

# Tree nuts

## Minor crop stakeholder workshop 2018

Information supplied by:

SAMAC – Macadamias

SAPPA – Pecan nuts

Rotondo Walnuts – Walnuts

Agrisudafrica – Hazelnuts

Producers – Pistachios

# Overview – Tree nuts

	Macadamias	Pecan nuts	Walnuts	Hazelnuts	Pistachios	Total
Number of growers	± 700	± 1 000	± 15	1	2	± 1 700
Area planted (ha)	± 32 500	± 30 000	± 600	40	15	± 63 000
Annual Production (ton NIS)	44 610 (2017) 54 000 ton (2018 estimate)	16 500 (2017) 18 000 ton (2018 estimate)	1 000 (2018)	80	18	73 000 (2018)
Markets	50% inshell: Mainly China 50% kernel: Mainly USA (51%) and EU (35%)	80% in-shell exports – mainly China	2017: 65% export (NIS) 2018: 65% local (kernel)	100% exports	5% local market	Mainly export
Current Growth	> 5 000 ha / annum; growing exponentially	± 3 500 ha / annum; growing exponentially	Next 5 years: 500 ha Next 10 years: ± 1 500 ha (estimate)	Next 10 years: 7 000 ha (estimate)	Increasing interest	± 9 000 ha / annum

# Tree nut questions

- ❖ Define the grouping within “Tree nuts”
  - Can products be used if specified “Tree nuts” on the label?
  - DOH – almonds, cashews, chestnuts, hazelnuts, macadamias, pecans, pistachios, walnuts, coconuts, Brazil nuts, pine nuts (CODEX CROP GROUPING WORKING GROUP)
  
- ❖ How can we get more biological products included into our programs?
  - Monitoring & biological resistance / control
  - Parasitoids & predators mass release integration into IPM programs

# Requests

- ❖ Label extensions to the defined “Tree nut” group
- ❖ Additional targets to current registrations
- ❖ **Alternative chemical groups to manage resistance**
- ❖ **New registrations for new pests / diseases**
- ❖ **Biological products for integration into IPM programs**

# Chemical registration extension requests

## Chemical registration extension request - Tree nut group 2018

Active ingredient	Category	Target common name	Macadamias	Pecans	Walnuts	Hazelnuts	Pistacio	Recommendation	Reason	Notes
chlorpyrifos	Insecticide	Thrips (Scirtothrips aurantii)	Yes	Yes	X	Yes	Yes	Label extension	Tree nuts & Include targets	Also listed on Almonds &
chlorpyrifos + cypermethrin	Insecticide	Stink bug	Yes	X	X	X	X			
clethodim	Herbicide	Weeds - Grass weeds	Yes	Yes	Yes	Yes	Yes			
clothianidin	Insecticide	Two Spotted Stinkbug (Bathycor	Yes	X	X	X	X	Label extension	Tree nuts & Include targets	
copper oxichloride	Bactericide	Bacterial blight	X	X	Yes	X	X			
cuprous oxide	Bactericide	Bacterial blight	X	X	Yes	X	X	Label extension	Tree nuts	Copper hydroxide / manco
cycloxydim	Herbicide	Weeds - Grass weeds	Yes	Yes	X	X	X			
cypermethrin	Insecticide	Stink bug (Nezara viridula)	Yes	X	X	X	X			
cyprodinil	Fungicide	Alternaria	Yes	Yes	X	Yes	Yes	Label extension	Resistance management	
cyprodinil	Fungicide	Botrytis fruit rot	Yes	Yes	X	Yes	Yes	Label extension	Resistance management	
cyprodinil + fludioxonil	Fungicide	Botrytis	X	Yes	X	X	Yes	Label extension	Resistance management	
cyprodinil + fludioxonil	Fungicide	Alternaria	X	Yes	X	X	Yes	Label extension	Resistance management	
difenoconazole	Fungicide	Husk spot	Yes	Yes	Yes	Yes	Yes			
diuron	Herbicide	Weeds - Broadleaf - Annual	Yes	Yes	X	X	X			
diuron	Herbicide	Weeds - Grass - Annual	Yes	Yes	X	X	X			
diuron	Herbicide	Weeds - Grass - Perennial	Yes	Yes	X	X	X			
diuron	Herbicide	Weeds - Sedges	Yes	Yes	X	X	X			
E-8-dodecenyl acetate + 7-8-dodecyl	Semiochem	False codling moth	Yes	Yes	Yes	Yes	Yes			

**MS EXCEL SPREADSHEET AVAILABLE**

**Requests highlighted in yellow, recommendations, reasons and notes supplied**

# Critical Gap for Tree nuts

- ❖ Herbicides: Pre-emergence to help with resistance problems
- ❖ Fungicides
  - Systemic products needed for new diseases like *Fusarium* root and -stem rot
  - Alternative actives for resistance management
  - New pest related fungi: *Fusarium euwallaceae*
- ❖ Insecticides
  - Products needed for new pests: PSHB
  - Biological products needed to help with resistance build-up. Also needed for IPM approaches

Resistance  
management

New pests &  
fungi

Biological  
alternatives

# Tree nuts proposed solutions

MINOR CROPS GROWERS NEEDS ASSESSMENT - Critical needs for Tree Nut registrations 2018			
Tree nuts (63 000 ha established, 1700 growers, 73 000 tons NIS / annum, vast growth)			
Active Ingredient	Target Organism	Comments	Needs description
Tartar Emetic	Thrips ( <i>Scirtothrips aurantii</i> , <i>Frankliniella occidentalis</i> )	Thrips huge problem and we need this registration - data available	Tree nuts - new registration
Methoxyfenozide	False codling moth ( <i>Thaumatotibia leucotreta</i> ), Codling moth ( <i>Cydia pomonella</i> ), African Bollworm ( <i>Helicoverpa armigera</i> ), Macadamia nut borer ( <i>Thaumotrebia batrachopa</i> )		Tree nuts - label amend
Emmamectin benzoate	Macadamia nut borer (MNB) ( <i>Thaumatotibia</i> (= <i>Cryptophlebia</i> ) <i>batrachopa</i> ) (Meyrick, 1908), Bollworm - African bollworm, Codling moth, False codling moth, Leaf roller	Walnut request	Tree nuts - label amend
Spinosad	Thrips spp., Bollworm, Codling moth	Registered on walnuts in California	Tree nuts - new registration
Sulphur	Thrips ( <i>Scirtothrips aurantii</i> ), mites	Need alternatives to Delegate - Spinetoram & Kohinor - imidacloprid)	Tree nuts - new registration
Indoxacarb	Bollworm, Leafminers, Codling moth, FCM, Macadamia nut borer		Tree nuts - label amend
Beta cyfluthrin	<i>Bathycoelia natalicola</i> , <i>Pseudotheraptus wayi</i> , <i>Nezara pallidoconspersa</i> , <i>Nezara viridula</i>	Registered for ground application, aerial required due to safety concerns for tractor drivers on steep slopes during wet season - Need shorted WHP (< 30 days) for stink bug applications	Tree nuts - label amend (+ aerial application)
Fipronil	Thrips, Termites	Need alternatives for thrips control (urgent)	Tree nuts - new registration
Methamidophos	Thrips, Scale, Aphids	Need alternatives for thrips control	Tree nuts - new registration

**MS EXCEL SPREADSHEET AVAILABLE**

**Gaps highlighted in RED; comments and needs descriptions supplied for clarification**

# Labels to extend

AMISTAR Top - Eng\_2014-12-18

BRAVO\_720\_-\_Eng\_2016-12-12

L0367\_Nemacur 400 EC

L0924\_Tokuthion 960 EC

L1578\_Omite 30 WSB

L2056\_Nemacur 100 GR

L3145\_Kemprin 200 EC

L3207\_FarmAg Cypermethrin

L3428\_Aphox

L3538\_Manager SC

L3575\_Oleum

L3980\_Avi-Sipermetrin EC

L4069\_Cypermethrin 200 EC

L4110\_Rugby 10G

L4175\_Ace 750 SP

L4479\_Tartar Emetic SP

L4829\_Citrole 100

L4910\_Regent 200 SC

L4992\_Fastac SC

L5011\_Flexidor 500 SC

L5057\_Vydate SL

L5096\_Klartan 240 EW

L5223\_Telone II

L5321\_Cyberin 200 EC (2)

L5321\_Cyberin 200 EC

L5383\_Chorus

L5409\_Polytrin 200 EC

L5588\_Azinphos 200 SC

L5690\_BioLure CM

L5926\_Switch (1)

L5968\_Ortiva

L5985\_Mangle SC

L6011\_Smite

L6034\_Bumper 250 EC

L6133\_Cipron

L6285\_Rimon 10 EC

L6355\_Cosavet

L6368\_Rugby 10ME

L6378\_Nemesis 100 EC

L6452\_Sumi-Alpha 200 EC

L6491\_H\_R Medium spray oil

L6515\_Pyrinex 250 CS

L6557\_Tracer 480 SC

L6589\_Dursban 750 WG

L6628\_Striker

L6639\_Methastem 585 SL

L6668\_Tilt

L6696\_Fury 10EW

L6709\_Akitor

L6763\_Calypso 480 SC

L6807\_Avalanche

L7014\_Bitrad Cypermethrin

L7015\_Bitrad Methamidophos

L7052\_Bio-Neem

L7099\_Nemesis

L7167\_Atador

L7227\_Vantex 60 CS

L7247\_Nemacur 240 CS

L7262\_Polytrin Super 100 SC

L7304\_Fusilade Forte

L7306\_Propiconazole 250EC

L7379\_Ag-Chem Dusting Sulphur

L7561\_Propizole 250 EC

L7569\_Proxyfen

L7570\_Pyriate EC

L7571\_Genesis 100 EC

L7572\_Pyriproxyfen 100EC

L7573\_Scalex 100 EC

L7581\_Proclaim

L7598\_Cryptogran

L7612\_Bulldock Beta 125 SC

L7646\_Bonfire 400 EC

L7647\_Fenamiphos 400EC

L7668\_ProXiX

L7669\_Attacke

L7779\_Runner 240 SC

L7785\_Judo 50 EC

L7787\_Lambda 50EC

L7817\_Bellis

L7840\_NeemAzal

L7960\_Citrimist

L7974\_Makhrozole 250 EC

L8037\_Cryptex

L8077\_Nordox 86 % WG

L8100\_Proxy 100 EC

L8253\_Beretta WDG

L8254\_Buprofezin 500 WDG

L8268\_Reward 200 SC

L8270\_Broadband

L8272\_Rossi 200 SC

L8307\_Hunter 24 SC

L8375\_Topstar

L8380\_Citrunil 200 SC

L8389\_Alanto

L8392\_Delegate 250 WG

L8416\_Chempac African Bolworm Lures

L8435\_Steward 150 EC

L8447\_Kohinor 350 SC

L8462\_Vandal

L8466\_Bio-Insek

L8467\_Altacor

L8469\_Eco-Bb

L8472\_Ag-Lambda 50 EC

L8474\_Unipex 500 WDG

L8475\_Apex 500 WDG (1)

L8476\_Ag-Thiaclopid 480 SC

L8481\_Validus 200 EW

L8491\_Ag-Cypermethrin 200 EC

L8533\_Savage 360 SC

L8534\_Saber 360 SC

L8546\_Lambda EC

L8559\_Movento

List of product labels available on request



Thank you