

## Registered product list for Pecan nuts in South Africa

Registrations against specific targets on pecan nuts obtained under Act 36 of 1947.



## INSECTICIDES

Target	Group	Active ingredient	International Convention Status	Group code	Trade name	Form.	Reg. no.	Company	Active quantity	Dosage	PHI (days)				
Ants	botanical + aromatic + pyrethrin	canola oil + garlic juice extract + pyrethrin extract		IRAC 3A	KangroShield 100	SC	L7630	Kannar Earth Science (Pty) Ltd	250 g/L + 642 g/L + 50 g/L + 14 g/L	500 ml/100 L	2				
					Pygar 932	SC	L7146	Kannar Earth Science (Pty) Ltd	473 g/L + 473 g/L + 2.75 g/L	1.5-2 L/100L	1				
Aphids	botanical + aromatic + pyrethrin	garlic juice extract		IRAC 3A	Garlic Repellent 930	SC	L7147	Kannar Earth Science (Pty) Ltd	478 g/L	2-3 L/100L	0				
					KangroShield 100	SC	L7630	Kannar Earth Science (Pty) Ltd	258 g/L + 642 g/L + 50 g/L + 14 g/L	500 ml/100 L	2				
	carbamates	pirimicarb	Restricted	IRAC 1A	Pygar 932	SC	L7146	Kannar Earth Science (Pty) Ltd	473 g/L + 473 g/L + 2.75 g/L	1.5-2 L/100L	1				
					Apex 500 WDG	WG	L8475	Villa Crop Protection (Pty) Ltd	500 g/kg	100 g/100L	56				
					Aphox	WG	L3428	Syngenta South Africa (Pty) Ltd	500 g/kg	100 g/100L	56				
					Unipex 500 WDG	WG	L8474	Villa Crop Protection (Pty) Ltd	500 g/kg	100 g/100L	56				
neonicotinoids	imidacloprid	Restricted	IRAC 4A	Kohinor 350 SC	SC	L8447	Adama South Africa (Pty) Ltd	350 g/L	18 ml/tree	112					
				organophosphates	chlorpyrifos	Phased out	IRAC 1B	Pyrinex 250 CS	CS	L6515	Adama South Africa (Pty) Ltd	250 g/L	200 ml/100L	83	
Astylus beetle	botanical + aromatic + pyrethrin	canola oil + garlic juice extract + pyrethrin extract		IRAC 3A	KangroShield 100	SC	L7630	Kannar Earth Science (Pty) Ltd	250 g/L + 642 g/L + 50 g/L + 14 g/L	500 ml/100 L	2				
					Pygar 932	SC	L7146	Kannar Earth Science (Pty) Ltd	473 g/L + 473 g/L + 2.75 g/L	1.5-2 L/100L	1				
Banded fruit weevil	pyrethroids	alpha-cypermethrin	Restricted	IRAC 3A	Fastac SC	SC	L4992	BASF South Africa (Pty) Ltd	100 g/L	10 ml/100L	30				
Bark borer	carbamates	carbaryl	Phased out	IRAC 1A	Sevin XLR Plus	SC	L5783	Villa Crop Protection (Pty) Ltd	480 g/L	450 ml/100L	Not applicable				
					pyrethroids	beta-cyfluthrin	IRAC 3A	Bulldock Beta 125 SC	SC	L7612	Bayer (Pty) Ltd	125 g/L	1.2 ml/10L	Not applicable	
Bollworm	avermectins; milbemycins	emamectin benzoate		IRAC 6	Proclaim	SG	L7581	Syngenta South Africa (Pty) Ltd	50 g/kg	22-34 g/100L	14				
					IRAC 3A	KangroShield 100	SC	L7630	Kannar Earth Science (Pty) Ltd	250 g/L + 642 g/L + 50 g/L + 14 g/L	500 ml/100 L	2			
	botanical + aromatic + pyrethrin	canola oil + garlic juice extract + pyrethrin extract		IRAC 3A	Pygar 932	SC	L7146	Kannar Earth Science (Pty) Ltd	473 g/L + 473 g/L + 2.75 g/L	1.5-2 L/100 L	1				
					diamides + pyrethroids	chlorantraniliprole + lambda-cyhalothrin	IRAC 28 + 3A	Ampligo	CS	L8685	Syngenta South Africa (Pty) Ltd	100 g/L + 50 g/L	200-500 ml/ha	14	
	insect virus	<i>Helicoverpa armigera</i> nucleopolyhedrovirus	-	-	-	Helicovir	SC	L9543	River Bioscience (Pty) Ltd	5 x 10 <sup>10</sup> occlusion bodies/ml	12 ml/100L	Not applicable			
						pyrethroids	alpha-cypermethrin	Restricted	IRAC 3A	Fastac SC	SC	L4992	BASF South Africa (Pty) Ltd	100 g/L	5 ml/100L
Carob moth	diamides + pyrethroids	chlorantraniliprole + lambda-cyhalothrin		IRAC 28 + 3A	Ampligo	CS	L8685	Syngenta South Africa (Pty) Ltd	100 g/L + 50 g/L	200-500 ml/ha	14				
					CMR beetle	botanical + aromatic + pyrethrin	IRAC 3A	KangroShield 100	SC	L7630	Kannar Earth Science (Pty) Ltd	250 g/L + 642 g/L + 50 g/L + 14 g/L	500 ml/100 L	2	
Codling moth	avermectins; milbemycins	emamectin benzoate		IRAC 6	Proclaim	SG	L7581	Syngenta South Africa (Pty) Ltd	50 g/kg	22-34 g/100L	14				
					diamides + pyrethroids	chlorantraniliprole + lambda-cyhalothrin	IRAC 28 + 3A	Ampligo	CS	L8685	Syngenta South Africa (Pty) Ltd	100 g/L + 50 g/L	200-500 ml/ha	14	
European red mite	avermectins; milbemycins	abamectin	Restricted	IRAC 6	Agrimec Gold	SC	L9235	Syngenta South Africa (Pty) Ltd	84 g/L	130-320 ml/ha + 0.25% light mineral spray oil	14				
					False codling moth	avermectins; milbemycins	emamectin benzoate	IRAC 6	Proclaim	SG	L7581	Syngenta South Africa (Pty) Ltd	50 g/kg	22-34 g/100L	14
False codling moth	diacylhydrazines	methoxyfenozide		IRAC 1B	Cohort 240 SC	SC	L10866	FarmAg International (Pty) Ltd	240 g/L	60 ml/100L	14				
					Marksman 240 SC	SC	L10389	ICA International Chemicals (Pty) Ltd	240 g/L	60 ml/100L	14				
					Runner 240 SC	SC	L7779	Dow AgroSciences Southern Africa (Pty) Ltd	240 g/L	60 ml/100L	14				
					Walker 240 SC	SC	L10348	Villa Crop Protection (Pty) Ltd	240 g/L	60 ml/100L	14				
					Bolt 240 SC	SC	L11215	AECI Limited	240 g/L	60 ml/100L	14				
					Chimera 240 SC	SC	L11186	Adama South Africa (Pty) Ltd	240 g/L	60 ml/100L	14				
					diamides	chlorantraniliprole	Monitored	IRAC 28	Altacor	WG	L8467	DuPont SA	350 g/kg	10 g/100L	10
						Coragen	SC	L8529	DuPont SA	200 g/L	17.5 ml/100L	10			
					diamides + pyrethroids	chlorantraniliprole + lambda-cyhalothrin	IRAC 28 + 3A	Ampligo	CS	L8685	Syngenta South Africa (Pty) Ltd	100 g/L + 50 g/L	200-500 ml/ha	14	
					insect virus	<i>Thaumotobia (Cryptophlebia) leucotreta</i> granulovirus	-	-	Cryptex	SC	L8037	Andermatt Madumbi (Pty) Ltd	2 x 10 <sup>10</sup> occlusion bodies/ml2	3.3 ml/100L	Not applicable
		-	-	-	GraTham	SC	L9038	Chempac (Pty) Ltd	2 x 10 <sup>10</sup> occlusion bodies/ml	3.3 ml/100L	Not applicable				
	microbials	<i>Beauveria bassiana</i>	-	-	Broadband	EC	L8270	BASF South Africa (Pty) Ltd	4 x 10 <sup>8</sup> spores/ml	50 ml/100L	0				
		Eco-Bb	SC	L8469	Andermatt Madumbi (Pty) Ltd	2 x 10 <sup>8</sup> spores/g	1 g/L	Not applicable							
	neonicotinoids + benzoylureas	acetamiprid + novaluron	IRAC 4A + 15	Cormoran 180 EC	EC	L9480	Adama South Africa (Pty) Ltd	80 g/L + 100 g/L	50-75 ml/100L	84					
	neonicotinoids + pyrethroids	acetamiprid + bifenthrin	IRAC 4A + 3A	Aceta Star 46 EC	EC	L9255	Adama South Africa (Pty) Ltd	16 g/L + 30 g/L	150 ml/100L	28					
	oxadiazines	indoxacarb	Restricted	IRAC 22A	Steward 150 EC	EC	L8435	FMC Chemicals (Pty) Ltd	150 g/L	50 ml/100L	14				
	False codling moth	pheromones	(e)-8-dodecenyl acetate + (z)-8-dodecenyl acetate + (e/z)-8-dodecenol		-	RB Splat FCM	PA	L10259	River Bioscience (Pty) Ltd	30 g/kg	1000 g/ha	0			
						X-Mate F.C.M.	GS	L10320	Insect Science (Pty) Ltd	962.5 mg + 287.5 mg each	1 disp. / 250 m <sup>2</sup> (25 disp.s / ha)	Not applicable			
						Isomate FCM	YP	L7692	AECI Limited	0.24 g/kg	800 disp./ha/season	Not applicable			
						CheckMate FCM-F	CS	L8384	Spectrum Research Services cc	175.2 g/L + 49.8 g/L	110 ml/ha	Not applicable			
Delegate 250 WG						WG	L8392	Dow AgroSciences Southern Africa (Pty) Ltd	250 g/kg	20 g/100L	7				
Xsit FCM SIT						-	L10346	Xsit (Pty) Ltd / Edms. Bpk	14 000 per pack	See label	0				
Leaf roller	avermectins; milbemycins	emamectin benzoate	IRAC 6	Proclaim	SG	L7581	Syngenta South Africa (Pty) Ltd	50 g/kg	22-34 g/100L	14					
Litchi moth	diamides + pyrethroids	chlorantraniliprole + lambda-cyhalothrin	IRAC 28 + 3A	Ampligo	CS	L8685	Syngenta South Africa (Pty) Ltd	100 g/L + 50 g/L	200-500 ml/ha	14					
Macadamia nut borer	avermectins; milbemycins	emamectin benzoate		IRAC 6	Emma	WG	L9022	Arysta LifeScience South Africa (Pty) Ltd	50 g/kg	See label	50				
					Vitex 50	WG	L9525	Meridian Agrochemical Company (Pty) Ltd	50 g/kg	30 g/100L	50				
					Conflict Granule	WG	L11195	Villa Crop Protection (Pty) Ltd	50 g/kg	See label	50				
	neonicotinoids	acetamiprid		IRAC 4A	Allice 20 SP	SP	L8723	Arysta LifeScience South Africa (Pty) Ltd	200 g/kg	See label	50				
					Wonderland 200 SP	SP	L10057	FarmAg International (Pty) Ltd	200 g/L	See label	50				
					organophosphates	acephate	Phased out	IRAC 1B	Orthene 75 SP	SP	L0190	Arysta LifeScience South Africa (Pty) Ltd	750 g/kg	75 g/100L	35
spinosyns	spinetoram	Monitored	IRAC 5	Delegate 250 WG	WG	L8392	Dow AgroSciences Southern Africa (Pty) Ltd	250 g/kg	20 g/100L	7					
spore concentrate	<i>Metarhizium anisopliae</i>	-	-	Real Metarhizium 69	-	L9281	Real IMP South Africa Pty Ltd	At least 1 x 10 <sup>10</sup> cfu/ml	200-400 ml/ha	Not applicable					
sulfoximines	sulfoxaflor	Restricted	IRAC 4C	Closer 240 SC	SC	L9694	Dow AgroSciences Southern Africa (Pty) Ltd	240 g/L	12 ml/100L	14					
Mealybug	avermectins; milbemycins	abamectin	Restricted	IRAC 6	Agrimec Gold	SC	L9235	Syngenta South Africa (Pty) Ltd	84 g/L	130-320 ml/ha + 0.25% light mineral spray oil	14				
					botanical + aromatic + pyrethrin	canola oil + garlic juice extract + pyrethrin extract	IRAC 3A	KangroShield 100	SC	L7630	Kannar Earth Science (Pty) Ltd	250 g/L + 642 g/L + 50 g/L + 14 g/L	500 ml/100 L	2	
Stem borer	carbamates	carbaryl	Phased out	IRAC 1A	Sevin XLR Plus	SC	L5783	Villa Crop Protection (Pty) Ltd	480 g/L	450 ml/100L	0				
					pyrethroids	beta-cyfluthrin	IRAC 3A	Bulldock Beta 125 SC	SC	L7612	Bayer (Pty) Ltd	125 g/L	1.2 ml/10L	Not applicable	

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Stink bug	diamides + pyrethroids	chlorantraniliprole + lambda-cyhalothrin		IRAC 28 + 3A	Ampligo	CS	L8685	Syngenta South Africa (Pty) Ltd	100 g/L + 50 g/L	200-500 ml/ha	14	
	neonicotinoids	thiamethoxam	Restricted	IRAC 4A	Actara SC	SC	L7207	Syngenta South Africa (Pty) Ltd	240 g/L	9 then 6 ml/tree	93	
	organophosphates	acephate	Phased out	IRAC 1B	Acephate 750 SP	SP	L7181	Villa Crop Protection (Pty) Ltd	750 g/kg	75 g/100L	35	
		chlorpyrifos	Phased out	IRAC 1B	Pyrinex 250 CS	CS	L6515	Adama South Africa (Pty) Ltd	250 g/L	200 ml/100L	83	
	pyrethroids	alpha-cypermethrin	Restricted	IRAC 3A	Fastac SC	SC	L4992	BASF South Africa (Pty) Ltd	100 g/L	10 ml/100L	30	
		lambda-cyhalothrin	Restricted	IRAC 3A	Karate EC	EC	L3752	Syngenta South Africa (Pty) Ltd	50 g/L	10 ml/100L	7	
	pyridine azomethine derivatives	lambda-cyhalothrin	Restricted	IRAC 3A	Karate Zeon 10 CS	CS	L9023	Syngenta South Africa (Pty) Ltd	100 g/L	5 ml/100L	7	
		pymetrozine	Restricted	IRAC 9B	Chess	WG	L8104	Syngenta South Africa (Pty) Ltd	500 g/kg	40 g/100L	21	
	Thrips	botanical + aromatic + pyrethrin	canola oil + garlic juice extract + pyrethrin extract	Restricted	IRAC 9B	Pymetrozine 500 WG	WG	L11095	Arysta LifeScience South Africa (Pty) Ltd	500 g/kg	40 g/100L	21
					IRAC 3A	KangroShield 100	SC	L7630	Kannar Earth Science (Pty) Ltd	250 g/L + 642 g/L + 50 g/L + 14 g/L	500 ml/100 L	2
neonicotinoids		imidacloprid	Restricted	IRAC 3A	Pygar 932	SC	L7146	Kannar Earth Science (Pty) Ltd	473 g/L + 473 g/L + 2.75 g/L	1.5-2 L/100L	1	
			Restricted	IRAC 4A	Kohinor 350 SC	SC	L8447	Adama South Africa (Pty) Ltd	350 g/L	18 ml/tree	112	
organophosphates		chlorpyrifos	Phased out	IRAC 1B	Pyrinex 250 CS	CS	L6515	Adama South Africa (Pty) Ltd	250 g/L	200 ml/100L	83	
			Monitored	IRAC 5	Delegate 250 WG	WG	L8392	Dow AgroSciences Southern Africa (Pty) Ltd	250 g/kg	10 g/100L	7	
spinosyns		spinetoram	Monitored	IRAC 5	Delegate 250 WG	WG	L8392	Dow AgroSciences Southern Africa (Pty) Ltd	250 g/kg	10 g/100L	7	
				-	Real Metarhizium 69	-	L9281	Real IMP South Africa Pty Ltd	At least 1 x 10 <sup>8</sup> cfu/ml	200-400 ml/ha	Not applicable	
spore concentrate		<i>Metarhizium anisopliae</i>		-	Real Metarhizium 69	-	L9281	Real IMP South Africa Pty Ltd	At least 1 x 10 <sup>8</sup> cfu/ml	200-400 ml/ha	Not applicable	
			botanical + aromatic + pyrethrin	canola oil + garlic juice extract + pyrethrin extract		IRAC 3A	KangroShield 100	SC	L7630	Kannar Earth Science (Pty) Ltd	250 g/L + 642 g/L + 50 g/L + 14 g/L	500 ml/100 L
Whitefly	botanical + aromatic + pyrethrin	canola oil + garlic juice extract + pyrethrin extract		IRAC 3A	Pygar 932	SC	L7146	Kannar Earth Science (Pty) Ltd	473 g/L + 473 g/L + 2.75 g/L	1.5-2 L/100L	1	

Note: Not all listed targets cause problems in pecan nut orchards.

The provider cannot accept any liability for the accuracy of the list.

Growers are advised to read the product label before application, and apply products at their own risk.

Formulation notes: EC - Emulsifiable concentrate, WG - Water-dispersible granule, SL - Soluble concentrate, SC - Suspension Concentrate, CS - Capsule suspension, SG - Water soluble granule, GS - Grease, EW - Oil-in-water emulsion, VP - Vapour releasing product, SP - Water-soluble powder.

High risk active ingredients have been categorized based on a) WHO 1A and 1B lists of highly hazardous active ingredients, b) EU PIC lists or c) the Rotterdam and Stockholm Conventions.

Banned actives should not be used where alternatives exist, and are internationally being phased out, usage is restricted and alternatives must be considered.

Restricted actives pose risks without many alternatives available. For this class, it is advised that mitigation programs are implemented. Highly restricted actives have implications per specific crop and country.

Alternatives should be implemented for phased out actives.

Monitored actives have related concerns and might become restricted or banned in the future.

PHI = Pre-harvest interval (withholding period). Time from spray or application up to harvest or handling of nut in husk - measured in days.

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## FUNGICIDES

Disease	Active ingredient	International Convention Status	Group code	Trade name	Form.	Reg. no.	Company	Active quantity	Dosage	PHI
Alternaria blight	chlorothalonil	Highly Restricted	FRAC M5	Bravo 720	SC	L7005	Syngenta South Africa (Pty) Ltd	720 g/L	3.5 L/ha	120
	cyprodinil		FRAC 9	Chorus	WG	L5383	Syngenta South Africa (Pty) Ltd	500 g/kg	380-500 g/ha	7
Alternaria blight	cyprodinil + fludioxonil		FRAC 9 + 12	Switch	WG	L5926	Syngenta South Africa (Pty) Ltd	375 g/L + 250 g/L	800-950 g/ha	7
Alternaria late blight	azoxystrobin + difenoconazole		FRAC 11 + 3	Dimension 325 SC	SC	L10355	Cedar Fall Properties 130 (Pty) Ltd	200g/l +125g/l	500-1000 ml/ha	45
Alternaria leaf spot	azoxystrobin + difenoconazole		FRAC 11 + 3	Dimension 325 SC	SC	L10355	Cedar Fall Properties 130 (Pty) Ltd	200g/l +125g/l	500-1000 ml/ha	45
				Revert SC	SC	L10830	Sharda International (Pty) Ltd	200g/l +125g/l	500-1000 ml/ha	45
Anthracnose	azoxystrobin + difenoconazole		FRAC 11 + 3	Amistar Top	SC	L7897	Syngenta South Africa (Pty) Ltd	200 g/L + 125 g/L	500-1000 ml/ha	45
				Dimension 325 SC	SC	L10355	Cedar Fall Properties 130 (Pty) Ltd	200g/l +125g/l	500-1000 ml/ha	45
Blossom blight	boscalid + pyraclostrobin		FRAC 7 + 11	Bellis	WG	L7817	BASF South Africa (Pty) Ltd	252 g/kg + 128 g/kg	800 g/ha	14
				Amistar Top	SC	L7897	Syngenta South Africa (Pty) Ltd	200 g/L + 125 g/L	500-1000 ml/ha	45
	azoxystrobin + difenoconazole		FRAC 11 + 3	Dimension 325 SC	SC	L10355	Cedar Fall Properties 130 (Pty) Ltd	200g/l +125g/l	500-1000 ml/ha	45
				Bellis	WG	L7817	BASF South Africa (Pty) Ltd	252 g/kg + 128 g/kg	800 g/ha	14
Botrytis blight	chlorothalonil	Highly Restricted	FRAC M5	Bravo 720	SC	L7005	Syngenta South Africa (Pty) Ltd	720 g/L	3.5 L/ha	120
	chlorothalonil	Highly Restricted	FRAC M5	Bravo 720	SC	L7005	Syngenta South Africa (Pty) Ltd	720 g/L	3.5 L/ha	120
Botrytis blight	cyprodinil + fludioxonil		FRAC 9 + 12	Switch	WG	L5926	Syngenta South Africa (Pty) Ltd	375 g/L + 250 g/L	800-950 g/ha	7
	<i>Trichoderma asperellum</i>		-	Real Trichoderma	-	L10775	Real IMP South Africa Pty Ltd	At least 1 x 10 <sup>9</sup> cfu/ml	200-400 ml/ha	Not applicable
Botrytis fruit rot	cyprodinil		FRAC 9	Chorus	WG	L5383	Syngenta South Africa (Pty) Ltd	500 g/kg	380-500 g/ha	7
Brown rot - Monilinia	chlorothalonil	Highly Restricted	FRAC M5	Bravo 720	SC	L7005	Syngenta South Africa (Pty) Ltd	720 g/L	3.5 L/ha	120
Downy spot, Leaf rust, Leaf spot, Panicle and shoot blight, Powdery mildew	azoxystrobin + difenoconazole		FRAC 11 + 3	Amistar Top	SC	L7897	Syngenta South Africa (Pty) Ltd	200 g/L + 125 g/L	500-1000 ml/ha	45
				Dimension 325 SC	SC	L10355	Cedar Fall Properties 130 (Pty) Ltd	200g/l +125g/l	500-1000 ml/ha	45
Eastern filbert blight	chlorothalonil	Highly Restricted	FRAC M5	Bravo 720	SC	L7005	Syngenta South Africa (Pty) Ltd	720 g/L	3.5 L/ha	120
Husk rot	boscalid + pyraclostrobin		FRAC 7 + 11	Bellis	WG	L7817	BASF South Africa (Pty) Ltd	252 g/kg + 128 g/kg	800 g/ha	14
Husk spot	boscalid + pyraclostrobin		FRAC 7 + 11	Bellis	WG	L7817	BASF South Africa (Pty) Ltd	252 g/kg + 128 g/kg	800 g/ha	14
				difenoconazole	FRAC 3	Score	EC	L5132	Syngenta South Africa (Pty) Ltd	250 g/L
Late blight	azoxystrobin + difenoconazole		FRAC 11 + 3	Amistar Top	SC	L7897	Syngenta South Africa (Pty) Ltd	200 g/L + 125 g/L	500-1000 ml/ha	45
Scab	azoxystrobin + difenoconazole		FRAC 11 + 3	Amistar Top	SC	L7897	Syngenta South Africa (Pty) Ltd	200 g/L + 125 g/L	500-1000 ml/ha	45
	azoxystrobin + difenoconazole			Dimension 325 SC	SC	L10355	Cedar Fall Properties 130 (Pty) Ltd	200 g/L + 125 g/L	500-1000 ml/ha	45
	chlorothalonil	Highly Restricted	FRAC M5	Bravo 720	SC	L7005	Syngenta South Africa (Pty) Ltd	720 g/L	3.5 L/ha	120
	fentin hydroxide		FRAC 30	Ag-Tin	SC	L9493	Rolfes Agri (Pty) Ltd	480 g/L	50 ml/100L	Not applicable
	propiconazole	Restricted	FRAC 3	Bumper 250 EC	EC	L6034	Adama South Africa (Pty) Ltd	250 g/L	50 ml/100L	90
	propiconazole	Restricted		Propin 250 EC	EC	L10487	Sharda International (Pty) Ltd	250 g/L	50 ml/100L	90
	propiconazole	Restricted		Propizole 250 EC	EC	L7561	Villa Crop Protection (Pty) Ltd	250 g/L	50 ml/100L	90
	propiconazole	Restricted		Tilt	EC	L6668	Syngenta South Africa (Pty) Ltd	250 g/L	50 ml/100L	90
	propiconazole	Restricted		Principle 250 EC	EC	L10533	ICA International Chemicals (Pty) Ltd	250 g/l	50 ml/100L	90
	propiconazole	Restricted		Propiconazole 250 EC	EC	L7306	Villa Crop Protection (Pty) Ltd	250 g/L	50 ml/100L	90
	potassium bicarbonate [syn. potassium hydrogen carbonate]			FRAC NC	Agri-Cure SP	SP	L8549	N Laboratories (Pty) Ltd	850 g/kg	300-500 g/100L + 100 ml/100L Twister

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Septoria leaf spot, Shot-hole, Stone fruit rust	chlorothalonil	Highly Restricted	FRAC M5	Bravo 720	SC	L7005	Syngenta South Africa (Pty) Ltd	720 g/L	3.5 L/ha	120

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## HERBICIDES

Weed	Active ingredient	International Convention Status	Group code	Trade name	Form.	Reg. no.	Company	Active quantity		
Broadleaf weeds	carfentrazone-ethyl	Monitored	HRAC E	Aurora 40 WG	WG	L6794	FMC Chemicals (Pty) Ltd	400 g/kg		
				Grainwatch 400 WDG	WGD	L10719	Universal Crop Protection (Pty) Ltd	400 g/kg		
				Torus	EC	L10709	Meridian Agrochemical Company (Pty) Ltd	250 g/L		
	diquat + paraquat		HRAC D	Parody 200 SL	SL	L8398	Arysta LifeScience South Africa (Pty) Ltd	80 g/L + 120 g/L		
				Preeglone	WS	L3304	Syngenta South Africa (Pty) Ltd	80 g/L + 120 g/L		
	diuron		HRAC C2	Ag-Diuron 800 SC	SC	L7952	Rolfes Agri (Pty) Ltd	800 g/L		
				Develop 800 WDG	WG	L9109	Villa Crop Protection (Pty) Ltd	800 g/kg		
				Diurex 80 WG	WG	L8139	Adama South Africa (Pty) Ltd	800 g/kg		
				Diurex 800 SC	SC	L5334	Adama South Africa (Pty) Ltd	800 g/L		
				Diuron 800 SC (L6236)	SC	L6236	Arysta LifeScience South Africa (Pty) Ltd	800 g/L		
Diuron 800 SC (L7042)		SC		L7042	Arysta LifeScience South Africa (Pty) Ltd	800 g/L				
Diuron 800 WG		WG		L7040	Arysta LifeScience South Africa (Pty) Ltd	800 g/kg				
Dynamo 800 SC		SC		L9619	Sharda International (Pty) Ltd	800 g/L				
Extend 800 WDG		WG		L9108	Villa Crop Protection (Pty) Ltd	800 g/kg				
FarmAg Diuron 800 SC		SC		L5663	FarmAg International (Pty) Ltd	800 g/L				
FarmAg Diuron 800 WG		WG		L8981	FarmAg International (Pty) Ltd	800 g/L				
Farmex		WG		L8749	Arysta LifeScience South Africa (Pty) Ltd	800 g/kg				
Karmex DF (L7998)		WG		L7998	Arysta LifeScience South Africa (Pty) Ltd	800 g/kg				
Nufarm Diuron 900 WG		WG		L5365	Nufarm Agriculture (Pty) Ltd	900 g/kg				
glufosinate-ammonium		Restricted		HRAC H	Basta	SL	L4872	BASF South Africa (Pty) Ltd	200 g/L	
					Coller 200 SL	SL	L10606	Kwelenga SA	200 g/L	
					Glufos 200 SL	SL	L9715	Sharda International (Pty) Ltd	200 g/L	
	Knersus 200 SL		SL		L10631	AECI Limited	200 g/L			
	Lifeline		SL		L10151	Cropserve (Pty) Ltd	280 g/L			
	Nirvana		SL		L9838	Meridian Agrochemical Company (Pty) Ltd	200 g/L			
	Silent		SL		L9545	Wentek Chemicals (Pty) Ltd	200 g/L			
glyphosate	Monitored	HRAC G	Bound 200 SL	SL	L9280	Villa Crop Protection (Pty) Ltd	200 g/L			
			Bounty SL	SL	L7268	Meridian Agrochemical Company (Pty) Ltd	360 g/L			
			Enviro Glyphosate 360	SL	L4767	Enviro Industries (Pty) Ltd	360 g/L			
			Erase 360 SL	SL	L6206	AECI Limited	360 g/L			
			Glygran 710 SG	SG	L8449	Villa Crop Protection (Pty) Ltd	710 g/kg			
			Glyphogan plus	SL	L10700	Adama South Africa (Pty) Ltd	757 g/kg			
			Kalach 510 SL	SL	L8311	Arysta LifeScience South Africa (Pty) Ltd	510 g/L			
			Kalach 700 WSG	SG	L8312	Arysta LifeScience South Africa (Pty) Ltd	700 g/kg			
			Makhro Glyphosate 360 SL	SL	L7969	Makhro-Agro SA (Pty) Ltd	360 g/L			
			Muscle-Up 360 SL	SL	L7935	Rolfes Agri (Pty) Ltd	360 g/L			
			Panga 360 SL	SL	L7812	Villa Crop Protection (Pty) Ltd	360 g/L			
			Panga High-Load 600 SL	SL	L9735	Villa Crop Protection (Pty) Ltd	600 g/L			
			Panga Turbo 450 SL	SL	L8506	Villa Crop Protection (Pty) Ltd	450 g/L			
			Piranha 510 SL	SG	L9314	FarmAg International (Pty) Ltd	680 g/kg			
			Piranha Dry	SG	L9593	FarmAg International (Pty) Ltd	757 g/kg			
			Pirhana 360 SL	SL	L8877	FarmAg International (Pty) Ltd	360 g/L			
			Rondo 757 SG	SG	L9490	DVA Chemicals South Africa (Pty) Ltd	757 g/kg			
			Roundup	SL	L0407	Monsanto South Africa (Pty) Ltd	360 g/L			
			Roundup Turbo	WS	L7166	Monsanto South Africa (Pty) Ltd	450 g/L			
			Scat 360 SL	SL	L5716	Villa Crop Protection (Pty) Ltd	360 g/L			
			Seismic	SL	L7016	Arysta LifeScience South Africa (Pty) Ltd	480 g/L			
			Sharda Glyphosate 360 SL	SL	L8901	Sharda International (Pty) Ltd	360 g/L			
			Silvimax	SL	L9851	FarmAg International (Pty) Ltd	686 g/kg			
			Silvinator	SL	L9850	FarmAg International (Pty) Ltd	510 g/L			
			Slash 360 SL	SL	L7811	Villa Crop Protection (Pty) Ltd	360 g/L			
			Slash 710 SG	SG	L8450	Villa Crop Protection (Pty) Ltd	710 g/kg			
			Slash Turbo 450 SL	SL	L8505	Villa Crop Protection (Pty) Ltd	450 g/L			
			Springbok 360 SL	SL	L6719	Arysta LifeScience South Africa (Pty) Ltd	360 g/L			
			Touchdown Forte HiTech	SL	L7305	Syngenta South Africa (Pty) Ltd	500 g/L			
			Tumbleweed	SL	L4781	Enviro Industries (Pty) Ltd	240 g/L			
			paraquat	Restricted	HRAC D	Piranha 360 SL	SL	L8877	FarmAg International (Pty) Ltd	360 g/L
						Agriquat 200 SL	SC	L6297	AECI Limited	200 g/L
						Agroquat 200 SL	SL	L4871	AECI Limited	200 g/L
AVI-Paraquat	SL	L4461				Avima (Pty) Ltd	200 g/L			
Castle Paraquat 200	SL	L4167				FarmAg International (Pty) Ltd	276 g/L			
Gramoxone	SL	L1174				Syngenta South Africa (Pty) Ltd	200 g/L			
Harpoon 200 SL	SL	L9309				FarmAg International (Pty) Ltd	200 g/L			
Makhro Paraquat	SL	L7906				Makhro-Agro SA (Pty) Ltd	200 g/L			
Paragone SL	SL	L4588				AECI Limited	200 g/L			
Paraquat 200	WS	L7650				Enviro Industries (Pty) Ltd	200 g/L			
Paraquat SL	SL	L2215				Arysta LifeScience South Africa (Pty) Ltd	200 g/L			
Remquat 200 SL	SL	L10004				Remitto	200 g/L			
Scorcher	SL	L9085				Meridian Agrochemical Company (Pty) Ltd	200 g/L			
Sharda Paraquat 200 SL	SL	L9432				Sharda International (Pty) Ltd	200 g/L			
Skoffel 145 SL	SL	L4347				Villa Crop Protection (Pty) Ltd	145 g/L			
Skoffel 200 Super	SL	L6328				Villa Crop Protection (Pty) Ltd	200 g/L			
FarmAg Paraquat 200	WG	L9059				Cedar Fall Properties 130 (Pty) Ltd	200 g/L +125 g/L			
Agroquat	SG	L4607				Arysta LifeScience South Africa (Pty) Ltd	200 g/L			
Paraquat 200 SL	SL	L10180				Green Island Investments (Pty) Ltd	200 g/L			

## Registered product list for Pecan nuts in South Africa

Registrations against specific targets on pecan nuts obtained under Act 36 of 1947.



## HERBICIDES

Weed	Active ingredient	International Convention Status	Group code	Trade name	Form.	Reg. no.	Company	Active quantity		
Broadleaf weeds	trifluralin	Phased out	HRAC K1	Nufarm Trifluralin 480 EC	EC	L5414	Nufarm Agriculture (Pty) Ltd	480 g/L		
				Rifle 480 EC	EC	L8137	Villa Crop Protection (Pty) Ltd	480 g/L		
				Trifluralin 480 EC	EC	L4555	Villa Crop Protection (Pty) Ltd	480 g/L		
				Triflurex 480 EC	EC	L5350	Adama South Africa (Pty) Ltd	480 g/L		
				Sharda Trif 480 EC	EC	L10885	Sharda International (Pty) Ltd	480 g/L		
	indaziflam		HRAC L29	Alion	SL	L10791	Bayer (Pty) Ltd	500 g/L		
Grass weeds	carfentrazone-ethyl		HRAC E	Grainwatch 400 WDG	WGD	L10719	Universal Crop Protection (Pty) Ltd	400 g/kg		
	cycloxydim		HRAC A	Focus Ultra	EC	L4319	BASF South Africa (Pty) Ltd	100 g/L		
	diquat + paraquat		HRAC D	Parody 200 SL	SL	L8398	Arysta LifeScience South Africa (Pty) Ltd	80 g/L + 120 g/L		
				Preeglone	WS	L3304	Syngenta South Africa (Pty) Ltd	80 g/L + 120 g/L		
	diuron	Monitored	HRAC C2	Ag-Diuron 800 SC	SC	L7952	Rolfes Agri (Pty) Ltd	800 g/L		
				Develop 800 WDG	WG	L9109	Villa Crop Protection (Pty) Ltd	800 g/kg		
				Diurex 80 WG	WG	L8139	Adama South Africa (Pty) Ltd	800 g/kg		
				Diurex 800 SC	SC	L5334	Adama South Africa (Pty) Ltd	800 g/L		
				Diuron 800 SC (L6236)	SC	L6236	Arysta LifeScience South Africa (Pty) Ltd	800 g/L		
				Diuron 800 SC (L7042)	SC	L7042	Arysta LifeScience South Africa (Pty) Ltd	800 g/L		
				Diuron 800 WG	WG	L7040	Arysta LifeScience South Africa (Pty) Ltd	800 g/kg		
				Dynamo 800 SC	SC	L9619	Sharda International (Pty) Ltd	800 g/L		
				Extend 800 WDG	WG	L9108	Villa Crop Protection (Pty) Ltd	800 g/kg		
				FarmAg Diuron 800 SC	SC	L5663	FarmAg International (Pty) Ltd	800 g/L		
				FarmAg Diuron 800 WG	WG	L8981	FarmAg International (Pty) Ltd	800 g/L		
				Farmex	WG	L8749	Arysta LifeScience South Africa (Pty) Ltd	800 g/kg		
				Karmex DF (L7998)	WG	L7998	Arysta LifeScience South Africa (Pty) Ltd	800 g/kg		
	Nufarm Diuron 900 WG	WG	L5365	Nufarm Agriculture (Pty) Ltd	900 g/kg					
	fluazifop-P-butyl		HRAC A	Fusilade Forte	EC	L7304	Syngenta South Africa (Pty) Ltd	150 g/L		
	glufosinate-ammonium	Restricted	HRAC H	Basta	SL	L4872	BASF South Africa (Pty) Ltd	200 g/L		
Coller 200 SL				SL	L10606	Kwelenga SA	200 g/L			
Glufos 200 SL				SL	L9715	Sharda International (Pty) Ltd	200 g/L			
Knersus 200 SL				SL	L10631	AECI Limited	200 g/L			
Lifeline				SL	L10151	Cropserve (Pty) Ltd	280 g/L			
Nirvana				SL	L9838	Meridian Agrochemical Company (Pty) Ltd	200 g/L			
Silent				SL	L9545	Wentek Chemicals (Pty) Ltd	200 g/L			
Bound 200 SL				SL	L9280	Villa Crop Protection (Pty) Ltd	200 g/L			
glyphosate	Monitored	HRAC G	Bounty SL	SL	L7268	Meridian Agrochemical Company (Pty) Ltd	360 g/L			
			Enviro Glyphosate 360	SL	L4767	Enviro Industries (Pty) Ltd	360 g/L			
			Erase 360 SL	SL	L6206	AECI Limited	360 g/L			
			Glygran 710 SG	SG	L8449	Villa Crop Protection (Pty) Ltd	710 g/kg			
			Glynox 540 SL	SL	L10937	AECI Limited	662 g/L			
			Glyphogan plus	SL	L10700	Adama South Africa (Pty) Ltd	757 g/kg			
			Kalach 510 SL	SL	L8311	Arysta LifeScience South Africa (Pty) Ltd	510 g/L			
			Kalach 700 WSG	SG	L8312	Arysta LifeScience South Africa (Pty) Ltd	700 g/kg			
			Makhro Glyphosate 360 SL	SL	L7969	Makhro-Agro SA (Pty) Ltd	360 g/L			
			Muscle-Up 360 SL	SL	L7935	Rolfes Agri (Pty) Ltd	360 g/L			
			Panga 360 SL	SL	L7812	Villa Crop Protection (Pty) Ltd	360 g/L			
			Panga High-Load 600 SL	SL	L9735	Villa Crop Protection (Pty) Ltd	600 g/L			
			Panga Turbo 450 SL	SL	L8506	Villa Crop Protection (Pty) Ltd	450 g/L			
			Piranha 510 SL	SG	L9314	FarmAg International (Pty) Ltd	680 g/kg			
			Piranha Dry	SG	L9593	FarmAg International (Pty) Ltd	757 g/kg			
			Pirhana 360 SL	SL	L8877	FarmAg International (Pty) Ltd	360 g/L			
			Rondo 757 SG	SG	L9490	DVA Chemicals South Africa (Pty) Ltd	757 g/kg			
			Roundup	SL	L0407	Monsanto South Africa (Pty) Ltd	360 g/L			
			Roundup Turbo	WS	L7166	Monsanto South Africa (Pty) Ltd	450 g/L			
			Scat 360 SL	SL	L5716	Villa Crop Protection (Pty) Ltd	360 g/L			
			Seismic	SL	L7016	Arysta LifeScience South Africa (Pty) Ltd	480 g/L			
			Sharda Glyphosate 360 SL	SL	L8901	Sharda International (Pty) Ltd	360 g/L			
			Silvimax	SL	L9851	FarmAg International (Pty) Ltd	686 g/kg			
			Silvinator	SL	L9850	FarmAg International (Pty) Ltd	510 g/L			
			Slash 360 SL	SL	L7811	Villa Crop Protection (Pty) Ltd	360 g/L			
			Slash 710 SG	SG	L8450	Villa Crop Protection (Pty) Ltd	710 g/kg			
			Slash Turbo 450 SL	SL	L8505	Villa Crop Protection (Pty) Ltd	450 g/L			
			Springbok 360 SL	SL	L6719	Arysta LifeScience South Africa (Pty) Ltd	360 g/L			
			Touchdown Forte HiTech	SL	L7305	Syngenta South Africa (Pty) Ltd	500 g/L			
			Tumbleweed	SL	L4781	Enviro Industries (Pty) Ltd	240 g/L			
			Piranha 360 SL	SL	L8877	FarmAg International (Pty) Ltd	360 g/L			
			paraquat	Restricted	HRAC D	Agriquat 200 SL	SC	L6297	AECI Limited	200 g/L
						Agroquat 200 SL	SL	L4871	AECI Limited	200 g/L
AVI-Paraquat	SL	L4461				Avima (Pty) Ltd	200 g/L			
Castle Paraquat 200	SL	L4167				FarmAg International (Pty) Ltd	276 g/L			
Gramoxone	SL	L1174				Syngenta South Africa (Pty) Ltd	200 g/L			
Harpoon 200 SL	SL	L9309				FarmAg International (Pty) Ltd	200 g/L			
Makhro Paraquat	SL	L7906				Makhro-Agro SA (Pty) Ltd	200 g/L			
Paragone SL	SL	L4588				AECI Limited	200 g/L			
Paraquat 200	WS	L7650				Enviro Industries (Pty) Ltd	200 g/L			
Paraquat SL	SL	L2215				Arysta LifeScience South Africa (Pty) Ltd	200 g/L			
Remquat 200 SL	SL	L10004				Remitto	200 g/L			

## Registered product list for Pecan nuts in South Africa

Registrations against specific targets on pecan nuts obtained under Act 36 of 1947.



### HERBICIDES

Weed	Active ingredient	International Convention Status	Group code	Trade name	Form.	Reg. no.	Company	Active quantity			
Grass weeds	paraquat	Restricted	HRAC D	Scorchner	SL	L9085	Meridian Agrochemical Company (Pty) Ltd	200 g/L			
				Sharda Paraquat 200 SL	SL	L9432	Sharda International (Pty) Ltd	200 g/L			
				Skoffel 145 SL	SL	L4347	Villa Crop Protection (Pty) Ltd	145 g/L			
				Skoffel 200 Super	SL	L6328	Villa Crop Protection (Pty) Ltd	200 g/L			
				FarmAg Paraquat 200	WG	L9059	Cedar Fall Properties 130 (Pty) Ltd	200 g/L +125 g/L			
				Agroquat	SG	L4607	Arysta LifeScience South Africa (Pty) Ltd	200 g/L			
	Paraquat 200 SL	SL	L10180	Green Island Investments (Pty) Ltd	200 g/L						
	trifluralin	Phased out	HRAC K1	Nufarm Trifluralin 480 EC	EC	L5414	Nufarm Agriculture (Pty) Ltd	480 g/L			
				Rifle 480 EC	EC	L8137	Villa Crop Protection (Pty) Ltd	480 g/L			
				Trifluralin 480 EC	EC	L4555	Villa Crop Protection (Pty) Ltd	480 g/L			
				Triflurex 480 EC	EC	L5350	Adama South Africa (Pty) Ltd	480 g/L			
				Sharda Trif 480 EC	EC	L10885	Sharda International (Pty) Ltd	480 g/L			
	indaziflam		HRAC L29	Alion	SL	L10791	Bayer (Pty) Ltd	500 g/L			
Noxious weeds	glyphosate	Monitored	HRAC G	Bounty SL	SL	L7268	Meridian Agrochemical Company (Pty) Ltd	360 g/L			
				Glygran 710 SG	SG	L8449	Villa Crop Protection (Pty) Ltd	710 g/kg			
				Glynox 540 SL	SL	L10937	AECI Limited	662 g/L			
				Glyphogan plus	SL	L10700	Adama South Africa (Pty) Ltd	757 g/kg			
				Kalach 510 SL	SL	L8311	Arysta LifeScience South Africa (Pty) Ltd	510 g/L			
				Makhro Glyphosate 360 SL	SL	L7969	Makhro-Agro SA (Pty) Ltd	360 g/L			
				Panga 360 SL	SL	L7812	Villa Crop Protection (Pty) Ltd	360 g/L			
				Panga Turbo 450 SL	SL	L8506	Villa Crop Protection (Pty) Ltd	450 g/L			
				Rondo 757 SG	SG	L9490	DVA Chemicals South Africa (Pty) Ltd	757 g/kg			
				Roundup	SL	L0407	Monsanto South Africa (Pty) Ltd	360 g/L			
				Roundup Turbo	WS	L7166	Monsanto South Africa (Pty) Ltd	450 g/L			
				Scat 360 SL	SL	L5716	Villa Crop Protection (Pty) Ltd	360 g/L			
				Sharda Glyphosate 360 SL	SL	L8901	Sharda International (Pty) Ltd	360 g/L			
				Slash Turbo 450 SL	SL	L8505	Villa Crop Protection (Pty) Ltd	450 g/L			
				Springbok 360 SL	SL	L6719	Arysta LifeScience South Africa (Pty) Ltd	360 g/L			
				Touchdown Forte HiTech	SL	L7305	Syngenta South Africa (Pty) Ltd	500 g/L			
				TumbleWeed	SL	L4781	Enviro Industries (Pty) Ltd	240 g/L			
				trifluralin	Phased out	HRAC K1	Trifluralin 480 EC	EC	L4555	Villa Crop Protection (Pty) Ltd	480 g/L
							Triflurex 480 EC	EC	L5350	Adama South Africa (Pty) Ltd	480 g/L

Note: Not all listed targets cause problems in pecan nut orchards.

The provider cannot accept any liability for the accuracy of the list.

Growers are advised to read the product label before application, and apply products at their own risk.

Formulation notes: WS - Water soluble solution, EC - Emulsifiable concentrate, WG - Water-dispersible granule, WGD - Water dispersible granule, SL - Soluble concentrate, SC - Suspension Concentrate, SG - Water soluble granule.

High risk active ingredients have been categorized based on a) WHO 1A and 1B lists of highly hazardous active ingredients, b) EU PIC lists or c) the Rotterdam and Stockholm Conventions.

Banned actives should not be used where alternatives exist, and are internationally being phased out, usage is restricted and alternatives must be considered.

Restricted actives pose risks without many alternatives available. For this class, it is advised that mitigation programs are implemented. Highly restricted actives have implications per specific crop and country. Alternatives should be implemented for phased out actives.

Monitored actives have related concerns and might become restricted or banned in the future.



## Registered product list for Pecan nuts in South Africa

Registrations against specific targets on pecan nuts obtained under Act 36 of 1947.

### ADJUVANTS, PLANT GROWTH REGULATORS & NEMATICIDES

Group	Application reason	Active ingredient	International Convention Status	Trade name	Form.	Reg. no.	Company	Active quantity	Dosage		
adjuvant	Foliar nutrients	polyether-polymethylsiloxane-copolymer		Break-Thru	EC	L6764	Evonik Degussa Africa (Pty) Ltd Co	1000 g/L	See label		
				Charge	EC	L9100	Villa Crop Protection (Pty) Ltd	1000 g/L	See label		
				Supawett	EC	L7202	Rolfes Agri (Pty) Ltd	1000 g/L	See label		
				Techniwet Super	EC	L9239	Farmkem Speciality Products (Pty) Ltd	1000 g/L	See label		
	Fungi	non-ionic surfactant + orange oil	polyether-polymethylsiloxane-copolymer		Sprayfilm 10	EC	L7120	Arysta LifeScience South Africa (Pty) Ltd	902.4 g/L	50 ml/100L	
					Wetcit Duo	EC	L10448	Oro Agri SA (Pty) Ltd	50 g/L + 68 g/L	See label	
		polyether-polymethylsiloxane-copolymer			Orosorb Duo	EC	L10462	Oro Agri SA (Pty) Ltd	50 g/L + 68 g/L	See label	
					Break-Thru	EC	L6764	Evonik Degussa Africa (Pty) Ltd Co	1000 g/L	See label	
					Charge	EC	L9100	Villa Crop Protection (Pty) Ltd	1000 g/L	See label	
					Supawett	EC	L7202	Rolfes Agri (Pty) Ltd	1000 g/L	See label	
		Insects	non-ionic surfactant + orange oil	polyether-polymethylsiloxane-copolymer		Techniwet Super	EC	L9239	Farmkem Speciality Products (Pty) Ltd	1000 g/L	See label
						Sprayfilm 10	EC	L7120	Arysta LifeScience South Africa (Pty) Ltd	902.4 g/L	50 ml/100L
			polyether-polymethylsiloxane-copolymer			Wetcit Duo	EC	L10448	Oro Agri SA (Pty) Ltd	50 g/L + 68 g/L	See label
						Orosorb Duo	EC	L10462	Oro Agri SA (Pty) Ltd	50 g/L + 68 g/L	See label
	Break-Thru					EC	L6764	Evonik Degussa Africa (Pty) Ltd Co	1000 g/L	See label	
	Charge					EC	L9100	Villa Crop Protection (Pty) Ltd	1000 g/L	See label	
	Mites	non-ionic surfactant + orange oil			Supawett	EC	L7202	Rolfes Agri (Pty) Ltd	1000 g/L	See label	
					Techniwet Super	EC	L9239	Farmkem Speciality Products (Pty) Ltd	1000 g/L	See label	
	Weeds	terpenic polymer			Sprayfilm 10	EC	L7120	Arysta LifeScience South Africa (Pty) Ltd	902.4 g/L	50 ml/100L	
					Wetcit Duo	EC	L10448	Oro Agri SA (Pty) Ltd	50 g/L + 68 g/L	See label	
growth regulator	Vegetative growth control	paclobutrazol		Orosorb Duo	EC	L10462	Oro Agri SA (Pty) Ltd	50 g/L + 68 g/L	See label		
				Avocet	SC	L7368	Villa Crop Protection (Pty) Ltd	250 g/L	See label		
nematicide	Nematodes	fenamiphos	Phased out	Cultar	SC	L3693	Syngenta South Africa (Pty) Ltd	250 g/L	15 ml/tree		
				Nemacur 100 GR	GR	L2056	Villa Crop Protection (Pty) Ltd	100 g/kg	10 g/m <sup>2</sup>		
		furfural		Crop Guard	EC	L6864	Illovo Sugar Ltd	900 g/L	5.0 ml/m <sup>2</sup>		

The provider cannot accept any liability for the accuracy of the list.

Growers are advised to read the product label before application, and apply products at their own risk.

Formulation notes: EC - Emulsifiable concentrate, SL - Soluble concentrate, SC - Suspension concentrate, WG - Water-dispersible granule.

High risk active ingredients have been categorized based on a) WHO 1A and 1B lists of highly hazardous active ingredients, b) EU PIC lists or c) the Rotterdam and Stockholm Conventions.

Alternatives should be implemented for phased out actives.





## Maximum Residue Limit (MRL in mg/kg) summary for registered active ingredients on pecan nuts in South Africa

Active ingredients listed are registered for use on the specified crop in South Africa against specific targets under Act 36 of 1947.

High risk active ingredients have been categorized based on

a) WHO 1A and 1B lists of highly hazardous active ingredients, b) EU PIC lists or c) the Rotterdam and Stockholm Conventions.

Banned actives should not be used where alternatives exist, and are internationally being phased out, usage is restricted and alternatives must be considered.

Restricted actives pose risks without many alternatives available; it is advised that mitigation programs are implemented for these actives.

Highly restricted actives have implications per specific crop and country.

Alternatives should be implemented for phased out actives.

Monitored actives have related concerns and might become restricted or banned in the future.

Active ingredient	South Africa	Canada	China	Codex	Europe	South Corea	USA	International Convention Status
(e)-8-dodecenyl acetate	Not required	0.1	-	-	0.01	-	-	-
(z)-8-dodecenyl acetate	Not required	0.1	-	-	0.01	-	-	-
abamectin	-	0.01	-	0.005	0.01	0.01	0.01	Restricted
acephate	0.02	0.1	-	-	0.02	0.1	0.02	Phased out
acetamiprid	0.01	0.1	0.06	0.06	0.07	0.06	0.1	-
alpha-cypermethrin	-	0.05	-	0.05	0.05	-	0.05	Restricted
azoxystrobin	0.01	0.02	0.01	0.01	0.01	0.01	0.02	-
<i>Bacillus thuringiensis</i> kurstaki (strain sb4)	-	-	-	-	-	-	-	-
<i>Beauveria bassiana</i>	Not required	0.1	-	-	-	-	-	-
beta-cyfluthrin	-	0.1	-	-	0.02	0.01	0.01	Phased out
bifenthrin	0.05	0.1	0.05	0.05	0.05	0.05	0.05	Restricted
boscalid	1	0.7	0.05	0.05	0.05	0.05	0.7	-
carbaryl	-	1	-	1	0.02	0.5	0.1	Phased out
carfentrazone-ethyl	-	0.1	-	-	0.05	-	0.1	-
chlorantraniliprole	0.1	0.02	0.02	0.02	0.05	0.02	0.02	Monitored
chlorothalonil	0.01	0.1	-	-	0.01	0.01	-	Highly Restricted
chlorpyrifos	-	0.1	-	0.05	0.01	0.05	0.2	Phased out
cycloxydim	-	0.1	-	-	0.05	-	-	-
cyprodinil	1	0.1	-	0.04	0.04	0.01	0.04	-
difenoconazole	0.01	0.03	0.03	0.03	0.05	0.01	0.03	-
diquat	-	0.1	-	-	0.02	0.01	0.02	-
diuron	-	0.1	-	-	0.02	0.1	0.05	Monitored
e/z-8-dodecenol	-	0.1	-	-	-	-	-	-
emamectin benzoate	0.01	0.1	-	0.001	0.01	0.01	0.02	-
fenamiphos	0.05	0.1	-	-	0.02	0.01	-	Phased out
fentin hydroxide	-	0.1	-	-	0.05	-	-	-
fluzifop-p-butyl	0.05	0.05	0.01	0.01	0.01	-	0.05	-
fludioxonil	0.5	0.1	-	-	0.01	0.01	-	-
furfural (aldehyde)	-	0.1	-	-	1	-	-	-
<i>Glomus iranicum</i> var. tenuihypharum	Not required	-	-	-	-	-	-	-
glufosinate-ammonium	-	0.5	0.01	0.1	0.1	0.1	0.5	Restricted
glyphosate	-	0.1	-	-	0.1	1	1	Monitored
<i>Helicoverpa armigera</i> nucleopolyhedrovirus	Not required	0.1	-	-	-	-	-	-
imidacloprid	-	0.05	0.01	0.01	0.05	0.01	0.05	Restricted
indaziflam	0.01	0.01	-	-	0.01	0.01	0.01	-
indoxacarb	-	0.1	-	-	0.02	0.01	0.08	Restricted
lambda-cyhalothrin	0.1	0.05	0.01	0.01	0.01	0.5	0.05	Restricted
<i>Metarhizium anisopliae</i>	Not required	0.01	-	-	0.01	-	-	-



## Maximum Residue Limit (MRL in mg/kg) summary for registered active ingredients on pecan nuts in South Africa

Active ingredients listed are registered for use on the specified crop in South Africa against specific targets under Act 36 of 1947.

High risk active ingredients have been categorized based on

a) WHO 1A and 1B lists of highly hazardous active ingredients, b) EU PIC lists or c) the Rotterdam and Stockholm Conventions.

Banned actives should not be used where alternatives exist, and are internationally being phased out, usage is restricted and alternatives must be considered.

Restricted actives pose risks without many alternatives available; it is advised that mitigation programs are implemented for these actives.

Highly restricted actives have implications per specific crop and country.

Alternatives should be implemented for phased out actives.

Monitored actives have related concerns and might become restricted or banned in the future.

Active ingredient	South Africa	Canada	China	Codex	Europe	South Corea	USA	International Convention Status
methoxyfenozide	3	0.1	-	0.1	0.1	0.09	0.1	-
novaluron	0.01	0.1	-	-	0.01	0.01	-	-
paclobutrazol	0.05	0.1	-	-	0.01	0.01	-	-
paraquat	-	0.1	0.05	0.05	0.02	0.01	0.05	Restricted
pirimicarb	0.05	0.1	-	-	0.02	0.05	-	Restricted
polyether-polymethylsiloxane-copolymer	Not required	0.1	-	-	-	-	-	-
potassium bicarbonate	Not required	0.1	-	-	-	-	-	-
propiconazole	0.05	0.1	0.02	0.02	0.01	0.05	0.1	Restricted
pymetrozine	0.02	0.02	-	-	0.02	0.01	0.02	Restricted
pyraclostrobin	0.02	0.04	-	0.02	0.02	0.02	0.04	Restricted
spinetoram	0.01	0.02	-	0.01	0.02	0.01	0.1	Monitored
sterilised <i>Thaumatotibia leucotreta</i>	Not required	-	-	-	-	-	-	-
sulfoxaflor	0.02	0.015	-	0.03	0.02	0.02	0.015	Restricted
terpene polymer	-	0.1	-	-	-	-	-	-
<i>Thaumatotibia leucotreta</i> granulovirus	Not required	0.1	-	-	0.01	-	-	-
thiamethoxam	-	0.02	0.02	0.01	0.02	0.01	0.02	Restricted
<i>Trichoderma asperellum</i>	Not required	-	-	-	-	-	-	-
trifluralin	-	0.1	-	-	0.01	0.05	0.05	Phased out