



POLICY ON PROHIBITED CHEMICALS

FAIR FOR LIFE & FOR LIFE

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1. INTRODUCTION

Background and reference

The Fair for Life and For Life standards encourage organic certification but does accept conventional operations (i.e. not certified organic) provided that they:

1. avoid using the most toxic / dangerous chemicals;
2. reduce the overall number and quantity of used chemicals;
3. implement an integrated pest management system.

The present policy presents different **lists of molecules** used in conventional agriculture that can have negative impacts on the environment, on health, or on both. The molecules are classified into **three categories**, depending on their known toxicity level. This aims at helping the conventional operation to **progressively alleviate** the adverse impacts associated with the use of chemicals.

The two first categories correspond to those that **cannot be used** according to the below criteria of the Fair for Life and For Life standards:

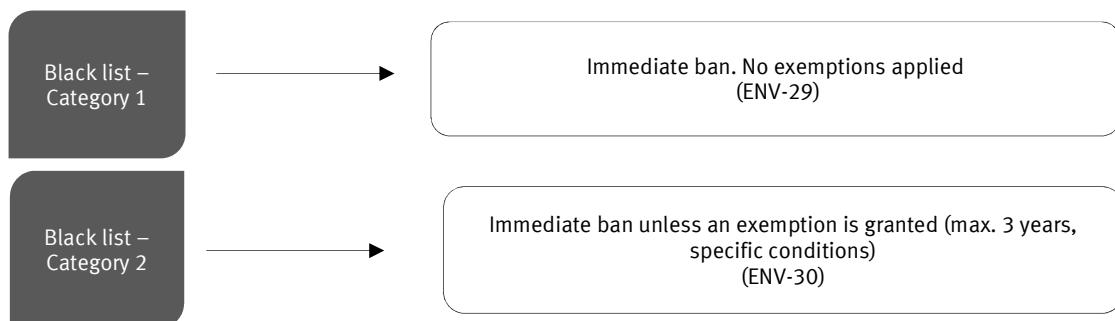
LEVEL	CRITERIA REFERENCE	REQUIREMENT SUMMARY
KO	ENV-29	No use of chemicals listed in category 1 of this policy
KO	ENV-30	No use of chemicals listed in category 2 of this policy Possible exemption (maximum 3 years) under specific conditions

Scope

This policy covers all activities related to **agricultural products** that can be carried out by any **conventional operation**. This includes farming, post-harvest processing, processing, storage and transport.

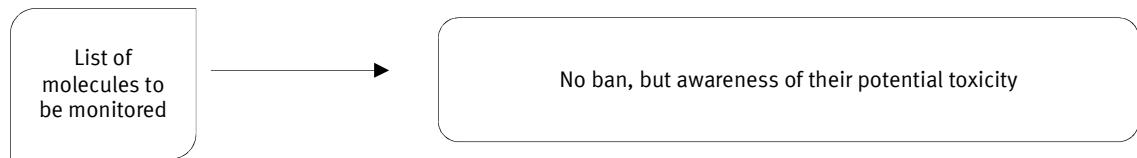
Two different blacklists

Two **blacklists** presented in this document show **active substances** that **cannot be used** by Fair for Life & For Life certified operations:



A complementary list

In addition, a **complementary list** to the blacklists identifies molecules whose **use is strongly discouraged**. It aims at educating operations and consumers by facilitating the identification of molecules that have a certain toxicity and therefore present risks to the health of humans, animals and the environment.



Note: Active and regular monitoring will be conducted by the FFL and FL programs to monitor changes in classification by international organizations. Some molecules of this complementary list could therefore be reclassified in a blacklist during the next revisions.

2. METHODOLOGY FOR ESTABLISHING THE LISTS

In order to determine:

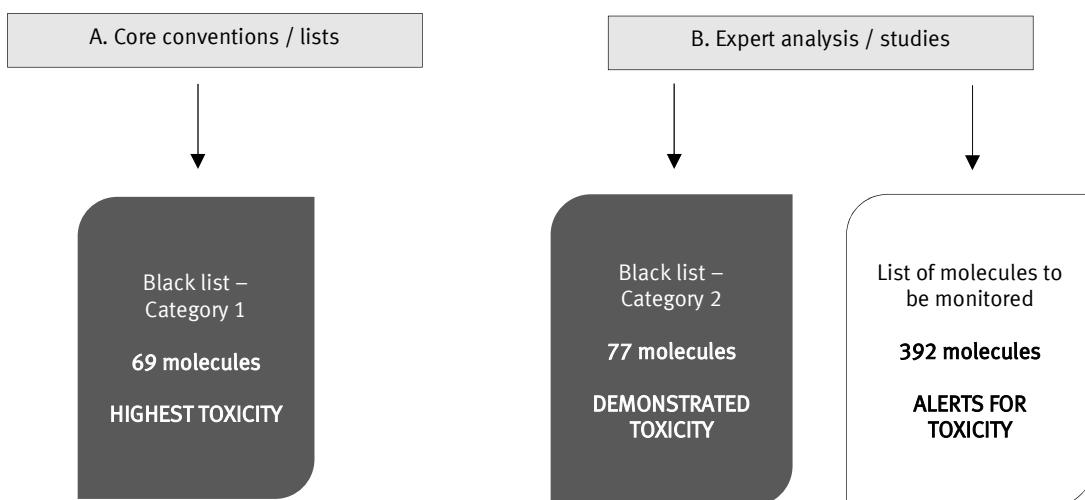
- The active substances / molecules to be considered
- Their FFL&FL category (category 1 / 2 / to be monitored)

The following items have been studied:

CORE CONVENTIONS / INTERNATIONAL LISTS	EXPERT ANALYSIS / STUDIES
<ul style="list-style-type: none">✓ Stockholm convention: List of POPs (Persistent Organic Pollutants)✓ PAN 12 list, including 18 most dangerous molecules used in agriculture, written in 2011✓ Rotterdam convention: PIC list (Prior Informed Consent Procedure) initiated by the UNEP (United Nations Environment Programme)✓ Montreal Protocol on Substances that Deplete the Ozone Layer, agreed in 1987✓ WHO 1a / 1b lists: classifying pesticides as extremely (class 1a) or highly (class 1b) hazardous with respect to their acute toxicity for humans	<ul style="list-style-type: none">✓ Work of European Commission and EFSA (European Food Safety Authority):<ul style="list-style-type: none">▪ List of CMR molecules (carcinogenic, mutagenic, or toxic for reproduction)▪ List of substances identified as “candidates for substitution” (i.e. for which Member States will be required to evaluate if they can be replaced by other adequate solutions)▪ List of potential Endocrine disruptors▪ Guidance on potential effects of pesticides on aquatic organisms✓ The PAN International List of Highly Hazardous Pesticides, covering various toxicity parameters✓ List of molecules suspected to cause Parkinson disease (organophosphorus such as chlorpyrifos; organochlorines)✓ Bee Friendly® black-list listing insecticides particularly harmful for pollinators such as neonicotinoids✓ Other documentation on pesticides and sustainable agriculture

Note: Molecules not available on the market any longer have not been included in the study.

Based on this analysis, three types of molecules have been identified:



3. LISTS OF MOLECULES

Category 1 – Prohibited Molecules

CAS Number	Molecule	CAS Number	Molecule
107-02-8	Acrolein	22224-92-6	Fenamiphos
15972-60-8	Alachlor	90035-08-8	Flocoumafen
116-06-3	Aldicarb	70124-77-5	Flucythrinate
2642-71-9	Azinphos-ethyl	640-19-7	Fluoroacetamide
86-50-0	Azinphos-methyl	22259-30-9	Formetanate
68359-37-5	Beta-cyfluthrin; Cyfluthrin	65907-30-4	Furathiocarb
2079-00-7	Blasticidin-S	23560-59-0	Heptenophos
56073-10-0	Brodifacoum	118-74-1	Hexachlorobenzene
28772-56-7	Bromadiolone	18854-01-8	Isoxathion
63333-35-7	Bromethalin	58-89-9	Lindane
34681-23-7	Butoxycarboxim	2595-54-2	Mecarbam
95465-99-9	Cadusafos	See table*	Mercury and its compounds
191906	Captafol	10265-92-6	Methamidophos
1563-66-2	Carbofuran	74-83-9	Methyl bromide
57-74-9	Chlordane	7786-34-7	Mevinphos
54593-83-8	Chlorethoxyphos	6923-22-4	Monocrotophos
470-90-6	Chlорfenvinphos	54-11-5	Nicotine
24934-91-6	Chlormephos	1113-02-6	Omethoate
3691-35-8	Chlorophacinone	23135-22-0	Oxamyl
56-72-4	Coumaphos	301-12-2	Oxydemeton-methyl
72-55-9	Dichlorodiphenyldichloroethylene (DDE)	298-02-2	Phorate
919-86-8	Demeton-S-methyl	13171-21-6	Phosphamidon
62-73-7	Dichlorvos; DDVP	143-33-9	Sodium cyanide
56073-07-5	Difenacoum	62-74-8	Sodium fluoroacetate (1080)
104653-34-1	Difethialone	3689-24-5	Sulfotep
1420-07-1	Dinoterb	96182-53-5	Tebupirimifos
82-66-6	Diphacinone	79538-32-2	Tefluthrin
298-04-4	Disulfoton	13071-79-9	Terbufos
17109-49-8	Edifenphos	39196-18-4	Thiofanox
115-29-7	Endosulfan	640-15-3	Thiometon
2104-64-5	EPN	24017-47-8	Triazophos
13194-48-4	Ethoprophos; Ethoprop	2275-23-2	Vamidothion
106-93-4	Ethylene dibromide; 1,2-dibromoethane	81-81-2	Warfarin
75-21-8	Ethylene oxide	52315-07-8z	Zeta-cypermethrin
52-85-7	Famphur		

*Mercury and its compounds

7487-94-7	Mercuric chloride
21908-53-2	Mercuric oxide
1319-86-4	Chloromethoxypropylmercuric acetate; CPMA
27236-65-3	Diphenylmercurydodecenylsuccinate; PMDS
104-68-9	Phenylmercuric oleate; PMO
62-38-4	Phenylmercury acetate; PMA

Category 2 – Prohibited molecules, with possible temporary exemption

CAS Number	Molecule	CAS Number	Molecule
71751-41-2	Abamectin	85509-19-9	Flusilazole
135410-20-7	Acetamiprid	50-00-0	Formaldehyde
34256-82-1	Acetochlor	77182-82-2	Glufosinate-ammonium
33089-61-1	Amitraz	1071-83-6	Glyphosate
90640-80-5	anthracene oil	138261-41-3	Imidacloprid
1912-24-9	Atrazine	881685-58-1	Isopyrazam
68049-83-2	Azafenidin	91465-08-6	Lambda-cyhalothrin
41083-11-8	Azocyclotin	330-55-2	Linuron
82657-04-3	Bifenthrin	103055-07-8	Lufenuron
See table below	Borax; Borate salts	121-75-5	Malathion
10043-35-3	Boric acid	12427-38-2	Maneb
1689-84-5	Bromoxynil	150824-47-8	Nitenpyram
1689-99-2	Bromoxynil octanoate	64741-88-4/-89-5/-97-5; 64742-46-7/-54-7/-55-8/-65-0;	Paraffin oils; mineral oils containing > 3% Dimethylsulfoxid (DMSO)
63-25-2	Carbaryl	72623-86-0; 97862-82-3	
10605-21-7	Carbendazim		
55285-14-8	Carbosulfan		
76-06-2	Chloropicrin	52645-53-1	Permethrin
1897-45-6	Chlorothalonil	7803-51-2	Phosphine
2921-88-2	Chlorpyrifos	23103-98-2	Pirimicarb
210880-92-5	Clothianidin	299-45-6	Potasan
8001-58-9	Creosote	2312-35-8	Propargite
52918-63-5	Deltamethrin	75-56-9	Propylene oxide, Oxirane
60-51-5	Dimethoate	13457-18-6	Pyrazophos
149961-52-4	Dimoxystrobin	179101-81-6	Pyridalyl
39300-45-3	Dinocap	119738-06-6	Quizalofop-p-tefuryl
165252-70-0	Dinotefuran	10453-86-8	Resmethrin
85-00-7	Diquat dibromide	105024-66-6	Silafluofen
4032-26-2	Diquat dichloride	21564-17-0	TCMTB
106-89-8	Epichlorohydrin	111988-49-9	Thiacloprid
133855-98-8	Epoxiconazole	153719-23-4	Thiamethoxam
96-45-7	Ethylene thiourea	137-26-8	Thiram in formulations with
80844-07-1	Etofenprox;	731-27-1	Tolylfluanid
13356-08-6	Fenbutatin-oxide	1582-09-8	Trifluralin
103112-35-2	Fenchlorazole-ethyl	50471-44-8	Vinclozolin
122-14-5	Fenitrothion	1314-84-7	Zinc phosphide
39515-41-8	Fenpropathrin	12122-67-7	Zineb
55-38-9	Fenthion	137-30-4	Ziram
900-95-8	Fentin acetate;		
76-87-9	Fentin hydroxide;		
51630-58-1	Fenvalerate		
120068-37-3	Fipronil		
69806-50-4	Fluazifop-butyl		
103361-09-7	Flumioxazin		

Molecules to be Monitored

1,2-dihydropyridazine-3,6-dione	Barban	Chlorfluazuron
1,3-Dichloropropene	Barium polysulfide	Chlorine dioxide
1,3-Dichloropropene (cis)	Bendiocarb	Chlormephos
1-Methyl-cyclopropene	Benfuracarb	Chlorobenzilate
1-Naphthylacetamide	Bensulide	Chloroform
1-Naphthylacetic acid	Bensultap	Chloromethoxypropylmercuric acetate (CPMA)
2,4,5-T (2,4,5-trichlorophenoxyacetic acid)	Benthiavalicarb	Chlorotoluron
2,4-D	Benthiavalicarb-isopropyl	Chlorpropham
2,4-DB or 4-(2,4-dichlorophenoxy)butyric acid	Benzovindiflupyr	Chlorpyrifos-methyl
2-Aminobutane (aka sec-butylamine)	Benzthiazuron	Chlorpyriphos éthyl
2-Methyl-4,6-dinitrophenol and salts	Beta-Cyfluthrin	Chlorthiophos
4-Chloro-3-methylphenol	Binapacyrl	Chlozolinate
8-hydroxyquinoline	Bioresmethrin	Cinidon ethyl
Acephate	Biphenyl	Climbazole
Acifluorfen	Bis(tributyltin) oxide	Copper compounds
Aclonifen	Bordeaux mixture	Copper(I) hydroxide
Acrinathrin	Boscalid	Copper(II) hydroxide
Actinote	Bromadiolone	Copper oxide
Alanycarb	Bromofenoxim	Copper oxychloride
Aldicarb	Bromomethane SAN	Crocidolite
Aldrin	Bromophos	Cyanazine
Alkoxyalkyl mercury	Bromophos-ethyl	Cycloate
Alkyl mercury	bromoxynil butyrate	Cycloxydim
Allethrin	bromoxynil heptanoate	Cyflufenamid
Allyl alcohol	Bromuconazole	Cyhalothrin
Alpha chlorhydrin	Bronopol	Cyhalothrin, gamma
Ametryn	butachlor	Cyhexatin
Asbestos	Butylate	Cymoxanil
Amisulbrom	Camphechlor	Cypermethrin
Amitrole (aminotriazole)	Captan	Cypermetrine, alpha
Amosite	Carbetamide	Cypermetrine, gamma
Amoxicillin	Carbophenothion	Cyproconazole
Anilazine	Cartap	Cyprodinil
Anthophyllite	Chinomethionate / oxythioquinox / quinomethionate	Cyprofuram
Anthraquinone	Chlorantraniliprole	Daminozide
Arsenic compounds	Chlorbufam	Dazomet
Aryl mercury	Chlordecone	DBCB (dibromochloropropane)
Azamethiphos	Chlorfenapyr	Desmedipham
Azinphos-methyl	Chlorfenson (aka chlорfenizon)	Desmetryn
Diaphenyluron	Ethion (aka diethion)	Glufosinate
Dialifos	ethiophencarbe	Glutaraldehyde (aka glutardialdehyde)
Diallate	ethirimol	Guazatine
Diazinon	Ethoprophos	halfenprox/brofenprox
Dichlofenthion	Ethoxysulfuron	Halosulfuron methyl
Dichlofuanid	Ethylhexanediol	Haloxyfop-methyl (unstated stereochemistry)
Dichlone	Etoxazole	Haloxyfop-P (Haloxyfop-R)

Dichlorophen	Etrimfos	haloxyfop-P-methyl-ester
Diclofop	Famoxadone	Heptachlor
Diclofop-methyl	Fenamidone	Heptanoate debromoxynil
Dicofol	Fenarimol	Hexabromobiphenyl
Dieldrin	Fenazaflor	Hexaflumuron
Diethofencarb	Fenazaquin	Hexazinone
Difenacoum	Fenbuconazole	Hexchlorocyclohexane (BHC mixed isomers)
Difenoconazole	Fenchlorphos	Hexpolybrominated biphenyl mixture (PBB)
Diflubenzuron	Fenobucarb	Hexythiazox
Diflufenican	Fenoprop	Hymexazol
Dimefox	Fenoxy carb	Imazalil
dimethanimid	Fenpropimorph	Imazamox
Dimexano	Ferbam	Imazethapyr
Dinobuton	Fluazinam	Imazosulfuron
Dinoseb, its acetate and salts	Fluazolate/isopropozole	Imiprothrin
Dioxacarb	Flubendiamide	Indolylbutyric acid
Dioxathion	Flubenzimine	Indoxacarb
Diphenylmercurydodecenyldsuccinate (PMDS)	Fludioxonil	Iodofenphos
Disulfoton	Flufenacet (formerly fluthiamide)	loxynil
Ditalimfos	Flufenoxuron	Ipconazole
Diuron	Flumetralin	Iprodione
DNOC	Fluometuron	Iprovalicarb
DNOC ammoniumsalt	Fluopicolide	Isazofos
DNOC potassium salt	Flupyralsulfuron-methyl	Isofenphos
DNOC sodium salt	Fluquinconazole	Isolan
Drazoxolon	Flurochloridone	Isoprocarb
Dustable powder (benomyl 7%, carbofuran 10%, thiram 5%)	Fluthiacet-methyl	Isoproturon
Endrin	Folpet	Isopyrazam
E-phosphamidon	Fonofos	Isoxaflutole
EPTC (ethyl dipropylthiocarbamate)	Formothion	Kresoxim-methyl
Esfenvalerate	Fosthiazate	Lenacil
Ethanethiol	Furilazole	Magnesium phosphide
Etidimuron (aka sulfodiazol)	Furmecyclox	Mancozeb
Mecoprop	Peracetic acid	Quaternary ammonium compounds
Mepanipyrim	Phenmediphos	Quinalphos
Mercurous chloride (calomel)	Phenthroate	Quinoclamine
Metaflumizone	Phenylmercury oleate PMO	Quinoxyfen
Metalaxyl	Phosalone	Quintozone / PCNB / pentachloronitrobenzene
Metam (incl. -potassium and -sodium)	Phosmet	Quizalofop
Metconazole	Phosphamidon	Rotenone
Methabenztiazuron	Phosphate de tri - 2,3 dibromopropyle	Secbumeton
Methacrifos	Phostébupirim (tébupirimifos)	Sedaxane
Methamidophos	Phoxim	Silver nitrate
Methoxychlor	Picloram	Simazine
Methyl bromide	Pirimiphos-ethyl	Sodium cyanide
Methyl isothiocyanate	Pirimiphos-methyl	Sodium dimethyl dithio carbamate
Methylenebisthiocyanate	Polychlorinated terphenyls (PCTs)	Spinétorame (XDE-175-J)
Metiram	Potassium permanganate	Spinosad
Metoxuron	Prallethrin	Spirodiclofen

Metribuzin	Prochloraz	Spirotetramat
Metsulfuron-methyl	Propiconazole	Tetraethyl-lead
MGK repellant	Propineb	Tetraethyl pyrophosphate (TEPP)
Milbemectin	Propoxur	Tetramethyl-lead
Molinate	Propoxycarbazone	Tetramethrin
MON 4660; AD 67	Propyzamide	Thiazafluron
Monolinuron	Prosulfocarb	Thifensulfuron-methyl
Monuron	Prosulfuron	Thiobencarb
Myclobutanil	Prothiocarb	Thiodicarb
Nabam	Prothioconazole	Thiourea
Naled	Prothiofos	Tolclofos-methyl
Naphtalene	Prothoate	Tolfenpyrad
Nicosulfuron	Pyraflufen-ethyl	Tralkoxydim
Nitrapyrin	Pyrazachlor	Tralomethrin
Nitrobenzene	Pyrazoxon	Tremolite
Nitrofen	Pyrimiphos méthyl	Triadimenol
Nonylphenol ethoxylate	Pyrinuron/piriminil	Triallate
Ocithilinone	Spiroxamine	Triasulfuron
Oryzaline	Sulcotriione	Triazamate
Oxadiargyl	Sulfotep	Triazoxide
Oxadiazon	Sulfoxaflor	Tribasic copper sulfate
Oxyfluorfen	TCA	Tributyltin chlorure
Paclobutrazol	Tebuconazole	Trichlorfon
Paraquat	Tebufenpyrad	Trichloronat
Parathion methyl	Tebuthiuron	Tridemorph
p-Dichlorobenzene	Tecnazene	Trifenmorph
Pendimethalin	Tembotriione	Triflumizole
Pentachlorophenol	Temephos	Triflusulfuron
Profenofos	Tepraloxydim	Validamycin
Profoxydim	Terbufos	Vernolate
Promecarb	Terbumeton	XMC
Propachlor	Terbutryn	Z-Phosphamidon
Propamocarb	Terrazole; Etridiazole	
Propazine	Tetrachlorvinphos	
Propham	Tetraconazole	

4. USE OF MOLECULES AND RELATED PROCEDURES

Below is described the procedure to be followed when an operation is using one or several molecules included in a given list:

