CLINIC® ACE

A foliar applied herbicide for the control of annual and perennial grasses and broad-leaved weeds before sowing or planting all crops. For use pre-harvest in cereals and certain other crops, destruction of grassland, and in stubbles, orchards, forestry and non-crop areas.

This product is an aqueous concentrate containing 360 g/l glyphosate (30.8% w/w) present as 480 g/l of the isopropylamine salt of glyphosate.

Contents 1 – 20 L

FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL/FORESTRY/INDUSTRIAL HERBICIDE

Risk and safety information

IRRITANT

DANGEROUS FOR THE ENVIRONMENT

Risk of serious damage to eyes
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Keep out of reach of children
Keep away from food drink and animal feedingstuffs
In case of contact with eyes, rinse immediately with plenty of water and seek medical attention
If swallowed, seek medical advice immediately and show this container or label
This material and its container must be disposed of in a safe way
Use appropriate containment to avoid environmental contamination

To avoid risks to man and the environment, comply with the instructions for use.
PCS No. 02840

PROTECT FROM FROST

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Technical Helpline telephone number +44 (0)1274 694714
24-hour emergency telephone number +44 (0)1274 696603

Crops/situations:	**Maximum individual dose (L product/ hectare)**	**Maximum number of applications (at Maximum individual dose)**	**Maximum Total Dose (L product/ha)**	**Latest time of application:**
Winter wheat, winter barley, winter oats, spring wheat, spring barley, spring oats, durum wheat, combining peas, field beans (pre-harvest)	4.0	One per crop	4.0	7 days before harvest
Oilseed rape and linseed (pre-harvest)	4.0	One per crop	4.0	14 days before harvest
Mustard (pre-harvest)	4.0	One per crop	4.0	8 days before harvest
Stubbles (edible crops and non-edible crops) Either: or:	4.0 1.5	One per situation One per situation	4.0	5 days before drilling or planting of the crop 2 days before drilling or planting of the following crop
Grassland	6.0	One per annum	6.0	5 days before harvest, grazing or drilling
Natural surfaces not intended to bear vegetation, permeable surfaces overlying soil, hard surfaces	5.0	-	5.0	-
All edible and non-edible crops (Destruction before sowing/planting)	5.0	One per annum	5.0	Before planting or sowing
Apple and pear orchards	5.0	One per annum	5.0	After harvest but before green cluster stage
Cherry, plum and damson orchards	5.0	One per annum	5.0	After harvest but before white bud stage
Green cover on land not being used for production e.g. setaside	6.0	One per annum	6.0	24 hours before cultivating
Forestry : - Weed Control - Chemical Thinning (by injection) - Stump application	 10 litres/hectare 2 ml of product per cut per 10 cm diameter (or less) tree. 250 g product/ litre of water	-	-	-

DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product.

WARNINGS
TAKE EXTREME CARE TO AVOID SPRAY DRIFT
DO NOT MIX, STORE OR APPLY CLINIC ACE IN GALVANISED OR UNLINED STEEL CONTAINERS OR SPRAY TANKS.
DO NOT leave spray mixtures in tank for long periods and make sure tanks are WELL VENTED.

RESTRICTIONS
- A period of at least 6 hours and preferably 24 hours rainfree must follow spraying.
- DO NOT spray onto weeds suffering from drought stress, water-logging, heat or frost, otherwise poor control may result.
- DO NOT spray in windy conditions as drift onto desired crops or vegetation could severely damage or destroy them.
- As CLINIC ACE takes a few days to fully translocate throughout a weed, applications of lime, fertiliser, farmyard manure and pesticides should be made 5 days or more AFTER application of this product.

WEEDS CONTROLLED
CLINIC ACE is a foliar acting herbicide which controls annual and perennial grasses and most broad-leaved weeds when used as directed. It is translocated from treated vegetative growth to underground roots, rhizomes or stolons.

PERENNIAL GRASS WEEDS MUST HAVE A FULL EMERGENCE OF HEALTHY, GREEN LEAF WHICH IS GROWING ACTIVELY AT THE TIME OF APPLICATION. COMMON COUCH REACHES THE SUSCEPTIBLE STAGE OF GROWTH WHEN TILLERING AND NEW RHIZOME GROWTH COMMENCE WHICH USUALLY OCCURS WHEN PLANTS HAVE 4-5 LEAVES EACH WITH 10-15CM OF NEW GROWTH.

THE MAJORITY OF PERENNIAL BROAD-LEAVED WEEDS ARE MOST SUSCEPTIBLE IF TREATED WHEN THEY ARE GROWING ACTIVELY AND AT, OR NEAR, FLOWERING STAGE.

ANNUAL WEEDS SHOULD BE GROWING ACTIVELY, WITH GRASSES HAVING AT LEAST 5 CM OF LEAF AND BROAD-LEAVED WEEDS AT LEAST 2 EXPANDED TRUE LEAVES WHEN SPRAYED.

Weeds become less susceptible to CLINIC ACE when their growth is restricted by natural senescence or by drought, frost, high temperature, a covering of dust or flooding. Reduced control will result if such conditions occur at, or immediately after, spraying.

BREAKDOWN AND FOLLOWING CROPS
Upon soil adsorption the herbicidal properties of CLINIC ACE are lost permitting the drilling of crops 48 hours after application.

Occasionally, a slight check to crop growth may occur, particularly after direct drilling, when crop seeds germinate amongst a mass of decaying foliage, stolons, rhizomes or roots. Thorough cultivations are necessary to disperse or bury the decaying organic matter. Consolidate loose soils and ensure crops are adequately fertilized and appropriate measures

are taken to prevent insect and fungus damage to the following crop, especially where following grassland.

When used as directed CLINIC ACE may be applied to all crops to be used for feed, to wheat (including durum wheat) and oat crops intended for milling and to barley intended for malt for brewing. Consult your grain merchant before treating any crop being grown on contract and barley intended for malt for distilling.

All varieties of wheat (including durum wheat), barley and oats may be treated to gain harvesting and grain storage benefits resulting from the reduction of green material in the crop.

Arable Application:

Under certain conditions the performance of CLINIC ACE can be improved by the use of additional surfactant. Where CLINIC ACE is used at rates of 2.0 l/ha or less, Frigate should be added to the spray solution. Where conventional hydraulic sprayers are being used Frigate should be added to the spray tank solution at the rate of 0.5 litres for each 100 litres water volume.

Do not add extra surfactant when using a rotary atomiser sprayer.

Refer to the following tables for those uses where the addition Frigate is recommended.

Weed resistance strategy
There is low risk for the development of weed resistance to Clinic Ace.

Growers are encouraged to implement a weed resistance strategy based on (a) Good Agricultural Practices and (b) Good Plant Protection Practices by:

- Following label recommendations
- The adoption of complimentary weed control practices
- Minimising the risk of spreading weed infestations
- The implementation of good spraying practice to maintain effective weed control
- Using the correct nozzles to maximise coverage
- Application only under appropriate weather conditions
- Monitoring performance and reporting any unexpected results to Nufarm UK Limited.

Strains of some annual weeds (e.g. Black-grass, Wild oats and Italian Ryegrass) have developed resistance to herbicides which may lead to poor control. A strategy for preventing and managing such resistance should be adopted. This should include integrating herbicides with a programme of cultural control measures. Guidelines have been produced and copies are available from your distributor, crop adviser or product manufacturer (Nufarm).

RECOMMENDATION TABLES

AREA OF USE	TARGET WEEDS/ USAGE	CROP/SITUATION	WEED INFESTATION	APPLICATION RATE L/ha	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
PRE-HARVEST ARABLE CROPS	Common Couch	WHEAT (including durum), BARLEY, OATS	Up to 25 shoots/m² 26 to 75 shoots/m² Over 75 shoots/m² in direct drilled crops	2.0 (+) 3.0 4.0	Hydraulic Sprayers 80-250 l/ha# or Rotary Atomisers 40 l/ha*	<u>Cereals</u> Apply, when the moisture content of the youngest crop grains is below 30%, not less than 7 days before harvest and up to 14 days before harvest for volunteer wheat and wheat crops. Use high clearance tractors with narrow wheels and crop dividers. DO NOT TREAT CROPS GROWN FOR SEED. Straw may be used for all purposes except as a horticultural mulch. After harvest chop/incorporate, or remove straw as required. Normal cultivations may be made after straw removal. N.B. If dull weather persists after application, allow up to 14 days before harvest - particularly on broad-leaved weeds. Annual nettle, volunteer potato, Rosebay Willow Herb and *polygonum* weeds will not be susceptible at harvest management rates.
		OILSEED RAPE AND MUSTARDS	Up to 75 shoots/m² Over 75 shoots/m²	3.0 4.0	Hydraulic Sprayers only 100-250 l/ha#	
		PEAS FOR COMBINING HARVESTING AND FIELD BEANS	Up to 75 shoots/m² Over 75 shoots/ m²	3.0 4.0	Hydraulic Sprayers 80-250 l/ha or Rotary Atomisers 40 l/ha*	
		LINSEED	Up to 75 shoots/m² Over 75 shoots/m²	3.0 4.0	Hydraulic Sprayers 80-250 l/ha	

PRE-HARVEST ARABLE CROPS (continued)	Perennial broad-leaved weeds, other perennial grasses	WHEAT (including durum), BARLEY, OATS	All levels of all species	4.0	Hydraulic Sprayers 80-250 l/ha# or Rotary Atomisers 40 l/ha*	<u>Oilseed Rape & Mustards</u> Apply when crop seeds have less than 30% moisture content. Apply to standing crops at these intervals before harvest: oilseed rape 14-21 days mustards 8-10 days Use high clearance narrow wheeled tractors using wide booms and crop dividers. DO NOT TREAT CROPS GROWN FOR SEED. For effective combining: DO NOT treat crops with significant levels of secondary regrowth. DO NOT treat late maturing areas of crops caused by pigeon damage, poor drainage, etc. Crops suffering from stress, disease, extreme heat or drought may not mature evenly following treatment. After harvest, chop/incorporate, or remove straw as required. Normal cultivations may follow after straw removal. <u>Peas for combine harvesting & field beans</u> Apply when crop seeds have less than 30% moisture content. Apply 7 days or more before harvest.
		OILSEED RAPE AND MUSTARDS	All levels of all species	4.0	Hydraulic Sprayers only 100-250 l/ha#	
		PEAS FOR COMBINING HARVESTING AND FIELD BEANS	All levels of all species	4.0	Hydraulic Sprayers 80-250 l/ha or Rotary Atomisers 40 l/ha*	
		LINSEED	All levels of all species	4.0	Hydraulic Sprayers 80-250 l/ha	
	Annual grasses, cereal stems, cereal leaves (harvest management)	WHEAT (including durum), BARLEY, OATS	All levels of all species	1.0(+)	Hydraulic Sprayers 80-250 l/ha# or Rotary Atomisers 40 l/ha*	
	Annual broad-leaved weeds – (harvest management)	WHEAT (including durum), BARLEY, OATS	All levels of all species	1.5(+)	Hydraulic Sprayers 80-250 l/ha# or Rotary Atomisers 40 l/ha*	

PRE-HARVEST ARABLE CROPS (continued)	Annual weeds	OILSEED RAPE AND MUSTARDS	All levels of all species	3.0	Hydraulic sprayers only 100-250 l/ha#	This treatment cannot be used as a crop desiccant. Use high clearance tractors with narrow wheels and crop dividers. DO NOT TREAT CROPS GROWN FOR SEED. <u>Linseed</u> Apply when crop seeds have less than 30% moisture content. At this stage seed is normally light brown and the capsules are brown; the stems and leaves may be green to yellow/green. Accurate measurements of moisture content must be made. Apply 14 days or more before harvest. A delay of up to 28 days after spraying may be necessary prior to combine harvesting. Where application takes place late in the autumn, it must be checked that weeds are still susceptible. See earlier section on weed control. DO NOT TREAT CROPS GROWN FOR SEED.
	Crop desiccation prior to direct combine harvesting (harvest management)	OILSEED RAPE AND MUSTARDS	-	3.0		
		LINSEED	-	3.0	Hydraulic sprayers 80-250 l/ha	

*Where rotary atomiser sprayers are used, their droplet diameter must fall within the range 200-300µm.

(+) For optimum results use an adjuvant as described in 'Directions for Use'

Use higher volumes for dense canopies

AREA OF USE	TARGET WEEDS/ USAGE	CROP/SITUATION	WEED INFESTATION	APPLICATION RATE l/ha	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
STUBBLES (EDIBLE AND NON-EDIBLE CROPS)	Common Couch	BEFORE ALL CROPS - AUTUMN/ SPRING APPLICATIONS	Up to 75 shoots/m²	3.0	Hydraulic sprayers: 80-250 l/ha or rotary atomisers: 40 l/ha*	Do not cultivate BEFORE spraying. Allow a minimum of 5 days to elapse between spraying and cultivations or drilling. Allow volunteer potatoes to make ample top growth before spraying. A minimum period of 21 days weed growth in the spring should occur before spraying.
	Common Couch		Over 75 shoots/m²	4.0		
	Other perennial grasses		All levels of all species			
	Volunteer potatoes (autumn only)		-			
STUBBLES OR PRE-CULTIVATED LAND	Volunteer cereals Other annual grasses Annual broad-leaved weeds	BEFORE ALL CROPS - AUTUMN OR SPRING APPLICATIONS	All levels of all species	1.5 (+)	Hydraulic sprayers: 80-250 l/ha or rotary atomisers: 40 l/ha*	Cultivations may be made 24 hours after spraying. Direct drilling may take place 2 days after spraying.

*Where rotary atomiser sprayers are used, their droplet diameter must fall within the range 200-300µm.

(+) For optimum results use an adjuvant as described in 'Directions for Use'.

AREA OF USE	TARGET WEEDS/ USAGE	CROP/SITUATION	WEED INFESTATION	APPLICATION RATE l/ha	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
GRASSLAND - DESTRUCTION & CONTROL OF ASSOCIATED WEEDS	Short rotation Ryegrass, longer leys and permanent pasture	GRASS	1 year old Rye-grass leys 1-2 year old Rye-grass leys Short rotation Ryegrass with annual weeds Leys 2-4 years old with perennial grass weeds Long leys 4-7 years old with perennial broad-leaved weeds Permanent pasture Select application rate to control least susceptible target weeds by selecting from application rate table' *Application Rates for Grassland Destruction'*	1.5(+)* 2.0(+)* 3.0 4.0 5.0 6.0	Hydraulic sprayers: 150-250 l/ha*	* No direct drilling should follow use of these reduced rates except grass and clover that may be direct drilled following application of CLINIC ACE to: a) 1-2 year old leys without mat; all surface trash should be removed before drilling, 5 days after spraying. or b) Long-leys with some mat; CLINIC ACE should be applied in the autumn and direct drilling delayed until the following spring. DO NOT apply lime or fertiliser prior to CLINIC ACE application. Treatment Timings: 1. Regrowth after grazing or mowing. 2. Before grazing or cutting. - Apply between June-October - Spray crops that are 30-60 cm tall, are not dense and do not contain mature seeds. Grass Utilisation: 1. Grass may be utilised in the normal way from 5 days after treatment. 2. Cattle, dairy cows and sheep may graze or be fed the treated forage. POISONOUS PLANT SPECIES MUST BE REMOVED OR BURIED BEFORE REGRAZING OR MOWING. Normal cultivations for the next crop may be made as usual once fields are cleared of grass crops.

(+) For optimum results use an adjuvant as described in the 'Crop Specific Information' section (under Arable Application)

AREA OF USE	TARGET WEEDS/USAGE	CROP	WEED INFESTATION	APPLICATION RATE l/ha	WATER VOLUME	APPLICATION TIMING AND GUIDANCE
NATURAL SURFACES NOT INTENDED TO BEAR VEGETATION, PERMEABLE SURFACES OVERLYING SOIL, HARD SURFACES	Annual weeds Perennial grasses Perennial broad-leaved weeds Refer to "Hand-held Applicators" Under '*Mixing and Spraying'*	-	All species All species All species	1.5 4.0 6.0	Hydraulic sprayers 80-250 l/ha or rotary atomisers 40 l/ha*	Use areas include: Clearance of land prior to sowing. Weed control in fence lines, stackyards, around buildings and storage areas. Roads, paths and ditch edges. Re-growth in root-crop storage areas. DO NOT USE IN OR ALONGSIDE HEDGEROWS. DO NOT USE UNDER GLASS OR POLYETHYLENE.
ORCHARDS	Perennial grasses and broad-leaved weeds: -in arable stubbles -in pastures	TOP FRUIT - PRE-PLANTING	All levels of species	 4.0 5.0	Hydraulic sprayers 200-250 l/ha or rotary atomisers 40 l/ha*	All top fruit crops may be planted from 7 days after spraying.
	Perennial grasses and broad-leaved weeds	WITHIN ORCHARDS OF APPLE, PEAR, PLUM ,CHERRY OR DAMSON	All levels of most species	5.0	Hydraulic sprayers 200-400 l/ha optimum 250 l/ha	Trees must have been established for 2 years before spraying. Spray AFTER autumn leaf-fall and BEFORE: Apples, pears - green cluster stage Stone fruit - white bud stage Avoid contact with tree branches and trunks above 30 cm from the ground. Treat suckers in late spring only.
	Root suckers	-	All species	5.0		

*Where rotary atomiser sprayers are used, their droplet diameter must fall within the range 200-300µm.

AREA OF USE	TARGET WEEDS / USAGE	WEED INFESTATION	APPLICATION RATE L/ha	WATER VOLUME	APPLICATION GUIDANCE
FORESTRY - PRE-PLANTING	Arable Land Planting Replanting and Grassland Areas	Arable weeds Grasslands weeds	4.0 5.0	Hydraulic Sprayers 80-250l/ha or Rotary Atomisers 40L/ha*	All tree species may be planted 7 days or more after treatment.
* Where Rotary Atomiser Sprayers are used, their droplet diameter must fall within the range of 200-300 µm.					

AREA OF USE	TARGET WEEDS / USAGE	WEED INFESTATION	APPLICATION RATE L/ha	WATER VOLUME	APPLICATION GUIDANCE
POST PLANTING (DIRECTED)	Clean-up around Trees with Knapsack applications. Conifer release	Grasses : Annual/perennial grasses broad-leaved/ Woody weeds: Bracken/Beech Brush/Brambles Sycamore/Oak Hazel/Willow/Ash Heather (peat soils) Heather (mineral soils) Rhododendron[.]	 4.0 3.0 4.0 6.0 10.0	Knapsack Sprayers (hydraulic) Apply at a concentration of 1 part of CLINIC ACE 50 parts water (2%). Spot gun *Mixing and Spraying.*	It is ESSENTIAL to use a TREE GUARD for all applications made in the growing season. Treat bracken after frond tips are unfurled but pre-senescence. Treat heather later August to end September. All other woody weeds-treat June-August before leaf senescence (but after new growth of crop has hardened). [.] For improved control of Rhododendron add Mixture B at a concentration of 2% final water volume to 8.0 l/ha (5.6 pts/ac) of CLINIC ACE.
-POST-PLANTING (OVERALL DORMANT SEASON)	Grass weeds - Lowland Areas - Upland Areas Bracken Beech and Birch Brambles	Black Bent Creeping Soft-grass Meadow-grasses Sweet Vernal Wood Small-reed (Bush grass) Cock's Foot False Oat-grass Other Bent species Tufted Hair-grass Yorkshire Fog Common Couch Fescues Purple Moor-grass Wavy Hair-grass All levels of all species	 1.5 2.0 2.0 2.0 3.0	Hydraulic Sprayers 80-250l/ha or Hand-Held Equipment	DO NOT OVERALL SPRAY trees being grown for ORNAMENTAL PURPOSES, including CHRISTMAS TREES. Species safe to spray when fully dormant and leader growth has hardened : Corsican, Lodgepole, and Scots Pines, Norway Spruce, Sitka Spruce, Lawson Cypress, Western Red Cedar. Douglas Fir and Nobel Fir - safe to spray when fully dormant and leader growth has hardened but NOT in spring. If overall application takes place after the optimum timing weed control may be reduced. It is advisable to spray a limited area of forest to test crop safety under local conditions before widespread overall application in subsequent years. Treat bracken after frond tips are unfurled but pre-senescence.
These recommended application rates refer to Forestry usage only. Inadequate control may result if used in other areas.					

AREA OF USE	TARGET WEEDS	WEED INFESTATION	APPLICATION RATE L/ha	APPLICATION GUIDANCE
- STUMP APPLICATION FOR CHEMICAL THINNING	Prevention of coppicing and re-growth from stumps	Deciduous species Rhododendrons and Coniferous species	10% solution of CLINIC ACE in water 20% solution of CLINIC ACE in water	Apply to saturate the freshly cut stump. (Hand-held sprayers). - Clearing saw fitted with Enso attachments. - Knapsack sprayer operated at low pressure. - Spot gun fitted with a solid stream nozzle. - Paintbrush. Treat stumps within a week of felling from November to March (outside spring sap flow).
- CHEMICAL THINNING BY INJECTION OF TREE STEMS	Coniferous and Deciduous species		2mls neat CLINIC ACE per cut per 10cm diameter of stem (or less)	Use a hatchet to cut one notch in trees up to 10cm diameter and apply 2mls of the solution to each cut e.g. using a Spot Gun. Use two or three notches in trees over 10cm diameter. Do not treat in the period of active sap flow in the spring/early summer.

APPLICATION RATES FOR GRASSLAND DESTRUCTION

1.5-3.0 l/ha		4.0 l/ha		5.0 l/ha		6.0 l/ha	
Annual Meadow-grass	Meadow Fescue	Black Bent	Creeping Soft-grass	Bracken**	Red Clover	Common Ragwort	Nardus (Mat grass)
Common Chickweed	Meadow Foxtail	Broad-leaved Dock	Curled Dock	Common Sorrel	Sedges	Hard Rush	Red Fescue
Common Mouse-ear	Rough Meadow-grass	Cock's Foot	Perennial Rye-grass	Common Nettle	Sheep's Sorrel	Heath Rush	White Clover*
Dock seedlings	Speedwell species	Common Bent	Plantains	Creeping Buttercup*	Soft Rush	Jointed Rush	Yellow Rattle
Italian Rye-grass	Timothy	Common Couch	Soft Brome	Creeping Thistle	Spear Thistle	Molinia (Purple Moor-grass)	Sheep's Fescue
Mayweed species		Creeping Bent	Yorkshire Fog	Daisy	Tufted Hair-grass		
				Dwarf Thistle	Yarrow		
				Perennial Sow-thistle			

* White Clover is best cut in June and sprayed one month later. Creeping Buttercup should be sprayed at flowering stage.
** At full frond expansion

MIXING AND SPRAYING

Tractor Mounted Applicators

Conventional Hydraulic Sprayers:

1. *Sprayer and Nozzle Selection:*
   All machines should be capable of applying accurately 80-250 l/ha, as a 'MEDIUM' or 'COARSE' quality spray - (BCPC definition) within a pressure range of 1.5-2.5 bars using 80 or 110 degree nozzles. For application pre-harvest of crops it is essential to use a sprayer whose boom may be raised to the correct height.
2. *Water Volume:*
   For general use 200-250 l/ha is the preferred volume range. For specific uses, volumes may be reduced to 80-120 l/ha by selecting low volume hydraulic nozzles, and adjusting pressure of application and tractor forward speed.
3. *Spray Pressure:*
   Pressures must be related to tractor forward speed, desired water volume and nozzle type. A range of 1.5 - 2.5 bars must be used to ensure optimum results with minimum risk of drift.
4. *Tractor Forward Speed:*
   Speed of travel must be related to nozzle output characteristics. The typical range is from 4-9 kph. The slower speeds should be selected for applications pre-harvest of crops and where soil conditions could cause excessive boom bounce and yaw at faster speeds.
5. *Recommended Nozzle Type, Pressure, Volumes and Tractor Speeds for the Application of 80-120 l/ha:*
   80 or 110 degree nozzles able to apply the required volume at pressures between 1.5 - 2.5 bars at between 4-9 kph are recommended. Examples of these nozzles are available in a separate handbook.
6. *Filling the Sprayer:*
   Half fill the spray tank with water and start agitation. Add recommended quantity of CLINIC ACE herbicide, top-up tank with water to required level.
7. *Calibration:*
   Before using a sprayer and, especially, after nozzles have been changed, it is essential to calibrate the sprayer by checking the output of at least one nozzle for each separate boom section of the sprayer.
8. *Operation in the Field:*
   Check the following before starting to spray:
   - That the nozzles are aligned evenly at the correct angle to the direction of travel.
   - That the boom is level over its width.
   - The boom height permits the correct pattern of spray overlap on the target weeds.

Rotary Atomisers:

1. *Sprayer Selection:*
   The following rotary atomiser applicators may be used to apply this product:

Cleanacres Dual-Option Sprayer	CDA Boom and CDA Lightweight
Horstine Farmery Microdrop	Lely Hydraspin
Tecnoma Girojet	

2. *Droplet Size and Water Volume:*

Set the spray droplet Volume Median Diameter to within the range 200-300um for each machine - this corresponds to a 'MEDIUM' or 'COARSE' quality spray (BCPC definition) and the volume of application to 40 l/ha.

3. *Operation in the Field:*
Apply at 4-9 kph having calibrated the sprayer accurately. Ensure that sprayer bouts are matched by using markers.

Sprayer Maintenance
Ensure that the sprayer is in good working order by paying particular attention to the condition of the pump, hoses, nozzles or disc assemblies and pressure gauge. Replace damaged, worn or malfunctioning parts. If extra filtration or pressure damp valves have been fitted for low volume work at 80-120 l/ha make certain this equipment is clean and functioning correctly. Carry out maintenance according to the instructions of the sprayer manufacturer. This is of utmost importance when using low volume nozzles.

Hygiene when using all Sprayers
It is essential to thoroughly clean-out sprayer tanks, pumps and pipelines and nozzle or disc assemblies, with a recommended detergent cleaner, between applying this product and other pesticides to avoid contamination from pesticide residues. For example, after spraying this product pre-harvest in cereals the equipment MUST be cleaned completely before it is used to apply a potato blight fungicide, particularly in seed crops.

Hand-held applicators

Knapsack Applicator:

These may be used in Orchards and Non-crop areas. Normal water volume is 200-300 l/ha but by fitting low volume nozzles it can be reduced to 100-150 l/ha. All applications to be as a 'MEDIUM' or 'COARSE' quality spray (BCPC definition).

Example of Use:

Examples for a 10 L sprayer delivering 200 L spray/ha:

Equivalent Application Rate	Sprayer Size	Volume CLINIC ACE (Litres)	Volume Water (Litres)	Area treated
4.0 L product/ha	10 L	0.200	0.980	500 m^2
5.0 L product/ha	10 L	0.250	0.975	500 m^2
6.0 L product/ha	10 L	0.300	0.970	500 m^2

CAUTION
Keep stock out of treated areas for 7 days to allow the herbicide to become fully effective.
TREATED POISONOUS PLANT SPECIES MUST BE REMOVED BEFORE REGRAZING OR CONSERVING.

Compatibility
CLINIC ACE may be tank-mixed with the following adjuvants:

FRIGATE - only for specific areas of use as directed by Nufarm

Do not tank-mix this product with other pesticides or fertilisers, EXCEPT when directed by Nufarm, as a reduced level of weed control may result

COMPANY ADVISORY INFORMATION

TERMS AND CONDITIONS OF SUPPLY, SALE OR USE

All goods supplied by Nufarm UK Ltd. are high grade and we believe them to be suitable for the purpose for which we expressly supply them: but as we cannot exercise any control over their mixing, use or application which may affect the performance of the goods all conditions and warranties statutory or otherwise as to the quality or fitness for any purpose of our goods are excluded and no responsibility will be accepted by us or our. Associate. Companies for any damage or injury whatsoever arising from their storage, handling, re-application or use. These conditions cannot be varied by our staff, our agents or the re-sellers of the .product whether or not they supervise or assist in the use of such goods.

Acknowledgements

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