p> <p>Avadex[®] Xtra may be tank mixed with Lusta[®] or Nugran[®] for control of annual ryegrass, paradoxa grass and certain broadleaf weeds prior to planting of wheat only. Avadex[®] Xtra may be tank mixed with Nufarm TriflurX[®] for control of annual ryegrass, annual phalaris, paradoxa grass, enhanced control of wild oats (emerging from top 1cm of seedbed) and wireweed. DO NOT apply less than 1 week prior to planting of wheat, barley, triticale and linseed (DO NOT use the tank mix in Qld). Incorporation of this tank mix should be within 4-5 hours of application. Refer to the TriflurX[®] label incorporation details. Read and follow label instructions, restraints, plant-back periods and safety directions for tank mix products.</p>
Wheat, Barley, Triticale and Canola ¹	Annual ryegrass (including Group D resistant biotypes) Suppression Soil Surface - Bromegrass (<i>Bromus diandrus</i>)	SA, Vic, NSW, Tas ¹ only	3L/ha	<p>For use in no-till/min-till Cropping Systems, Pre-Sowing or Incorporated by Sowing (IBS).</p> <p>Use only with knife/blade points and presswheels - refer to table 13 on TriflurX label for method of incorporation. Use the higher rate specified in the rate column on light sandy and sandy loam soils. Avoid soils, which are non-wetting or are likely to become clumpy or cloddy as they may suffer reduced weed control. Use the higher rate specified in the rate column for heavier stubble coverage and high weed density</p>

CROP	WEEDS CONTROLLED	STATE	RATE	CRITICAL COMMENTS
(cont.)	Wild oats (including Group A resistant biotypes)	WA, SA, Vic, NSW, Qld, Tas ¹ only	3.2L/ha	(cont.) situations. Stubble coverage above 40-50% ground cover can reduce weed control below acceptable levels. Suppression of Brome grass and Barley grass may be reduced in medium to high weed density situations. Use the higher rate specified in the rate column in tank mixtures with TriflurX for control of group D resistant annual ryegrass and group A resistant wild oats. Higher rates are likely to provide improved control levels of Brome grass, Wild oats, Cereal oats, Barley grass and Silver grass. Control of deep/late germinating weeds may be reduced. Insufficient incorporation of Avadex® Xtra will reduce Wild oat control. Control of annual ryegrass may be poor in the first years of practising no till/ min till.
	Annual ryegrass (including Group D resistant biotypes), Wireweed, Phalaris spp, Fumitory, Wild oats, (including Group A resistant biotypes) Cereal oats, Sand fescue (<i>Vulpia fasciculata</i>), Silvergrass (<i>Vulpia bromoides</i>), Wintergrass (<i>Poa annua</i>), Paradoxa grass (Canary grass) (<i>Phalaris paradoxa</i>), Corn gromwell (Sheepweed) (<i>Buglossoides anvensis</i>), Rough poppy (<i>Papaver hybridum</i>) Suppression Soil Surface - Bromegrass (<i>Bromus diandrus</i>), Barleygrass (<i>Hordeum leporinum</i>), Three-cornered Jack (Doublegee) (<i>Emex australis</i>), Caltrop (Yellowvine & Bullhead) (<i>Tribulus terrestris</i>), Yellow burr weed (<i>Amsinckia</i> spp), Deadnettle (<i>Lamium amplexicaule</i>), Speedwell (<i>Veronica</i> spp)		1.6-2.4L/ha plus 1.5-2L/ha TriflurX	Where no till/min till has been practised for at least a few years, a high proportion of wild oat seeds may germinate near the surface. In these circumstances mixing Avadex Xtra with TriflurX may enhance wild oat control. To maintain crop safety attention to sowing speed and soil throw is required. Avoid throwing treated soil into adjacent sowing furrows. This is especially critical at higher use rates and in cereals. Avoid sites that water log or where furrow walls may collapse as crop establishment & vigour may be reduced. Incorporate Avadex Xtra alone and Avadex Xtra + Bouncer tank mixtures within 48 hours of application and Avadex Xtra + TriflurX tank mixtures within 24 hours of application to ensure the effectiveness of these treatments. The addition of Bouncer Herbicide may improve control of Group A and D resistant biotypes of Annual Ryegrass. ¹ DO NOT plant oilseed poppies when a detectable residue of Trifluralin is present in the soil. Levels as low as 0.02 ppm may interact with other unfavourable factors (moisture, stress, disease etc.) to reduce poppy growth and vigour.

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

WITHHOLDING PERIODS

HARVEST: Not required when used as directed.

GRAZING:

WHEAT, BARLEY, TRITICALE AND CANOLA FORAGE, HAY AND FAILED CROPS: DO NOT graze or cut for stockfood for 12 weeks after application. Following observation of the 12 week withholding period, DO NOT send animals to slaughter that have consumed treated forage, hay and failed crops UNLESS they are first placed on clean feed for 28 days before leaving the farm.

The clean feed interval does NOT apply to grazing of post-harvest stubble.

CHICKPEA, FABA BEAN, LUPIN, PEA, LINSEED AND SAFFLOWER FORAGE AND FODDER: DO NOT graze or cut for stock food for 13 weeks after application.

GENERAL INSTRUCTIONS

WEED CONTROL

Avadex® Xtra normally provides 6-8 weeks control of wild oats and annual ryegrass when the seedbed is moist during the emergence period. Under very dry soil surface (top 2cm) conditions, wild oats and annual ryegrass may not be controlled. Wild oats may emerge between application and complete incorporation by sowing particularly if initial incorporation is provided by harrows. Avadex® Xtra may not control wild oats which have germinated at the time of application and incorporation if the top 2cm of soil is dry. Avadex® Xtra will not control emerged weeds.

CROP SAFETY

Reduced emergence of cereals may occur if seed is placed in treated soil layer. DO NOT plant cereal crops at greater than 5-7cm. Overspraying of headlands or corners may result in crop damage. On heavy clay soils, crop thinning may occur in wheel tracks. Environmental conditions which adversely affect emergence or early crop growth, may predispose crops to injury, particularly where tank mixes with other pre-emergence herbicides are used.

Read and follow label directions, restraints, plantback periods and safety directions for tank mix products.

SOIL PERSISTENCE AND FOLLOWING CROPS

Under prolonged and extremely dry conditions Avadex® Xtra may persist for several months. Damage to field oats and sorghum may occur.

SPRAY APPLICATIONS AND DRIFT RISK ASSESSMENT

GROUND SPRAYER APPLICATION - Use 40-100L/ha of water.

USE ONLY COARSE or larger spray quality according to the ASAE S572 definition for standard nozzles. Boom height must be set to ensure double overlap of nozzle patterns at the top of the weed canopy. Use the higher water rate when applying into stubble situations.

Apply to soil in friable condition so that uniform incorporation of the product can be achieved to a depth of 2-4cm. The soil should be free of large clods (>75mm) and should not have crop or weed residue at a level which will interfere with the free flow of soil through planting equipment providing full soil disturbance. Emerged wild oats or ryegrass should be controlled either by prior cultivation/application of a knockdown herbicide or by the tank mixing of a knockdown herbicide with Avadex® Xtra.

A 50 mesh primary pressure filter and 80 mesh secondary pressure filter(s) are recommended.

The use of in-line nozzle filters is not recommended.

Checklist:

- Have you cleaned/decontaminated your boom sprayer?
- Have you contacted your neighbour prior to spraying?
- Is your sprayer set-up correctly for the particular application?
- Check
 - boom calibration
 - at nozzle- nozzle choice
 - low drift/what spray quality
 - coarse or larger spray quality?
 - boom height- speed of intended application
 - water volume
- You must check, determine and record the weather conditions immediately prior to, and immediately after the spray application is made.
- Record
 - Temperatures
 - Relative Humidity
 - Delta T
 - Wind speed
 - Is there a temperature inversion?
- Night Spraying - Extra care is required to ensure that inversion conditions are not present. Use smoke generator to determine wind direction and presence of inversion conditions.

For further information refer to nufarm.com.au/spraywise



spraywisedecisions.com.au is an online weather forecasting program and is recommended for use when planning your pesticide application

MIXING INSTRUCTIONS

Nufarm Avadex Xtra is an Emulsifiable Concentrate which mixes readily with water. Ensure the spray tank is free of any residue of previous spray materials.

1. Fill the spray tank with clean water to one half of the required amount and start agitation. DO NOT use mechanical agitators as these may cause excessive foaming when herbicides are added.
2. Where Bonus is recommended add to tank through top mesh screen.
3. Add Nufarm Avadex Xtra and mix thoroughly.
4. Add recommended herbicide additive/insecticide to the spray tank and mix thoroughly.
5. Top up tank to 95% of desired capacity then add the weedmaster® product (if required) and the remaining water.
6. When Nufarm Activator surfactant is used, add near the end of the filling process to minimise foaming.
7. Always maintain adequate agitation during application and use the tank mix promptly.

INCORPORATION – Conventional systems

Two pass incorporation provides superior weed control to single pass incorporation on heavier textured soils.

- (i) Avadex® Xtra may be incorporated initially in a suitable cultivated seedbed with either heavy 5 row harrows e.g. Phoenix harrow, or tyned cultivator. Final incorporation with a combine or airseeder/cultivator is essential to provide for maximum weed control. Heavy tyned harrows or a rotary harrow should trail the planter or follow as a separate operation at an angle to the planter to complete incorporation. Ensure that the soil surface is left free of pronounced ridging.

- (ii) On soils in friable condition, Avadex® Xtra may be incorporated with the planting operation only up to 24 hours following application onto a dry soil surface or up to 6 hours on moist surface soil. If Avadex® Xtra has been sprayed on dry soil, and it rains before incorporation is planned, the product must be incorporated within 6 hours to retain its herbicide effectiveness. Planting should be carried out with a combine or airseeder/cultivator which provides full soil disturbance. Heavy tynded harrows or a rotary harrow should trail the planter or follow as a separate operation to complete incorporation. Ensure that the soil surface is left free of pronounced ridging.

DO NOT operate incorporation equipment at greater than 5-7cm depth.

Where soil is wet at planting, poor incorporation may result. For shallow-sown legume and oil-seed crops, complete incorporation by cultivation to a depth of 5cm must be undertaken before planting.

Note that point size should be matched to tyne spacing to avoid uneven incorporation. For example, a wideline seeder with 15cm tyne spacing should be fitted with unworn 15cm points. A combine with 9cm spacing should be fitted with an evenly worn set of 10cm points. Sweeps or other low profile points may not provide satisfactory incorporation.

COMPATIBILITY

Avadex® Xtra is compatible with: Lusta®, Nugran®, TriflurX®, Yield*, Nufarm Glyphosate CT, Credit® and Bonus®, weedmaster® DUO, weedmaster® DST®, weedmaster® ARGO®, Orlando, Bouncer® 960S, Terbazine 875WG, Diuron 900DF, Simazine, Atrazine, Nuquat® 250, Revolver® Sakura*, Boxer Gold*, Triflur® 600, Outlook® and Activator®.

RESISTANT WEEDS WARNING

GROUP	J	HERBICIDE
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Avadex® Xtra herbicide is a member of the thiocarbamate group of herbicides. Avadex® Xtra has the inhibition of fat synthesis mode of action. For weed resistance management Avadex® Xtra is a Group J herbicide. Some naturally occurring weed biotypes resistant to Avadex® Xtra and other Group J 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 weeds will not be controlled by Avadex® Xtra or other Group J herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, Nufarm Australia Limited accepts no liability for any losses that may result from the failure of Avadex® Xtra to control resistant weeds.

PRECAUTION

RE-ENTRY: DO NOT enter treated areas until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves. Clothing must be laundered after each day's use.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions, or from spraying equipment that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

PROTECTION OF LIVESTOCK, FISH, CRUSTACEA AND ENVIRONMENT

Dangerous to fish. 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. Triple or preferably pressure 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 bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500mm 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. Empty containers and product should not be burnt.

Envirodrum 110L Mini Bulk Returnable Container

Store the original sealed Envirodrum in a cool well ventilated area. DO NOT store for prolonged periods in direct sunlight. DO NOT tamper with the Micro Matic valve or the security seal. DO NOT contaminate the Envirodrum with water or any foreign matter. After each use of the product, please ensure that the Micro Matic coupler, delivery system and hoses are disconnected, triple rinsed with clean water and drained accordingly. When the contents of the Envirodrum have been used, please return the empty Envirodrum to the point of purchase. The Envirodrum remains the property of Nufarm Australia Limited.

Refillable Containers: 1000L

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SAFETY DIRECTIONS

Harmful if inhaled or swallowed. Will irritate the eyes and skin. Repeated exposure may cause allergic disorders. DO NOT inhale vapour or spray mist. Avoid contact with eyes and skin. When opening the container and mixing and loading and preparing spray wear cotton overalls buttoned to the neck and wrist and a washable hat and elbow-length chemical resistant gloves and goggles and half facepiece respirator. When using the prepared spray wear cotton overalls buttoned to the neck and wrist or equivalent clothing and elbow length chemical resistant gloves. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. Wash hands after use. After each day's use, wash gloves, goggles and respirator and if rubber wash with detergent and warm water and contaminated clothing.

FIRST AID

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone 13 11 26). If swallowed, DO NOT induce vomiting. Give a glass of water. Avoid giving alcohol.

MATERIAL SAFETY DATA SHEET

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® Activator is a registered trade mark of Loveland Products, Inc.

*Other registered trade marks.