MANCOZEB 800 WP

WARNINGS:

Withholding periods:

Table grapes.........…………………………………………………….. 4-6 weeks
Wine grapes……….. 14 days
Tomatoes, cucurbits and potatoes.................……………………... 3 days
Apricots, Peaches, Plums, Apples, Pears, Citrus, Cruciferae............ 14 days

NOTE: Withholding periods above are based on local requirements for residue levels and may differ from other countries to which treated products may be exported.

- May cause skin sensitivity and irritation to eyes and air passages.
- Toxic to water invertebrates and fish.
- Store in a cool, dry place away from food, feed, seed and other agricultural chemicals.
- Keep away from children, uninformed persons and animals.
- Keep container tightly closed when not in use.
- Keep away from sparks and open flames as this product may generate flammable vapours if allowed to get damp and then warmed up.

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

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 and the occurrence of resistance of the disease against the remedy concerned 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

- Avoid contact with eyes, skin and clothes and inhalation of dust or spray mist.
- Wear rubber gloves and face shield when preparing the spray mixture and during spraying.
- Wash thoroughly with soap and water following application.
- In case of direct eye contact, rinse for several minutes with clean cold water. Seek medical advice if necessary.
- Wash contaminated clothing daily.
- Do not eat, drink or smoke while preparing or applying the spray mix or before washing face and hands.
- Aerial applications: Inform all inhabitants of the immediate area to be treated and issue the necessary warnings.
- Do not spray over or allow drift of spray mist onto other crops, grazing, rivers, dams and other areas not under treatment.

- Clean equipment before and after use. Dispose of wash water where it will not contaminate crops, pastures, rivers, dams or other water sources.
- Containers and packages must be completely empty before destroying the empty container in the prescribed manner.
- Shake out thoroughly into the spray or mixing tank before destroying the empty container.
- Destroy empty containers by perforating and flattening and never use for any other purpose.
- Prevent contamination of food, feed, drinking water and eating utensils.
- DO not burn the empty container.

DIRECTIONS FOR USE: USE ONLY AS DIRECTED.

Read the entire label before application.

MODE OF ACTION

MANCOZEB 800WP is a highly efficient, broad spectrum, non-systemic, preventive contact fungicide.

The active ingredient, Mancozeb, prevents fungal infection by reacting with, and inactivating the sulfhydryl groups of amino acids and enzymes of fungal cells. This disrupts lipid metabolism, respiration and ATP production.

RESISTANCE MANAGEMENT

For resistance management, **MANCOZEB 800 WP** is a group code M3 fungicide. Any fungus population may contain individuals naturally resistant to **MANCOZEB 800 WP** and other group code M3 fungicides. The resistant individuals can eventually dominate the disease population if these fungicides are used repeatedly. These resistant fungi may not be controlled by **MANCOZEB 800 WP** or any other group code M3 fungicide.

To delay fungicide resistance:

- Avoid exclusive repeated use of fungicides from the same fungicide group code. Alternate or tank mix with registered products from different fungicide group codes.
- Refer to individual product labels when alternating products or when using tank mixtures with products.
- A spray programme of mixtures or alternations with remedies with a different mode of action may delay resistant strain build-up.
- Integrate other control methods (chemical, cultural, biological) into disease control programmes.

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

COMPATIBILITY

MANCOZEB 800 WP is compatible with most fungicides and insecticides, but should not be used with alkaline products such as **LIME SULPHUR** and **BORDEAUX MIXTURES**. Do not use **MANCOZEB 800 WP** together with **CALCIUM ARSENATE** or **UREA** on citrus.

Crop safety with **MANCOZEB 800WP** in tank mixtures with various products has been evaluated locally on these crops. Although **MANCOZEB 800WP** showed physical compatibility and plant tolerance on tomatoes, potatoes, citrus, table grapes and wine grapes in tank mixtures with other products, crop safety of tank mixtures with other products cannot

be guaranteed. It is not possible to test the crop safety of tank mixtures with all products. Meridian Agrochemical Company (Pty) Ltd can therefore not be held responsible for damage to crops, resulting from tank mixtures with products or formulations not tested.

DO NOT APPLY TO TABLE GRAPES AFTER PEA-BERRY SIZE.

APPLICATION DIRECTIONS

AERIAL APPLICATION

Aerial application may only be done by a registered aerial application operator using a correctly calibrated and registered aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Remedies). 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;

Equipment

- Use only suitable atomising equipment (hydraulic nozzles or rotary atomisers) that will produce the desired droplet size and coverage of the target area and will ensure minimal loss of product through drift.
- Use a nozzle set-up that will produce a droplet spectrum with the lowest possible relative span.
- All nozzles and atomisers must be positioned within the inner 75% of the wingspan in order to prevent droplets from entering the wingtip vortices.
- A minimum volume of 30 ℓ spray mixture / ha is recommended. As this product has not been evaluated at a reduced volume rate, Meridian Agrochemical Company cannot guarantee efficacy nor be held responsible for any adverse effects if this product is applied aerially at a lower volume rate than recommended.
- A droplet coverage of 30 – 40 droplets per square cm must be recovered at the target.
- A droplet spectrum with a VMD of 250 – 280 micron is recommended. Restrict the production of fine droplets, with a VMD less than 150 microns, to a minimum.
- Maintain the height of the spray boom at between 3 and 4 m above the target.
- Do not spray when the aircraft is in a climb, at the top of a turn, during a dive or when banking.
- Apply before the crop growth becomes too dense as this will interfere with overall plant coverage.

Meteorological Conditions

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

General

- Ensure that fields are accurately marked and the aerial spray operator knows which fields to spray.
- Obtain assurance from the aerial spray operator that the above requirements will definitely be met.

MANCOZEB 800WP should be applied in a preventive programme before expected infection periods, or in a regular program.

MIXING INSTRUCTIONS

Half fill the spray tank with clean water. Mix the recommended amount of **MANCOZEB 800WP** in a little water into a slurry. Add more water, stir well and then add to the spray tank while filling with the bulk of water. Maintain constant agitation throughout spraying and mixing.

MIXING ORDER:

When used with emulsifiable concentrates, it is essential that the **MANCOZEB 800WP** is first added to the spray tank, as described above, before the emulsifiable concentrate is added to the spray tank mixture. It is advisable that the emulsifiable concentrate also be pre-mixed in a little bit of water, before it is added to the spray mixture in the tank.

APPLICATION VOLUME

DECIDUOUS FRUITS:

MANCOZEB 800 WP can also be applied as a Low Volume Application. Do not exceed 4x the high volume concentration when applying as a low volume spray. The rate per ha should be calculated according to the formula for "*High Volume Requirement"* (HVR), using "*Unrath's formula"* for "*Tree Row Volume"*

$$\text{TRV} = \frac{\text{Tree Height (TH)}* \text{ x Tree Width (TW)}* \text{ x } 937}{\text{Distance between Rows (RW)}} \quad = \text{HVR in liters per ha}$$

* (TH and TW should be measured during summer when trees are at full flush)

Directions for Application Volumes (AV) at different growth stages and the calculation of the rate per ha, based on High Volume Requirements (HVR)

Bud Break to Full Blossom: AV = 60 % x HVR
75 % Petal Fall to One month later (Mid Season): AV = 80 % x HVR
Mid Season to Post Harvest, Before Leaf Drop: AV = 100 % x HVR

$$\textbf{Rate per ha} = \frac{\text{(HVR) liters per ha x Rate per 100 } \ell}{100}$$

TABLE GRAPES AND WINE GRAPES:

The amount of **MANCOZEB 800 WP** per ha must be calculated according to the requirements for high volume application. The following guidelines may be used:

Growth Stage	High Volume spray mixture required in ℓ /ha	
	Wine Grapes	Table grapes
Shoot length 2,5 cm to 25 cm	250-500	500-750
25 cm shoot length to just prior to flowering	500-750	750-1000
Flowering to Pea berry stage	750-1000	1000-1200

Pea berry stage to Harvest	1000-1200	Do not apply after pea berry stage

Do not apply to table grapes after pea berry size.

PROGRAMME SCHEDULING

CROP AND DISEASE	APPLICATION VOLUME	REMARKS
POTATOES Early and Late Blight	200-300 g/100 ℓ water 2-3 kg/ha	Application of **MANCOZEB 800 WP** can be done in Low- or High Volume. Repeat at 7 - 10 day intervals and after rain. **High Volume:** Commence application after emergence of crop at 500 ℓ spray mixture/ha. Increase spray volume up to 1000 ℓ /ha as the plant foliage increases. **Low Volume:** Use suitable equipment and apply in 200 – 300 ℓ water/ha. **Aerial Application:** Apply in 30 ℓ water/ha. Use the higher application rate from 6 weeks after emergence or when conditions are favourable for disease development.
APRICOTS, PEACHES AND PLUMS Rust	150 g/100 ℓ water The rate per ha should be applied according to the formula as described above	**Winter Rainfall Region:** Commence applications just after flowering. Repeat every 14 days until the end of November. Spray again following harvest during February and repeat after 3 - 4 weeks. **Summer Rainfall Region:** Apply from mid-February. Repeat at 10 - 14 day intervals as needed. 1. Autumn: Just after harvest. 2. Autumn: 75 % leaf drop. 3. Spring: Copper spray at bud movement. 4. Spring: 80 % petal fall. 5 & 6. Two further applications at 14 day intervals if needed. For plums, start spraying from mid-December and apply 2 sprays at 10 day intervals.

APRICOTS AND PEACHES Freckle	150 g/100 ℓ water The rate per ha should be applied according to the formula as described above	**Winter Rainfall Region:** Apply at 75 to 100 % petal drop and repeat 14 days later. During wet seasons repeat applications monthly on late cultivars. **Summer Rainfall Region:** Apply first application 3 weeks after petal drop and repeat 14 days later. During wet seasons repeat application monthly on late cultivars.

APPLES AND PEARS Scab	150 g/100 ℓ water	May be applied as pre- and postblossom sprays. **Pre-blossom:** Commence application at early green tip stage and repeat every 7 days until end of blossoming. **Post-blossom:** Apply immediately following blossoming and repeat at 7 - 14 day intervals until the risk for scab infection caused by regular rain (infection periods) has diminished. To protect fruit from pinpoint scab (storage scab), repeat thereafter at monthly intervals until harvest. **MANCOZEB 800 WP** is compatible with most systemic fungicides registered for the treatment of scab. (See labels of these respective products to be used). See note below
TABLE AND WINE GRAPES Downy mildew (*Plasmopara viticola*)	200 g/100 ℓ water or 100 g/100 ℓ Mancozeb 800 WP + 40 g/100 ℓ Vidac WG or + 40 mℓ Vidac Flo or 100 g/100 ℓ Mancozeb 800 WP+ 36 mℓ /100 ℓ Sovrin Flo	Apply the first spray when the young shoots have reached a length of 10 cm. Further sprays should then be applied at 7 - 10 day intervals, depending on weather conditions favourable for downy mildew infections. Calculate rate per ha as per the guidelines given in the table above.
Dead arm disease (*Phomopsis viticola*	200 g/100 ℓ water	Apply the first treatment when the shoots reach 0,5 to 1 cm in length. Apply 3 - 4 times at intervals of 7 - 10 days before blossoming. Ensure that the young shoots are well covered with spray material. See also Downy mildew for simultaneous control. See note below. Use guidelines under “Application directions” to determine the dosage/ha.

TOMATOES Early and Late Blight	200 g/100 ℓ water	Use 500 ℓ spray mixture per ha shortly after transplanting and increase the volume of spray mixture to 3 000 ℓ per ha as the plants become bigger. **NOTE: MANCOZEB 800 WP** can also be used on tomato seedlings.
CITRUS Black Spot and Melanose	200 g/100 ℓ water or 200 g/100 ℓ water in the first 2 sprays, then 150 g/100 ℓ water plus 600 mℓ light/medium mineral oil plus 20 mℓ Bistro 250 SC in the subsequent 2 or 3 sprays. or 200 g/100 ℓ water in the first 2 sprays, then 150 g/100 ℓ water plus 600 mℓ light/medium mineral oil plus 20 mℓ Fortress SC in the subsequent 2 or 3 sprays. or 200 g/100 ℓ water in the first 2 sprays, then 200 g/100 ℓ water plus 600 mℓ light/medium mineral oil plus 55 mℓ Zimbo in the subsequent 2 or 3 sprays.	When rainfall is normal from July to September, spray during the third week of October and repeat 3 times at 25 day intervals. or When rainfall is above normal in July to September, apply after full petal drop and repeat 4 times at 25 day intervals. When used in tank mixture or alternation programmes with other products, attention must be given to those respective labels.
CUCURBITS Downy Mildew	200 g/100 ℓ water	Start applications at first signs of disease. Repeat every 7 - 10 days until conditions favouring disease development are diminished. Ensure that the lower leaf surfaces are thoroughly covered with spay material. Use 1 000 to 1 500 ℓ of spray mixture/ha.

NOTE:

200 gram **MANCOZEB 800 WP** IN 100 ℓ water = 30 g/15 ℓ water.
30 g = 3 level tablespoons of aerated powder.
Apricots, peaches and plums: Do not apply more than 6 applications of **MANCOZEB 800WP** during the period that the fruit is on the tree.
Application of **MANCOZEB 800 WP** should be made **<u>before</u>** overhead irrigation, rain or expected infection periods.

MANCOZEB 800 WP can also be used on Tomato seedlings.

ACKNOWLEDGEMENT OF TRADEMARKS

Vidac WG (reg pending)	Meridian Agrochemical Company (Pty) Ltd.
Vidac Flo (L 9688)	Meridian Agrochemical Company (Pty) Ltd.
Sovrin Flo (L 7601)	Meridian Agrochemical Company (Pty) Ltd.
Bistro 250 SC (L 9245)	Meridian Agrochemical Company (Pty) Ltd.
Fortress SC (L 9269)	Meridian Agrochemical Company (Pty) Ltd.
Zimbo (L 9429)	Meridian Agrochemical Company (Pty) Ltd.

WAARSKUWINGS:

Onthoudingsperiodes:

Tafeldruiwe .... 4-6 weke
Wyndruiwe .... 14 dae
Tamaties, Pampoene en Aartappels .... 3 dae
Appelkose, Perskes, Pruime, Appels, Pere, Sitrus en Koolgewasse ……..14 dae

NOTA: Bogenoemde onthoudingsperiodes is gebaseer op plaaslike vereistes vir residuvlakke en mag verskil van ander lande waarheen behandelde produkte moontlik uitgevoer mag word.

- Mag vel sensitiwiteit en irritasie van die oë en lugweë veroorsaak.
- Giftig vir waterinvertebrata en visse.
- Berg in 'n koel, droë plek weg van voedsel, voer, saad en ander landbouchemikalieë.
- Hou buite bereik van kinders, oningeligte persone en diere.
- Hou die houer dig toe wanneer nie in gebruik.
- Hou weg van oop vlamme en vonke deurdat die produk vlambare dampe kan veroorsaak indien dit eers klam geword het en dan weer aan warm toestande blootgestel word.

Herbetreding: Moet nie behandelde gebiede betree alvorens die spuitneerslag droog is nie, tensy beskermende klere gedra word.

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 en die voorkoms van weerstand van die siekte 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 die 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

- Vermy kontak met oë, vel en klere sowel as inaseming van die stof of spuitnewel.
- Dra rubberhandskoene en gesigmasker tydens vermeniging en toediening van die spuitmengsel.
- Was deeglik met seep en water na toediening.
- In die geval van direkte oogkontak, spoel die oë uit met skoon koue water vir ‘n paar minute. Kry mediese hulp indien nodig.
- Was besoedelde klere daagliks.
- Moet nie eet, drink of rook tydens toediening of vermenging nie, of voordat gesig en hande gewas is nie.
- Lugtoediening: Stel alle inwoners in die onmiddellike omgewing wat behandel gaan word in kennis en reik die nodige waarskuwings uit.
- Moet nie oor ander gewasse, weiding, riviere, damme en ander gebiede wat nie onder behandeling is spuit nie en vermy die oorwaai van spuitnewel na hierdie gebiede.
- Maak toedieningsapparaat voor en na gebruik skoon. Gooi die waswater uit waar dit nie gewasse, weiding, riviere, damme of enige ander waterbronne sal besoedel nie.

- Houers en verpakkings moet heeltemal leeg wees voordat die houer op die voorgeskrewe wyse vernietig word.
- Skud die houer deeglik uit in die spuittenk en spoel **drie keer** uit voordat die houer vernietig word.
- Vernietig die leë houer deur gate daarin te maak en dit plat te slaan en moet dit nooit vir enige ander doel gebruik nie.
- Voorkom besoedeling van voedsel, voer, drinkwater en eetgerei.
- Die leë houer MOET NIE verbrand word nie.

GEBRUIKSAANWYSINGS
GEBRUIK SLEGS SOOS AANGEDUI.

Lees die volledige etiket voor toediening.

METODE VAN WERKING

MANCOZEB 800WP is 'n hoogs doeltreffende, breëspektrum, nie-sistemiese, voorkomende kontakswamdoder.

Die aktiewe bestanddeel, mankoseb, verhoed swaminfeksie deur te reageer met, en die inaktivering van, die sulfhidrielgroepe van aminosure en ensieme van die swamselle. Dit ontwrig die lipiedmetabolisme, asemhaling en ATP-produksie.

WEERSTANDSBESTUUR

Vir weerstandsbestuur is **MANCOZEB 800WP** 'n groepkode M3 swamdoder. Enige swampopulasie mag individue insluit wat ‘n natuurlike weerstand teen **MANCOZEB 800WP** of enige ander groepkode M3 swamdoder het. Indien hierdie swamdoders herhaaldelik aangewend word, kan die weerstandbiedende individue uiteindelik die siektebevolking oorheers. Hierdie weerstandbiedende swamme sal waarskynlik nie deur **MANCOZEB 800WP** of enige ander groepkode M3 swamdoder beheer word nie.

Om weerstand teen swamdoders te vertraag:
- Vermy die eksklusiewe herhaaldelike gebruik van swamdoders met dieselfde groepkode.
- Wissel af met, of gebruik tenkmengsels van produkte in verskillende swamdodergroepkodes.
- Verwys na toepaslike individuele produketikette wanneer daar afgewissel word of tenkmengsels met ander produkte gemaak word.
- 'n Spuitprogram of tenkmengsels met middels met 'n ander metode van werking kan die opbou van weerstandige stamme vertraag.
- Integreer ander beheermaatreëls (chemies, verbouing, biologies) in siektebeheerprogramme.

Vir spesifieke inligting oor weerstandsbestuur kontak die registrasiehouer van hierdie produk.

VERENIGBAARHEID

MANCOZEB 800WP kan met die meeste swam- en insekdoders gemeng word, maar moet nie in mengsels met alkaliese produkte soos **KALKSWAEL** en **BORDEAUX MENGSELS** gebruik word nie. Moet nie **MANCOZEB 800WP** saam met **KALSIUMARSENAAT** of **UREUM** op sitrus gebruik nie.

Die gewasveiligheid van **MANCOZEB 800WP** in tenkmengsels met verskeie produkte is plaaslik op hierdie gewasse getoets. Alhoewel **MANCOZEB 800WP** fisiese verenigbaarheid en plantverdraagsaamheid op tamaties, aartappels, sitrus, tafeldruiwe en wyndruiwe in

tenkmengsels met ander produkte gewys het, kan die gewasveiligheid van tenkmengsels met ander produkte nie gewaarborg word nie. Dit is nie moontlik om die gewasveiligheid van tenkmengsels met alle produkte te toets nie**.** Meridian Agrochemical Company (Edms.) Bpk. kan dus nie verantwoordelik gehou word vir skade aan gewasse, as gevolg van tenkmengsels met produkte of formulerings wat nie getoets is nie.

MOET NIE OP TAFELDRUIWE NA DIE ERTJIEKORRELGROOTTE TOEDIEN NIE.

TOEDIENINGSMETODES

<u>LUGTOEDIENING</u>

Lugtoediening mag slegs deur 'n geregistreerde lugbespuitingsoperateur met 'n korrek gekalibreerde en geregistreerde vliegtuig volgens die instruksies van SANS Kode 10118 (Aerial Application of Agricultural Remedies) gedoen word. 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 noodsaaklik dat die volgende kriteria nagekom moet word;

<u>Toerusting:</u>
- Gebruik slegs geskikte atomiseringsapparaat (hidroliese of roterende spuitkoppe) wat die vereiste druppelgrootte en bedekking van die teiken sal produseer, maar wat die minste verlies van produk deur wegdrywing sal verseker.
- Gebruik 'n spuitstelsel wat 'n druppelspektrum met die kleinste moontlike relatiewe span sal produseer.
- Al die spuitkoppe en atomiseerders moet in die binneste 75% van die vlerkspan geplaas word om die beweging van druppels binne-in die vlerkpuntvorteks te beperk.
- 'n Minimum volume van 30 ℓ spuitmengsel / ha word aanbeveel. Aangesien hierdie produk nie teen 'n verlaagde volume getoets is nie, kan Meridian Agrochemical Company (Edms.)Bpk. nie effektiwiteit waarborg, of verantwoordelik gehou word vir enige nadelige effekte indien hierdie produk teen 'n laer volume as hierbo aanbeveel word, uit die lug toegedien word nie.
- 'n Druppelbedekking van 30 - 40 druppels per vierkante cm moet op die teikenarea herwin word.
- 'n Druppelspektrum met 'n VMD van 250-280 mikron word aanbeveel. Verseker dat die produksie van fyn druppels, dié wat kleiner as 150 mikron is, tot 'n minimum beperk word.
- Die hoogte van die spuitbalk moet tussen 3 en 4 m bo die teiken gehandhaaf word.
- Moet nie spuit wanneer die vliegtuig aan die bopunt van 'n draai is, of tydens 'n duik of terwyl dit uitklim of draai nie.
- Dien toe voordat die gewas te ruig word aangesien die druppelbedekking op die plante verminder sal word.

<u>Meteorologiese toestande</u>:

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

<u>Algemeen:</u>
- Sorg dat die lande akkuraat gemerk is en die spuitoperateur weet watter lande gespuit moet word.

- Verkry ‘n versekering van die spuitoperateur dat aan die bogenoemde vereistes voldoen sal word.

MANCOZEB 800WP moet in 'n voorkomende program gebruik word, voordat verwagte infeksie-periodes aanbreek, of in 'n bestaande program gebruik word.

MENGINSTRUKSIES

Maak die spuittenk halfvol met skoon water. Meng die aanbevole hoeveelheid **MANCOZEB 800WP** eers met 'n bietjie water tot ‘n dik room. Voeg meer water by, roer deeglik en voeg dan in die spuittenk, terwyl die spuittenk verder gevul word. Handhaaf konstante roering gedurende bespuiting en vermenging.

VERMENGINGSVOLGORDE

Wanneer in mengsels saam met emulgeerbare konsentrate gebruik word, is dit noodsaaklik om eers die **MANCOZEB 800WP** in die spuittenk te gooi, soos hierbo beskryf, voordat die emulgeerbare konsentraat by die tenkmengsel bygevoeg word. Dit is raadsaam om die emulgeerbare konsentraat eers vooraf met 'n klein hoeveelheid water te vermeng, voordat dit in die tenk by die spuitmengsel gevoeg word.

TOEDIENINGSVOLUMES

SAGTEVRUGTE:

MANCOZEB 800WP kan ook as 'n lae-volume bespuiting toegedien word. Moet nie meer as 4x die hoë-volume konsentrasie oorskry wanneer 'n lae volume bespuiting toegedien word nie.
Die dosis per ha moet volgens die formule vir "*Hoë-Volume-Behoefte*" (*HVB*) bereken word, deur van die "*Unrath-formule*" vir "*Boom-Ry-Volume*" gebruik te maak.

$$\text{BRV} = \frac{\text{Boomhoogte (BH) * x Boomwydte (BW) * x 937}}{\text{Afstand tussen Rye / Rywydte (RW)}} = \text{HVB in liter per ha}$$

* (BH en BW soos tydens volle somergroei gemeet)

Riglyne vir Toedieningsvolumes (TV) by verskillende groeistadiums en die berekening van die dosis per ha, gebaseer op Hoë Volume Behoefte (HVB)

Bot tot Volblom:	TV = 60% x HVB
75% Blomblaarval tot Een maand later (Middel-groeiseisoen):	TV = 80% x HVB
Middel Groeiseisoen tot Na-Oes, Voor Blaarval:	TV = 100% x HVB

$$\textbf{Dosis per ha} = \frac{\text{(HVB) liter per ha x Dosis per 100}}{100}$$

TAFELDRUIWE EN WYNDRUIWE

Die hoeveelheid **MANCOZEB 800WP** per ha moet volgens die behoefte vir hoë-volume bespuiting bereken word. Die volgende riglyne kan gebruik word:

Groeistadium	Hoë Volume spuitmengsel benodig in ℓ /ha

	Wyndruiwe	Tafeldruiwe
Lootlengte 2,5 cm tot 25 cm	250-500	500-750
25 cm lootlengte tot net voor blom	500-750	750-1000
Blom tot Ertjiekorrelstadium	750-1000	1000-1200
Ertjiekorrelstadium tot Oestyd	1000-1200	Moet nie na ertjiekorrelstadium toedien nie.

Moet nie op tafeldruiwe na ertjiekorrelgrootte toedien nie.

AANBEVELINGS

GEWAS EN SIEKTE	DOSIS	OPMERKINGS
AARTAPPELS Vroeë- en Laatroes	200-300 g/100 ℓ water 2-3 kg/ha	Toediening van **MANCOZEB 800 WP** kan in Lae- of Hoë-Volume geskied. Herhaal met 7 – 10 dae intervalle en na reën. **Hoë volume**: Begin spuit na-opkoms van gewas met 500 ℓ spuitmengsel/ha. Verhoog spuitvolume tot 1000 ℓ/ha soos plantloof vermeerder. **Lae volume:** Gebruik geskikte toerusting en dien toe in 200 - 300 ℓ water/ha. **Lugtoediening:** Dien toe in 30 ℓ water/ha. Gebruik die hoër dosis vanaf 6 weke na opkoms, of wanneer bevorderlike toestande vir siekte-ontwikkeling voorkom.

APPELKOSE, PERSKES EN PRUIME Bruinroes	150 g/100 ℓ water Die dosis per ha moet volgens die formule hierbo bereken word.	**Winterreënvalstreek:** Begin toediening net na blom. Herhaal elke 14 dae tot aan die einde van November. Dien weer na-oes, gedurende Februarie toe en herhaal 3 - 4 weke later. **Somerreënvalstreek:** Dien vanaf die middel van Februarie toe. Herhaal met tussenposes van 10-14 dae indien nodig. 1. Herfs: Net na-oes. 2. Herfs: 75% blaarval. 3. Lente: Koper bespuiting as bome begin bot. 4. Lente: 80% blomblaarval 5 & 6. Twee verdere toedienings met tussenposes van 14 dae indien nodig. Vir pruime, begin spuit vanaf middel Desember en dien 2 bespuitings toe met tussenposes van 10 dae.
APPELKOSE EN PERSKES Appelkoos- en Perskesproetsiekte	150 g/100 ℓ water Die dosis per ha moet volgens die formule hierbo bereken word	**Winterreënvalstreek:** Dien toe vanaf 75 tot 100% blomblaarval en herhaal 14 dae later. Gedurende natseisoene moet toedienings op laat kultivars maandeliks herhaal word. **Somerreënvalstreek:** Eerste toediening 3 weke na blomblaarval en herhaal 14 dae later. Gedurende nat-seisoen moet toedienings op laat kultivars maandeliks herhaal word.

APPELS EN PERE Skurfsiekte	150 g/100 ℓ water	Kan beide as voor- en na-blom bespuitings toegedien word. **Voor-blom**: Begin toediening wanneer die groenpuntstadium bereik word en herhaal elke 7 dae tot aan die einde van die blomperiode. **Na blom**: Dien onmiddelik na blom toe en herhaal met 7 - 14 dae tussenposes totdat die risiko vir skurfsiekte - besmettings as gevolg van gereelde reën (infeksieperiodes) afneem. Herhaal bespuitings daarna maandeliks tot en met oes om die ontwikkeling van Na-oes skurfsiekte op vrugte tydens berging te beperk. **MANCOZEB 800WP** is verenigbaar met meeste sistemiese swamdoders vir die behandeling van skurfsiekte. (Sien etikette van hierdie onderskeie produkte wat gebruik word). Sien nota hieronder
TAFELDRUIWE EN WYNDRUIWE Donsskimmel (*Plasmopara viticola*) Streepvelsiekte (*Phomopsis viticola*	200 g/100 ℓ water of 100 g/100 ℓ **Mancozeb 800 WP** + 40 g/100 ℓ Vidac WG or + 40 mℓ Vidac Flo of 100 g/100 ℓ **Mancozeb 800 WP** + 36 mℓ/100 ℓ Sovrin Flo 200 g/100 ℓ water	Dien die eerste bespuiting toe wanneer die jong lote 'n lengte van 10 cm bereik het. Verdere bespuitings, moet met tussenposes van 7 - 10 dae, afhangende van weerstoestande wat gunstig is vir donsskimmelbesmettings. Gebruik die tabel onder "Toedieningsvolumes" om dosis per ha benodig te bepaal. Dien die eerste bespuiting toe wanneer die lote 'n lengte van 0,5 tot 1 cm bereik. Dien 3 - 4 maal voor blom toe met tussenposes van 7 - 10 dae. Maak seker dat die jong lootjies deeglik met spuitstof bedek word. Sien Donsige Skimmel vir gelyktydige beheer. Sien nota hieronder. Gebruik die riglyne onder "Toedieningsvolumes" om dosis/ha te bepaal.

TAMATIES Vroeë- en Laatroes	200 g/100 ℓ water	Gebruik 500 ℓ spuitmengsel per ha kort na verplanting en vermeerder die spuitmengselvolume tot 3000 ℓ per ha soos die plante groter word. **NOTA**: **MANCOZEB 800WP** kan ook op tamatiesaailinge gebruik word.
SITRUS Swartvlek en Melanose	200 g/100 ℓ water of 200 g/100 ℓ water vir die eerste twee bespuitings, dan 150 g /100 ℓ water plus 600 mℓ ligte/medium minerale olie plus 20 mℓ Bistro 250 SC vir die volgende 2 tot 3 bespuitings. of 200 g/100 ℓ water vir die eerste twee bespuitings, dan 150 g /100 ℓ water plus 600mℓ ligte/medium minerale olie plus 20 mℓ Fortress SC vir die volgende 2 tot 3 bespuitings. of 200 g/100 ℓ water vir die eerste twee bespuitings dan 200 g /100 ℓ water plus 600 mℓ ligte/medium minerale olie plus 55 mℓ Zimbo vir die volgende 2 tot 3 bespuitings.	Wanneer normale reënval gedurende Julie tot September voorkom, spuit gedurende die derde week in Oktober en herhaal drie keer met tussenposes van 25 dae. of Wanneer bo-normale reënval gedurende Julie tot September voorkom, spuit na volle blomblaarval en herhaal 4 keer met tussenposes van 25 dae. Wanneer dit in tenkmengsel of afwisselingsprogramme met ander produkte gebruik word, moet aandag gegee word aan daardie onderskeie etikette.

PAMPOENGEWASSE Donsskimmel	200 g/100 ℓ water	Begin toediening wanneer die eerste tekens van die siektes opgemerk word. Herhaal elke 7 - 10 dae totdat die gunstige toestande vir siekteontwikkeling afneem. Maak seker dat die onderste blaaroppervlaktes deeglik met spuitstof bedek word. Gebruik 1000 tot 1500 ℓ spuitmengsel/ha.

NOTA:

200 gram **MANCOZEB 800WP** in 100 ℓ water = 30 g/15 ℓ water.
30 g = 3 gelykvol eetlepels deurlugte poeier.
Appelkose, perskes en pruime: Moet nie meer as 6 toedienings van **MANCOZEB 800WP** gedurende die tydperk wat die vrugte aan die bome is, maak nie.
Toedienings van **MANCOZEB 800WP** moet voor oorhoofse besproeiing, reën of verwagte infeksie-tydperke plaasvind.
MANCOZEB 800WP kan ook op tamatie-saailinge gebruik word.

<u>ERKENNING VAN HANDELSMERKE</u>

Vidac WG (reg hangende)	Meridian Agrochemical Company (Edms.)Bpk.
Vidac Flo (L 9688)	Meridian Agrochemical Company (Edms.)Bpk
Sovrin Flo (L 7601)	Meridian Agrochemical Company (Edms.)Bpk
Bistro 250 SC (L 9245)	Meridian Agrochemical Company (Edms.)Bpk.
Fortress SC (L 9269)	Meridian Agrochemical Company (Edms.)Bpk.
Zimbo (L 9429)	Meridian Agrochemical Company (Edms.)Bpk.