



ZA84487937K - South Africa

SEE ENCLOSED PAMPHLET FOR FULL PARTICULARS
BEFORE USING THIS PRODUCT PLEASE READ THE
LABEL CAREFULLY

Reg. No. L10791 (Act No. 36 of 1947)
Namibian Registration No. N-AR 2083
Botswana Reg. No. W1301715 (Act. No. 18 of 1999)

A pre-emergence suspension concentrate herbicide
with long residual activity for the control of certain
broadleaved and grass weeds in crops listed.

SIEN INGESLOTE PAMFLET VIR
VOLLEDIGE BESONDERHEDE

Reg. Nr. L10791 (Wet Nr. 36 van 1947)
Namibiese Registrasie Nr. N-AR 2083

'n Vooropkoms suspensie konsentraat onkruidodder met
lang nawerking vir die beheer van sekere breëblaar- en
grasonkruid in gewasse soos aangedui.

GROUP / GROEP L29 HERBICIDE / ONKRUIDDODER



WARNING

HAZARD STATEMENTS:

May cause damage to organs (Nervous system) if swallowed. May cause damage to organs (Nervous system) through prolonged or repeated exposure if swallowed. Very toxic to aquatic life with long lasting effects. (Contains 1,2-benzisothiazolin-3-one. May produce an allergic reaction)

PRECAUTIONARY STATEMENTS:

Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wear protective gloves/ protective clothing/ eye protection/ face protection

Active ingredient: Indaziflam (Alkylazine)..... 500 g/ℓ

Aktiewe bestanddeel: Indaziflam (Alkylazine)..... 500 g/ℓ

REGISTERED BY / GEREGISTREER DEUR: Bayer (Pty) Ltd / (Edms) Bpk
Reg. No. / Nr. 1968/011192/07 P.O. Box/Posbus 143, Isando, 1600 South Africa/Suid-Afrika
TEL: (OFFICE HOURS) / (KANTOORURE) (011) 921 5911

IN CASE OF POISONING PLEASE CALL / IN GEVAL VAN VERGIFTIGING SKAKEL ASSEBLIEF: 0861 555 777

Alion® is a registered trademark of the Bayer Group / is 'n geregistreerde handelsmerk van die Bayer Groep.

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BATCH NUMBER / LOTNOMMER: See on Pack

DATE OF MANUFACTURE / DATUM VERVAARDIG: Sien op houer

UN No. / VN Nr.: 3082

RSA/0724/Alion 250ml/Label Code: ZA84487937K

Bayer

WARNINGS:

HAZARD STATEMENTS:

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- May cause damage to organs (Nervous system) through prolonged or repeated exposure if swallowed.
- Very toxic to aquatic life with long lasting effects.
- Contains 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

CITRUS: DO NOT HARVEST WITHIN 62 DAYS OF APPLICATION.

APPLES AND PEARS: DO NOT HARVEST WITHIN 108 DAYS OF APPLICATION.

STONE FRUITS: DO NOT HARVEST WITHIN 168 DAYS OF APPLICATION.

GRAPES: DO NOT HARVEST WITHIN 129 DAYS OF APPLICATION.

MACADAMIA AND PECAN NUTS: DO NOT HARVEST WITHIN 154 DAYS OF APPLICATION.

NOTE: The recommended withholding period between last application and harvest meets local residue requirements but may not meet export requirements. If the treated crop is intended for the export market, consult the relevant exporting body before application of the product, regarding pre-harvest interval requirements.

Handle with care.

Store in a cool place away from food, feed, seed and other agricultural remedies.

Keep out of reach of children, uninformed persons and animals.

RE-ENTRY: Do not enter treated area within one day after treatment unless wearing protective clothing.

Alion has been tested on most important cultivars and no significant phytotoxicity in the form of yield reduction has been recorded under normal growing conditions. Do not apply **Alion** to crops that exhibit injury from previous herbicide applications.

ALTHOUGH THIS REMEDY HAS BEEN EXTENSIVELY TESTED UNDER A LARGE VARIETY OF CONDITIONS THE REGISTRATION HOLDER DOES NOT WARRANT THAT IT WILL BE EFFICACIOUS UNDER ALL CONDITIONS BECAUSE THE ACTION AND EFFECT THEREOF MAY BE AFFECTED BY FACTORS SUCH AS ABNORMAL SOIL, CLIMATIC AND STORAGE CONDITIONS, QUALITY OF DILUTION WATER, COMPATIBILITY WITH OTHER SUBSTANCES NOT INDICATED ON THE LABEL AND THE OCCURRENCE OF RESISTANCE OF THE WEEDS TO THE REMEDY CONCERNED AS WELL AS BY THE METHOD, TIME AND ACCURACY OF APPLICATION. THE REGISTRATION HOLDER FURTHERMORE DOES NOT ACCEPT RESPONSIBILITY FOR DAMAGE TO CROPS, VEGETATION, THE ENVIRONMENT OR HARM TO MAN OR ANIMAL OR FOR LACK OF PERFORMANCE OF THE REMEDY CONCERNED DUE TO 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:

PRECAUTIONARY STATEMENTS:

- Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
- Wear protective gloves/ protective clothing/ eye protection/ face protection.

Wash with soap and water immediately after use or accidental skin contact.

Do not eat, drink or smoke whilst mixing, applying or before washing hands and face.

Wash contaminated clothing daily.

Avoid spray drift onto other crops, desirable vegetation, grazing, and areas not under treatment, including row and tree crops listed on this label on land adjacent to area being treated as well as rivers and dams.

Prevent overlapping of the spray swaths.

Clean applicator immediately after use, dispose of wash water where it will not contaminate crops, grazing, rivers and dams. The spray equipment must be cleaned thoroughly to prevent contamination of subsequent applications.

Rinse empty container three times with a volume water equal to at least one tenth of that of the container and add the rinsing to the contents of the spray tank before disposing of the container in the prescribed manner.

Destroy empty container by perforation and flattening and never use for any other purpose.

Prevent contamination of food, feedstuffs, drinking water and eating utensils.

Do not spray, drain or flush equipment on or near desirable trees or plants or where their roots may extend. Water used for cleaning must not be allowed to contaminate untreated areas.

USE RESTRICTIONS:

1. Do not use **Alion** in vineyards in the Northern Cape and in the Trawal/Vredendal areas of the Western Cape.
2. Do not apply **Alion** to apples, citrus, macadamia and pecan nuts, pears and stone fruit within three years after transplant. Avoid treatment of young interplants in established orchards.

3. Do not apply **Alion** to grapes within five years after transplant. Avoid treatment of young interplants in established vineyards.
4. Do not follow up with any crop within 36 months after the last application of **Alion**. Planting earlier than this may result in crop injury or death.
 - Annual crops: After 36 months from last application of **Alion**, a bioassay should be conducted prior to planting of annual crops. A successful field bioassay means growing a test strip or several plots of the intended crop from seed or transplant to maturity without any observed herbicide symptoms. The test should be conducted in representative areas across the field that includes knolls, low areas, field edges, and changes in soil texture. The field bioassay should be continued until acceptable or no injury is observed and safe re-cropping interval has been determined.
 - Perennial crops (listed on the label): Replanting after application or within 36 months after last application can be done only by removing the treated soil from the planting hole and filling the hole and around the new planting with soil not treated in the last 36 months.
5. Only use in vineyards where the grapes have been planted at least 30 cm deep or where there is 30 cm of soil barrier between the soil surface and the major portion of the root system.
6. Do not apply **Alion** in nurseries.
7. Avoid excessive overlapping of spray swaths and double spraying.
8. Avoid direct or indirect spray contact with crop foliage, green bark, roots, or fruit as it may cause localised crop injury or death.
9. Prevent spray mist or drift onto the foliage of the crop.
10. Do not apply near desirable plants or trees (such as wind breaks in orchards or vineyards) or to areas where their roots may extend to.

11. Do not apply in areas where the chemical may be washed or moved into contact with the roots of desirable plants.
12. Do not use on soil where susceptible crops or any susceptible plants are to be grown in the foreseeable future.
13. Do not use in crops that exhibit low vigour or poor health as they may be more susceptible to crop injury. Causes of reduced vigour may include such things as previous pesticide applications, excess fertilizer or salt, diseases, insects, nematodes, drought, flooding, wind damage, frost, nutrient deficiency, or mechanical damage.
14. Any other use not in accordance with the directions on this label may cause crop damage.
15. **Alion** is a pre-emergence herbicide only. Already emerged weeds should therefore be controlled by using a registered post-emergence herbicide (such as **Roundup** and **Basta**).
16. Do not apply **Alion** at more than 200 ml/ha per season.
17. Do not apply **Alion** where excessive debris or mulch is present on the soil surface.
18. **Do not use Alion on soils with more than 20 % gravel content.**
19. The soil surface where **Alion** is to be applied should not have open channels or cracks in the soil. This is to prevent the product from reaching the crop roots either through direct contact from the spray application or water movement from rain or irrigation as this may cause crop injury.
20. Do not apply this product to water-saturated soil.
21. Do not apply **Alion** through any type of irrigation system.
22. Do not use this product in orchards or vineyards under flood irrigation.
23. Use of soil-applied phosphonates and phosphonic acids with **Alion** within the same season may result in crop damage and should be avoided.

RELEVANT SUBSTANCES:

Formulation inert	CAS Number	Conc. (%)
Indaziflam	950782-86-2	45,5
Ethoxylated polyarylphenol	99734-09-5	>= 0,1 – < 25
1,2-Benzisothiazol-3(2H)-one	2634-33-5	>= 0,005 – < 0,05

RESISTANCE WARNING:

Alion (Indaziflam) belongs to the Alkylazine group of herbicides. Indaziflam is a Cellulose Biosynthesis Inhibitor, and is classified as a Group Code L29 herbicide by HRAC. It inhibits crystalline cellulose deposition in the plant cell wall. This action severely affects cell wall formation as well as cell elongation and division. Consequently only actively growing meristematic root and shoot tissues will be affected, hence germinating weed seeds die before emerging. Any weed population may contain or develop plants naturally resistant to Indaziflam and other Group Code L29 herbicide. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **Alion** or any other Group Code L29 herbicide.

Since the presence of resistant weeds is difficult to detect prior to herbicide application, it is of the utmost importance that treated areas are timeously inspected at regular intervals to identify the occurrence of herbicide resistant weeds. Bayer (Pty) Ltd. will not accept liability for performance failures in the event of a build-up of resistant weeds resulting from inadequate resistance management practices as indicated on the label.

To delay herbicide resistance:

- Avoid exclusive, repeated use of herbicides from the same herbicide Group Code.
- Alternate with products from different herbicide Group Codes.
- Integrate other control methods [chemical, cultural, etc.] in weed control programmes.
- Any weed regrowth should be spot sprayed with a registered post-emergence herbicide before it becomes well developed and flowers.

For specific information on resistance management contact your local Bayer representative.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED

COMPATIBILITY:

Alion is compatible with **Roundup** (Reg. No. L407), **Roundup Turbo** (Reg. No L7166) and **Basta**. Not all glyphosate-based formulations have been tested and it is advisable to test compatibility prior to application. Since the quality of water may vary from farm to farm a physical compatibility test should always be carried out prior to application.

MIXING AND APPLICATION INSTRUCTIONS:

1. Half fill the spray tank with water.
2. Mix the required amount of **Alion** with a little clean water before adding to the spray tank.

3. Keep the mixture in continuous suspension by means of agitation and use the spray mixture within 6 hours after mixing.
4. Apply with correctly calibrated equipment which will distribute the required amount evenly over the area to be treated in a spray volume of at least 200 l/ha. Use a coarse spray droplet as to reduce drift. Good results are obtained using flat-fan or double outlet flat fan (Twin Jet) spray nozzles to ensure even spray distribution. However, where there is a danger of drift onto susceptible plant tissue, drift reducing type nozzles or equivalent is recommended.
5. With application, ensure that the spray nozzles have an even spray pattern and that even coverage of the soil surface and the weed foliage are obtained when applied in a tank mix with **burndown products such as Roundup and Basta**.
6. Where spray brooms are used in crops with low overhanging branches such as stone fruit, faulty application techniques can cause unsprayed areas which may result in unacceptable weed control.

Directed (Band) Applications:

Alion should be applied as a directed band spray to the area under the trees/vines where the weeds need to be controlled. For such band applications of Alion, proportionately less product and spray water per hectare will be required versus a broadcast overall application.

APPLICATION TABLE:

SUMMER RAINFALL AREA

CROP*	APPLICATION RATE PER HECTARE	REMARKS
CITRUS GRAPES (excluding Northern Cape, MACADAMIA and PECAN NUTS STONE FRUIT	Alion at 200 mℓ/treated hectare (200 mℓ/10,000 m ²) - refer "Band applications"	Apply Alion at the start of the rainy season to a weed free soil. Where Alion is applied to established weeds, it must either be preceded or tank mixed with an appropriate registered post-emergence contact herbicide (such as Roundup) to kill the existing weeds or the area should be cleaned by mechanical means prior to the application of Alion .

WINTER RAINFALL AREA

CROP*	APPLICATION RATE PER HECTARE	REMARKS
APPLES CITRUS GRAPES (excluding Trawal/ Vredendal area) PEARS STONE FRUIT	Alion at 100 to 150 mℓ/treated hectare (100 to 150 mℓ/ 10,000 m ²) – refer "Band applications" Use the lower rate where control is required for up to 6 months and the higher rate when a longer period of control is required.	Apply Alion at the start of the rainy season to a weed free soil. Where Alion is applied to established weeds, it must either be preceded or tank mixed with an appropriate registered post-emergence contact herbicide (such as Roundup and Basta) to kill the existing weeds or the area should be cleaned by mechanical means prior to the application of Alion .

* Please refer to use restrictions.

BROADLEAVED WEEDS CONTROLLED:

<i>Ageratum conyzoides</i>	Flossflower
<i>Amaranthus hybridus</i>	Hybrid pigweeds
<i>Bidens pilosa</i>	Common blackjack
<i>Chenopodium album</i>	White Goosefoot
<i>Commelina benghalensis</i>	Wandering Jew
<i>Conyza</i> spp. (<i>Erigeron bonariensis</i>)	Fleabane
<i>Euphorbia hirta</i>	Red Euphorbia
<i>Erodium moschatum</i>	Musk heron's bill
<i>Plantago lanceolata</i>	Narrow leaved Plantain
<i>Raphanus raphanistrum</i>	Wild radish
<i>Richardia brasiliensis</i>	Mexican Richardia
<i>Senecio</i> spp.	Ragwort
<i>Sonchus oleraceus</i>	Common Sow-thistle
<i>Stellaria media</i>	Common chickweed

GRASS WEEDS CONTROLLED:

<i>Avena fatua</i>	Common wild oats
<i>Chloris virgata</i>	Feathertop chloris
<i>Digitaria sanguinalis</i>	Hairy finger grass
<i>Eleusine coracana</i>	Goose grass
<i>Eragrostis</i> spp.	Love grass
<i>Lolium</i> spp.	Rye grass
<i>Tragus racemosus</i>	Carrot seed grass

NOTES:

1. **Alion** is activated by moisture and best weed control is achieved when applied to moist soil followed by $\pm$ 15 mm rainfall or irrigation after application.
2. **Alion** is a pre-emergence herbicide and will only control weeds that have not germinated at the time of application. If existing weeds are present, these may have a detrimental effect on the efficacy of **Alion** if not chemically or mechanically well controlled.
3. Other weed species that were not present in development trials may also be controlled by **Alion** however, Bayer (Pty) Ltd. does not accept any liability in respect of the level of control of unlisted weeds.
4. **Alion** should be applied as a directed spray and contact of the spray mixture with the foliage or fruit of the crop should be avoided as far as possible. If contact with the leaves of the crop should occur, **Alion** may cause chlorosis/necrosis but these symptoms are of a transitory nature and will therefore not adversely affect the yield.

Roundup® is a registered trademark of the Bayer Group.

Basta® is a registered trademark of BASF.

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WAARSKUWINGS:

GEVAAR WAARSKUWINGS:

- Mag skade aan organe (senuweestelsel) veroorsaak indien ingesluk.
- Mag skade aan organe (senuweestelsel) veroorsaak deur langdurige en herhaaldelike blootstelling indien ingesluk.
- Baie giftig vir waterlewende organismes met langdurige gevolge.
- Bevat 1,2-benzisothiazolin-3-one. Mag allergiese reaksie veroorsaak.

SITRUS: MOENIE OES BINNE 62 DAE NA TOEDIENING NIE.

APPELS EN PERE: MOENIE OES BINNE 108 DAE NA TOEDIENING NIE.

STEENVRUGTE: MOENIE OES BINNE 168 DAE NA TOEDIENING NIE.

DRUIWE: MOENIE OES BINNE 129 DAE NA TOEDIENING NIE.

MAKADAMIA EN PEKANNEUTE: MOENIE OES BINNE 154 DAE NA TOEDIENING NIE.

LET WEL: Die aanbevole onthoudingsperiode tussen laaste toediening en oes voldoen aan die vereistes vir plaaslike residuvlakke maar mag dalk nie voldoen aan die vereistes vir uitvoer nie. Indien die behandelde gewas bestem is vir die uitvoermark, skakel met die betrokke uitvoerliggaam voor toediening van die produk, rakende onthoudingsperiodes.

Hanteer versigtig.

Berg in 'n koel plek, weg van voedsel, voer, saad of enige ander landboumiddels.

Hou buite bereik van kinders, oningeligte persone en diere.

HERBETREDING: Moenie behandelde gebied binne een dag na toediening binnegaan nie, tensy beskermende oorklere gedra word.

Alion is op die meeste belangrike kultivars getoets en geen betekenisvolle simptome van fitotoksisiteit in die vorm van oesverlagings het onder normale groeitoestande voorgekom nie. Moet nie **Alion** toedien op gewasse wat skade simptome van vorige onkruidododer toedienings vertoon 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 KAN WORD DEUR FAKTORE SOOS ABNORMALE GROND-, 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 ONKRUIDE 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 DIE TOESTANDE WAT NIE KRAGTENS DIE REGISTRASIE VOORSIEN KON WORD NIE. RAADPLEEG DIE VERSKAFFER IN DIE GEVAL VAN ENIGE ONSEKERHEID.

VOORSORGMAATREÛLS:

VOORSORGSVERKLARINGS:

- Moet nie poeier/walm/gas/stuifsel/dampe/spuitstof inasem nie.
- Dra beskermende handskoene / beskermende klere / oogbeskerming / gesigbeskerming.

Was met seep en water onmiddellik na gebruik of toevallige velkontak.
Moenie eet, drink of rook tydens vermenging, toediening of voordat hande en gesig gewas is nie.

Was besoedelde klere daaglik.

Voorkom die oorwaai van spuitstof na ander gewasse, plantegroei, weiding, en areas wat nie onder behandeling is nie, insluitend gewasse en boorde wat gelys op hierdie etiket, wat op grond aangrensend aan die gedeelte wat behandel word geplant is, sowel as riviere en damme.

Voorkom oorvleueling van spuitbane.

Maak spuitapparaat onmiddellik na gebruik skoon, raak ontslae van uitspoelwater waar dit nie gewasse, weiding, riviere en damme kan besoedel nie. Die spuittoerusting moet deeglik skoongemaak word om besoedeling van toekomstige toedienings te voorkom.

Spoel leë houer drie keer uit met 'n volume water gelyk aan ten minste een tiende van die houer en voeg die uitspoelwater by die inhoud van die spuittenk voordat van die houer op die voorgeskrewe metode ontslae geraak word.

Vernietig leë houer deur gate daarin te maak en plat te slaan. Moet vir geen ander doel weer gebruik nie.

Voorkom besoedeling van voedsel, voer, drinkwater en eetgerei.

Moet nie toerusting uitspuit, dreineer of uitspoel op of naby gewenste bome of plante of waar hul wortels mag voorkom nie. Water wat gebruik is vir die skoonmaak van toerusting moet nie toegelaat word om nie-behandelde gebiede te besoedel nie.

GEBRUIKSBEPERKINGS:

1. Moenie **Alion** in wingerde in die Noord Kaap of Trawal/Vredendal areas van Weskaap gebruik nie.
2. Moenie **Alion** in appels, sitrus, makadamia, pekanneute, pere en steenvrugte binne 3 jaar na plant toedien nie. Voorkom die behandeling van ingeplante stokkies of bome in gevestigde wingerde of boorde.

3. Moenie **Alion** in duiwe binne 5 jaar na plant toedien nie. Voorkom die behandeling van ingeplante stokkies of bome in gevestigde wingerde of boorde.
4. Moenie met enige gewas opvolg binne 36 maande na die laaste **Alion** toediening nie. Vroeër aanplantings mag veroorsaak dat die gewas beskadig word of vrek.
 - Eenjarige gewasse: Toets die gewasveiligheid 36 maande na die laaste toediening van **Alion**, 'n Suksesvolle toets sluit in die aanplanting van toetspersele van die beplande gewas van die saad, saailing of steggie en monitering van onkruidodertsimptome tot volwassenheid. Die toets moet geplant word op 'n verteenwoordigende area wat die lae dele, kante, en verskillende grond tipes en teksture insluit. Hou aan met hierdie toets tot daar met sekerheid geen simptome of gewasskade teenwoordig is nie.
 - Meerjarige gewasse (soos op die etiket gelys): Herplanting na toediening of binne 36 maande na toediening kan gedoen word deur die grond in die behandelde area te verwyder en te vervang met grond wat onbehandel is.
5. Gebruik slegs in wingerd waar die duiwe 30 cm diep geplant is of waar daar n 30 cm grondsone is tussen die grondoppervlakte en meerderheid van wortels.
6. Moenie **Alion** in kwekerie toedien nie.
7. Vermyn oormatige oorvleueling van spuit wydtes en dubbel bespuitings.
8. Vermyn direkte of indirekte spuit kontak met die blare, groen bas wortels of vrugte aangesien dit lokale gewasskade kan veroorsaak.
9. Vermyn spuitnewel of wegdryf van spuitmiddel op die blare van die gewas.
10. Moet nie naby gewenste plante of bome (soos windbreke in boorde of wingerde) of op grondoppervlaktes waar hul wortels mag wees, toedien nie.
11. Moet nie in areas vanwaar die middel na gewenste plante of bome se wortels kan beweeg of gespoel kan word, toedien nie.
12. Moenie op grond gebruik waar binne afsienbare tyd gevoelige gewasse of plante geplant gaan word nie.

13. Moenie gebruik in gewasse wat swak groei of siekte simptome toon nie aangesien hierdie meer vatbaar is vir gewasskade. Oorsake van swak groei sluit in chemiese, kunsmis oordosering of soute, siektes, insek, aalwurm, droogte, vloed, wind skade, ryp, voedings tekorte en meganiese skade.
14. Enige ander gebruik buite die aanbevelings op hierdie etiket mag skade aan die gewas veroorsaak.
15. **Alion** is slegs 'n vooropkoms onkruidodder. Reeds ontkiemde onkruid moet daarom beheer word met 'n geregistreerde na-opkoms onkruidodder (soos **Roundup** en **Basta**).
16. Moenie meer as 200 ml/ha **Alion** per seisoen toedien nie.
17. Moenie **Alion** toedien waar oormatige plantreste of deklaag op die grond oppervlak teenwoordig is nie.
18. **Moenie Alion toedien op gronde wat meer as 20 % gruis bevat nie.**
19. Die grondoppervlakte waar **Alion** toegedien gaan word moet nie oop slote of krake in die grond bevat nie. Hierdie is om te verhoed dat die produk nie loog na die wortels nie deur direkte kontak van die spuittoediening of water beweging van reën of besproeiing nie. aangesien hierdie gewasskade kan veroorsaak.
20. Moenie hierdie produk toedien op baie nat grond nie.
21. Moenie **Alion** deur enige besproeiingstelsel toedien nie.
22. Moenie die produk gebruik op boorde of wingerd onder vloedbesproeiing nie.
23. Die gebruik van grond toegediende fosfonate of fosforsuur met **Alion** binne dieselfde seisoen mag lei tot gewasskade.

RELEVANTE STOWWE:

Formulation inert	CAS Number	Conc. (%)
Indaziflam	950782-86-2	45,5
Ethoxylated polyarylphenol	99734-09-5	$\geq 0,1 - < 25$
1,2-Benzisothiazol-3(2H)-one	2634-33-5	$\geq 0,005 - < 0,05$

WEERSTANDSWAARSKUWING:

Alion (Indaziflam) behoort aan die Alkylazine groep van onkruidodders. Indaziflam is 'n Sellulose Biosintese Inhibeerder en is as 'n Groepkode L29 onkruidodder deur HRAC geklassifiseer. Dit inhibeer kristallyne sellulose afsetting in die plant selwand. Hierdie aksie het 'n ernstige invloed op selwand vorming sowel as verlenging en verdeling van selle. Gevolglik word slegs aktief groeiende meristematiese wortel- en stamweefsel beïnvloed, vandaar sterf ontkiemende onkruid saad voor opkoms. Enige onkruid populasie mag plante insluit of ontwikkel wat 'n natuurlike weerstand teen Indaziflam of enige ander Groepkode L29 onkruidodder het. Indien hierdie onkruidodders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die onkruidpopulasie oorheers. Hierdie weerstandbiedende onkruid sal moontlik nie deur **Alion** of enige ander Groepkode L29 onkruidodder, beheer word nie.

Aangesien die voorkoms van weerstandbiedende onkruid moeilik is om te bepaal voor onkruidodertoediening, is dit uiters noodsaaklik dat behandelde gebiede tydig met gereelde intervale ondersoek word om weerstand vroegtydig te identifiseer. Bayer (Edms.) Bpk. sal nie verantwoordelikheid aanvaar vir enige gebrek aan prestasie in die geval van die opbou van weerstand in die onkruidpopulasie as gevolg van onvoldoende onkruidbestandheidsbestuur soos aangedui op die etiket nie.

Om weerstand teen onkruidodders te vertraag:

- Verminder die eksklusiewe, herhaaldelike gebruik van onkruidodders in dieselfde onkruidoder groepkode.
- Wissel af met produkte van verskillende onkruidoder groepkodes.
- Integreer ander beheermaatreëls (chemies, verbouing, ens.) in onkruidbeheerprogramme.
- Enige hergroei van behandelde onkruid moet met 'n kolbespuiting van 'n geregistreerde na-opkoms onkruidoder behandel word voordat die hergroei gevestig raak en die onkruid blom.

Vir spesifieke inligting oor weerstandsbestuur, kontak u naaste Bayer verteenwoordiger.

GEBRUIKSAANWYSINGS: GEBRUIK SLEGS SOOS AANGEDUI

VERENIGBAARHEID:

Alion is verenigbaar met **Roundup** (Reg. No. L407), **Roundup Turbo** (Reg. No L7166) en **Basta**. Nie alle glifosaat-bevattende formulasies is saam **Alion** getoets nie en dit word aanbeveel dat verenigbaarheid voor toediening getoets word.

Aangesien die kwaliteit van die water van plaas tot plaas kan varieer moet 'n fisiese verenigbaarheidstoets altyd uitgevoer word voor die bespuiting.

MENG- EN TOEDIENINGSINSTRUKSIES:

1. Maak die spuittenk halfvol met water.
2. Meng die vereiste hoeveelheid **Alion** met skoon water voor dit in tenk gevoeg word.

3. Hou die mengsel voortdurend in suspensie deur middel van roering en gebruik die spuitmengsel binne 6 uur na vermenging.
4. Dien toe met korrekte gekalibreerde spuittoerusting wat die benodigde hoeveelheid egalig oor die area wat behandel moet word sal versprei, teen 'n minimum spuitvolume van 200 l/ha. Gebruik spuitpunte wat growwe druppels lewer om spuitneweloorwaaiing te verminder. Goeie resultate word verkry deur platwaaier of dubbel-uitlaat platwaaier (Twin Jet) spuitpunte te gebruik. Waar daar 'n risiko is van oorwaaiing, word spesiale spuitpunte wat ontwerp vir die vermindering van oorwaaiing, aanbeveel.
5. Met toediening verseker dat die spuitkoppe 'n egalige spuit patroon lewer en 'n egalige bedekking op die grond oppervlakte en onkruidblare bied wanneer dit in 'n tenkmengsel met breëspektrum produkte soos **Roundup** en **Basta** toegedien word.
6. Waar spuitbalke gebruik word in gewasse met laaghangende take soos in steenvrugte mag swak toediening tot onbehandelde areas lei wat swak beheer tot gevolg mag hê.

Gerigte of Strooktoedienings:

Alion moet toegedien word as 'n gerigte strookbespuiting op die area onder die bome/wingerde waar die onkruid beheer wil word. Vir sulke strookbehandelings van **Alion** sal proporsioneel minder produk sowel as toedieningswater per hektaar benodig word vergeleke met 'n algemene oppervlak toediening.

TOEDIENINGSTABEL:

SOMER-REËNVALGEBIED

GEWAS*	DOSIS PER HEKTAAR	OPMERKINGS
SITRUS DRUIWE (uitsluitend Noord-Kaap) MAKADAMIA PEKANNEUTE STEENVRUGTE	Alion teen 200 mℓ/ behandelde hektar (200 mℓ/ 10,000 m ²) - verwys “Strook toedienings”	Dien Alion op onkruidvrye grond aan die begin van die reënseisoen toe. Indien onkruid aanwesig is ten tye van Alion toediening, moet dit óf voorafgegaan word óf gemeng word met ‘n geskikte geregistreerde na-opkoms onkruid dodder (soos bv. Roundup) om sodoende die bestaande onkruid te dood. Die area kan ook meganiese skoongemaak word voor die toediening van Alion .

WINTER-REËNVALGEBIED

GEWAS*	DOSIS PER HEKTAAR	OPMERKINGS
APPELS SITRUS DRUIWE (uitsluitend Trawal/ Vredendal area) PERE STEENVRUGTE	Alion teen 100 tot 150 mℓ/behandelde hektar (100 tot 150 mℓ/10,000 m ²) – verwys “Strook toedienings” Gebruik die laer dosis wanneer beheer van 6 maande verlang word en die hoër dosis vir langer tydperke van beheer.	Dien Alion op onkruidvrye grond aan die begin van die reënseisoen toe. Indien onkruid aanwesig is ten tye van Alion toediening, moet dit óf voorafgegaan word óf gemeng word met ‘n geskikte geregistreerde na-opkoms onkruid dodder (soos bv. Roundup en Basta) om sodoende die bestaande onkruid te dood. Die area kan ook meganiese skoongemaak word voor die toediening van Alion .

* Verwys na gebruiksbepelings.

BREËBLAAR ONKRUIDE WAT BEHEER WORD:

<i>Ageratum conyzoides</i>	Flox
<i>Amaranthus hybridus</i>	Misbredie
<i>Bidens pilosa</i>	Gewone Knapsekerel
<i>Chenopodium album</i>	Withondebossie
<i>Commelina benghalensis</i>	Wandelende Jood
<i>Conyza</i> spp. (<i>Erigeron bonariensis</i>)	Skraalhans
<i>Euphorbia hirta</i>	Rooi Euphorbia
<i>Erodium moschatum</i>	Turksnael
<i>Plantago lanceolata</i>	Smalblaar plantago
<i>Raphanus raphanistrum</i>	Ramenas
<i>Richardia brasiliensis</i>	Mexikaanse Richardia
<i>Senecio</i> spp.	Hongerbos
<i>Sonchus oleraceus</i>	Sydissel
<i>Stellaria media</i>	Sterremuur

GRAS ONKRUIDE WAT BEHEER WORD:

<i>Avena fatua</i>	Wildehawer
<i>Chloris virgata</i>	Witpluim-chloris
<i>Digitaria sanguinalis</i>	Kruisvingergras
<i>Eleusine coracana</i>	Jongosgras
<i>Eragrostis</i> spp.	Eragrostis
<i>Lolium</i> spp.	Raaigras
<i>Tragus racemosus</i>	Grootwortelsaadgras

NOTAS:

1. **Alion** word geaktiveer deur vog en die beste onkruidbeheer word verkry wanneer dit toegedien word op klam grond gevolg deur ± 15 mm reën of besproeiing na toediening.
2. **Alion** is 'n voor-opkoms onkruiddoder en sal slegs onkruid wat nog nie ontkiem het ten tye van toediening beheer. Indien daar onkruid teenwoordig is, kan dit 'n nadelige uitwerking op die doeltreffendheid van **Alion** hê indien hierdie onkruid nie chemies of meganies goed beheer is nie.
3. Ander onkruid spesies wat nie in ontwikkelingsproewe teenwoordig was nie, mag ook deur **Alion** beheer word maar Bayer (Edms.) Bpk. aanvaar egter aanspreeklikheid ten opsigte van die vlak van beheer van ongelyste onkruid nie.
4. **Alion** moet toegedien word as 'n gerigte bespuiting en kontak van die spuitmengsel met die blare of vrugte van die gewas moet so ver as moontlik vermy word. Indien kontak met die blare van die gewas wel sou plaasvind, mag **Alion** chlorose/nekrose van die blare veroorsaak. Hierdie simptome is tydelik van aard en sal daarom nie die opbrengs nadelig beïnvloed nie.

Roundup® is 'n geregistreerde handelsmerk van die Bayer Groep.

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