



Active Ingredient:

Contains 60 g/L carfentrazone-ethyl in the form of a micro-emulsion

GROUP HERBICIDE

CONTENTS: 1 L, 4 L, 5 L and 10 L

Shark®



For use with knock down herbicides in horticulture including Orchards and Vineyards to improve control of certain broadleaf weeds including Mallows. Applied alone through shielded spray equipment for desuckering of Grapevines and for shoot control in Hops and primocane control in Brambles and Cane fruit. For desiccation of Seed potato haulms.

Registered pursuant to ACVM Act 1997, No. P7808. See www.foodsafety.govt.nz for registration conditions. Approved pursuant to the HSNO Act 1996, Approval Code HSR007883.

READ LABEL AND LEAFLET BEFORE MIXING AND APPLYING



HAZARD CLASSIFICATION: 3.1D, 6.3B, 6.4A, 6.9B, 9.1A, 9.2A

APPROVED HANDLER

This product must be under the control of an approved handler during use. Use of this product in any manner contrary to this label may be an offence under the HSNO Act.

COMBUSTIBLE LIQUID, keep away from sources of ignition.

ENVIRONMENTAL WARNING

TOXIC TO AQUATIC LIFE. TOXIC TO FISH. **DO NOT** apply to bodies of water. **DO NOT** contaminate sewers, drains, dams, creeks or any other waterways with product or empty container.

HEALTH WARNING

TOXIC IF INGESTED, Presumed to cause liver damage from repeated oral exposure at high doses. May cause eye and skin irritation.

HANDLING PRECAUTIONS

When mixing or applying, wear protective clothing, gloves and goggles. **DO NOT** eat, drink or smoke while using. Wash hands and face before meals and after work. Wash protective clothing after work.

STORAGE

Store in original container tightly closed and in a locked, dry, cool, well ventilated area, away from feed, seeds and foodstuffs. This product is classified under HSNO as 9.1A, and storage of certain quantities may require bunding and signage. See the HAZNOTE for further information.

PRODUCT DISPOSAL

Ensure unwanted product is used by another operator strictly in accordance with label directions.

CONTAINER DISPOSAL

Triple rinse container and add residue to spray tank. Recycle through the Agrecovery programme. When stored appropriately this product should show no significant degradation for two years. Contact your supplier for further information about the use of any product that is older than this.

FIRST AID

If swallowed **DO NOT** induce vomiting. For advice, contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.

GENERAL INFORMATION

Shark[®] is a fast acting contact herbicide that desiccates and controls weeds through a process of membrane disruption. Shark[®] is rapidly absorbed through the foliage and green stems of plants. Within a few hours following application, the foliage of susceptible plants show signs of desiccation and then death of the weed or plant tissue follows within a few days.

Shark[®] may be used for the desiccation of Potato haulms, for de-suckering Grapevines and Hops and it may be added to contact and systemic herbicides to speed up knockdown and improve the control of certain broadleaf weeds.

Application of Shark[®] for broadleaf weed control should target small actively growing weeds. Under warm moist conditions, herbicide symptoms may be accelerated, while under very dry or cold conditions, the expression of herbicidal symptoms is slowed. Weeds hardened off by drought are less susceptible to Shark[®].

APPLICATION PRECAUTIONS

DRIFT MANAGEMENT: Shark[®] will clearly demonstrate any off target drift into the canopy of trees, vines or other non target vegetation by way of brown pin spots (drifted fines) or brown blotches (drifted large droplets or spray). Follow all precautions on this label to minimise off target drift. Drift management is the responsibility of the applicator.

Caution; Use of Shark® in Orchards and Vineyards

Shark[®] is a contact herbicide and may cause damage if off target drift occurs. **DO NOT** allow drift on to crops as 'spotting' can occur.

Guidelines to manage spray drift include;

- A shielded sprayer with air induction nozzles are recommended.
- Apply through a calibrated sprayer with correct nozzles and spacing. Use the lowest boom height possible appropriate to the target plant size.
- Use recommended nozzle pressure to produce a medium to large droplet size.
- If flat fan nozzles are to be used the addition of LI 700* may help minimize production of fine droplets.
- Apply under good conditions (not too windy or dead calm).

< Least	Nozzle Drift Potential Most>			
Air	80° Flat	110°	XR Flat	Hollow
Induction	Fan	Flat Fan	Fan	Cone

RAINFALL AND IRRIGATION: DO NOT apply within 1 hour of rainfall or irrigation.

DIRECTIONS FOR USE

MIXING

Half fill the spray tank and start agitation. Add the required amount of Shark[®] directly into the water. When applied in mixtures, add the Shark[®] first followed by the required amount of companion herbicide. Complete filling the spray tank and maintain agitation until spraying is complete.

APPLICATION

Shark[®] in mixture with a companion herbicide may be applied through any conventional spray equipment that does not produce off target spray drift. Apply in sufficient water to obtain complete coverage of all parts of the weeds. Only apply Shark[®] pre sowing of the crop.

COMPATIBILITY

For most weed control uses, Shark[®] should be tank mixed with formulations of knockdown herbicides including any Roundup* formulations, other products based on glyphosate, Gramoxone*, Preeglone*, Buster*, Touchdown*, Amitrole and other herbicides. Follow all precautions for use on the companion product label.

Shark[®] should not be applied in spray mixtures that have a pH below 5 or above 8. LI 700* may be added to acidify high pH water, to aid in drift control and to improve efficacy in many situations.

TANK CLEANING

Shark[®] is a very sticky product that will adhere to tank walls and may therefore cause crop damage if not fully removed before using sprayers for selective weed control or the application of fungicides, insecticides etc. After spraying with Shark[®]: Add 500 ml All-Clear* per 100 L of water and circulate through the spray tank and all spray lines. Allow to stand for 15 minutes, then empty the tank by spraying out through nozzles and lines.

Should small quantities of Shark[®] remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to sensitive crops and other vegetation. To ensure residue and deposit removal allow All-Clear* mixture to stand overnight in lines and tank. This applies particularly to aged and perished spray hoses and lines. This treatment can remove any residues of Shark[®] in the spray rig.

DO NOT apply sprayer cleaning solutions or rinsate to sensitive crops.

RECOMMENDATIONS

Situation	Rate	Remarks
Grapevines: Control of unwanted suckers (water shoots) arising from the main stem or trunk	Apply 300 mL/ 100 L of water A minimum spray volume of 50 - 100 L per kilometre of row (both sides sprayed) is recommended. Use the higher water rate on more developed suckers. NOTE Application through a shrouded sprayer only.	 Mandatory Directions: Only apply to Grapevines through a shielded / shrouded sprayer that stops any drift onto foliage or fruit. Off-target drift of Shark® will cause marked damage to leaves, green stems, flowers and fruit. Note Spray and Sprayer advice below: Apply to suckers less than 300 mm long, before any lignification is present on the sucker growth. Application of Shark® to suckers (water shoots) arising from the main stem will result in rapid burn down and extended control of regrowth. Any regrowth may be less vigorous but may need a repeat application for season long control. Suckers arising from pruned stubs may be less well controlled. More vigorous varieties and grafted vines on vigorous rootstocks may need several applications depending on the growth conditions. Sprayer Advice: Use nozzles that produce a Coarse spray quality (greater than 450 microns) with a maximum angle of 80°. Low drift nozzles or air induction nozzles are preferred. If other nozzles are used, the use of LI 700# at 250 mL/100 L is recommended to aid in the control of drift. Operate sprayer at the lowest pressure prescribed for the nozzles used. The optimum nozzle configuration is to have nozzles pointing forwards and backwards to ensure all surfaces of the shoots are sprayed. Use sufficient spray volume to ensure that the spray solution thoroughly wets the foliage and stems of unwanted shoots. The spray must be directed downwards and away from the canopy foliage to minimise or prevent off-target drift. DO NOT apply to vines less than 2 years old or vines with green bark unless protected from the spray solution by a physical barrier.
Berryfruit: Raspberries and Brambles primocane control	300 – 400 mL/ 100 L of water DO NOT add any other products to the spray mix unless specified.	 Applied in sufficient water to ensure complete coverage of primocanes. Apply to primocanes not exceeding 25 cm in length as a directed high volume spray. Avoid drift onto foliage of fruiting canes. Use the higher rate on vigorously growing crops. DO NOT apply to plants before the first primocanes for the season have reached 15 cm in height. DO NOT apply to plants under stress. Low drift nozzles or air induction nozzles are preferred. If other nozzles are used, the use of LI 700* at 250 mL/ 100 L is recommended to aid in the control of drift.
Hops sucker control	300 – 400 mL/ 100 L of water DO NOT add any other products to the spray mix unless specified	 Mandatory Directions: Only apply to Hops through a shielded / shrouded sprayer that stops any drift onto foliage or fruit. Serious drift damage may otherwise occur. Note spray and sprayer advice under Grapevines. Apply as a directed spray to shoots. DO NOT treat before Hops are 2 metres tall and spray not more than 1 metre from the base of the plant. Repeat as required. Use the high rate on vigorous plants. Low drift nozzles or air induction nozzles are preferred. If other nozzles are used, the use of LI 700* at 250 mL/ 100 L is recommended to aid in the control of drift.

Situation	Rate	Remarks	
Seed potato haulm desiccation	1 L Shark [®] per hectare in sufficient water to achieve complete foliage and stem coverage	Shark [®] is most active on the stems of Potatoes but may be applied to foliage of Potatoes in the later stages of senescence to provide desiccation of Potato foliage and vines. A second application at 7 days may be required on vigorous varieties e.g. llam Hardy.	
		If the crop is in the active vegetative growth stage when desiccation is initiated first destroy the foliage with a knock down desiccant such as Desicate* II or Reglone*. Apply Shark® 7 days later ensuring thorough coverage of the stems. A second application at $7 - 14$ days may be required on vigorous varieties e.g. Ilam Hardy.	
		DO NOT APPLY TO TABLE POTATOES.	
Weed control for ground preparation pre planting of crops and pasture.	Broadcast Application: Apply 200 – 400 mL/ ha in mixture with the recommended label rates of Roundup*, Buster*, Touchdown* Preeglone* or other products based on amitrole or	The addition of Shark [®] to other herbicides will increase the speed at which treated broadleaved weeds develop visible symptoms and may improve final control of broadleaved weeds	
(DO NOT apply after seeds have been sown) Post cropping clean up		the recommended label rates of Roundup*, Buster*,	including certain hard-to-kill weeds, e.g. Mallows. Use the lower rates on younger weeds or weeds growing under good conditions. Use the higher rates on older weeds or weeds growing under less optimum conditions.
sprays Weed control around yards, roadways etc		The lower rate may only provide suppression of some broadleaf weeds— older or stressed weeds may not be adequately controlled.	
	Spot Spraying: Apply 40 mL/ 100 L plus the recommended label rate for spot spraying of	Application to hardened weeds or drought stressed weeds, especially under summer conditions, may cause localised injury only to weed foliage which may not enhance final weed control. Mallow is especially prone to drought stress and may either not show symptoms typical of Shark [®] or may regrow following treatment even if plants did not appear stressed at the time of application.	
	herbicide.	Apply only as a tank mix with recommended rates of knockdown herbicides. Refer to the appropriate label for weed sizes and follow all label directions.	
	added at 250 mL/ 100 L to aid with	When using Shark [®] as a spot spray, apply in sufficient water to thoroughly wet all weed foliage to the point of run-off.	

NOTE: BEWARE: Apply this product carefully. Spray drift may cause serious damage to other desirable plants.

It is an offence for users of this product to cause residues exceeding the relevant MRL in the Food Notice: Maximum Residue Limits of Agricultural Compounds.

WITHHOLDING PERIODS:

GRAPEVINES: 30 DAYS

HOPS: 30 DAYS

BERRYFRUIT-RASPBERRIES AND BRAMBLES: 21 DAYS

POTATOES: 14 DAYS. DO NOT SPRAY ON CROPS WITH EXPOSED TUBERS.

GRAZING WITHHOLDING PERIOD: NOT REQUIRED.

However, grazing too early after application may result in reduced weed control. Observe the recommendations and withholding periods of the partner herbicide.

BEWARE: Toxic weeds may become more palatable after spraying with partner products and Shark[®] may concentrate this effect.

NOTICE TO BUYER

FMC warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use of application, all of which are beyond the control of FMC. To the extent permitted at law FMC shall not be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer.

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