

Global Coffee Platform
Baseline Coffee Code revision
Pesticides Lists
Date: March 2021



Introduction

The Baseline Coffee Code revision proposes a simplification and consolidation of the three existing pesticides lists into two lists. This document describes the criteria to classify pesticides and the respective pesticides that would be included within each list. GCP invites stakeholders to provide input on these lists and to help us to identify which of the materials added are relevant to the coffee sector.

From three lists to two

Under the current Baseline Coffee Code 2.1 there are 25 pesticides listed under the Unacceptable Practices – those listed in the Stockholm Convention (POP), Rotterdam Convention (PIC), or Montreal Protocol. 71 pesticides are on the 'Red' list, due for phase out by each producer within 3 years of first verification to the code. 82 Highly Hazardous Pesticides (HHPs) are listed on the 'Yellow' list, to be reduced with time.

In the revised proposal two lists are proposed: 'Prohibited' and 'Yellow'. While 'prohibited' list pesticides must not be used by producers, use of 'Yellow' list pesticides should be reduced. A phase-out date for Yellow list pesticides will be considered by GCP, on which date the material will be included in the Prohibited list and a plan for the phase-out of their use by the phase-out date will be necessary.

Conventions

To align with changes in the PAN International List of Highly Hazardous Pesticides, an explicit reference has been included to the pesticides that are been proposed for listing under the Stockholm and Rotterdam Conventions, which have been found to meet the criteria of the convention and recommended for inclusion by the respective Chemical Review Committees but are not yet formally listed.

According to the PAN list of 2021, four ingredients are affected by this update, including, under Rotterdam: Carbosulfan¹, Fenthion, Paraquat Dichloride* and, under Stockholm: Dicofol.

Criteria for the Baseline Coffee Code Pesticide Lists

Prohibited List

Pesticides that are:

- A. Listed under the Stockholm Convention, Rotterdam Convention or Montreal Protocol; or which meet the criteria of the Conventions and are recommended for inclusion by the respective Chemical Review Committee.

OR

- A. In any one of the three most acutely toxic classifications via ingestion, skin contact or inhalation, or known carcinogens.

¹ Carbosulfan and Paraquat Dichloride also meet the BCC Prohibited list hazard criteria and are currently on BCC's 2016 Red list.

Yellow List

Pesticides with:

1. Chronic hazards in the classifications of probable carcinogens, known endocrine disruptors, known reproductive toxins or known mutagens.

OR:

2. One or more of the environmental hazards featured in the PAN HHP List (bioaccumulation, persistence, high toxicity to aquatic organisms, or high toxicity to bees).

Notes on Pesticide Lists

Notes on Prohibited List Pesticides:

1. Acute Toxicity: 'Extremely hazardous' WHO class 1a according to the World Health Organisation Recommended Classification of Pesticides by hazard; 'Highly hazardous' WHO class 1b according to the WHO Recommended Classification of Pesticides by hazard; 'Fatal if inhaled' H330 hazard statement according to the Globally Harmonized System (GHS) for classification and labelling of chemicals.
2. Known Carcinogens: The highest concern classifications, equivalent to 'known carcinogen', according to the US Environmental Protection Agency (EPA), the International Agency for Research on Cancer (IARC) and the Globally Harmonized System (GHS).

Notes on Yellow List Pesticides:

3. A phase-out date for each material shall be determined, on which date the material shall enter the Prohibited list.
4. Cancer Hazard: The second highest concern classifications, equivalent to 'probable or likely carcinogen', according to the US Environmental Protection Agency (EPA), the International Agency for Research on Cancer (IARC) and the Globally Harmonized System (GHS).
5. Chronic Health Hazard: Known mutagenic substances (MUT), according to the Globally Harmonized System (GHS). These are known to trigger mutations in human germ cells (eggs or sperm) which can be inherited by the children. Known or presumed human reproductive toxicants, (REPRO) according to the Globally Harmonized System (GHS). These substances can adversely affect human reproduction. Endocrine disruptors, (EDC) according to GHS and EU classifications. These substances can upset the hormone signalling systems in humans, with effects on normal development, growth, reproduction, metabolism and links to cancers of the reproductive organs.
6. Environmental Hazards: Very persistent in water, soil or sediment (=P), according to the Stockholm Convention. Very bio accumulative (=B), according to the Stockholm Convention. These substances build up in the food chain, affecting top level predators, including humans. Very toxic for aquatic organisms (=T), according to water flea toxicity threshold data used in the Pesticide Properties Database (University of Hertfordshire). Highly toxic for bees, according to toxicity threshold data of US Environmental Protection Agency. Note that to qualify in the PAN HHP List for environmental hazards, a pesticide must meet two of the three criteria for P/B/T and/or be highly toxic for bees.

Global Coffee Platform - Red List Pesticides (Prohibited)

Global Coffee Platform - Red List Pesticides (Prohibited)																
Draft for Baseline Coffee Code consultation			International Conventions				Acute Toxicity			Known Carcinogens			Previous Category			
No.	Name of active ingredient of pesticide	CAS Number	POP	PIC	Montreal Protocol	See note below the table	WHO Ia	WHO Ib	H330	EPA carc	IARC carc	GHS+ carc (1A, 1B)	Current Unacceptable Practices	Current Red List	Current Yellow List	Coffee Relevant
1	Abamectin	71751-41-2						1	1						1	Yes
2	Aldicarb	116-06-3		1			1		1				1			Yes
3	Aluminum phosphide	20859-73-8							1						2	Yes
4	Carbofuran	1563-66-2		1	X			1	1					1		Yes
5	Chlorothalonil	1897-45-6							1						6	Yes
6	Endosulfan	115-29-7	1	1					1				2			Yes
7	Lambda-cyhalothrin	91465-08-6							1						14	Yes
8	Methyl bromide	74-83-9			1								3			Yes
9	Paraquat dichloride	1910-42-5		1	CF				1					2		Yes
10	Terbufos	13071-79-9					1								3	Yes
11	Triazophos	24017-47-8						1							4	Yes
12	zeta-Cypermethrin	1315501-18-8						1							5	Yes
13	Acrolein	107-02-8						1	1						6	No
14	Alachlor	15972-60-8		1									4			No
15	alpha-BHC; alpha-HCH	319-84-6; 319-85-7	1										5			No
16	Alpha-chlorohydrin	96-24-2					1								7	No
17	Anthracene oil	90640-80-5									1		8			No
18	Arsenic and its compounds	7778-39-4								1	1	1			9	No
19	Azinphos-ethyl	2642-71-9						1							10	No
20	Azinphos-methyl	86-50-0		1				1	1				6			No
21	Azocyclotin	41083-11-8							1						24	No
22	Beta-cyfluthrin	1820573-27-0						1	1						11	No
23	beta-HCH; beta-BCH	319-85-7	1										7			No
24	Blasticidin-S	2079-00-7						1							12	No
25	Brodifacoum	56073-10-0					1		1						13	No
26	Bromadiolone	28772-56-7					1		1						14	No
27	Bromethalin	63333-35-7					1								15	No
28	Bromoxynil	1689-84-5							1						28	No
29	Butoxycarboxim	34681-23-7						1							16	No
30	Cadusafos	95465-99-9						1							17	No
31	Captafol	2425-06-1		1			1				1		8			No
32	Carbosulfan	55285-14-8		1	CPIC				1						18	No
33	Chlordane	57-74-9	1	1									9			No

Global Coffee Platform - Red List Pesticides (Prohibited)

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	Draft for Baseline Coffee Code consultation		International Conventions				Acute Toxicity			Known Carcinogens			Previous Category	
34	Chlorethoxyphos	54593-83-8					1						19	No
35	Chlorfenvinphos	470-90-6						1					20	No
36	Chlormephos	24934-91-6					1						21	No
37	Chlorophacinone	3691-35-8					1						22	No
38	Chloropicrin	76-06-2							1				30	No
39	Coumaphos	56-72-4						1	1				23	No
40	Coumatetralyl	5836-29-3						1	1				24	No
41	Creosote	8001-58-9									1		33	No
42	Cyfluthrin	68359-37-5						1	1				11	No
43	DDT	50-29-3	1	1									10	No
44	Demeton-S-methyl	919-86-8						1					25	No
45	Dichlorvos; DDVP	62-73-7						1	1				26	No
46	Dicrotophos	141-66-2						1					27	No
47	Difenacoum	56073-07-5					1						28	No
48	Difethialone	104653-34-1					1		1				29	No
49	Dinoterb	1420-07-1						1					30	No
50	Diphacinone	82-66-6					1						31	No
51	Diquat dibromide	85-00-7							1				40	No
52	Diquat dichloride	4032-26-2							1				41	No
53	Disulfoton	298-04-4					1						32	No
54	DNOC and its salts	534-52-1		1				1	1			11		No
55	Edifenphos	17109-49-8						1					33	No
56	E-Phosphamidon	297-99-4					1						42	No
57	Epichlorohydrin	106-89-8									1		34	No
58	EPN	2104-64-5					1						35	No
59	Ethiofencarb	29973-13-5						1					36	No
60	Ethoprophos; Ethoprop	13194-48-4					1		1				37	No
61	Ethylene dibromide; 1,2-dibromoethane	106-93-4		1							1	12		No
62	Ethylene dichloride; 1,2-Dichloroethane	107-06-2		1							1	13		No
63	Ethylene oxide	75-21-8		1							1	1	14	No
64	Famphur	52-85-7						1					38	No
65	Fenamiphos	22224-92-6						1	1				39	No
66	Fenbutatin-oxide	13356-08-6							1				44	No
67	Fenchlorazole-ethyl	103112-35-2									1		40	No
68	Fenpropathrin	39515-41-8							1				46	No
69	Fenthion	55-38-9		1	CF								47	No
70	Fentin acetate; Triphenyltin acetate	900-95-8							1				41	No
71	Fentin hydroxide; Triphenyltin hydroxide	76-87-9							1				42	No
72	Flocoumafen	90035-08-8					1		1				43	No
73	Flucythrinate	70124-77-5						1					44	No
74	Fluoroacetamide	640-19-7		1				1				15		No
75	Formaldehyde	50-00-0									1		45	No

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No.	Draft for Baseline Coffee Code consultation		International Conventions				Acute Toxicity		Known Carcinogens			Previous Category		Status
76	Formetanate	22259-30-9					1	1				46	No	
77	Furathiocarb	65907-30-4					1	1				47	No	
78	Heptenophos	23560-59-0					1					48	No	
79	hexachlorobenzene / benzene hexachloride (HCB/BHC)	118-74-1	1	1		1				1	16		No	
80	Hexchlorocyclohexane; mix of isomers (beta-HCH & alpha-HCH)	608-73-1		1							17		No	
81	Isoxathion	18854-01-8					1					49	No	
82	Lindane	58-89-9	1	1						1	18		No	
83	Magnesium phosphide	12057-74-8						1				56	No	
84	Mecarbam	2595-54-2					1					50	No	
85	Mercury and its compounds	7439-97-6		1				1			19		No	
86	Methamidophos	10265-92-6		1	X		1	1			20		No	
87	Methidathion	950-37-8					1					51	No	
88	Methiocarb	2032-65-7					1					52	No	
89	Methomyl	16752-77-5					1					53	No	
90	Mevinphos	7786-34-7				1						54	No	
91	Monocrotophos	6923-22-4		1			1	1			21		No	
92	Nicotine	54-11-5					1	1				55	No	
93	Omethoate	1113-02-6					1					56	No	
94	Oxamyl	23135-22-0				1		1				57	No	
95	Oxydemeton-methyl	301-12-2					1					58	No	
96	Paraffin oils; mineral oils	64741-88-4								1		59	No	
97	Parathion	56-38-2		1		1					22		No	
98	Parathion-methyl	298-00-0		1	X	1		1			23		No	
99	PCP; Pentachlorophenol	87-86-5		1			1	1			24		No	
100	Phorate	298-02-2		1		1						60	No	
101	Phosphamidon	13171-21-6		1	X	1					25		No	
102	Phosphine	7803-51-2						1				60	No	
103	Potasan	299-45-6						1				62	No	
104	Propetamphos	31218-83-4					1					61	No	
105	Propylene oxide, Oxirane	75-56-9								1		64	No	
106	Pyrazoxon	108-34-9						1				66	No	
107	Sodium fluoroacetate (1080)	62-74-8				1		1				62	No	
108	Strychnine	57-24-9					1					63	No	
109	Sulfotep	3689-24-5					1					64	No	
110	TCMTB	21564-17-0						1				70	No	
111	Tebupirimifos	96182-53-5					1					65	No	
112	Tefluthrin	79538-32-2					1	1				66	No	
113	Thiofanox	39196-18-4					1					67	No	
114	Thiometon	640-15-3					1					68	No	
115	Tolyfluanid	731-27-1						1				75	No	
116	Trichlorfon	52-68-6		1								76	No	
117	Vamidothion	2275-23-2					1					69	No	

Global Coffee Platform - Red List Pesticides (Prohibited)

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	Draft for Baseline Coffee Code consultation		International Conventions				Acute Toxicity		Known Carcinogens			Previous Category		
118	Warfarin	81-81-2					1	1				70	No	
119	Zinc phosphide	1314-84-7					1					71	No	
120	Ziram	137-30-4						1					81	No
121	Z-Phosphamidon	23783-98-4					1						82	No
122	Benomyl	17804-35-2		1		X						Yes		n.a
123	Biphenyl; Diphenyl	92-52-4								1				n.a
124	Bromophos-ethyl	4824-78-6						1						n.a
125	Butocarboxim	34681-10-2						1						n.a
126	Calcium cyanide	592-01-8					1							n.a
127	Copper (II) hydroxide	20427-59-2								1				n.a
128	Demeton-methyl (isomere mix of O-methyl and S-methyl)	8022-00-2								1				n.a
129	Dicofol	115-32-2	1			CPOP								n.a
130	Dodine	2439-10-3								1				n.a
131	Ethion	563-12-2								1				n.a
132	Fenhexamid	126833-17-8								1				n.a
133	Fenpyroximate	134098-61-6								1				n.a
134	Ferbam	14484-64-1								1				n.a
135	Fluazinam	79622-59-6								1				n.a
136	Flusulfamide	106917-52-6								1				n.a
137	Fluvalinate	69409-94-5								1				n.a
138	Folpet	133-07-3								1				n.a
139	Hydrogen cyanide**	74-90-8					1	1						n.a
140	Pyrimidifen	105779-78-0								1				n.a
141	Sodium cyanide	143-33-9						1						n.a
142	Spirodiclofen	148477-71-8									1			n.a
143	Sulfluramid	4151-50-2	1*	1										n.a
144	Tau-fluvalinate	102851-06-9								1				n.a
145	Tebuconazole	107534-96-3								1				n.a
146	Thiram in formulations with benomyl and carbofuran	137-26-8		1		X						Yes		n.a

Notes:

n.a. Information not available
GHS ⁺ : This lists uses the EU and the Japan GHS (Global Harmonized System on Classification and Labelling of Chemicals)
X: Annex III of the Rotterdam Convention includes certain specific formulations.
CF: Formulations have been agreed by the Rotterdam CRC to meet the criteria for listing and are recommended for inclusion, but are not yet formally listed
C PIC : Material meets the criteria of the Rotterdam Convention and is recommended for inclusion by the Convention's Chemical Review Committee, but has not yet been listed.
C POP: Material meets the criteria of the Stockholm Convention and is recommended for inclusion by the Convention's Chemical Review Committee, but has not yet been listed.
* Although sulfluramid is not specially listed under the Stockholm Convention it is regarded by the Stockholm COP as being listed because it is derived from and breaks down into substances that are listed (PFOS and salts).
**This lists uses the same classification for hydrogen cyanide as for calcium cyanide. According to WHO (2019) Calcium cyanide reacts with moisture to produce hydrogen cyanide gas. Hydrogen cyanide is fatal if swallowed, in contact with skin or if inhaled. In liquid form this substance is also fatal if swallowed or in contact with skin.

Global Coffee Platform - Yellow List Pesticides (Phase-Out)

	Draft for Baseline Coffee Code consultation		Probable Carcinogens		Chronic Toxicity				Environmental Toxicity			Previous Category				
162	8003-34-7	Pyrethrins, Pyrethrum extract										1				n.a.
163	96489-71-3	Pyridaben										1				n.a.
164	179101-81-6	Pyridalyl							1	1	1					n.a.
165	119-12-0	Pyridiphenthion										1				n.a.
166	13593-03-8	Quinalphos					1					1				n.a.
167	2797-51-5	Quinoclamine										1				n.a.
168	148-24-3	Quinolin-8-ol; 8-hydroxyquinoline				1										n.a.
169	124495-18-7	Quinoxifen							1		1					n.a.
170	83-79-4	Rotenone										1				n.a.
171	122-34-9	Simazine						1								n.a.
172	187166-15-0	Spinetoram										1				n.a.
173	168316-95-8	Spinosad										1				n.a.
174	946578-00-3	Sulfoxaflor										1				n.a.
175	3383-96-8	Temephos										1				n.a.
176	2593-15-9	Terrazole; Etridiazole	1													n.a.
177	22248-79-9	Tetrachlorvinphos	1									1				n.a.
178	112281-77-3	Tetraconazole						1								n.a.
179	7696-12-0	Tetramethrin										1				n.a.
180	148-79-8	Thiabendazole	1			1										n.a.
181	23564-05-8	Thiophanate-methyl	1													n.a.
182	330459-31-9	Tioxazafen	1													n.a.
183	129558-76-5	Tolfenpyrad							1		1					n.a.
184	66841-25-6	Tralomethrin										1				n.a.
185	55219-65-3	Triadimenol				1										n.a.
186	2303-17-5	Tri-allate								1	1					n.a.
187	78-48-8	Tribufos, Tribuphos	1													n.a.
188	76-03-9	Trichloroacetic acid						1								n.a.
189	99387-89-0	Triflumizole				1										n.a.
190	37248-47-8	Validamycin										1				n.a.
191	2655-14-3	XMC										1				n.a.

Notes:

n.a. Information not available
EPA prob likel carc: Italic "1" stands for classified by EPA as "Likely to be Carcinogenic to Humans: At High Doses"
GHS: Global Harmonised System of Classification and Labelling of Chemicals