

# **BONANZA® 500 SC**

Reg. no. L8937 Act/Wet 36 of/van 1947

#### READ THE LABEL BEFORE USE KEEP OUT OF REACH OF CHILDREN AND ANIMALS

GROUP	F1		HERBICIDE
A suspension concentrate herbicide for the pre- and post-emergence control of certain broad- leaf weeds as listed in wheat and lupins in the winter rainfall area.		voor- en nao	konsentraat onkruiddoder vir die opkomsbeheer van sekere breë- soos gelys in koring en lupiene in avalgebied.
		Hazard state Very toxic to a effects.	ments aquatic life with long lasting
			r <b>y statements</b> to the environment. ge.
WARNING			

# ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

diflufenican (nicotinanilide)...... 500 g/L ...... diflufenikan (nikotienanilied)

#### NET VOLUME/NETTO VOLUME

.....L

**REGISTRATION HOLDER/REGISTRASIEHOUER** 

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#### UN no.: 3082 EMERGENCY NUMBERS: Griffon Poison Information Centre: +27 82 446 8946 Tygerberg Poison Information Centre: +27 861 555 777

Batch number Date of manufacture Expiry date

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Lotnommer Datum van vervaardiging Vervaldatum



## WARNINGS

• Very toxic to aquatic life with long lasting effects.

Withholding period: A minimum of 120 days should be allowed between applications and harvesting, grazing or feeding.

- Handle with care.
- May cause skin and eye irritation in certain individuals.
- Could be harmful by ingestion, contact and inhalation.
- Store in a cool, dry place away from food and feedstuffs.
- **Re-entry:** Do not enter treated area until spray deposit has dried unless wearing protective clothing.
- Do not apply **BONANZA® 500 SC** from the air.
- Safety to crops: BONANZA<sup>®</sup> 500 SC is likely to be safe for use on most common cultivars, (OR on cultivars as indicated on the label) excluding cultivars known to be sensitive to BONANZA<sup>®</sup> 500 SC or diflufenican.
  - BONANZA<sup>®</sup> 500 SC is not tested on new cultivars. Where a new cultivar is planted, large areas should not be treated with BONANZA<sup>®</sup> 500 SC without prior consultation with an ADAMA South Africa representative and testing on that cultivar.
  - BONANZA<sup>®</sup> 500 SC is also not commonly tested on speciality/niche cultivars such as cultivars planted for seed production. These crops should be treated the same as new cultivars.
  - ADAMA South Africa cannot be held liable for damage resulting from use of BONANZA<sup>®</sup>
     500 SC on cultivars on which the product has not been tested to confirm crop safety.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not guarantee that it will be effective under all conditions. The activity 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 as well as by the method, time and accuracy of application. The registration holder furthermore does not accept responsibility for damage to crops, vegetation, and the environment or harm to man or animal or for lack of performance of the remedy concerned due to failure by 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

- Keep out of reach of children.
- Read label before use.
- If medical advice is needed, have product container or label at hand.



- Avoid release to the environment.
- Collect spillage.
- Dispose of contents/ container to an approved waste disposal plant.
- Avoid inhaling spray mist.
- Wear protective clothes, e.g. face shield, overalls, gloves and boots, when handling the concentrate.
- Avoid skin contact. After accidental skin contact wash immediately with cold water and soap.
- Take off contaminated clothes and wash on a daily basis.
- Do not eat, drink or smoke during mixing and application or before hands and face have been washed.
- Prevent contamination of food, feedstuffs, eating utensils and drinking water.
- Avoid drifting of the spray mixture to other crops, grazing areas, rivers or dams or any other area that is not under treatment.
- Clean applicator thoroughly after use and throw wash water where it will not contaminate crops, grazing areas, rivers, dams and non-target areas.
- Invert the empty container over the mixing tank or spray tank and drain for at least 30 seconds after the flow has been reduced to a drip. Thereafter rinse the empty container at least three times with a volume of water equal to at least 10% of that of the container. Add the rinsate into the spray tank.
- Destroy the empty container by perforation and flattening and do not re-use for any other purpose.

#### **RELEVANT SUBSTANCES**

Chemical name	w/w %	CAS no.
Diflufenican	30 – 60%	83164-33-4

#### **FIRST AID**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Immediately remove contaminated clothing and remove the affected person from the contamination.

Take the container label or product name with you when seeking medical attention.

**Eye contact**: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

**Skin contact:** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

**Inhalation:** Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.



**Ingestion:** If conscious, rinse mouth thoroughly with water. Drink plenty of water. Never give anything by mouth to an unconscious or convulsing person. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomit, rinse mouth and administer more water. If symptoms persist, call a physician.

## TOXICOLOGICAL INFORMATION

#### Antidotes

No specific antidote. Treat symptomatically.

#### Symptoms of human poisoning

None known.

NOTICE TO THE USER: This agricultural remedy is to be used only in according to the directions of this label. It is an offense under the Act to use this product inconsistent with the directions on the label.

#### **RESISTANCE WARNING**

For resistance management **BONANZA® 500 SC** is classified as a HRAC group code F1 herbicide. Any population of a specific weed may contain individuals which have a natural resistance against **BONANZA® 500 SC** or other group code F1 herbicides. If these herbicides are used repeatedly the resistant individuals can eventually dominate the weed population. These resistant weeds will probably not be controlled by **BONANZA® 500 SC** or any other group code F1 herbicide.

To delay herbicide resistance:

- Avoid the repeated exclusive use of herbicides in the same group code. Alternate with or tank mix with herbicides from other group codes
- Integrate with other methods of control (chemical, biological and cultural) in weed control programmes
- For specific information regarding the management of resistance contact the registration holder of this product.

Should **BONANZA<sup>®</sup> 500 SC** fail to control resistant weeds, ADAMA South Africa (Pty.) Ltd. will not accept responsibility for such loss as the detection of resistant weeds before application is difficult. Avoid using **BONANZA<sup>®</sup> 500 SC** in places were weed resistance has been ascertained.

#### MODE OF ACTION

F1: Inhibition of phytoene desaturase.

#### **USE RESTRICTIONS**

- Only use spray water that has been buffered to a pH of 6.5.
- After application of BONANZA<sup>®</sup> 500 SC, phytotoxicity symptoms such as leaf scorch, yellowing
  or stunting may be observed, particularly on sweet narrow leaf lupin (*Lupinus angustifolius*) and
  yellow lupins (*Lupinus luteus*), which are more sensitive to the herbicide. However, yield should
  not be affected as the crop grows out of the herbicide effects. Crops infected with *Phytophthora*



spp. and crops under stress from cold, nutrient deficiency, drought and insect or nematode attack exhibit more severe phytotoxicity symptoms.

- On wheat, leaf necrosis can be seen after BONANZA<sup>®</sup> 500 SC application but the crop usually grows out of the herbicide effects without affecting the yield. Symptoms may be more severe if the wheat plants are stressed as a result of cold, nutrient deficiency, drought, insect or nematode attack.
- Apply **BONANZA® 500 SC** to actively growing weeds. If weeds are stressed as a result of dry conditions or any adverse conditions, adequate control may not be achieved.
- Apply **BONANZA<sup>®</sup> 500 SC** at the correct growth stage as specified on the label. Applying **BONANZA<sup>®</sup> 500 SC** later than the specified growth stage will result in poor control of the weeds.
- Where annual grasses occur in <u>lupins</u>, use a grass herbicide such as AGIL<sup>®</sup> 100 EC. The postemergence grass herbicide should be applied <u>seven days before</u> or <u>seven days after</u> the application of BONANZA<sup>®</sup> 500 SC. Avoid tank mixing BONANZA<sup>®</sup> 500 SC with grass herbicides as this may result in crop damage.
- Where **BONANZA® 500 SC** is applied post-emergence, a thorough coverage of the weeds is required.
- Where **BONANZA® 500 SC** is applied pre-emergence, ensure adequate soil moisture is available for germination.
- Before another crop is planted, a thorough cultivation of the soil is essential, <u>three</u> to <u>six</u> months after applying BONANZA<sup>®</sup> 500 SC. Except for lupins, no other crops may be planted for three months after a BONANZA<sup>®</sup> 500 SC application. Before planting any follow-up crop on soils previously treated with BONANZA<sup>®</sup> 500 SC, a suitable bio-assay must be conducted to determine that no harmful residues of BONANZA<sup>®</sup> 500 SC are present in the soil. This is particularly important in, but not restricted to, situations where canola or onions are to be planted on previously treated soil.
- Direct applications of **BONANZA® 500 SC** to partly germinated or germinating lupin seed which is not covered by the soil may be harmful.
- Adhere to the restrictions on other labels, should **BONANZA® 500 SC** be used in combination with other chemicals.

#### DIRECTIONS FOR USE

Use only as directed.

#### Compatibility

The compatibility of **BONANZA<sup>®</sup> 500 SC** with other products may be influenced by the formulation of the product(s) it is mixed with as well as the quality of the dilution water. Since the formulation of other products may change without the knowledge of ADAMA South Africa (Pty.) Ltd. and the quality of the water may differ from farm to farm, a physical compatibility test should always be carried out prior to application. For post-emergence applications, always use **BONANZA<sup>®</sup> 500 SC** in conjunction with a registered adjuvant such as **MCW EOS** oil.

## **Mixing instructions**

Half fill the spray tank with clean water. Add the required volume of **BONANZA<sup>®</sup> 500 SC** to a small amount of water and mix thoroughly before it is added to the spray tank while agitating. It is imperative to use water normally used for irrigation only. Ensure that the pH of water to be used is



buffered to 6.5 while electrical conductivity should not be higher than 1.0mS/cm and resistance not lower than 300 ohms. Do not use water which is high in chlorine. If **BONANZA® 500 SC** is tank mixed with other products, first mix these products separately with water before it is added to spray tank. Do not allow tank mixture to settle. **MCW EOS** oil should be added last. Fill the spray tank with water to the required level while continuously agitating. Refer to the labels of the products which will be tank mixed with **BONANZA® 500 SC** and adhere to the label instructions.

## Application

**BONANZA<sup>®</sup> 500 SC** can be applied using a tractor mounted boom sprayer or any medium volume spray applicator that is correctly calibrated and has <u>efficient agitation</u>. Best results are usually obtained by use of flat fan nozzles and in a spray volume of at least 200 L/ha. Care should be taken to avoid overdose through overlapping of swaths.

#### **APPLICATION RATES**

**BONANZA® 500 SC** should normally control the weeds listed on the label. Additional weeds not listed may also be controlled, but the registration holder will not accept responsibility for weeds not listed on the label.

CROP AND TARGET	DOSAGE/HA	REMARKS
Wheat	Post-emergence 50 ml + 0.5% MCW EOS oil	Apply <b>BONANZA® 500 SC</b> before wild radish exceeds the true 2-leaf stage. The crop must be well established. Observe the restrictions stipulated on this label. See <b>USE RESTRICTIONS</b> section.
	Post-emergence 150 ml + 0.5% MCW EOS oil	Apply <b>BONANZA 500 SC</b> before weeds exceed the true 4-leaf stage. The crop must be well established. Observe restrictions stipulated on this label. See <b>USE RESTRICTIONS</b> section.
Lupins	<b>Pre-emergence</b> 150 ml	Apply on soils with <u>less</u> than 20% clay. Observe the restrictions stipulated on this label. See <b>USE RESTRICTIONS</b> section.
	<b>Pre-emergence</b> 200 ml	Apply on soils with <u>more</u> than 20% clay. Observe the restrictions stipulated on this label. See <b>USE RESTRICTIONS</b> section
	Post-emergence 50 ml + 0.5% MCW EOS oil	Apply <b>BONANZA<sup>®</sup> 500 SC</b> when the crop is well established. The wild radish plants should not exceed the true 2-leaf stage.
	150 – 200 ml + 0.5% <b>MCW EOS</b> oil	Apply <b>BONANZA<sup>®</sup> 500 SC</b> when the crop is well established. Weeds should not exceed the true 4-leaf stage.
		Consult the table below for the appropriate dosage rate and weed growth stage.



# WEEDS CONTROLLED BY BONANZA® 500 SC

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50 ml/ha; target weeds controlled up to second true leaf stage				
Raphanus raphanistrum	wild radish			
150 – 175 ml/ha; target weeds controlled up to fourth true leaf stage				
Anagallis arvensis	pimpernel			
Chenopodium album	white goosefoot			
Polygonum aviculare*	prostrate knotweed			
Raphanus raphanistrum	wild radish			
200 ml/ha; target weeds controlled up to flowering stage				
Anagallis arvensis*	pimpernel			
Raphanus raphanistrum	wild radish			

\*Variable weed control under certain conditions.

AGIL<sup>®</sup> 100 EC (L4694) is the registered trademark of a company of the ADAMA GROUP.

MCW EOS (L7954) is a trademark of a company of the ADAMA GROUP.