Rainforest Alliance
Exceptional Use of FAO/WHO highly hazardous pesticides

July, 2017
Version 2.1

The Rainforest Alliance Works to conserve biodiversity and ensure sustainable livelihoods by transforming land-use practices, business practices, and consumer behavior.

More information?

For more information about the Rainforest Alliance, visit www.rainforest-alliance.org or contact info@ra.org

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POLICY

Issue Date:	Binding date:	Expiration date:	Replaces:
November 23, 2018	Immediately, including open audit processes	June 30, 2020	RA-P-SP-7-V2.0 Policy on Exceptional use of FAO/WHO highly hazardous pesticides
Developed by:		**Approved by:**	
Senior Manager, Standards		Chief Sustainable Supply Chains Officer	
Linked to (name of documents):		**Reference criterion or clause number:**	
Rainforest Alliance Sustainable Agriculture Standard 2017, version 1.2.		Critical criterion 3.4	
This policy is applicable to:		**Type of organizations (if applicable):**	
All types of audits		• Farms and group administrators.	
Crops:		**Regions:**	
As specified for each substance and pest.		All countries.	

Contents

1. Introduction

Rainforest Alliance is a growing network of people who are inspired and committed to working together to achieve our mission of conserving biodiversity and ensuring sustainable livelihoods. For more information about Rainforest Alliance, visit our website: http://www.rainforest-alliance.org

1.1. 2017 Prohibited Pesticide List, WHO/FAO highly hazardous pesticides and exceptional use requests

When SAN published its new 2017 Sustainable Agriculture Standard in September 2016, it was accompanied with a completely updated list of SAN prohibited pesticides containing 127 active ingredients classified as Highly Hazardous Pesticides by the FAO/WHO Panel of Experts on Pesticide Management additional to 25 obsolete substances.

During a special round of public consultation in 2015/16, stakeholders in North and South explained the challenge to eliminate at least one fifth of these 127 active ingredients on the short run. As a result, in September 2016 SAN issued a procedure for exceptional pesticide use and invited stakeholders to send applications for exceptional use. This is the first update of the document that resulted from that consultation.

The following authorizations are valid until June 30, 2020 and only under the condition of implementing the mandatory risk management requirements reflected in this Policy.

1.2. Justifications for authorizations of exceptional use requests

Authorizations of requests for the exceptional use of WHO/FAO highly hazardous pesticides were granted, if:

- Evidence of producers' use/need was provided; and
- Rainforest Alliance currently has certified organizations within the requested crop or country scope; and
- The substance's risks can be managed with mandatory risk mitigation requirements or additional specific conditions; and
- Other less toxic, effective and registered control alternatives are not available for the specific pest-crop combination.

2. Policy: Exceptional use of FAO/WHO highly hazardous pesticides

2.1. General rules and risk management requirements

1. Failing to comply with the requirements in this policy will be considered as a non-conformity against critical criterion 3.4 of the 2017 Sustainable Agriculture Standard.
2. The substances listed in this policy may only be used if applications are registered including the following information:
    a) All purchase receipts; and
    b) Label names of applied products; and
    c) Active ingredient (AI) name; and
    d) Quantity of each formulated product applied; and
    e) Application dates; and
    f) Location (production plot); and
    g) Land area over which each product is applied; and
    h) Type of application equipment; and
    i) Names of pesticide handlers.

2.2. Authorized exceptions and risk management requirements per chemical category

2.2.1. Rodenticides: authorizations and risk management requirements

1) Rainforest Alliance authorizes the use of the following eleven rodenticides only for the specified pest species in all crops, as determined in the following table and under the conditions of clauses 2) and 3) of this section:

Pesticide	CAS Number	Pest Species
1. Brodifacoum	56073-10-0	Rodents (*Mus* sp. & *Rattus* sp.)
2. Bromadiolone	28772-56-7	Rodents (*Mus* sp. & *Rattus* sp.)
3. Bromethalin	63333-35-7	Rodents (*Mus* sp. & *Rattus* sp.)
4. Chlorophacinone	3691-35-8	Rodents (*Mus* sp. & *Rattus* sp.)
5. Coumatetralyl	5836-29-3	Rodents (*Mus* sp. & *Rattus* sp.)
6. Difethialone	104653-34-1	Rodents (*Mus* sp. & *Rattus* sp.)
7. Diphacinone	82-66-6	Rodents (*Mus* sp. & *Rattus* sp.)
8. Flocoumafen	90035-08-8	Rodents (*Mus* sp. & *Rattus* sp.)
9. Strychnine	57-24-9	Rodents (*Mus* sp. & *Rattus* sp.)
10. Warfarin	81-81-2	Rodents (*Mus* sp. & *Rattus* sp.)
11. Zinc phosphide	1314-84-7	Rodents (*Mus* sp. & *Rattus* sp.)

2) These substances may be used only if the following risk management requirements are fully implemented:

    a) Rodenticide traps are only used, if rodent monitoring demonstrates that mechanical control methods are not effective; and
    b) Only formulated rodenticide baited traps are used; and
    c) Signs of rodent activity (droppings, tracks, gnaw marks, burrows) are monitored and the results recorded. Traps are inspected daily and bait stations and installations weekly; and
    d) Bait stations are tamper-resistant, anchored, and constructed in such a manner and size as to permit only the entrance of rodents; and
    e) Food sources attracting rodents and debris are eliminated; and
    f) Rodent carcasses are handled with gloves and buried in locations that do not pose risk to human health or water contamination; and
    g) Bait stations are removed, and the amount of stations diminished when there are no longer signs of rodent feeding or there is evidence of use by non-target wildlife.

3) The use of pellets containing one or a combination of these eleven rodenticides is only permitted if the following additional requirements are fully implemented:

    a) Pellets are designed for the target pests; and
    b) Routine applications of rodenticide pellets are prohibited; and
    c) Pellets are applied according to a documented and implemented rodent prevention plan that addresses periods of mass invasion of rodents to pineapple production plots; and
    d) Access of bystanders is avoided by fencing or other effective security measures.

2.2.2. Nematicides: authorizations and risk management requirements

1) Rainforest Alliance authorizes the use of the following five nematicides only for the combination of pest species and crops specified in the following table, under implementation of the additional specific conditions and under the conditions of clause 2) of this section.

Pesticide	CAS Number	Pest Species	Crop or Production System
Cadusafos	95465-99-9	All nematode species	Banana (*Musa* sp.), Coffee *(Coffea* sp.) Pineapple *(Ananas comosus)*, flowers and Ornamentals[1]
Ethoprophos; Ethoprop	13194-48-4	Nematode (*Radopholus similis*)	Banana (*Musa* sp.)
		Radopholus similis, Scutigerellidae, Scolopendrellidae, Meloidogyne spp., *Pratylenchus* spp.	Pineapple *(Ananas comosus)*[2]
Fenamiphos	22224-92-6	All nematode species	Banana (*Musa* sp.), flowers and Ornamentals[3]
		Tylenchorhynchus spp., *Meloidogyne* spp., *Helicotylenchus* sp., *Pratylenchus* spp., *Belonolaimus* spp., *Tylenchulus semipenetrans, Heterodera* spp., *Rotylenchulus* spp., *Xiphinema* sp., *Radopholus similis*	Pineapple *(Ananas comosus*)[4]
Oxamyl	23135-22-0	All nematode species	Banana *(Musa* sp.*),* Onions (*Allium cepa*), Garlic (*Allium Sativum*), Mint (*Mentha* sp.), Flowers and Ornamentals
		Meloidogyne sp., *Pratylenchus* sp., *Ditylenchus* sp.	Melon, watermelon
		Heterodera marioni, Meloidogyne ssp.	Melon
		Radopholus similis, Meloidogyne incognita, Helicotylenchus multicinctus, Pratylechus simipenetrans, Meloidogyne sp., *Pratylenchus* sp., *Rorylenchulus reniformis*	Pineapple *(Ananas comosus)*
Terbufos	13071-79-9	Nematode (*Radopholus similis*), weevil (Curculionoidea)	Banana (*Musa* sp.)
		Meloidogyne sp., *Pratylenchus* sp., *Ditylenchus* sp.	Rice *(Oryza sativa)*

[1] Application only in open fields; prohibited for green-house conditions.
[2] Only with closed cabin tractor application.
[3] Application only in open fields; prohibited for green-house conditions.
[4] Only permitted under closed cabin application

2) These substances may be used only if the following risk management requirements are fully implemented:
   a) The listed nematicides are rotated with lower toxicity nematicides as part of the rotation for resistance management; and
   b) Application methods place the product precisely within the plant root zone or use tree injection. Uncovered application of granules is prohibited in Rainforest Alliance non-application zones; and
   c) Daily maximum application time is limited to eight hours under the condition that
      i. The daily application is divided into two shifts of maximum four hours each; and
      ii. Pesticide handlers bathe to wash off residues after each shift; and
      iii. Pesticide handlers put on clean PPE clothing before each shift; and
      iv. Application is conducted during the coolest hours of the day.
   d) Annual medical monitoring of pesticide handler's health (kidney and liver function) is provided; and
   e) Cholinesterase levels of pesticide handlers are tested. Tests are conducted prior to the first time pesticide handlers apply these substances on the farm and periodically thereafter as long as they remain assigned to this task. Other work that does not involve use of these five nematicides is offered to those nematicide handlers with results outside of the accepted cholinesterase levels.

2.2.3. Pollinator risk substances: authorizations and risk management requirements

1) Rainforest Alliance authorizes the use of the following three neonicotinoids clothianidin, imidacloprid, thiamethoxam, and the phenylpyrazole fipronil only for the combination of pest species and crops specified in the following table, under implementation of the additional specific conditions and under the conditions of clause 2) of this section:

Pesticide	CAS Number	Pest Species	Crop or Production System
Clothianidin	210880-92-5	Tea mosquito *(Helopeltis theivora)*, moth *(Mocis frugalis)*, aphids or green fly *(Aphidoidea)*, leafhopper or jassid *(Cicadellidae)*	Tea *(Camellia sinensis)*
		Aphids *(Cavariella aegopodii)*	Fennel *(Foeniculum vulgare)*
		Aphids *(Myzus Persicae)*	Cumin *(Cuminum cyminum)*
		Thrips (*Franklienella occidentalis*); Aphids (*Myzus persicae*)	Flowers and Ornamental Plants[5]

[5] Open-field applications are prohibited. Applications are only permitted in closed and controlled environments, such as greenhouses, as part of resistance control in rotation with other substances.

Pesticide	CAS Number	Pest Species	Crop or Production System
Fipronil	120068-37-3	Leaf-cutting ants and termites	Crops / production systems authorized for certification[6]
		Thrips (*Franklienella occidentalis*)	Flowers and Ornamental Plants[7]
Imidacloprid[8]	138261-41-3	Coffee berry borer *(Hypothenemus hampei), Phyllophaga* sp., *Rhizoecus* sp., *Dysmicoccus* sp., *Pseudococcus* sp. *Leucoptera* sp.	Coffee *(Coffea* sp.*)*
		Mirids *(Sahlbergella singularis, Distantiella theobroma)*	Cocoa *(Theobroma cacao)*
		Mealybugs, scale insects (Coccoidea)	Banana (*Musa* sp.), Pineapple (*Ananas comosus*)
		Banana weevil *(Cosmopolites sordidus), Leptodictya* sp	Banana (*Musa* sp.)
		Asian citrus psyllid and insect vector of the huanglongbing (HLB) citrus disease (*Diaphorina citri*)	Citrus
		Selenothrips rubrocinctus, Thrips tabaci	Mango *(Mangifera indica)*
		Empoasca spp	Papaya
		Aphis gossipii, Trialeurodesvaporariorum	Watermelon, squash
		Bemisia spp., Leptoglossus gonagra, Myzus persicae, Empoasca kraemeri, Thrips spp.	Melon, watermelon, papaya, passion fruit
		Thrips (*Franklienella occidentalis*)	Flowers and ornamental plants
		Grape phylloxera (*Phylloxera vastatrix*), *Planococcus* spp, *Pseudococcus* sp, *Dysmicoccus* sp, *Ferrisia virgate, Frankliniella occidentalis, Idioscopus clypealis, I.nitidulus, Amritodus atkinsoni*	Grape (*Vitis vinifera*)
		Athalia lugens	Mustard (*Brassica nigra)*
		Bagrada hilaris Chilli Jassid Aphid *(Aphis gossypii)*	Chilli *(Capsicum annuum)*
		Thrips *(Scirtothrips dorsalis),* Flea beetle	Cumin *(Cuminum cyminum)*
		Frankliniella occidentalis	Lettuce *(Lactuca sativa)*

[6] Only use of solid baits permitted if RA Requirements for Pollinator Risk Mitigation are implemented and if used as focalized applications on nests and pathways. The use of liquid fipronil formulations is prohibited.
[7] Open-field applications are prohibited. Applications are only permitted in closed and controlled environments, such as greenhouses, as part of resistance control in rotation with other substances.
[8] Repeated applications are avoided, and applications are only done in high-risk areas of pest infestations

Pesticide	CAS Number	Pest Species	Crop or Production System
		Hemiberelesia sp, *Fiorina fiorinae*, *Monalonion velezangeli, Bruggmanniella perseae, Frankliniella spp., Heliothrips haemorrhoidalis, Bemisia tabaci, Paraleyrodes perseae*	Avocado (*Persea americana*)
Thiamethoxam	153719-23-4	Banana root borer (*Cosmopolites sordidus)* ,C Southern root-knot nematode (*Meloidogyne* spp) ,Burrowing nematode *(Rodopholus similis)*	Banana (*Musa* sp.)
		Dismicoccus	Banana (*Musa* sp.) Pineapple *(Ananas comosus)*
		Red spider mite *(Tetranychus urticae)*, mealybugs / scale insects (Coccoidea)	Cocoa *(Theobroma cacao)*
		Coffee berry borer *(Hypothenemus hampei), Quesada gigas, Dysmicoccus texensis, Leucoptera* sp.	Coffee *(Coffea sp.)*
		Tea mosquito *(Helopeltis theivora)*, moth *(Mocis frugalis)*, aphids or green fly *(Aphidoidea)*, jassid or leafhopper *(Cicadellidae)*	Tea *(Camellia sinensis)*
		Asian citrus psyllid and insect vector of the huanglongbing (HLB) citrus disease (*Diaphorina citri*)	Citrus
		Grape phylloxera (*Phylloxera vastatrix*), Planococcus spp, Pseudococcus sp, Dysmicoccus sp, Ferrisia virgate, *Phyllotreta vittula*	Grape (*Vitis vinifera*)
		Bemisia tabaci (Biotipo B)	Melon Watermelon
		Bemisia spp., *Myzus persicae, Empoasca kraemeri*	Melon, watermelon, papaya, tea
		Thrips (*Franklienella occidentalis*)	Flowers and Ornamentals Pineapple *(Ananas comosus)*
		Aphids *(Myzus Persicae, Cavariella aegopodii, Aphis craccivora Koch)*	Cumin *(Cuminum cyminum),* Fennel *(Foeniculum vulgare)*, Fenugreek *(Trigonella foenum-graecum)*
		Thrips *(Scirtothrips dorsalis)* Aphids *(Aphis gosipii)*	Chilli *(Capsicum annuum)*
		Hopper *(Idioscopus clypealis, I.nitidulus and Amritodus atkinsoni)*	Mango (*Mangifera indica*)

Pesticide	CAS Number	Pest Species	Crop or Production System
		Hemiberelesia sp, *Fiorina fiorinae Bemissia tabacci, Thrips spp., Frankliniella gardeniae*	Avocado *(Persea americana)*

2) These substances may be used only if the following risk management requirements are fully implemented:
   a) The listed insecticides are rotated with lower toxicity insecticides as part of the rotation for resistance management; and
   b) Exposure to natural ecosystems is minimized by complying with Rainforest Alliance non-application zones or by establishing vegetative barriers compliant with Rainforest Alliance parameters for vegetative barriers or by implementing other effective mechanisms to reduce spray drift; and
   c) Open-field use of these four insecticides is prohibited, with the only exceptions of avocado, banana, citrus, cocoa, coffee, grapes, melon, pineapple, and tea.
   d) If bee hives are used, they are temporarily covered during application, and hive bees are provided with a clean water source outside the treated area.

2.2.4. Reproductive toxicity substances: authorizations and risk management requirements

1) Rainforest Alliance authorizes the use of the following seven reproductive toxicity substances only for the combination of pest species and crops specified in the following table, under implementation of the additional specific conditions of clause 2) of this section:

Pesticide	CAS Number	Pest Species	Crop or Production System
Borax	1303-96-4	N/A	All crops / production systems[9]
		Leaf-cutting ants and termites	All crops / production systems
Boric Acid	10043-35-3	N/A	All crops / production systems[10]
		Leaf-cutting ants and termites	All crops / production systems
Carbendazim	10605-21-7	*Fusarium sp.*	Pineapple *(Ananas comosus)* Coffee *(Coffeea sp.)* Banana (*Musa sp.*) Papaya (*Carica papaya*) Flowers and ornamentals Tea (*Camelia sinensis*)
Epoxiconazole	133855-98-8	Black Sigatoka *(Mycosphaerella fijiensis)*, yellow Sigatoka *(Mycosphaerella musicola)*	Banana *(Musa sp.)*

[9] Application only permitted as fertilizer in soils with boron deficiency. Foliar application with fertilizers is permitted.
[10] Application only permitted as fertilizer in soils with boron deficiency. Foliar application with fertilizers is permitted.

		Hemileia vastatrix, Cercospora coffeicola, Coniothyrium sp., *Phoma costaricensis, Colletotrhichum gloesporoides, Coniothyrium* sp, *Mycena citricolor*	Coffee *(Coffea sp.)*
Glufosinate-ammonium	77182-82-2	Broad-leaf weeds	Banana *(Musa sp.),* Papaya *(Carica papaya),* Citrus
		Weeds	Avocado *(Persea americana)*
		Cleome viscosa, Echinocloa colona, Eleusine indica, Portulaca oleracea	Melon *(Cucumis melo)*, watermelon *(Citrullus lanatus)*, hard squash (*Cucurbita* sp.)
Quizalofop-p-tefuryl	119738-06-6	Weeds	Coffee *(Coffea sp.)*, Pineapple *(Ananas comosus)*
Tridemorph	81412-43-3	Powdery mildew *(Oidium mangiferae)*	Mango *(Mangifera indica)*
		Black Sigatoka *(Mycosphaerella fijiensis)*, Yellow Sigatoka *(Mycosphaerella musicola)*	Banana *(Musa sp.)*

2) The use of these substances is only permitted if the following Rainforest Alliance risk management requirements are fully implemented:

   a) The listed reproductive toxicity substances are rotated with lower toxicity substances as part of the rotation for resistance management; and

   b) Pesticide handlers use full protective clothing to avoid skin exposure (hat, gloves, overall or shirts and pants with long sleeves, rubber boots); and

   c) 15 – 50 year old women with reproductive condition do not apply these GHS repro 1A/1B pesticides; and

   d) Farms implement Restricted Entry Intervals (REI) for persons entering pesticide application areas without PPE that are at least 12 hours or as stipulated in the product's MSDS, label or security tag. For WHO class II products, the REI is at least 48 hours or as stipulated in the product's MSDS, label or security tag. and

   e) Pesticide handlers that apply the listed reproductive toxicity substances are provided with medical examinations as specified in the Occupational Health and Safety plan (see Critical Criterion 4.14 of the 2017 Sustainable Agriculture Standard); and

   f) Potentially affected persons or communities are identified, alerted, and warned in advance about applications and prevented from access to application areas; and

g) Farms establish and maintain non-crop vegetative barriers compliant with Rainforest Alliance parameters for vegetative barriers or Rainforest Alliance non-application zones between pesticides applied crops and areas of human activity.

2.2.5. Other prohibited substances

Rainforest Alliance authorizes the use of the following substance for the pest species and crops specified in the following table, under the following conditions:

1) That the product is applied on post-harvest processes, in closed, controlled environments, with gas leak detectors. These detectors may be portable devices.
2) That there are no other equally effective options available in the market, or that the use of this substance is required by applicable regulations of the country of origin or the country of destination.
3) Pesticide handlers use full protective clothing and the equipment specified in the product's MSDS or safety tag, including a respirator mask for inorganic acid fumes, type B.
4) That the strictest measures for storing the product before its use are implemented, as well as measures for deactivating the product after its use.

Pesticide	CAS Number	Pest Species	Crop
1. **Phosphine**	7803-51-2	Thrips (*Franklienella occidentalis*) Mealybugs (*Dysmicoccus brevipes*, *Orthezia praelonga*)	Flowers and ornamentals, tea, Coffee and fresh fruits