

BEFORE USING THIS PRODUCT READ THE LABEL CAREFULLY!

Herbicide



PALLADIUM PLUS 915 EC

Reg. No. L 9359 Act/Wet No. 36 of/van 1947
W 1301000

2: 16/11/2016-Jan2017

*A pre-emergence emulsifiable concentrate herbicide with benoxacor for the control of most annual grasses and certain broad-leaved weeds in maize, groundnuts, soybeans, dry beans, sunflowers, potatoes and lupins.
'n Emulgeerbare konsentraat vooropkomsongruiddoder met benoxacor vir die beheer van meeste eenjarige grasse en sekere breëblaaronkruid in mielies, grondbone, sojabone, droëbone, sonneblomme, aartappels en lupiene.*

ACTIVE INGREDIENTS / AKTIEWE BESTANDEDELE

s-metolachlor (chloroacetamide) **915 g/l** s-metolachloor (chloroasetamide)
benoxacor (safener) **30.5 g/l** benoxacor (beveiliging)

HRAC HERBICIDE GROUP CODE **K3** HRAC ONKRUIDDODER GROEPPKODE

10 l

villa

Registration holder / Registrasiehouer:

Villa Crop Protection (Pty) Ltd.

Co. Reg. No. / Mpy. Reg. Nr. 1992/002474/07

PO Box / Posbus 10413, Aston Manor, 1630

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UN Number: 3082

Willow Set & Print 011 394-4486



HARMFUL
SKADELIK



GEBRUIKSAANWYSYNGS INGESLUIT

VERWYS NA BESONDERHEDE
GEDRUK OP HOUER/SAK

Date formulated:
Formuleringsdatum:

DIRECTIONS FOR USE ENCLOSED
REFER TO DETAILS PRINTED
ON CONTAINER/BAG

Batch number:
Lotnommer:

DIRECTIONS FOR USE ENCLOSED

PALLADIUM PLUS 915 EC

Reg. No. L 9359 / W 1301000 Act/Wet No. 36 of/van 1947

HRAC HERBICIDE GROUP CODE / HRAC ONKRUIDDODER GROEPKODE: K3

ACTIVE INGREDIENT / AKTIEWE BESTANDEEL:

s-metolachlor (chloroacetamide) / s-metolachloor (chloorasetamied)..... 915 g/l
 benoxacor (safener) / benoxacor (beveiliger).....30.5 g/l

Registration holder / Registrasiehouer:

VILLA CROP PROTECTION (PTY) LTD.

Co. Reg. No. 1992/002474/07 Mpy. Reg. Nr.

PO Box / Posbus 10413, ASTON MANOR, 1630

Tel. (011) 396 2233

**WARNINGS**

- Handle with care.
- Harmful if swallowed.
- May cause eye and skin irritation. May cause skin sensitization.
- Toxic to fish.
- Flammable.
- Keep under lock and key in a cool, dry, well-ventilated place.
- Keep away from food, feeds, seed, fertilizers and other agricultural chemicals.
- Keep out of reach of children, uninformed persons and animals.
- **In case of poisoning call a doctor and make this label available to him/her.**
- Re-entry: Do not enter treated field within 1 day after application unless wearing protective clothing.

Aerial application:

Notify all inhabitants in the immediate vicinity of the lands 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 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 against the remedy concerned, as well as 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 humans, animals 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 event of any uncertainty.

PRECAUTIONS

- Do not inhale fumes or the spray mist.
- Wear protective clothing: rubber gloves, rubber boots and a suitable face shield when handling the concentrate, preparing the spray mixture and during application.
- Wash contaminated clothing after use.
- Wash with soap and water after use and after accidental skin contact.
- Do not eat, drink or smoke whilst mixing or applying the product or before washing hands and face and change of clothing.
- Prevent drift onto other crops, grazing, rivers, dams and areas not under treatment or to nearby water sources.
- Thoroughly clean spraying equipment directly after use and dispose of wash water where it will not contaminate food, grazing, boreholes, rivers or dams.
- **TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining 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 a third of that of

the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.

- Destroy the empty container by perforation and flattening and dispose of it in a safe way.
- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

SYMPTOMS OF HUMAN POISONING

Irritation effects on skin and mucous membranes are the most common reactions. May cause irritation to the eyes. Allergic skin reaction may occur. May cause skin sensitization. Ingestion of large amounts can cause nausea, vomiting, abdominal distress and diarrhoea.

FIRST AID TREATMENT

- **Skin contact:** Remove contaminated clothing, shoes and leather goods immediately (e.g. watch bands and belts). Wash skin gently and thoroughly with non-abrasive soap and large amounts of water. Seek medical attention if necessary.
- **Eye contact:** Flush eyes immediately with large amounts of gently flowing cold water or normal saline solution, for approximately 15 to 20 minutes, while holding the eyelid(s) open. If irritation persists, get medical attention.
- **Inhalation:** Immediately remove source of contamination or move the person to fresh air. Perform artificial respiration if necessary. Only qualified medical personnel should administer oxygen. Keep person calm and re-assured. **Seek medical attention immediately.**
- **Ingestion:** Have patient rinse mouth thoroughly with clean water. **Do not induce vomiting, due to the aromatic solvent. Obtain medical advice immediately.** Never give anything by mouth to an unconscious person. Treat respiratory difficulty with artificial respiration and oxygen. Only qualified medical personnel should administer oxygen or gastric lavage.

NOTE TO PHYSICIAN

No specific antidote. Treat symptomatically and supportively. Keep patient under observation. Perform gastric lavage and catharsis if the patient is not unconscious. If less than 10 mg per kg body weight, was ingested, administer 30 to 60 g activated charcoal in 150 to 300 ml water.

RESISTANCE WARNING

PALLADIUM PLUS 915 EC is a group code K3 herbicide. Any weed population may contain individuals naturally resistant to **PALLADIUM PLUS 915 EC** and other group code K3 herbicides. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds may not be controlled by **PALLADIUM PLUS 915 EC** or any other group code K3 herbicide. To delay herbicide resistance:

- avoid exclusive repeated use of herbicides from the same herbicide group code. Alternate or tank mix with products from different herbicide group codes,
- integrate other control methods (chemical, cultural, biological) into weed control programmes.

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

USE RESTRICTIONS

- Do not apply **PALLADIUM PLUS 915 EC** to inbred parent plants of maize hybrids nor onto experimental or newly released maize cultivars, without referring to the registration holder or seed supplier before application.
- Do not apply **PALLADIUM PLUS 915 EC** to poorly drained soils or soils with a compaction layer, as waterlogging and herbicide injury may occur.
- Heavy rain (25 mm per day or 50 mm over a 3 to 7 day period) on very sandy soils (< 15 % clay), low in organic matter (< 1 %), as well as flood irrigation can reduce weed control performance.
- **PALLADIUM PLUS 915 EC** may damage the following crops under conditions as mentioned: Dry beans on fields where monoculture is practiced and soil borne diseases are prevalent, also dry beans and sunflowers on shallow, sandy, waterlogged soils with an impermeable clay layer at less than 100 cm depth. **PALLADIUM PLUS 915 EC** damage to dry beans is sometimes associated with hot, dry weather and a plough-sole in the soil.
- When **PALLADIUM PLUS 915 EC** is applied to dry beans, ensure that the seeds are treated with effective fungicides to control seedling diseases caused by *Pythium* spp., *Rhizoctonia* spp. etc.
- Use restrictions for any herbicides used in combination with **PALLADIUM PLUS 915 EC** must be adhered to.

DIRECTIONS FOR USE: Use only as directed.**Compatibility:**

- **PALLADIUM PLUS 915 EC** can be used in tank mixtures with **SKOFFEL® 145 SL** (L 4347), **2,4-D Amine 480 SL**, **TERBUSIEN SUPER 600 SC** (L 5435 / N-AR 1110), **Agrazine 500 SC** and **Cantron® 480 SC**.
- If tank mixtures are used with other products, small quantities of the products in the correct ratio should be mixed with the appropriate quantity of water to determine compatibility.
- Water quality and formulation of other products may influence compatibility.
- The compatibility of **PALLADIUM PLUS 915 EC** may be influenced by several factors. As these factors may vary, a physical compatibility test must always be performed before such a tank mixture is sprayed.
- When **PALLADIUM PLUS 915 EC** is used in conjunction with any other agricultural remedy, all **WARNINGS, PRECAUTIONS** and **DIRECTIONS FOR USE** mentioned on that label, must be adhered to.

Mixing Instructions:

- Shake container well before use. Close container after use.
- Half fill the spray tank with clean water; add the required amount of **PALLADIUM PLUS 915 EC** while maintaining agitation. Complete the filling operation.
- When mixing **PALLADIUM PLUS 915 EC** with other herbicides, use the following procedure:
 - a) fill the spray tank three quarters with clean water. Add the required amount of complementary herbicide to the water, agitating continuously,
 - b) continue filling the spray tank with water and add the required amount of **PALLADIUM PLUS 915 EC** just before the tank is filled to its full capacity.
- Ensure thorough agitation of the mixture in the tank during mixing and spraying.
- Spray mixtures must be sprayed out immediately and not allowed to stand in the spray tank overnight.
- Thoroughly flush spraying equipment at the end of the spraying operation.

Application Recommendations:

- Use accurately calibrated equipment with properly arranged, suitable nozzles and an efficient agitation mechanism.
- Prepare a fine, even and firm seedbed free of weeds, trash and clods.
- Apply **PALLADIUM PLUS 915 EC** or its tank mixtures preferably at planting or immediately after planting, but not later than 3 days after planting. Use 200 litres spray mixture per hectare for overall ground application, and 30 to 40 litres per hectare for aerial application.
- **PALLADIUM PLUS 915 EC** can also be shallowly incorporated early in the season to improve reliability of weed control.
- **10 to 20 mm rain within 7 to 10 days after application is necessary for good results.**
- Under dry conditions, weed seedlings may emerge. These are usually stunted and can be controlled with a shallow cultivation, which also mixes the herbicide with the top 10 to 20 mm of soil.
- If soil crusting becomes a problem, rotary harrow in the same direction that the rows are planted, to assist crop germination.
- Harrowing after application may reduce weed control, if untreated soil is thrown into deep planter furrows.
- **PALLADIUM PLUS 915 EC** has no post-emergence activity and can be applied post-emergence to the crop after a cultivation, when no weeds are present.
- Ensure that sufficient fertilizer is placed near the seed at planting, to promote vigorous seedling growth.

Aerial Application:

Aerial application of **PALLADIUM PLUS 915 EC** may only be done by a registered aerial application operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Pesticides). 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 be met:

- **Flying height:** The height of the spray boom should be maintained at 3 to 4 metres above the target. Do not spray when aircraft is in a climb, at the top of, or during a dive, or when banking.
- 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 either through endodrift (within target field) or exodrift (outside target field). The spraying system must produce a droplet spectrum with the lowest possible Relative Span.

- All nozzles/atomisers should be positioned within the inner 60 % to 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 per hour.
- Aerial application of this product must not be done under turbulent, unstable conditions during the heat of the day when rising thermals and downdraughts occur.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80 % and above) may lead to the following:
 - a) reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage),
 - b) damage to other sensitive crops and/or non-target areas through the movement of the suspended spray cloud away from the target field.
- Ensure that the aerial spray operator knows exactly which fields to spray.

Obtain assurance from the aerial spray operator that the above requirements will be met and that relevant data will be compiled in a spray log and kept for future reference.

Pre-emergence aerial application:

- Volume: A spray mixture volume of 30 to 40 litres 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.
- Droplet coverage: Droplet coverage of 20 to 30 droplets per cm² must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 350 to 400 micron is recommended. Limit the production of fine droplets less than 150 micron (high drift & evaporation potential) to a minimum.

APPLICATION RATES

1. MAIZE

1.1 Pre-emergence of the crop and the weeds:

- Application to be performed at planting or not later than 3 days after planting (use the correct rates for different row and band widths).
- It can also be applied post-emergence of the crop but after cultivation i.e. pre-emergence of the weeds. **PALLADIUM PLUS 915 EC** alone does not control broadleaf weeds sufficiently and tank mixtures with **Agrazine 500 SC** or **Terbusien Super 600 SC** are recommended (in maize only) as per Table 1.1 below.
- Where deep germinating broadleaf weeds such as *Datura* spp., *Xanthium* spp., *Tribulus*, *Commelina* and *Cucumis* are present; a post-emergence application is more effective (refer Tables 1.2 & 1.3).

Table 1.1: Broad-spectrum pre-emergence weed control with **PALLADIUM PLUS 915 EC** and **Agrazine 500 SC** or **Terbusien Super 600 SC** tank mixtures.

Soil Type	% Clay	PALLADIUM PLUS 915 EC ℓ / ha	Agrazine 500 SC ℓ / ha	Terbusien Super 600 SC ℓ / ha
Sand	0 to 10	0.6 to 0.8	1.6 to 2.0	1.3 to 1.7
Loamy sand / sandy loam	11 to 20	0.7 to 0.9	2.0 to 2.5	1.7 to 2.1
Sandy clay loam	21 to 30	0.9 to 1.0	2.5 to 3.0	2.1 to 2.5
Sandy clay loam / sandy clay	31 to 40	1.0 to 1.2	3.0 to 4.0	2.5 to 3.3
Sandy clay / turf	41 to 50	1.2 to 1.4	4.0 to 5.0	3.3 to 4.0

NOTE

- When short soil persistence is required in view of follow-up crops, use only 2.0 litres per hectare of **Agrizine 500 SC** or **Terbusien Super 600 SC** on all soil types, except soils in the North West Province and North-west Free State with 0 to 10 % clay and less than 1 % organic matter, where 1.5 litres per hectare **Agrizine 500 SC** or **Terbusien Super 600 SC** should not be exceeded.

1.2 Early post-emergence application of Palladium 960 EC plus Terbusien Super 600 SC, after a pre-emergence application of PALLADIUM PLUS 915 EC:

Table 1.2: PALLADIUM PLUS 915 EC applied pre-emergence followed by Palladium 960 EC plus Terbusien Super 600 SC early post-emergence.

Soil Type	% Clay	PALLADIUM PLUS 915 EC ℓ / ha	Palladium 960 EC ℓ / ha	PLUS	Terbusien Super 600 SC ℓ / ha
Sand	0 to 10	0.4 to 0.5	0.3	+	1.9
Loamy sand / sandy loam	11 to 20	0.5 to 0.7	0.3	+	2.3
Sandy clay loam	21 to 30	0.7 to 0.8	0.35	+	2.7
Sandy clay loam / sandy clay	31 to 40	0.8 to 0.9	0.35 to 0.5	+	2.7 to 4.0
Sandy clay/ turf	41 to 50	0.9 to 1.0	0.35 to 0.5	+	2.7 to 4.0

1.3 Early post-emergence application of Terbusien Super 600 SC plus 2,4-D Amine 480 SL, after a pre-emergence application of PALLADIUM PLUS 915 EC:

Table 1.3: PALLADIUM PLUS 915 EC applied pre-emergence followed by Terbusien Super 600 SC plus 2,4-D Amine 480 SL early post-emergence.

Soil Type	% Clay	PALLADIUM PLUS 915 EC ℓ / ha	Terbusien Super 600 SC PLUS 2,4-D Amine 480 SL ℓ / ha
Sand	0 to 10	0.5 to 0.7	Recommendation for all soil types: 1.25 ℓ Terbusien Super 600 SC PLUS 0.75 ℓ 2,4-D Amine 480 SL OR 1.7 ℓ Terbusien Super 600 SC PLUS 0.5 ℓ 2,4-D Amine 480 SL
Loamy sand / sandy loam	11 to 20	0.7 to 0.9	
Sandy clay loam	21 to 30	0.9 to 1.0	
Sandy clay loam / sandy clay	31 to 40	1.0 to 1.2	
Sandy clay / turf	41 to 50	1.2 to 1.4	

NOTES ON TABLES 1.1 – 1.3:

- Use the higher application rates of **PALLADIUM PLUS 915 EC** for improved control of *Cyperus esculentus* (Yellow nutsedge), or for improved control of heavy infestations of *Digitaria sanguinalis* (Crabfinger-grass), or where **PALLADIUM PLUS 915 EC** is pre-plant incorporated, or where organic matter in the soil exceeds 1.0 %.
- Apply **Palladium 960 EC + Terbusien Super 600 SC** (Table 1.2) early post-emergence after the first cultivation.
- Early post-emergence treatments give more effective broadleaf weed control on soils with > 30 % clay content (Tables 1.2 & 1.3).
- Under adverse weather conditions or with poor initial control on soils with 31 to 40 % and 41 to 50 % clay the application rates of **Terbusien Super 600 SC** in Table 1.2 can be increased to 4.0 and 5.0 litres per hectare respectively.
- If triazine sensitive crops such as groundnuts, dry beans, soybeans, sunflowers, wheat, vegetables, cotton and tobacco are planted as follow-up crops, the application rates of **Agrizine 500 SC** and **Terbusien Super 600 SC** (Tables 1.1 & 1.2) should not exceed 2.0 litres per hectare. These low rates may still damage follow-up crops on the very sandy soils of the North-west Free State and North West

Province or on calcareous soils and weed control may not always be satisfactory. The recommendations in Table 1.3 are best suited to avoid carry-over problems and still obtain good weed control.

- If heavy rain occurs on light, sandy soils (< 15 % clay and < 0.5 % organic matter) poor weed control may result and a split application as in Table 1.2 is preferred.
- If longer residual broadleaf weed control is required, the higher rates of **Agrizine 500 SC** and **Terbusien Super 600 SC** (Table 1.1) should be used.
- Only use the recommendations in Table 1.3 for weed control in sweetcorn.
- Use a suitable penetrant with all post-emergence applications with the exception of mixtures containing **2,4-D Amine 480 SL**.
- Consult **Agrizine 500 SC**, **Terbusien Super 600 SC** and **2,4-D Amine 480 SL** labels for more particulars.

1.4 PALLADIUM PLUS 915 EC plus Terbusien Super 600 SC preceded by EPTC 720 EC:

Apply **EPTC 720 EC** at normal recommended rates on soils up to 30 % clay and follow-up early post-emergence with a tank mixture containing **PALLADIUM PLUS 915 EC** and **Terbusien Super 600 SC** (Table 1.4).

Table 1.4: **PALLADIUM PLUS 915 EC plus Terbusien Super 600 SC** applied early post-emergence as a tank mixture after initial application of **EPTC 720 EC**.

<i>Soil Type</i>	<i>% Clay</i>	<i>PALLADIUM PLUS 915 EC ℓ / ha</i>	<i>PLUS</i>	<i>Terbusien Super 600 SC ℓ / ha</i>
Sand	0 to 10	0.7	+	1.9
Loamy sand / sandy loam	11 to 20	0.8	+	2.3
Sandy clay loam	21 to 30	1.0	+	2.7

1.5 Low application rates of PALLADIUM PLUS 915 EC:

Low application rates of **PALLADIUM PLUS 915 EC** can successfully be used in the North-western Free State and North West Province in tank mixture with **Terbusien Super 600 SC**.

Table 1.5: **PALLADIUM PLUS 915 EC** applied in tank mixture with **Terbusien Super 600 SC** in the North-western Free State and North West Province.

<i>Soil Type</i>	<i>% Clay</i>	<i>PALLADIUM PLUS 915 EC ℓ / ha</i>	<i>PLUS</i>	<i>Terbusien Super 600 SC ℓ / ha</i>
Sand	0 to 10	0.4	+	1.8
Loamy sand / sandy loam	11 to 20	0.45	+	2.0
Sandy clay loam	21 to 30	0.5	+	2.3

NOTE

- To avoid carry-over to sensitive follow-up crops, if needed, the **Terbusien Super 600 SC** rate on all soil types should not exceed 2.0 litres per hectare.
- These low application rates will not be very dependable against high grass populations and have a short residual effect.

1.6 Improved initial broadleaf control of PALLADIUM PLUS 915 EC:

Apply the **PALLADIUM PLUS 915 EC** rates as recommended in Table 1.1, but split the **Terbusien Super 600 SC** recommendation and apply 33 % initially pre-emergence with **PALLADIUM PLUS 915 EC** and the balance early post-emergence. It will be advantageous to split the higher application rate of **Terbusien Super 600 SC** in Table 1.1.

1.7. Pre-emergence application of PALLADIUM PLUS 915 EC plus Cantron® 480 SC plus Terbusien Super 600 SC in maize:

NOTES

- Follow this pre-emergence application after approximately 35 to 42 days with a post-emergence application of registered mixtures of **Cantron® 480 SC** plus Acetanalides (**Palladium 960 EC / Pentium 960 EC**) plus **Terbusien Super 600 SC plus Villa 51**, as instructed on the relevant labels.
- Control of Yellow nutsedge (*Cyperus esculentus*): The dosage rates of **PALLADIUM PLUS 915 EC** plus **Cantron® 480 SC** as indicated below, may provide insufficient control of Yellow nutsedge.
- Refer to the **Cantron® 480 SC** and **Terbusien Super 600 SC** labels for a list of additional weeds controlled by these products, as well as for **USE RESTRICTIONS** and **DIRECTIONS FOR USE**.

Table 1.7a:

PALLADIUM PLUS 915 EC 570 to 650 ml / ha	PLUS Cantron® 480 SC 210 ml / ha	PLUS Terbusien Super 600 SC 800 ml / ha
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WEEDS CONTROLLED	
Botanical name	Common name
<i>Acanthospermum hispidum</i>	Upright starbur
<i>Amaranthus hybridus</i>	Common pigweed
<i>Brachiaria eruciformis</i>	Sweet signal grass
<i>Chenopodium album</i>	White goosefoot
<i>Chenopodium carinatum</i>	Green goosefoot
<i>Cleome monophylla</i>	Spindlepod
<i>Commelina benghalensis</i> *	Benghal wandering Jew
<i>Digitaria sanguinalis</i>	Crab fingergrass
<i>Datura ferox</i>	Large thorn apple
<i>Echinochloa colona</i>	Marsh grass
<i>Eleusine indica</i>	Goose grass
<i>Eragrostis curvula</i>	Weeping love grass
<i>Hibiscus cannabinus</i>	Kenaf
<i>Hibiscus trionum</i>	Bladder weed
<i>Nicandra physaloides</i>	Apple-of-Peru
<i>Panicum schinzii</i>	Sweet buffalo grass
<i>Physalis angulata</i>	Wild gooseberry
<i>Polygonum aviculare</i>	Prostrate knotweed
<i>Setaria pallide-fusca</i>	Red bristle grass
<i>Tagetes minuta</i>	Tall Khaki weed
<i>Triumfetta pilosa</i>	-

* Only at highest recommended dosage rate.

Table 1.7b:

PALLADIUM PLUS 915 EC 570 to 650 ml / ha	PLUS Cantron® 480 SC 260 ml / ha	PLUS Terbusien Super 600 SC 800 ml / ha
WEEDS CONTROLLED		
Above-mentioned plus:		
Botanical name	Common name	
<i>Urochloa panicoides</i>	Herringbone grass	
<i>Xanthium strumarium</i>	Cocklebur	

2. GROUNDNUTS, DRY BEANS, SUNFLOWERS, SOYBEANS AND LUPINS

Table 2: PALLADIUM PLUS 915 EC recommendations for use in broadleaf crops.

Soil Type	% Clay	PALLADIUM PLUS 915 EC l / ha
Sand / loamy sand / sandy loam	0 to 20	0.5 to 0.7
Sandy clay loam	21 to 30	1.0
Sandy clay loam / sandy clay	> 30	1.3

NOTE

- The higher application rates of **PALLADIUM PLUS 915 EC** are recommended for the control of Yellow nutsedge (*Cyperus esculentus*) and Crabfinger-grass (*Digitaria sanguinalis*) and on soils with > 1.0 % organic matter.

3. POTATOES

Pre-emergence in respect of weeds:

Apply 1.3 litres per hectare, under dry land conditions, pre-emergence to potatoes and weeds, after the first summer rains.

Early post-emergence in respect of weeds:

PALLADIUM PLUS 915 EC is a pre-emergence herbicide. However, for early post weed emergence apply 1.3 litres per hectare under dry land conditions, after the first summer rains in a tank mixture with **Skoffel® 145 SL** at 1 to 2 litres per hectare. **PALLADIUM PLUS 915 EC / Skoffel® 145 SL** mixtures **must not** be applied after 10 % potato emergence.

A rate of 1.0 litres per hectare **PALLADIUM PLUS 915 EC** can be applied under irrigation.

PALLADIUM PLUS 915 EC can also be applied post-emergence to the potatoes after ridging.

WEEDS CONTROLLED

WEEDS CONTROLLED BY PALLADIUM PLUS 915 EC:	
<i>Brachiaria eruciformis</i>	Sweet signal grass
<i>Chloris virgata</i>	Feather-top Chloris
<i>Dactyloctenium aegyptium</i>	Crowfoot
<i>Digitaria sanguinalis</i>	Crabfinger-grass
<i>Digitaria nuda</i>	Naked Crabfinger grass
<i>Echinochloa crusgalli</i>	Barnyard grass
<i>Eleusine indica</i>	Goose grass
<i>Panicum maximum</i>	Common buffalo grass
<i>Panicum schinzii</i>	Sweet buffalo grass
<i>Pseudobrachiaria deflexa</i>	False signal grass
<i>Setaria pallide-fusca</i>	Red bristle grass
<i>Setaria verticillata</i>	Bur bristle grass
<i>Tragus berteronianus</i>	Small carrotseed grass
<i>Tragus racemosus</i>	Large carrotseed grass
<i>Urochloa mosambicensis</i>	Bushveld herringbone grass
<i>Urochloa panicoides</i>	Herringbone grass
WEEDS VARIABLY CONTROLLED BY PALLADIUM PLUS 915 EC:	
<i>Amaranthus hybridus</i>	Common pigweed
<i>Amaranthus spinosus</i>	Thorny pigweed
<i>Amaranthus thunbergii</i>	Red pigweed
<i>Chenopodium carinatum</i>	Green goosefoot
<i>Cleome monophylla</i>	Spindlepod
<i>Commelina benghalensis</i>	Wandering Jew
<i>Cyperus esculentus</i>	Yellow nutsedge
<i>Datura ferox</i>	Large thorn apple
<i>Datura stramonium</i>	Thorn apple
<i>Galinsoga parviflora</i>	Gallant soldier
<i>Nicandra physaloides</i>	Apple of Peru
<i>Portulaca oleracea</i>	Purslane

NOTES

- The control of Yellow nutsedge (*Cyperus esculentus*) is dependent on a thorough ploughing immediately before planting, application 1 to 2 days after planting, which is followed by about 10 to 20 mm rain within 7 to 10 days after ploughing. More rain is required on heavy soils.
- Control of *Digitaria nuda* becomes variable 5 to 6 weeks after application of **PALLADIUM PLUS 915 EC**. For extended control, follow the pre-emergence application of **PALLADIUM PLUS 915 EC** with an application of **Palladium 960 EC** plus **Cantron® 480 SC**, following a cultivation of the soil to create a new pre-emergence scenario with regard to this and other grass weeds.

The following product mentioned in this label may be replaced with equivalent products:

- **2,4-D AMINE 480 SL** (L 4505 / W 130459 / N-AR 1096) = **AMINO 480 SL** (L 8034) = **2,4-D AMINE SL** (L 8145),
- **AGRIZINE 500 SC** (L 5387 / W 130121) = **ATRAFLO® 500 SC** (L 5434),
- **CANTRON® 480 SC** (L 8365 / N-AR 1323 / W130651) = **ASTRON® 480 SC** (L 8366) = **CANONNE 480 SC** (L 8735) (**Mesotrione**) and
- **PALLADIUM 960 EC** (L 9360 / W130772) = (S-metolachlor).

ATRAFLO® 500 SC, AMINO 480 SL, TERBUSIEN SUPER 600 SC, CANTRON® 480 SC and/en **PALLADIUM 960 EC** are registered products of / is geregisteerde produkte van **Villa Crop Protection (Pty) Ltd.**

SKOFFEL® 145 SL is a registered trademark of / is 'n geregisteerde handelsmerk van **Universal Crop Protection (Pty) Ltd.**

AGRIZINE 500 SC, 2,4-D AMINE 480 SL, ASTRON® 480 SC, PENTIUM 960 EC and/en **EPTC 720 EC** are registered products of / is geregisteerde produkte van **Universal Crop Protection (Pty) Ltd.**

2,4-D AMINE SL and/en **CANONNE 480 SC** are registered products of / is geregisteerde produkte van **Cropasure (Pty) Ltd.**

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