

Pix®

Reg. No. L116

Act No. 36 of 1947

READ ATTACHED PACKAGE OR LEAFLET BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS

A water soluble solution plant growth regulator, for the modification of growth in cotton.

'n Wateroplosbare vloeistof plantgroeireguleerder, vir die verandering van groei in katoen.

If medical advice is needed, have product container or label at hand

Active ingredients / Aktiewe bestanddele:

Mepiquat chloride 50 g/l

Registered by:

BASF South Africa (Pty) Ltd
Co. Reg. No. 66/10235/07
P.O. Box 2801
Halfway House 1685
+27 11 203 2400

Geregistreer deur:

BASF Suid-Afrika (Edms) Bpk
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Posbus 2801
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Batch No. & Date manufactured:

Refer to details printed on container.

Lotnommer & Datum vervaardig:

Verwys na besonderhede gedruk op houer

EMERGENCY NUMBER / NOODNOMMER:

+27 82 446 8946



® = Registered trademark of BASF / Geregistreerde handelsmerk van BASF

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WARNINGS

- Do not apply within 30 days of harvest. Do not graze or feed forage of cotton treated with Pix® to livestock within 30 days of application.
- Handle with care.
- Store away from food, seed and feedstuffs.
- Keep out of reach of children, uninformed persons and animals.
- Do not apply Pix® to cotton that is under stress, such as caused by drought, water logging, diseases, weed competition and insect- or hail damage. Under such conditions results may be unsatisfactory and/or delayed maturity may occur.
- Do not apply Pix® at rates and / or times other than those specified in the **APPLICATION TABLE**, as yield decreases and / or delayed maturity may result.
- Do not apply Pix® if rainfall is expected within eight hours after application, as effectiveness of Pix® may be reduced. The same applies for overhead irrigation.

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 against 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, harm to man or animal, or for lack of performance of the remedy concerned, due to failure 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**

- If medical advice is needed, have product container or label at hand.
 - Keep out of reach of children.
 - Read label before use.
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- Do not eat, drink or smoke while using.
 - Prevent spray drift onto other crops.
 - TRIPLE RINSE empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow 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 a minimum of 10% of that of the container. Add the rinsings to the contents of the spray tank, before destroying the container in the prescribed manner.

- Clean applicator after use, by rinsing it twice with clean water and dispose of the wash water at a safe place.
- Do not contaminate rivers, irrigation channels, dams and fountains.
- Destroy empty container by perforating and flattening and never use for any other purpose.
- Prevent contamination of food, feed, drinking water and eating utensils

RELEVANT SUBSTANCES

Hazardous ingredients According to UN GHS criteria	CAS number	Concentration (W/W)
1,1-dimethylpiperidinium chloride; mepiquat chloride	24307-26-4	5 %

FIRST AID TREATMENT

Remove contaminated clothing.

ON CONTACT WITH EYES:	Wash affected eyes for at least 15 minutes under running water with eyelids held open.
ON INGESTION:	Rinse mouth and then drink plenty of water.
ON SKIN CONTACT:	Wash thoroughly with soap and water.
IF INHALED:	Keep patient calm, remove to fresh air.

TREATMENT: Symptomatic treatment (decontamination, vital functions).

DIRECTIONS FOR USE: USE ONLY AS DIRECTED

General directions:

Pix[®] is a foliar applied plant growth regulator, which modifies the cotton plant by regulating its growth pattern and behaviour. **Pix**[®] may produce one or more of the following effects on cotton: Darker leaf colour, reduction of growth in height and internodal length, more open canopy, better boll retention, earlier maturity.

Some of these effects may:

- Favourably influence the yield potential of the crop.
- Increase the portion of mature seed cotton for the first picking.
- Facilitate easier harvesting.

Compatibility:

Pix® is compatible with most modern insecticides and miticides and can be used in tank mixtures. If in doubt, consult your local representative.

Application:

- Apply **Pix**® only on healthy, actively growing cotton that is not under any stress during application and is not expected to come under any stress shortly after application.
- **First application:** Apply the first **Pix**® application during the early flower bud stage. Use the lower rate in the stage where the first flower buds appear and when the plant height is smaller than 20 cm. Higher rates must be used, when the plants are higher than 20 cm and when the application takes place one week later.
- **Follow-up treatment:** Repeat with intervals of about two weeks, with a **minimum of seven days** and a **maximum of 18 days**, depending on the growth rate of the crop. It is recommended to use shorter intervals and/or higher dosage rates of **Pix**® in cases where a high growth rate occurs or is expected. Longer intervals should be compensated with higher rates. Excessive growth normally occurs under high rainfall and high temperature conditions, on very fertile soils and/or where high levels of nitrogen fertilisation have been supplied.
- **Final treatment:** The final **Pix**® treatment should be applied at the end of the effective flowering period and it is recommended to use a higher dosage rate for this treatment, in order to eliminate further vegetative growth of the crop (see **APPLICATION TABLE**).
- **Pix**® can be applied by tractor operated equipment, as well as by means of aerial application. A minimum of 200 ℓ water/ha should be used with ground equipment and 40 ℓ with aerial application.
- Ensure that spray equipment is well calibrated and that only the prescribed amount of **Pix**® per ha is applied.

Aerial application:

Aerial application of **Pix**® 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 spray mixture volume of 30 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.
- **Droplet coverage:** 50 – 70 droplets per cm² must be recovered at the target area.
- **Droplet size:** A droplet spectrum with a VMD of 250 micron is recommended. Limit the production of fine droplets less than 150 micron (high drift and evaporation potential) to a minimum.

- **Flying height:** Maintain the height of the spray boom at 3 – 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking
- 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 possible Relative Span.
- Position all the atomisers within the inner 60 – 75% of the wingspan to prevent droplets from entering the wingtip vortices.
- The difference 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:
 - Reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
 - Damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- 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.

All spray applications must be made with suitable equipment, that is in good working order and correctly calibrated, to give the desired coverage, for that particular method of application.

TYPE OF APPLICATION	PLANT STAGE	DOSAGE RATE m/ha	DIRECTIONS FOR APPLICATION
FIRST	First flower buds appearing	125	Plant height < 20 cm and growth rate of 5 – 7 cm/week.
	Advanced flower bud stage	150 – 200 150 – 200	Plant height > 20 cm and growth rate of > 8 cm/week. Plant height > 25 cm.
FOLLOW-UP	Flower buds and flower stage	125 – 150	Use lower rate in case of moderate growth (5 – 7 cm/week) and/or short spray intervals.
		150 – 200	Use higher rate in case of excessive growth (> 8 cm/week) and/or longer spray intervals.
		250	Use highest rate in case of extremely excessive growth (> 10 cm/week)
FINAL	End of effective flowering period	300 – 500	Use lower rate in case of low growth rate. Use higher rate in case of moderate to strong growth.

WAARSKUWINGS

- Moenie binne 30 dae voor oes toedien nie. Moenie met **Pix**[®] behandelde katoen aan lewende hawe voer, of laat bewei binne 30 dae na toediening nie.
- Hanteer versigtig.
- Stoor weg van voedsel, voer en saad.
- Hou buite bereik van kinders, ongeligte persone en diere.
- Moenie **Pix**[®] op katoen gebruik wat onder stremming is as gevolg van bv.droogte, koue, siektes, onkruidkompetisie en skade deur insekte, of hael nie. Onder sulke toestande mag resultate onbevredigend wees en / of later rypwording, mag voorkom.
- Moenie **Pix**[®] teen ander hoeveelhede of tye toedien, as wat in die toedieningstabel aangedui is nie, anders mag oesvermindering en / of later rypwording voorkom.
- Moenie **Pix**[®] toedien wanneer reënval binne agt uur na toediening verwag word nie, omdat dit die effektiewe werking van **Pix**[®] verlaag. Dit is ook vir sprinkelbesproeiing van toepassing.

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, sowel as die metode, tyd en akkuraatheid van toediening. Verder aanvaar die registrasiehouer nie verantwoordelikheid vir skade aan gewasse, plantegroei, die omgewing, 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 die geval van enige onsekerheid.

VOORSORGMAATREËLS

Voorsorgverklarings

- Indien mediese advies benodig word, hou die produkhouer of -etiket byderhand.
- Hou buite bereik van kinders.
- Lees sorgvuldig en volg alle instruksies.
- Moenie eet, drink of rook gedurende gebruik nie.
- Verhoed oorwaai van spuitnewel na ander gewasse.
- Leë houers moet **DRIE KEER UITGESPOEL** word soos volg: Keer die leë houer om oor die spuittenk of mengbak en dreineer vir minstens 30 sekondes, nadat die vloeï

tot 'n gedrup verminder het. Spoel die houer daarna drie keer uit met 'n volume water gelykstaande aan 'n minimum van 10% van die houer. Gooi die spoelwater by die inhoud van die spuittenk, voordat die houer op die voorgeskrewe wyse vernietig word.

- Was spuittoestel na gebruik twee keer met skoon water uit en gooi die spoelwater weg op 'n veilige plek.
- Verhoed besoedeling van riviere, besproeiingskanale, damme en fonteine.
- Vernietig leë houer deur gate in te slaan en plat te slaan en moet nooit vir enige ander doel gebruik nie.
- Voorkom besoedeling van voedsel, voer, drinkwater en eetgerei.

RELEVANTE STOWWE

Gevaarlike bestanddele Volgens UN GHS kriteria	CAS nommer	Konsentrasie (W/W)
1,1-dimethylpiperidinium chloride; mepiquat chloride	24307-26-4	5 %

NOODHULPBEHANDELING

Verwyder gekontameneerde klere.

INDIEN IN DIE OË:	Spoel aangetaste oë dadelik vir ten minste 15 minute met lopende water uit terwyl die ooglede oopgehou word.
INDIEN INGESLUK:	Spoel mond uit en drink 200 – 300 ml water.
INDIEN OP DIE VEL:	Was deeglik met seep en water.
INDIEN INGEASEM:	Hou pasiënt kalm, verwyder na vars lug.

BEHANDELING: Behandel simptome (reinig, lewensbelangrike funksies).

GEBRUIKSAANWYSINGS: GEBRUIK SLEGS SOOS VOORGESKRYF

Algemene aanwysings:

Pix® is 'n blaartoegediende plantgroeireguleerder, wat die katoenplant modifiseer, deur die regulering van die plant se groeipatroon en gedrag. **Pix**® mag een of meer van die volgende effekte op katoen teweegbring: donkerder blaarkleur, verminderde hoogtgroei en lidlengte, 'n meer oop blaardak, 'n beter bolretensie en vroeër rypwording.

Sommige van hierdie effekte mag:

- Die opbrengspotensiaal van die gewas gunstig beïnvloed.
- 'n Hoër persentasie van ryp katoen by die eerste pluk tot gevolg hê.
- Die oes vergemaklik.

Verenigbaarheid:

Pix[®] is verenigbaar met die meeste moderne insek- en mytdoders en kan in tenkengsels gebruik word. Verkry advies van die plaaslike verteenwoordiger in geval van twyfel.

Toediening

- Gebruik **Pix**[®] slegs op gesonde, aktiefgroeiende katoen, wat tydens die toediening nie onder enige stremming is nie en wat nie verwag word om kort na toediening onder stremming te kom nie.
- **Eerste toediening:** Dien die eerste **Pix**[®] bespuiting toe in die blomknopstadium. Gebruik die lae dosis in die stadium waar die eerste blomknoppe verskyn en indien die planthoogte kleiner as 20 cm is. Hoër dosisse moet toegedien word in die geval van plante met 'n hoogte van meer as 20 cm en indien die bespuiting 'n week later plaasvind.
- **Opvolgtoedienings:** Herhaal met tussenposes van omtrent twee weke, met 'n **minimum van sewe dae** en 'n **maksimum van 18 dae**, afhanklik van die groeitempo van die gewas. Dit word aanbeveel om korter spuitintervalle en/of hoër dosisse van **Pix**[®] te gebruik in gevalle waar 'n hoë groeitempo voorkom of verwag word. Langer spuit tussenposes behoort met hoër dosisse gekompenseer te word. Oormatige groei sal normaalweg voorkom onder hoë reënval- en hoë temperatuurtoestande, op baie vrugbare gronde en/of wanneer hoë stikstofpeile toegedien is.
- **Laaste bespuiting:** Die laaste **Pix**[®] bespuiting behoort toegedien te word aan die einde van die effektiewe blomperiode, waarby 'n hoër dosis aanbeveel word, met die doel om verdere vegetatiewe groei van die gewas uit te skakel (sien **TOEDIENINGSTABEL**).
- **Pix**[®] kan sowel met trekkerspuitstelsels as deur middel van lugbespuitings toegedien word. Gebruik 'n minimum van 200 ℓ water/ha vir grondtoediening en 40 ℓ water/ha vir lugbespuitings.
- Maak seker dat spuitstelsels goed gekalibreer is en dat net die aanbevole hoeveelheid **Pix**[®] per ha toegedien word.

Lugtoediening:

Pix[®] kan slegs deur 'n geregistreerde lugbespuitingsoperateur met 'n korrek gekalibreerde, geregistreerde vliegtuig volgens die instruksies van SANS 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 Spuitmengselvolume van 30 ℓ /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.
- **Druppelbedekking:** 50 – 70 druppels per cm² moet op die teikenarea herwin word.
- **Druppelgrootte:** 'n Druppelspektrum met 'n VMD van 250 mikron 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. Moenie 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 maontlike Relatiewe Span produseer.
- Plaas al die atomiseerders in die binneste 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, moenie 8°C oorskry nie.
- Stop bespuiting indien die windspoed 15 km/uur 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:
 - Verlaagde effektiwiteit aangesien die druppels as 'n wolk in die lug bly hang en maontlik verdamp (onvoldoende bedekking op teiken).
 - 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.

Alle toedienings moet gemaak word met geskikte toerusting, wat in goeie werkende toestand en korrek gekalibreer is, ten einde die verlangde bedekking te gee, vir die betrokke toedieningsmetode.

SOORT BESPUITING	PLANTSTADIUM	DOSIS m/HA	GEBRUIKSAANBEVELINGS
EERSTE	Verskyning van eerste blomknoppe.	125	Planthoogte < 20 cm en groeitempo 5 – 7 cm/week.
	Gevorderde blomknopstadium	150 – 200 150 – 200	Planthoogte > 20 cm en groeitempo > 8 cm/week. Planthoogte > 25 cm.
OPVOLG	Blomknop- en blomstadium	125 – 150	Gebruik laer dosis in geval van matige groei (5 – 7 cm/week) en/of kort spuitintervalle.
		150 – 200	Gebruik hoër dosis in geval van sterk groei (> 8 cm/week) en/of langer spuitintervalle.
		250	Gebruik hoogste dosis in geval van baie sterk groei (> 10 cm/week).
LAASTE	Einde van effektiewe blomperiode	300 – 500	Gebruik laer dosis in geval van geringe groei. Gebruik oër dosis in geval van matige- tot sterk groei.

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