

# Ginstar<sup>®</sup>

540 SC

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

Reg. No. L7786 (Act No. 36 of 1947)  
Namibian Reg No.: N-AR 0762  
Botswana Reg. No. W130031 (Act 18 of 1999)

**A defoliant and leaf regrowth suppressor formulated as a suspension concentrate, to facilitate the harvesting of cotton.**

**Active ingredients:**

Thidiazuron (phenylurea compound) ..... 360 g/l  
Diuron (urea compound)..... 180 g/l

**REGISTERED BY / GEREGISTREER DEUR:**

Bayer (Pty) Ltd / (Edms) Bpk  
Reg. 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 PHONE / IN GEVAL VAN VERGIFTIGING SKAKEL: 0861 555 777

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BATCH NUMBER: See on pack  
LOTNOMMER:

DATE OF MANUFACTURE: Sien op houer  
DATUM VERVAARDIG:

Bayer

RSA/0318/Ginstar 1L Label Booklet  
Code: 84950505D

SIEN INGESLOTE PAMFLET VIR VOLLEDIGE BESONDERHEDE

Reg. Nr. L7786 (Wet Nr. 36 van 1947)  
Namibiese Reg Nr.: N-AR 0762

**'n Ontblaringsmiddel wat blaar hergroei onderdruk, geformuleer as 'n suspensie konsentraat, om die oes van katoen te vergemaklik.**

**Aktiewe bestanddele:**

Thidiasuron (feniel ureum-verbinding)..... 360 g/l  
Diuron (ureum-verbinding)..... 180 g/l

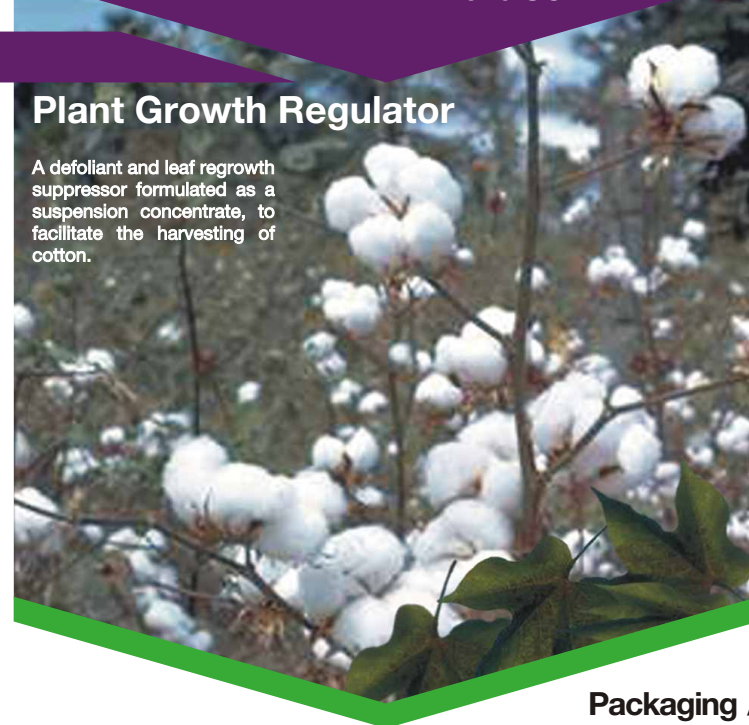


# Ginstar<sup>®</sup>

540 SC

## Plant Growth Regulator

A defoliant and leaf regrowth suppressor formulated as a suspension concentrate, to facilitate the harvesting of cotton.



Packaging / Verpakking:

1 L



CAUTION  
VERSIGTIG



# Plantgroeireguleerder

## **WAARSKUWINGS:**

**MOENIE TOELAAT DAT SPROEINEWEL OORWAAI NA BOME OF GEWASSE BEHALWE KATOEN NIE, AANGESIEN HIERDIE PRODUK ANDER GEWASSE MAG BESKADIG OF ONTBLAAR.**

Moenie behandelde plante bewei of katoenreste aan lewendende hawe voer nie.

Hanteer versigtig.

Irriterend vir oë en vel.

Giftig vir waterorganismes.

Beskerm teen ryp.

Berg in oorspronklike toegemaakte houers, weg van voedsel en voer.

Hou buite bereik van kinders, oningeligte persone en diere.

Herbetreding - Moenie behandelde gebied binnegaan alvorens die spuitneerslag droog is nie, tensy beskermende oorklere gedra word.

Lugtoediening - stel alle inwoners in die onmiddellike omgewing van die gebied wat behandel gaan word in kennis en reik die nodige waarskuwings uit. Moenie aangrensende gebiede of waterbronne bespuit of toelaat dat die sproeiwinkel daarheen oorwaai 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 KLIMAATS- EN BERGINGSTOESTANDE, KWALITEIT VAN VERDUNNINGSWATER, VERENIGBAARHEID MET ANDER STOWWE WAT NIE OP DIE ETIKET AANGEDUI IS NIE SOWEL AS DIE METODE, TYD EN AKKURAAHEID 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 VERSMUM VAN DIE VERBRUIKER 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 DIE GEVAL VAN ENIGE ONSEKERHEID.**

## **VOORSORGMATREËLS:**

Moenie sproeiwinkel inasem nie.

Dra beskermde klere (oorpak, rubberhandskoene, gesigskerm) tydens hantering van die produk.

Was besoedelde klere daagliks.

Was met seep en water na gebruik of velkontak.

In geval van oogkontak, spoel uit met voldoende water vir minstens 15 minute.

Moenie eet, drink of rook tydens vermenging of toediening of voordat hande en gesig gewas en skoon klere aangetrek is nie.

Verhoed besoedeling van voedsel, eetgerei, voer en drinkwater.

Verhoed wegdrywing van die sproeiwinkel na weiding, riviere, damme of waterbronne.

Neem veral voorsorg om die wegdryf van sproeiwinkel na aangrensende gewasse (bv. sitrus) te vermy aangesien dit moontlik groeiversteurings kan veroorsaak.

Moenie toelaat dat die spuitmengsel droog word in die toedieningsapparaat nie. Die toedieningsapparaat (mengbakke, pompe, spuittenks, valarms, spuitbalke, spuitpunte en alle verwante apparaat) moet onmiddellik na toediening gewas en uitgespoel word met 'n reinigingsmiddel en water. Herhaal die proses minstens twee keer. Indien enige **Ginstar 540 SC** residu in die toedieningsapparaat agterbly, kan dit vrygestel word tydens die daaropvolgende toediening van ander produkte, wat gewasskade tot gevolg kan hê.

Maak alle apparaat deeglik skoon na gebruik en moenie die omgewing met spoelwater besoedel nie.

Sodra die houer leeg is keer dit om oor die spuittenk of mengbak en dreineer vir minstens 30 sekondes nadat die vloeitot 'n gedrupe verminder het. Spoel die houer daarna drie keer uit met 'n volume water gelyk aan minstens 'n tiende van die houer en gooi die spoelwater by die inhoud van die spuittenk. Vernietig die houer deur gate daarin te maak en te begrawe of te verbrand. Moenie die houer vir enige ander doel gebruik nie.



## **BESKERMING VAN NIE-TEIKEN GEWASSE:**

Moenie toelaat dat spuitnewel oorwaai na aangrensende gewasse nie. **Ginstar 540 SC** mag ander gewasse, in besonder slaai, sitrus en wingerde, beskadig of ontblaar. Die toediening behoort gedoen te word wanneer wind nie in die rigting van aangrensende gewasse waai nie.

## **OPVOLGGEWASSE:**

Moenie slaai of wortels in katoenlande plant waar **Ginstar 540 SC** binne die vorige nege maande toegedien was nie.

Moenie peulgewasse, lusern en ander wortel- of blaargewasse (behalwe die wat hierbo vermeld is) in katoenlande plant waar **Ginstar 540 SC** binne die vorige twee maande toegedien was nie.

Moenie kleingraan, sorghum of mielies in katoenlande plant waar **Ginstar 540 SC** binne die vorige twee weke toegedien was nie.

## **GEBRUIKSAANWYSINGS: GEBRUIK SLEGS SOOS AANGEDUI**

## **VERENIGBAARHEID:**

**Ginstar 540 SC** is verenigbaar met enige smalbestek minerale olie.

## **MENGINSTRUKSIES:**

SKUD DIE HOUER GOED VOOR GEBRUIK

Maak die spuittenk halfvol met water en voeg die benodigde hoeveelheid **Ginstar 540 SC** by terwyl geroer word. Meet die benodigde hoeveelheid smalbestek minerale olie af en voeg dit by die spuitmengsel op 'n soortgelyke wyse en vul dan die spuittenk met water tot op verlangde vlak. Aanhoudende roering moet plaasvind tot aan die einde van die spuitproses. Moenie aangemaakte spuitmengsel oornag laat staan nie.

## **TOEDIENINGSMETODE:**

ALGHELE BEDEKKING EN EWEREDIGE BENATTING VAN DIE BLARE IS NOODSAAKLIK

## **GRONDTOEDIENING:**

Dien toe met 'n spuitbalk ("tailboom") en spuitpunte wat relatiewe groot druppels teen 'n druk van 250 kPa en minstens 300 l spuitmengsel per hektaar lewer.

# Plantgroeireguleerder

## LUGTOEDIENING:

MOENIE LUGBESPUITING BEGIN VOORDAT U **GINSTAR 540 SC** VERTEENWOORDIGER GESPREEK HET NIE.

Lugtoediening mag slegs deur 'n geregistreerde lugbespuitingsoperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS 10118 (Aerial Application of Agricultural Pesticides) gedoen word. Dit is belangrik om te verseker dat die spuitmengsel eweredig oor die teikenarea versprei word en dat die verlies aan spuitmengsel tydens toediening tot 'n minimum beperk word. Dit is dus belangrik om aan die volgende kriteria te voldoen:

## Toerusting:

- Gebruik geskikte atomiseringsapparaat (hidroliese of roterende spuitkoppe) wat die vereiste druppelgrootte en bedekking sal produseer, maar wat die minste verlies van produk deur wegdrywing sal verseker.
- Die operateur moet 'n stelsel gebruik wat 'n druppelspektrum met die kleinste maandelike relatiewe span sal produseer.
- Al die spuitneuse/atomiseerders moet in die binneste 75 % van die vlerkspan geplaas word om die beweging van druppels in die vlerkvorteks in te verhoed.

## Toedieningsparameters:

- 'n Minimum volume van 30 ℓ spuitmengsel per hektaar word aanbeveel. Aangesien hierdie produk nie teen 'n verlaagde volume getoets is nie, kan die registrasiehouer nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige nadelige effek indien hierdie produk teen 'n laer volume as hierbo aanbeveel, uit die lug toegedien word nie.
- 'n Druppelbedekking van 30-40 druppels per cm<sup>2</sup> moet op die teikenarea herwin word.
- 'n Druppelspektrum met 'n VMD van 250-280 mikron word aanbeveel. Verseker dat die produksie van fyn druppels (kleiner as 150 mikron) tot 'n minimum beperk word.
- Die hoogte van die spuitbalk moet op 3-4 meter bo die teiken gehandhaaf word. Moenie spuit wanneer die vliegtuig aan die bobunt is van, of tydens 'n duik, of terwyl dit uitklim of draai nie.
- Dien toe voordat die gewas te ruig word wat sal verhoed dat plante behoorlik bedek word.

## Meteorologiese toestande :

- Die verskil tussen die nat- en droëbollesing, soos met 'n swaaihigrometer bepaal, moet nie 8°C oorskry nie.
- Moenie toedien tydens turbulente, onstabiele toestande gedurende die hitte van die dag wanneer styg en dalende konveksie windbeweging plaasvind nie.
- Moenie toedien onder temperatuurinversie toestande (deur bo of binne die inversielaag te spuit) nie.
- Moenie spuit indien die windspoed 15 km/uur oorskry nie.

## Algemeen :

- Sorg dat die lande akkuraat gemerk is en die spuitoperateur presies weet watter lande gespuit moet word.
- Verkry 'n versekering van die spuitoperateur dat aan die bogenoemde vereistes voldoen sal word.

## TOEDIENINGSTABEL:

GEWAS	DOSIS	OPMERKINGS
<b>KATOEN</b>	150 - 250 mℓ <b>Ginstar 540 SC</b> plus 2 ℓ smalbestek minerale olie / ha Verwys na "Dosisse en Ontblaringstoestande hieronder"	Dien toe d.m.v. grond- of lugtoediening. Verwys na "Toedieningsmetode" hierbo. Verseker deeglike bedekking van die plante sodat die oppervlaktes van al die blare benat word. Dien slegs toe op aktief-groeiende plante, nie op verouderde plante nie. Dien toe sodra 60 % bolle gebars het of sodra die jongste oesbare bol, fisiologies volgroeid is. ('n Katoenbol is volgroeid wanneer dit te hard is om ingedruk te word wanneer tussen duim en vinger gedruk word - te hard om met 'n skerp mes te sny en wanneer die saadomhulsel ligbruin van kleur is).



## DOSSISE EN ONTBLARINGSTOESTANDE:

Gebruik die laer dosis wanneer toestande optimaal is vir ontblaring en die hoër dosis gedurende marginale toestande. Die onderstaande kan as 'n riglyn dien maar, faktore wat die fisiologiese toestand van die plant beïnvloed, bv. humiditeit, grondvog, bemesting ens. moet ook in ag geneem word.

ONTBLARINGSTOESTANDE	DOSIS
<b>Optimale toestande:</b> Dag temperature = 25 - 35 °C Nag temperature = > 12 °C	150 mℓ/ha
<b>Intermediêre toestande:</b> Dag temperature = 20 - 25 °C Nag temperature = > 12 °C	200 mℓ/ha
<b>Marginale toestande:</b> Dag temperature = < 20 °C Nag temperature = < 12 °C	250 mℓ/ha

## NOTAS:

1. Reën binne 24 uur na toediening sal die ontblaring nadelig beïnvloed.
2. In die geval van aktief groeiende plante en/of reënval kort na toediening, mag hergroei voorkom, veral met laer dosisse.
3. Uiterste klimaatsfaktore bv. baie lae/hoë temperature met- of na toediening, mag die ontblaring nadelig beïnvloed.
4. **Ginstar 540 SC** veroorsaak effektiewe ontblaring van katoen binne 7 - 21 dae na toediening indien die nag temperature bo 10 °C en die dag temperature bo 20 °C bly.
5. Digte en/of oneweredige plantestand of digte onkruidgroei sal sproeiopenetrasie tydens toediening benadeel en die effektiwiteit van die produk verminder, veral wanneer laer dosisse en/of lugtoediening gebruik word.
6. Vir optimale resultate moet die gewas aktief groei. Indien verleppling of ander stremmingsfaktore voorkom, besproei voordat **Ginstar 540 SC** toegedien word.

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# Plant Growth Regulator



## **WARNINGS :**

**DO NOT ALLOW SPRAY DRIFT TO COME INTO CONTACT WITH TREES OR CROPS OTHER THAN COTTON AS THIS PRODUCT MAY INJURE OR DEFOLIATE OTHER CROPS.**

Do not graze treated areas or feed cotton trash to livestock.

Handle with care.

Irritating to eyes and skin.

Toxic to aquatic organisms.

Protect from frost.

Store in original tightly closed container, away from food and feed.

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

Re-entry - Do not enter treated area until spray deposit has dried unless wearing protective clothing.

Aerial application - notify all 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 water or adjacent areas.

**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 CLIMATIC AND STORAGE CONDITIONS, QUALITY OF DILUTION WATER, COMPATIBILITY WITH OTHER SUBSTANCES NOT INDICATED ON THE LABEL AS WELL AS BY THE METHOD, TIME AND ACCURACY OF THE 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:**

Do not inhale spray mist.

Wear protective clothing (overall, rubber gloves, face shield) when handling the product.

Wash contaminated clothing daily.

Wash with soap and water after use or skin contact.

In case of eye contact, flush with plenty of water for at least 15 minutes.

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

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

Prevent spray drift to grazing, rivers, dams or water sources.

Take particular care to avoid any drift to neighbouring crops (e.g., citrus) as growth modifications may result.

Do not allow the spray solution to dry in the application equipment. Immediately following application, flush and rinse equipment (mixing tanks, pumps, application tanks, drop arms, booms, nozzles and all related equipment) thoroughly with detergent and water. Repeat washing at least twice. Should any residue of **Ginstar 540 SC** remain in the application equipment, it may be released during subsequent application of other products and cause damage to crops.

Clean all equipment thoroughly after use and do not pollute the environment with wash water.

When empty, invert the container over the spray tank or mixing tank and allow it to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to one tenth of that of the container and add the rinsings to the contents of the spray tank. Destroy the container by puncturing and burying or burning. Do not use the container for any other purpose.

## **PROTECTION OF NON-TARGET PLANTS:**

Do not allow drift to contaminate adjacent crops. **Ginstar 540 SC** may harm or defoliate other crops, in particular lettuce, citrus and vines. The application should be done in conditions without wind blowing to adjacent crops.

## **FOLLOW-UP CROPS:**

Do not plant lettuce or carrots in cotton fields where **Ginstar 540 SC** has been applied within the previous nine months.

Do not plant legumes, lucerne, other root crops or leafy vegetables (beside those noted above) in cotton fields where **Ginstar 540 SC** has been applied within the previous two months.

Do not plant small grains, sorghum or maize in cotton fields where **Ginstar 540 SC** has been applied within the previous two weeks.

## **DIRECTIONS FOR USE:** USE ONLY AS DIRECTED

## **COMPATIBILITY:**

**Ginstar 540 SC** is compatible with any narrow range mineral oil.

## **MIXING INSTRUCTIONS:**

SHAKE CONTAINER WELL BEFORE USE

Fill half of the spray tank with water, add the required amount of **Ginstar 540 SC** whilst agitating. Measure out the required amount of narrow range mineral oil and add to the half filled spray tank in a similar manner and fill the spray tank to the required level with water. Maintain agitation in the spray tank until spraying has been completed. Do not allow spray mixture to stand overnight.

## **METHOD OF APPLICATION:**

COMPLETE COVERAGE AND UNIFORM WETTING OF LEAVES IS REQUIRED

## **GROUND APPLICATION:**

Apply with a tailboom and nozzles which produce relatively large droplets at a pressure of 250 kPa and delivering at least 300 ℓ spray mixture per hectare.

# Plant Growth Regulator

## AERIAL APPLICATION:

DO NOT COMMENCE AERIAL APPLICATION BEFORE CONSULTING YOUR **GINSTAR 540 SC** REPRESENTATIVE.

Aerial application may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS 10118 (Aerial Application of Agricultural Pesticides). It is important to 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 are met:

## Equipment:

- Use suitable atomising equipment (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product through drift.
- The operator must use a setup that will produce a droplet spectrum with the lowest possible relative span.
- All nozzles / atomisers should be positioned within the inner 75 % of the wingspan to prevent droplets from entering the wingtip vortices

## Application parameters:

- A minimum volume of 30 l spray mixture per hectare is recommended. As this 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 above.
- A droplet coverage of 30-40 droplets per cm<sup>2</sup> must be recovered at the target.
- A droplet spectrum with a VMD of 250-280 microns is recommended. Ensure that the production of fine droplets (smaller than 150 microns) is restricted to a minimum.
- The height of the spray boom should be maintained at 3-4 metres above the target. Do not spray when aircraft is in a climb, at the top or during a dive, or when banking.
- Apply before the crop becomes too dense, thus preventing proper coverage of the plants.

## Meteorological conditions:

- The difference between the wet and dry bulb readings as determined by a whirling hygrometer, must not exceed 8 °C.
- Do not spray under turbulent, unstable conditions during the heat of the day when rising thermals and downdraughts occur.
- Do not spray under temperature inversion conditions (spraying in or above the inversion layer).
- Do not spray if the wind speed exceeds 15 km/h.

## General:

- Ensure that fields are accurately marked and 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.

## APPLICATION TABLE:

CROP	DOSAGE	REMARKS
<b>COTTON</b>	150 - 250 m <sup>l</sup> /ha <b>Ginstar 540 SC</b> plus 2 l narrow range mineral oil / ha Refer to "Dosages and Defoliation conditions" below	Apply by ground or aerial application. Refer to "Method of Application" above. Ensure thorough coverage of the plants to wet the surfaces of all the leaves. Apply only to actively growing plants and not to senescent plants. Apply when 60 % of the bolls are open and when the youngest harvestable boll is physiologically mature. (A boll is mature when it is too hard to be dented when squeezed between thumb and fingers, too hard to be sliced with a sharp knife and when the seed coat becomes light brown in colour).



## DOSAGES AND DEFOLIATION CONDITIONS:

Use the lower rate when conditions are optimum for defoliation and the higher rate under marginal conditions. The following can serve as a guideline, but other factors influencing the physiological condition of the plant, e.g., humidity, soil moisture, fertilization, etc. should also be considered.

DEFOLIATION CONDITIONS	DOSAGE
<b>Optimum conditions:</b> Day temperatures = 25 - 35 °C Night temperatures = > 12 °C	150 m <sup>l</sup> /ha
<b>Intermediate conditions:</b> Day temperatures = 20 - 25 °C Night temperatures = > 12 °C	200 m <sup>l</sup> /ha
<b>Marginal conditions:</b> Day temperatures = < 20 °C Night temperatures = < 12 °C	250 m <sup>l</sup> /ha

## NOTES:

1. Rain within 24 hours after application will adversely affect defoliation.
2. In the case of actively growing plants and/or rainfall shortly after application, re-growth may occur, particularly when using the lower rates.
3. Extreme climatic conditions e.g., very low or high temperatures at, or after application, may adversely affect defoliation.
4. **Ginstar 540 SC** provides effective defoliation of cotton within 7 - 21 days after application if night temperatures remain above 10 °C and day temperatures above 20 °C.
5. Dense and/or irregular plant stands or dense weed growth will reduce spray penetration at application and reduce the efficacy of the chemical, particularly when using lower rates and/or aerial application.
6. For optimal results active growth of the crop is necessary. Should wilting or other stress factors be evident, irrigate before application of **Ginstar 540 SC**.

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