

CLODINAGAN[®] 240 EC




Reg. no. L8383 Act/Wet 36 of/van 1947
N-AR 1053

READ THE LABEL BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS

GROUP	1	HERBICIDE
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<p>An emulsifiable concentrate selective post-emergence herbicide for the control of annual grasses in wheat in the Western- and Eastern Cape as well as dry land and irrigated wheat in the Summer Rainfall Region.</p>	<p>n Emulsifiseerbare konsentraat selektiewe na-opkom onkruidodder vir die beheer van eenjarige grasse in koring in die Wes- en Oos Kaap asook droëland en besproeide koring in die Somerreënvall gebied.</p>
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 <p>DANGER</p>	<p>Hazard statements Harmful if swallowed. May be fatal if swallowed and enters airways. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.</p> <p>Precautionary statements Do not breath dust/fume/gas/mist/vapours/spray. Avoid release to the environment.</p>
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ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

Clodinafop-propargyl.....	240 g/LClodinafop (aryloxyphenoxo-propionaat)
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NET VOLUME/NETTO VOLUME

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REGISTRATION HOLDER/REGISTRASIEHOUER

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UN no.: 3082

EMERGENCY NUMBERS:

Griffon Poison Information Centre: +27 82 446 8946
Tygerberg Poison Information Centre: +27 861 555 777

Batch number
Date of Manufacture
Expiry date

Lotnommer
Datum van Vervaardiging
Vervaldatum

WARNINGS

- Harmful if swallowed.
 - May be fatal if swallowed and enters airways.
 - May cause damage to organs through prolonged or repeated exposure.
 - Very toxic to aquatic life with long lasting effects
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- Store in a cool dry place away from food and feed.
 - Keep under lock and key out of reach of children, uninformed persons and animals.
 - **Re-entry period:** Do not enter the treated area before the spray deposit has dried out on the foliage unless protective clothing is worn.
 - **Aerial application:** Notify all the inhabitants in the immediate vicinity of the area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate adjacent areas, water or any other area that is not under treatment.

Although this remedy has been extensively tested under a variety of conditions the registration holder does not warrant that it will be effective under all conditions. The activity and efficacy of the product may be affected by factors such as abnormal climatic and storage conditions, quality of dilution water, compatibility with other substances not indicated on the label and the occurrence of resistance of the weed against the remedy, as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, and the environment or harm to man or animal, or for lack of performance of the remedy concerned due to the failure of the user to follow the label instructions, or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS

- If medical advice is needed, have product container or label at hand.
- Keep out of reach of children.
- Read label before use.
- Get medical help if you feel unwell.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wash face, hands and any exposed skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.
- **IF SWALLOWED:** Get emergency medical help immediately. Rinse mouth. Do NOT induce vomiting.
- Collect spillage.
- Store locked up.

- Dispose of contents/ container to an approved waste disposal plant.

- Avoid skin and eye contact. If skin is accidentally contacted wash with soap and cold water. If eyes are contacted flush eyes with clean running water for at least 15 minutes.
- Wash contaminated clothing after use.
- Avoid drift of spray to other crops, grazing, rivers, dams or any other area that is not under treatment.
- Prevent contamination of feed, feed, drinking water and eating utensils.
- Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container three times in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za).
- Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.
- Clean the applicator thoroughly after use. Throw the wash water where it will not contaminate crops, grazing, rivers, dams or boreholes.

RELEVANT SUBSTANCES

Chemical name	w/w %	CAS no.
Hydrocarbons, C10-C13, aromatics, <1% naphthalene	30 – 60%	EC no: 922-153-0
Clodinafop-propargyl	10 – 30%	105512-06-9
Propylene carbonate	5 – 30%	108-32-7
Poly(oxy-1,2-ethanediyl),.alpha.-[tris(1-phenylethyl)phenyl]-.omega.-hydroxy	<10%	99734-09-5
Cloquintocet-mexyl	<10%	99607-70-2
Benzenesulfonic acid, C10-13-alkyl derivs., calcium salt	<10%	1335202-81-7

FIRST AID

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). First aider: Pay attention to self-protection.

Take the container label or product name with you when seeking medical attention.

Eye contact: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin contact: Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

Inhalation: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Ingestion: If conscious, rinse mouth thoroughly with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomit, rinse mouth and administer more water. Get medical attention immediately if symptoms occur.

TOXICOLOGICAL INFORMATION

Antidotes

No specific antidote. Treat symptomatically.

Symptoms of human poisoning

None known.

NOTICE TO THE USER: This agricultural remedy is to be used only in according to the directions of this label. It is an offense under the Act to use this product inconsistent with the directions on the label.

RESISTANCE WARNING

CLODINAGAN® 240 EC is classified as a Group Code 1 Herbicide. Any weed population may contain individuals which are naturally resistant to **CLODINAGAN® 240 EC** and other Group Code 1 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used continuously and exclusively. These resistant weeds may not be controlled by **CLODINAGAN® 240 EC** or any Group Code 1 herbicide.

To delay resistance the following can be done:

- Avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or tank mix with registered products from different herbicide group codes.
- Integrate other control methods (chemical, cultural, biological) into weed control programmes.
- Keep records for every field sprayed. Inspect each field annually for the occurrence of resistant weeds. Prevent movement of weed seed or plant material between fields and use only weed free plant material.
- As it is impossible to detect resistance weeds prior to the use of **CLODINAGAN® 240 EC**, ADAMA South Africa (PTY) LTD cannot accept responsibility for any losses that result because of failure to control resistant weeds if the above mentioned measures are not adhered to.

For specific information on resistance management contact the registration holder of this product.

MODE OF ACTION

1: Inhibition of acetyl CO-A carboxylase.

USE RESTRICTIONS

- **CLODINAGAN® 240 EC** should be applied to actively growing grass weeds to any wheat cultivar, provided the wheat has reached the 3-leaf stage.
- Do not apply **CLODINAGAN® 240 EC** in wheat fields where confirmed or suspected resistance of any weed exists, where weeds are under any kind of stress like drought, very high or very low temperatures, waterlogging or where nutrient deficiencies exists.
- Do not apply **CLODINAGAN® 240 EC** to barley or oats or allow spray to drift over these crops
- Only weeds that have germinated at time of application will be controlled.
- Ensure thorough coverage of the weeds. Weeds that are over shaded by other weeds or by the crop may not be controlled sufficiently.
- **CLODINAGAN® 240 EC** undergoes rapid degradation in the soil.

DIRECTIONS FOR USE

Use only as directed.

Compatibility

The compatibility of **CLODINAGAN® 240 EC** with other products may be influenced by the formulation of the product (s) it is mixed with as well as the quality of the dilution water. Since the formulation of other products may change without the knowledge of ADAMA South Africa (Pty) Ltd and the quality of the water may differ from farm to farm, a physical compatibility test should always be carried out prior to application. **CLODINAGAN® 240 EC** applied at 150 ml/ha in a tank mixture with MCPA may, under certain circumstances, lead to antagonism between the products.

Mixing instructions

Half fill the spray tank with water. Add the required volume of **CLODINAGAN® 240 EC** to the water while agitating. Fill the tank with water while agitating until nearly full. Add the required amount of a suitable adjuvant like MCW EOS at the recommended rate.

If **CLODINAGAN® 240 EC** is tank mixed with other products it should be added last just before the MCW EOS is added. It is important to note that agitation should be kept up during mixing and application. Mix only sufficient mixture which can be sprayed out the same day. Do not allow the spray mixture to stand overnight.

APPLICATION

CLODINAGAN® 240 EC should be applied to young actively growing weeds. Weeds should be wetted thoroughly, therefore the crop should not have reached a density where weeds are shadowed off at application.

Ground application

CLODINAGAN® 240 EC can be applied by any suitable medium- to high volume sprayer provided it is able to distribute the spray mixture evenly over the target area, it is fitted with an effective agitation mechanism and that it is correctly calibrated. It is recommended that flat fan nozzles are used and that a water volume of 200 L per ha is used to get an even cover of the spray mixture on the weeds.

Aerial application

Aerial application of **CLODINAGAN® 240 EC** may only be done by a registered Aerial Application Operator using a correctly calibrated registered aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Pesticides). Ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met:

- Volume: A minimum spray volume of 30 L per ha is recommended. As the product has not been evaluated at a reduced volume rate the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended.
- Droplet coverage: 30–40 droplets per cm² must be recovered at the target area.
- Droplet size: A droplet with a VMD of 350–450 micron is recommended. Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
- Flying height: Maintain the height of the spray boom 3–4 metres above the target. Do not spray when the aircraft dives, banks or is in a climb.
- Use suitable atomising equipment that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest Relative Span.
- Position all atomisers within the inner 60–75 % of the wing span to prevent droplets from entering the wingtip vortices.
- The differences in temperature between the wet and dry bulb thermometers of a whirling hygrometer should not exceed 8°C.
- Stop spraying if the wind speed exceeds 15 km/h.
- Stop spraying under turbulent unstable and dry conditions during the heat of the day.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and / or high humidity conditions (relative humidity 80 % and above) may lead to the following:
 - a) Reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
 - b) Damage to other sensitive crops and / or non-target areas through drifting of the suspended spray cloud away from the target field.
 - c) Ensure that the Aerial Spray Operator knows exactly which fields to spray.
- Obtain an assurance from the Aerial Spray Operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

APPLICATION RATES

1. Application rates for **CLODINAGAN® 240 EC** in the Western and Eastern Cape

WEED	DEVELOPMENT STAGE	DOSAGE RATE / HA	REMARKS
Wild oats <i>Avena fatua</i>	3–4 leaf	Ground application 150 ml Aerial application 165 ml	Application prior to the 3–4 leaf stage of wild oats and little seeded canary grass may lead to re-germination. The hairy leaved wild oats biotypes occurring mainly in the Eendekuil and Wellington areas will not be controlled by this low rate. Antagonism may be experienced under certain conditions if CLODINAGAN® 240 EC is tank mixed with MCPA® at these rates. The addition of a suitable adjuvant like MCW EOS at the recommended rate is essential.
Wild oats <i>Avena fatua</i> Little seeded canary grass <i>Phalaris minor</i>	3–4 leaf	Ground application 200 ml Aerial application 220 ml	If CLODINAGAN® 240 EC is applied prior to the 3–4 leaf stage of Wild oats and Little seeded canary grass, re-germination might occur. Wild oats will be controlled up to the flag-leaf stage, but severe competition which will result in yield loss can be experienced if applied after the 3–4 leaf stage. A suitable adjuvant like MCW EOS at the recommended rate is essential.
Wild oats <i>Avena fatua</i> Little seeded canary grass <i>Phalaris minor</i> Italian ryegrass <i>Lolium spp</i>	3–4 leaf 2–3 leaf	Ground application 250 ml Aerial application 275 ml	Please see the remarks above Italian ryegrass sprayed after the 2–3 leaf stage might not be controlled effectively.
Note: DO NOT APPLY CLODINAGAN® 240 EC where resistance of the above grass species against the ACCase inhibitors has being proven.			

2. Application rate for **CLODINAGAN® 240 EC** for the Summer Rainfall Region in irrigated wheat.

WEED	DEVELOPMENT STAGE	DOSAGE RATE / HA	REMARKS
Wild oats <i>Avena fatua</i>	3–4 leaf	Ground application 250 ml Aerial application 275 ml	Apply 2 days after irrigation. Yield losses can occur if weeds are treated after the 4-leaf stage. A suitable adjuvant like MCW EOS should be used at the recommended rate.

3. Application rates for **CLODINAGAN® 240 EC** for the Summer Rainfall Region in dry land wheat.

WEED	DEVELOPMENT STAGE	DOSAGE RATE / HA	REMARKS
Volunteer maize <i>Zea mays</i> Wild oats <i>Avena fatua</i>	3–4 leaf	Ground application 335 ml Aerial application 380 ml	Apply after the first rains in spring if the mean temperature exceeds 10 °C over a 24 hour period for three consecutive days. If wild oats is exceeding the 4 leaf development stage during this period CLODINAGAN® 240 EC should be applied to minimise yield loss. Weed control can be poorer. A follow up application of CLODINAGAN® 240 EC at 250 ml/ha plus MCW EOS at 0.5 % is recommended.
Sweet buffalo grass <i>Panicum schinzii</i>	3–4 leaf	Ground application 200 ml Aerial application 220 ml	

WEED SPECTRUM

The following weeds are normally controlled by **CLODINAGAN® 240 EC** at the rates as is indicated above:

<i>Avena fatua</i>	Wild oats
<i>Lolium spp</i>	Italian ryegrass
<i>Panicum schinzii</i>	Sweet buffalo grass
<i>Phalaris minor</i>	Little seeded canary grass
<i>Zea mays</i>	Volunteer maize



ADAMA

Listen - Learn - Deliver

Do not use **CLODINAGAN® 240 EC** in populations of above mentioned weeds which have built up resistance against the Aryloxyphenoxy propionate herbicides.

WAARSKUWINGS

- Skadelik indien ingesluk.
- Mag dodelik wees indien ingesluk en in lugweg beland.
- Mag skade aan organe veroorsaak deur langdurige of herhaalde blootstelling.
- Baie giftig vir waterlewende organismes met langdurige gevolge.

- Berg in 'n koel droë plek weg van voedsel en voer.
- Stoor onder slot en grendel buite bereik van kinders, oningeligte persone en diere.
- **Herbetredingsperiode:** Moet nie die behandelde gebied betree voordat die spuitneerslag afgedroog het nie, tensy beskermende oorklere gedra word.
- **Lugtoediening:** Stel alle inwoners in die onmiddellike omgewing van die gebied waar bespuit gaan word in kennis en reik die nodige waarskuwings uit. Moet nie spuit of toelaat dat die spuitnewel wegdryf en aangrensende gebiede besoedel nie.

Alhoewel hierdie middel omvattend onder 'n groot verskeidenheid toestande getoets is, waarborg die registrasiehouer nie dat dit onder alle toestande doeltreffend sal wees nie aangesien die werking en effek daarvan beïnvloed word deur faktore soos abnormale klimaats- en bergingstoestande, kwaliteit van verdunningswater, verenigbaarheid met ander stowwe wat nie op die etiket aangedui is nie en die voorkoms van weerstand van die onkruid teen die betrokke middel sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing of vir nadelige effek op mens of dier of vir 'n gebrek aan prestasie van die betrokke middel as gevolg van die versuim van die gebruiker om etiketaanwysings na te kom of as gevolg van die ontstaan van toestande wat nie kragtens die registrasie voorsien kon word nie. Raadpleeg die verskaffer in geval van enige onsekerheid.

VOORSORGMAATREËLS

- Indien mediese advies benodig word, hou die produkhouer of -etiket byderhand.
- Hou buite bereik van kinders.
- Lees etiket voor gebruik.
- Verkry mediese hulp indien jy ongesteld voel.
- Moet nie poeier/walm/gas/stuifsel/dampe/spuitstof inasem nie.
- Was gesig, hande en enige ander blootgestelde dele deeglik na hantering.
- Moet nie eet, drink of rook wanneer hierdie produk gebruik word nie.
- Vermyn vrystelling in die omgewing.
- **INDIEN INGESLUK:** Kry onmiddellik mediese noodhulp. Spoel mond uit. Moet NIE vomering induseer nie.
- Maak stortsel bymekaar.

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| <ul style="list-style-type: none"> • Berg agter slot en grendel. • Raak ontslae van inhoud/houer by 'n goedgekeurde afvalverwyderingsaanleg. |
|--|
- Vermoed vel- en oogkontak. Indien vel per ongeluk besoedel raak, was met koue water en seep. Indien in oë beland, was oë met skoon lopende water vir minstens 15 minute uit.
 - Was besoedelde klere daaglik.
 - Vermoed wegdryf van spuitnewel na ander gewasse en veral hawer, weidings, riviere, damme of enige ander gebied wat nie onder behandeling is nie.
 - Verhoed kontaminasie van voedsel, voer, drinkwater en eetgerei.
 - Keer die leë houer oor die spuit of mengtenk om en dreineer vir minstens 30 sekondes nadat die vloei tot 'n gedrup verminder het. Spoel daarna die leë houer drie keer na mekaar met een kwart van die houervolume vars water en giet die spoelwater in die spuittenk of mengtenk oor Kap gate in die drie keer gespoelde houer waarna dit aan 'n goedgekeurde versamelaar of verwerker oorhandig moet word (www.croplife.co.za).
 - Moet nie die houer begrawe, verbrand of aan enige ander partye skenk wat dit as houer vir voedsel of drinkgoed mag gebruik nie.
 - Maak die spuitapparaat deeglik skoon na gebruik. Gooi die waswater waar dit nie gewasse, weiding, riviere, damme of boorgate sal besoedel nie.

RELEVANTE STOWWE

Chemical name	w/w %	CAS no.
Koolwaterstowwe, C ₁₀ -C ₁₃ , aromatiese middels, <1% naftaleen	30 – 60%	EC no: 922-153-0
Klodinafop-propargiel	10 – 30%	105512-06-9
Propileenkarbonaat	5 – 30%	108-32-7
Poli(oksi-1,2-etaandiël), .alfa.-[tris(1-fenieletiel)feniel)]-.omega-hidroksie	<10%	99734-09-5
Klokintoset-meksiel	<10%	99607-70-2
Benseensulfoonsuur, C ₁₀ -C ₁₃ - alkiel-derivate, kalsiumsout	<10%	1335202-81-7

NOODHULPBEHANDELING

In geval van 'n ongeluk of as u sleg voel, moet onmiddellike mediese advies verkry word (wys die etiket waar nodig). Noodhulp: Let op selfbeskerming.

Neem die produkhouer of produknaam saam wanneer mediese hulp verlang word.

Oogkontak: Spoel onmiddellik met groot hoeveelhede water. Na oë aanvanklik gespoel is, verwyder kontaklense indien aanwesig, en hou aan met spoel vir ten minste 15 minute. Hou oog wyd oop terwyl gespoel word. As simptome voortduur, skakel 'n geneesheer.

Velkontak: Trek alle besoedelde klere en skoene uit. Spoel die vel onmiddellik met groot hoeveelhede water vir 15 tot 20 minute onder die veiligheidstort. Raadpleeg 'n geneesheer indien nodig.

Inaseming: Neem na vars lug. As asemhaling onreëlmatig is of stop, dien kunsmatige asemhaling toe. Skakel 'n geneesheer.

Indien ingesluk: Indien by volle bewussyn, laat mond deeglik uitspoel met water. MOET nie braking veroorsaak nie. Moet nooit iets per mond aan 'n bewustelose persoon of 'n persoon met stuiptrekkings gee nie. Indien spontane braking plaasvind, laat die slagoffer vooroor buig met kop na onder om inaseming van braaksel te verhoed. Spoel mond uit en gee nog water. Kry onmiddellik mediese hulp indien simptome voorkom.

TOKSIKOLOGIESE INLIGTING

Teenmiddels

Geen teenmiddel bekend nie. Simptomatiesiese terapie word aanbeveel.

Simptome van menslike vergiftiging

Geen bekend nie.

NOTA AAN DIE GEBRUIKER: Gebruik slegs soos aangedui volgens die gebruiksaanwysings in hierdie etiket. Dit is 'n oortreding van die Wet om hierdie middel te gebruik op 'n wyse wat strydig is met die etikettering daarvan.

WEERSTANDSWAARSKUWING

CLODINAGAN® 240 EC is 'n Groepkode 1 onkruidodder. Enige onkruidpopulasie mag individue bevat wat 'n natuurlike weerstand teen **CLODINAGAN® 240 EC** en ander Groepkode 1 onkruidodders het. As hierdie onkruidodders aanhoudend en eksklusief gebruik word, sal die weerstandbiedende spesies uiteindelik die onkruidpopulasie domineer. Hierdie weerstandbiedende spesies mag dalk nie deur **CLODINAGAN® 240 EC** of enige ander Groepkode 1 onkruidodder beheer word nie.

Om ontwikkeling van weerstand te vertraag kan die volgende gedoen word:

- Vermyn die aanhoudende eksklusiewe gebruik van onkruidodders van dieselfde groepkode. Wissel af, of gebruik in tenkmengsels met middels van verskillende groepkodes.
- Integreer beheermetodes (chemies, bewerking, biologies) in onkruidbeheerprogramme.
- Hou rekord van elke land wat bespuit word. Inspekteer elke land jaarliks vir die voorkoms van weerstandbiedende onkruid. Voorkom dat onkruidssaad of plantmateriaal van een land na 'n ander vervoer of versprei word. Gebruik slegs onkruidvrye plantmateriaal.
- Omdat dit onmoontlik is om die voorkoms van weerstandbiedende onkruid voor die gebruik van **CLODINAGAN® 240 EC** te bepaal kan ADAMA South Africa (Pty) Ltd nie verantwoordelikheid aanvaar vir enige verliese wat mag voortspruit deurdat weerstandbiedende onkruid nie beheer is nie omdat bogenoemde maatreels nie nagekom is nie.

Vir meer spesifieke inligting rakende weerstandsbestuur kan die registrasiehouer van hierdie produk geskakel word.

MEGANISME VAN WERKING

1: Inhibisie van asetiel CO-A karboksilase.

Gebruiksbeperkings en belangrike inligting

- **CLODINAGAN® 240 EC** kan toegedien word in enige koringkultivar wat tenminste die 3-blaar stadium bereik het vir die beheer van aktiefgroeiende grasonkruid.
- Moet nie **CLODINAGAN® 240 EC** toedien in koringlande waar weerstandbiedendheid van grasonkruid bevestig is of vermoed word, waar onkruid onder enige tipe stremming soos droogte, baie hoë of lae temperature, versuip-toestande of voedingstekorte is nie.
- Moet nie **CLODINAGAN® 240 EC** in gars of hawer toedien of toelaat dat die spuitnewel daarvoor dryf nie.
- Slegs onkruid wat alreeds ontkiem het tydens toediening, sal beheer word.
- Verseker deeglike bedekking van onkruid. Onkruid wat afgeskerm word deur die gewas of ander onkruid mag dalk nie genoegsaam beheer word nie.
- **CLODINAGAN® 240 EC** word vinnig in die grond afgebreek.

GEBRUIKSAANWYSINGS

Gebruik slegs soos aangedui.

Verenigbaarheid

Die verenigbaarheid van **CLODINAGAN® 240 EC** met ander produkte mag beïnvloed word deur die formulering van die produk (te) waarmee dit vermeng word en die kwaliteit van die verdunningswater. Omdat die formulering van ander produkte mag verander sonder die medewete van ADAMA South Africa (Pty) Ltd. en die kwaliteit van water kan verskil van plaas tot plaas, moet 'n verenigbaarheidstoets altyd voor bespuiting uitgevoer word. Indien **CLODINAGAN® 240 EC** teen 150 ml/ha in 'n tenkmengsel met MCPA toegedien word, mag onder sekere omstandighede 'n antagonistiese reaksie tussen die twee middels ontstaan.

Vermenging

Vul die spuittenk half met skoon water. Voeg die benodigde hoeveelheid **CLODINAGAN® 240 EC** in die water terwyl geroer word. Vul die tenk met water tot amper vol terwyl gedurigdeur geroer word. Voeg dan 'n geskikte bevorderingsmiddel soos MCW EOS by teen die aanbevole dosis. Indien **CLODINAGAN® 240 EC** in 'n tenkmengsel met ander produkte gebruik word moet dit laaste in die spuittenk net voor die MCW EOS bygevoeg word. Dit is belangrik om daarop te let dat die spuitmengsel deeglik en aanhoudend geroer word tydens vermenging en toediening. Vermeng slegs genoegsame hoeveelhede wat dieselfde dag uitgespuit kan word. Moet nie die spuitmengsel oornag laat staan nie.

TOEDIENING

CLODINAGAN® 240 EC moet net op jong aktiefgroeiende onkruid toegedien word. Onkruid moet deeglik benat word. Die gewas moet dus nie so dig wees dat onkruid afgeskerm word tydens toediening nie.

Grondtoediening

CLODINAGAN® 240 EC kan deur middel van enige geskikte medium- of hoë volume spuitapparaat toegedien word, mits dit in staat is om die spuitmengsel eweredig oor die teikengebied te versprei, dit toegerus is met 'n doeltreffende roermeganisme en dit korrek gekalibreer is. Dit word aanbeveel dat van platwaaier spuitpunte gebruik gemaak word en 'n spuitvolume van 200 liter water/ha gehandhaaf word om die spuitmengsel eweredig oor die teikenoppervlak en onkruid te versprei.

Lugtoediening

CLODINAGAN® 240 EC kan slegs deur 'n geregistreerde Lugbespuitingsoperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SABS Kode 10118 (Aerial Application of Agricultural Pesticides) uit die lug bespuit word. Verseker dat die spuitmengsel eweredig oor die teikenarea versprei word, en die verlies aan spuitmengsel tydens toediening tot 'n minimum beperk word. Dit is daarom belangrik om aan die volgende vereistes te voldoen:

- Volume: 'n Spuitmengsel volume van 30 L per ha word aanbeveel. Hierdie produk is nie teen 'n verlaagde volume getoets nie. Die registrasiehouer kan nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige nadelige effekte indien hierdie produk teen 'n laer volume, as hierbo aanbeveel, toegedien word nie. Druppel bedekking: 25-35 druppels per cm² moet op die teikenarea herwin word.
- Druppelgrootte: 'n Druppelspektrum met 'n VMD van 280-300 mikrons word aanbeveel. Beperk die produksie van druppels kleiner as 150 mikron (hoë drywing en verdampingspotensiaal) tot 'n minimum.
- Vlieghoogte: Handhaaf die hoogte van die spuitbalk bo die teiken op 3-4 meter. Moet nie spuit wanneer die vliegtuig duik, uitklim of draai nie.
- Gebruik geskikte atomiseringsapparaat wat die vereiste druppelgrootte en bedekking sal produseer, maar die minste verlies van produk verseker. Die spuitstelsel moet 'n druppelspektrum met die kleinste moontlike Relatiewe Span produseer.
- Plaas al die atomiseerders in die binnste 60-75 % van die vlerkspan om te verhoed dat druppels binne-in die vlerkpuntvorteks beweeg.
- Die verskil in temperatuur tussen die nat- en droëboltermometer van 'n swaaihigrometer, moet nie 8°C oorskry nie. Stop bespuiting indien die windspoed 15 km/h oorskry.
- Stop bespuiting tydens turbulente, onstabiele en droë toestande gedurende die hitte van die dag.
- Bespuiting onder temperatuur inversie toestande (deur bo of binne die inversie laag te spuit) en/of hoë lugvog toestande (relatiewe humiditeit 80 % en meer) mag tot volgende probleme aanleiding gee:
 - a) verlaagde effektiwiteit aangesien die druppels as 'n wolk in die lug bly hang en moontlik verdamp (onvoldoende bedekking op teiken).
 - b) skade aan nie-teiken gewasse of sensitiewe areas as gevolg van wegdrywing van die spuitwolk na nie-teiken area.
- Verseker dat die Lugbespuitingsoperateur presies weet watter lande bespuit moet word.
- Dit is noodsaaklik om 'n versekering van die Lugbespuitingsoperateur te verkry dat aan al die bogenoemde vereistes voldoen sal word en dat data van belang in 'n logboek saamgevat is vir toekomstige verwysing.

TOEDIENINGSHOEVEELHEDE

1. Toedieningshoeveelhede vir **CLODINAGAN® 240 EC** in die Wes en Oos-Kaap.

ONKRUID	ONTWIKKELING-STADIUM	DOSIS / HA	OPMERKINGS
Wilde hawer <i>Avena fatua</i>	3–4 blaar	Grond toediening 150 ml Lugtoediening 165 ml	<p>Toediening voor die 3-blaar ontwikkelings stadium van wildehawer en kleinsaadkanariegras mag tot herontkieming lei. Wilde hawer biotipes met harige blare soos wat in Eendekuil en Wellington gebiede voorkom sal nie deur hierdie lae toedieningshoeveelheid beheer word nie. Antagonisme tussen CLODINAGAN® 240 EC en MCPA® mag ondervind word onder sekere toestande teen die lae toedieningshoeveelhede.</p> <p>Die byvoeging van 'n geskikte bevorderingsmiddel, soos MCW EOS, is noodsaaklik.</p>
Wilde hawer <i>Avena fatua</i> Kleinsaad kanariegras <i>Phalaris minor</i>	3–4 blaar	Grond toediening 200 ml Lugtoediening 220 ml	<p>As CLODINAGAN® 240 EC voor die 3–4 blaar stadium van wilde hawer en kleinsaad kanariegras toegedien word, mag dit tot herontkieming lei. Wilde hawer sal beheer word tot die vlagblaar stadium maar erge kompetisie wat tot 'n oesverlies mag lei, kan verwag word as na die 3–4 blaar stadium toegedien word. Die byvoeging van 'n geskikte bevorderingsmiddel, soos MCW EOS is noodsaaklik.</p>
Wilde hawer <i>Avena fatua</i> Kleinsaad kanariegras <i>Phalaris minor</i> Italiaanse raaigras <i>Lolium spp</i>	3–4 blaar 2–3 blaar	Grond toediening 250 ml Lugtoediening 275 ml	<p>Sien opmerkings soos hier bo aangedui</p> <p>Italiaanse raaigras wat na die 2–3 blaar stadium behandel word mag dalk nie doeltreffend beheer word nie.</p>

Nota: MOET NIE **CLODINAGAN® 240 EC** toedien waar weerstand van die grasspesies teen die ACCase inhibeerders alreeds bewys is nie.

2. Toedieningshoeveelhede van **CLODINAGAN® 240 EC** in die Somer Reënval Gebiede in koring onder besproeiing.

ONKRUID	ONTWIKKELING-STADIUM	DOSIS / HA	OPMERKINGS
Wilde hawer <i>Avena fatua</i>	3–4 blaar	Grond toediening 250 ml Lugtoediening 275 ml	Dien 2 dae na besproeiing toe. Opbrengsverliese mag voorkom as onkruid na die 4 blaar stadium behandel word. Die byvoeging van 'n geskikte bevorderings middel soos MCW EOS is noodsaakli.

3. Toedieningshoeveelhede vir **CLODINAGAN® 240 EC** in die Somer Reënval Gebiede in droë land koring.

ONKRUID	ONTWIKKELING-STADIUM	DOSIS / HA	OPMERKINGS
Opslagmielies <i>Zea mays</i>	3–4 blaar	Grondtoediening 335 ml Lugtoediening 380 ml	Dien na die eerste lentereëns in lente toe as die gemiddelde temperatuur 10 °C per 24 oorskry vir tenminste drie opeenvolgende dae. As wildehawer die 4-blaar stadium oorskry gedurende hierdie periode moet CLODINAGAN® 240 EC toegedien word om oesverlies te minimaliseer. Onkruidbeheer mag dan dalk onvoldoende wees. 'n Opvolgbespuiting met CLODINAGAN® 240 EC teen 250 ml/ha plus MCW EOS teen 0.5 % word dan aanbeveel.
Soetgras <i>Panicum schinzii</i>	3–4 blaar	Grondtoediening 200 ml Lugtoediening 220 ml	

ONKRUIDSPEKTRUM

Die volgende onkruide word deur **CLODINAGAN® 240 EC** beheer teen hoeveelhede soos hierbo aangedui:

<i>Avena fatua</i>	Wilde hawer
<i>Lolium spp</i>	Italiaanse raigras
<i>Panicum schinzii</i>	Soetgras



ADAMA

Listen - Learn - Deliver

Phalaris minor

Kleinsaad kanariegras

Zea mays

Opslagmielies

Moet nie **CLODINAGAN® 240 EC** in populasies van bogenoemde onkruide gebruik wat weerstand teen die Arieloksiefenok