

GENERAL INSTRUCTIONS

TITAN Glyphosate 450 Herbicide is a non-volatile, non-selective water soluble herbicide which is absorbed by plant foliage and green stems and is translocated through the plant from point of contact and into the root system. The effects of the herbicide may not be visible for 3-7 days for annual weeds or 2-3 weeks for perennial weeds depending on water quality, weather conditions, weed species and rate used.

TITAN Glyphosate 450 Herbicide will control emerged weeds only and does not provide residual weed control. Ideally, weeds should be healthy and actively growing and, to obtain optimum results, should not have been recently sprayed with another herbicide.

TITAN Glyphosate 450 Herbicide can be deactivated by soil particles and hard water containing calcium salts. Use only clean, fresh water for making up spray solutions, preferably rainwater or local authority water.

DO NOT apply TITAN Glyphosate 450 Herbicide to wet plants or if heavy rainfall is expected within 6 hours. Avoid spraying at night if rain is expected the next morning.

TITAN Glyphosate 450 Herbicide is recommended for control of emerged weeds prior to crop establishment as part of a conservation tillage operation. With heavy weed growth, sowing should be delayed until weed decay and soil conditions allow formation of a satisfactory seedbed.

CROP ESTABLISHMENT

TITAN Glyphosate 450 Herbicide is recommended for the control of emerged weeds prior to crop establishment. However, suitable cultivation and/or sowing procedures are required to provide seedbed conditions favourable for crop germination and development. Early spraying to control young weeds will favour preparation of suitable seedbeds. On friable soils, where there is only a light cover of young weeds, sowing may proceed 1 day after spraying.

However, in situations of heavy weed growth, sowing should be delayed until weed decay and soil conditions allow formation of a suitable seedbed. Incorporation or trashing of green or decaying vegetation and roots into seedbeds by cultivation/sowing may cause retarded crop emergence especially in cold and/or wet conditions. Vegetation may be reduced by grazing and/or cultivation but trash should be left on the surface. Avoid use of pre-emergence herbicides where label directions advise a risk of retarded crop emergence and in marginal seedbed conditions pay particular attention to correct seeding depth.

MIXING

DO NOT mix, store or apply this product or spray solutions of this product in galvanised or unlined steel containers or spray tanks, since a highly flammable gas may be formed. Use stainless steel, aluminium, brass, copper, fibreglass, plastic or plastic-lined containers or spray tanks.

TITAN Glyphosate 450 Herbicide readily mixes with clean water. Use only clean, fresh water free from soil particles or calcium/magnesium salts (i.e. do not use hard water). If water is acidic use a recognised buffering agent. Spray solution should be used within a maximum of five days to avoid loss of activity. Ensure the spray tank is free of any residue from previous spray products.

Fill spray tank with half required volume of clean, fresh water and then add measured amount of TITAN Glyphosate 450 Herbicide as per Directions for Use (rate). Agitate well and fill with balance of water adding surfactant near end of filling with hose below surface to prevent excessive foaming. Remove hose when desired volume is reached to avoid siphoning. When adding compatible pesticides/additives add these first in a half full tank with agitation and then add TITAN Glyphosate 450 Herbicide with the remaining water volume and, finally, surfactant as above, mixing thoroughly.

DO NOT use mechanical agitators as these may cause excessive foaming.

DO NOT mix with spraying oils, agricultural chemicals or any other material except as directed on the label.

TANK MIXTURES/COMPATIBILITY

TITAN Glyphosate 450 Herbicide may be tank mixed with the following pesticides and additives with attention to their labels for specific restraints, withholding periods and directions for use requirements to be observed.

Herbicides:

- **Flowable Atrazine:** For knockdown and residual weed control, addition of ammonium sulphate is required to overcome antagonism. (See note below). Observe all current restrictions on Atrazine use. DO NOT use this tankmix on Barnyard Grass. DO NOT apply this mix by aerial application.
- **Flowable Simazine:** For knockdown and residual control of annual weeds, addition of ammonium sulphate is required to overcome antagonism (see note below).

- **2,4-D Ester:** For improved control of certain broadleaf weeds. Observe regional restrictions.
- **Dicamba:** For improved control of clover, medics and sorrel as per label directions.
- **Chlorsulfuron:** For knockdown and residual weed control in fallow/crop. Observe plant back periods as per label.
- **Metsulfuron-methyl:** For knockdown weed control in fallows and prior to planting certain winter cereals. Observe crop safety/crop rotation recommendations.
- **Oxyfluorfen:** Mixture requires a specific compatibility agent, seek advice from labels.

Note: Addition of ammonium sulphate at the rate of 2kg/100L spray solution is recommended to overcome antagonism. This mixture is also useful for improving the performance of TITAN Glyphosate 450 Herbicide under adverse environmental conditions such as cool cloudy weather. Ammonium sulphate may be corrosive to metal parts of spray equipment.

Insecticides:

- Dimethoate
- Omethoate
- Fenitrothion
- Chlorpyrifos

Other insecticides have not been compatibility tested.

APPLICATION INFORMATION

TITAN Glyphosate 450 Herbicide is a non-selective, translocated herbicide. Direct contact, or even drift, may cause severe injury or destruction to any growing crop or other desirable plants including trees.

Boom equipment: Application of this product in low spray volumes (25-100L/ha) is recommended. Fan nozzle equipment is recommended, using pressures in the range 240-280kPa. Boom height must be set to ensure double overlap of nozzle patterns at the top of the weed canopy.

Aerial Equipment: Aerial application should only be in pasture or fallow crop situations prior to establishment of field or fodder crops or new pasture and for pre harvest application for sorghum crops.

DO NOT use in intensive cropping situations.

Use registered rates up to a maximum of 3.2L/ha and for Micronair and boom equipment apply in a minimum spray volume of at least 15L/ha. Average droplet size should be 250-350 micron diameter with a swath width of 15-17 metres. DO NOT apply by aircraft in temperatures above 35°C.

Aerial Application on hilly terrain: Increase water volume to 30-80L/ha with droplet size to at least 300 micron VMD on hilly terrain. Aerial Application under hot conditions: When applying in temperatures above 25°C, increase water volume to at least 30L/ha and droplet size to at least 300 micron VMD. Avoid conditions which may result in drift such as wind over 8km/hr and inversion conditions or equipment producing droplets of 150 micron or less.

MAINTENANCE AND CLEANING

Thoroughly flush tanks, pumps and nozzles with clean fresh water after each day's spraying.

RESISTANT WEEDS WARNING

TITAN Glyphosate 450 Herbicide is a member

GROUP **M** HERBICIDE

of the glycine group of herbicides. TITAN Glyphosate 450 Herbicide has the inhibitor of EPSP synthase mode of action. For weed resistance management TITAN Glyphosate 450 Herbicide is a group M herbicide. Some naturally occurring weed biotypes resistant to TITAN Glyphosate 450 Herbicide and other inhibitors of EPSP synthase herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by TITAN Glyphosate 450 Herbicide or other inhibitors of EPSP synthase herbicides.

Since the occurrence of resistant weeds is difficult to detect prior to use, TITAN AG Pty Ltd accepts no liability for any losses that may result from the failure of TITAN Glyphosate 450 Herbicide to control resistant weeds.

DO NOT however assume resistance without first reviewing the method of application, timing, water quality and weather conditions.

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under meteorological conditions or from spraying equipment that could be expected to cause spray drift onto nearby susceptible plants, adjacent crops, crop lands or pastures. DO NOT apply prior to transplanting tomato seedlings.

