

List of agrochemicals to be monitored for the grape

Sr. No.	Chemicals	Harmonized EU-MRL (mg/kg)
1.	1-Naphthylacetamide and 1-naphthylacetic acid (sum of 1-naphthylacetamide and 1-naphthylacetic acid and its salts, expressed as 1-naphthylacetic acid)	0.06*
2.	2,4-D (sum of 2,4-D and its esters and its conjugates, expressed as 2,4-D)	0.10
3.	4-Bromo-2-chlorophenol (metabolite of Profenophos)	0.01*
4.	4-Chloro-3-methylphenol	0.01*
5.	4-CPA (4-Chlorophenoxy acetic acid)	0.01*
6.	6-Benzyl adenine	0.01*
7.	Abamectin (sum of avermectin B1a, avermectin B1b and delta-8,9 isomer of avermectin B1a)	0.01*
8.	Acephate	0.01*
9.	Acetamiprid (R)	0.50
10.	Afidopyropen	0.01*
11.	Alachlor	0.01*
12.	Aldrin (Aldrin and dieldrin combined expressed as dieldrin)	0.01*
13.	Allethrin and Bioallethrin	0.01*
14.	Ametoctradin	6.00
15.	Ametryn	0.01*
16.	Amisulbrom	0.50
17.	Anilofos	0.01*
18.	Atrazine	0.05*
19.	Azadirachtin	1.00
20.	Azimsulfuron	0.01*
21.	Azoxystrobin	3.00
22.	Benalaxyl including other mixtures of constituent isomers including Benalaxyl-M (sum of isomers)	0.30
23.	Bendiocarb	0.01*
24.	Benomyl (see carbendazim)	0.30
25.	Bensulfuron-methyl	0.01*
26.	Bifenazate (sum of bifenazate plus bifenazate-diazene expressed as bifenazate) (F)	0.70
27.	Bifenthrin (sum of isomers) (F)	0.30
28.	Bispyribac	0.01*
29.	Bitertanol (sum of isomers) (F)	0.01*
30.	Boscalid (F) (R) (A)	5.00

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31.	Bupirimate	1.50
32.	Buprofezin (F)	0.01*
33.	Butachlor	0.01*
34.	Captafol	0.02*
35.	Captan (Sum of captan and tetrahydrophthalimide (THPI), expressed as captan) (R) (A)	0.03*
36.	Carbaryl (F)	0.01*
37.	Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim) (R)	0.30
38.	Carbofuran (sum of carbofuran (including any carbofuran generated from carbosulfan, benfuracarb or furathiocarb) and 3-OH carbofuran expressed as carbofuran) (R)	0.002*
39.	Carboxin (carboxin plus its metabolites carboxin sulfoxide and oxycarboxin (carboxin sulfone), expressed as carboxin)	0.03*
40.	Carfentrazone-ethyl (determined as carfentrazone and expressed as carfentrazone-ethyl)	0.01*
41.	Carpropamid	0.01*
42.	Cartap hydrochloride	0.01*
43.	Chlorantraniliprole	1.00
44.	Chlordane (cis & trans)	0.01*
45.	Chlorfenapyr	0.01*
46.	Chlorfenvinphos	0.01*
47.	Chlorfluazuron	0.01*
48.	Chlorimuron-ethyl	0.01*
49.	Chlormequat (CCC) (sum of chlormequat and its salts, expressed as chlormequat-chloride)	0.05
50.	Chlorothalonil	3.00
51.	Chlorpropham	0.01*
52.	Chlorpyrifos	0.01*
53.	Chlorpyrifos-methyl	0.01*
54.	Chromafenozide	0.01*
55.	Cinmethylen	0.01*
56.	Clethodim (sum of Sethoxydim and Clethodim including degradation products calculated as Sethoxydim)	1.00
57.	Clofentezine (R)	0.02*
58.	Clomazone	0.01*
59.	Clothianidin	0.70
60.	Coumachlor	0.01*
61.	Coumatetralyl	0.01*

Sr. No.	Chemicals	Harmonized EU-MRL (mg/kg)
62.	Cyantraniliprole	1.50
63.	Cyazofamid	2.00
64.	Cyenopyrofen	0.01*
65.	Cyflufenamid (sum of cyflufenamid (Z-isomer) and its E-isomer, expressed as cyflufenamid) (A) (R)	0.20
66.	Cyflumetofen	0.60
67.	Cyfluthrin (including other mixtures of constituent isomers sum of isomers)	0.30
68.	Cyhalofop-butyl	0.02*
69.	Cymoxanil	0.30
70.	Cypermethrin (including other mixtures of constituent isomers, sum of isomers)	0.50
71.	Cyproconazole	0.20
72.	Cyprodinil (R) (F)	3.00
73.	Dazomet (Methylisothiocyanate resulting from the use of Dazomet and metam)	0.02*
74.	DDT (all isomers, sum of p,p'-DDT, o,p'-DDT, p,p'-DDE and p,p'-TDE (DDD) expressed as DDT)	0.05*
75.	Deltamethrin (cis-deltamethrin) (F)	0.20
76.	Diafenthiuron	0.01*
77.	Diazinon	0.01*
78.	Dichlorvos	0.01*
79.	Diclofop (sum diclofop-methyl and diclofop acid expressed as diclofop-methyl)	0.05*
80.	Diclosulam	0.01*
81.	Dicofol (sum of p,p' and o,p' isomers)	0.02*
82.	Dieldrin (see Aldrin)	0.01*
83.	Difenoconazole	3.00
84.	Diflubenzuron	0.01*
85.	Dimethoate	0.01*
86.	Dimethomorph (sum of isomers)	3.00
87.	Dinocap (sum of dinocap isomers and their corresponding phenols expressed as dinocap) (F)	0.02*
88.	Dinotefuran	0.90
89.	Diquat	0.01*
90.	Dithianon	3.00
91.	Dithiocarbamates (dithiocarbamates expressed as CS ₂ , including maneb, mancozeb, metiram, thiram and ziram)	5.00
92.	Diuron	0.01*

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93.	Dodine	0.01*
94.	Edifenphos	0.01*
95.	Emamectin benzoate B1a, expressed as emamectin	0.05
96.	Endosulphan (All isomers, sum of <i>alpha</i> - and <i>beta</i> -isomers and endosulphan sulphate expressed as endosulphan)	0.05*
97.	Endrin	0.01*
98.	Epoxiconazole	0.05*
99.	Ethephon	1.00
100.	Ethion	0.01*
101.	Ethiprole	0.01*
102.	Ethofenprox (Etofenprox)	4.00
103.	Ethoxysulfuron	0.01*
104.	Ethylene oxide (sum of ethylene oxide and 2-chloro-ethanol expressed as ethylene oxide) (F)	0.02*
105.	Etoxazole	0.50
106.	Etrimfos	0.01*
107.	Famoxadone	2.00
108.	Fenamidone	0.60
109.	Fenarimol	0.30
110.	Fenazaquin	0.20
111.	Fenhexamid (F)	15.00
112.	Fenitrothion	0.01*
113.	Fenobucarb	0.01*
114.	Fenoxaprop-p	0.10*
115.	Fenpropathrin	0.01*
116.	Fenpyroximate (A) (F) (R)	0.30
117.	Fenthion (fenthion and its oxygen analogue, their sulfoxides and sulfone expressed as parent)	0.01*
118.	Fenvalerate (any ratio of constituent isomers (RR, SS, RS & SR) including esfenvalerate) (F) (R)	0.30
119.	Fipronil (sum of fipronil + sulfone metabolite (MB46136) expressed as fipronil)	0.005*
120.	Flonicamid (sum of flonicamid, TNFG and TNFA expressed as flonicamid) (R)	0.03*
121.	Fluazifop-P (sum of all the constituent isomers of fluazifop, its esters and its conjugates, expressed as fluazifop)	0.01*
122.	Flubendiamide	2.00
123.	Flucetosulfuron	0.01*
124.	Fluchloralin	0.01*

Sr. No.	Chemicals	Harmonized EU-MRL (mg/kg)
125.	Fluensulfone	0.01*
126.	Flufenacet (sum of all compounds containing the N fluorophenyl-N-isopropyl moiety expressed as flufenacet equivalent)	0.05*
127.	Flufenoxuron	1.00
128.	Flufenzin	0.02*
129.	Flumioxazine	0.05*
130.	Flupicolide	2.00
131.	Fluopyram	1.50
132.	Flupyradifurone	0.80
133.	Flusilazole	0.01*
134.	Fluthiacet-methyl	0.01*
135.	Fluxapyroxad	3.00
136.	Fomesafen	0.01*
137.	Forchlorfenuron (CPPU)	0.01*
138.	Fosetyl-Al (sum fosetyl + phosphorous acid and their salts, expressed as fosetyl)	100.00
139.	Glufosinate-ammonium (sum of glufosinate, its salts, MPP and NAG expressed as glufosinate equivalents)	0.15
140.	Glyphosate	0.50
141.	Halosulfuron methyl	0.01*
142.	Haloxyfop (Sum of haloxyfop, its esters, salts and conjugates expressed as haloxyfop (sum of 0.01the R- and S- isomers at any ratio)) (F) (R)	0.01*
143.	Heptachlor (sum of heptachlor and heptachlor epoxide expressed as heptachlor)	0.01*
144.	Hexachlorocyclohexane (HCH), alpha-isomer (F)	0.01*
145.	Hexachlorocyclohexane (HCH), beta-isomer (F)	0.01*
146.	Hexaconazole	0.01*
147.	Hexazinone	0.01*
148.	Hexythiazox	1.00
149.	Homobrassinolide	0.01*†
150.	Imazamox (Sum of imazamox and its salts, expressed as imazamox)	0.05*
151.	Imazethapyr	0.01*
152.	Imidacloprid	1.00
153.	Indaziflam	0.01*
154.	Indoxacarb (sum of indoxacarb and its R enantiomer) (F)	2.00
155.	Iodosulfuron-methyl (sum of iodosulfuron-methyl and its salts, expressed as iodosulfuron-methyl)	0.01*

Sr. No.	Chemicals	Harmonized EU-MRL (mg/kg)
156.	Iprobenphos	0.01*
157.	Iprodione	0.01*
158.	Iprovalicarb	2.00
159.	Isoprothiolane	0.01*
160.	Isoproturon	0.01*
161.	Kasugamycin	0.01*
162.	Kresoxim methyl	1.50
163.	Lambda-cyhalothrin (includes gamma-cyhalothrin) (sum of R,S and S,R isomers) (F)	0.08
164.	Lindane (Gamma-isomer of hexachlorocyclohexane (HCH)) (F)	0.01*
165.	Linuron	0.01*
166.	Lufenuron (any ratio of constituent isomers) (F)	0.01*
167.	Malathion (sum of malathion and malaoxon expressed as malathion)	0.02*
168.	Mandipropamid (any ratio of constituent isomers)	2.00
169.	Matrine & Oxymatrine	0.01*
170.	Mepiquat (sum of mepiquat and its salts, expressed as mepiquat chloride)	0.02*
171.	Meptyldinocap (sum of 2,4-DNOPC and 2,4-DNOP expressed as meptyldinocap)	1.00
172.	Metaflumizone (sum of E- and Z- isomers)	0.05*
173.	Metalaxyl and Metalaxyl-M (metalaxyl including other mixtures of constituent isomers including metalaxyl-M (sum of isomers))	2.00
174.	Metamifop	0.01*
175.	Metamitron	0.10*
176.	Methabenzthiazuron	0.01*
177.	Methamidophos	0.01*
178.	Methomyl	0.01*
179.	Methoxyfenazide	1.00
180.	Metolachlor and S-Metolachlor (metolachlor including other mixtures of constituent isomers including S-metolachlor (sum of isomers))	0.05*
181.	Metrafenone	7.00
182.	Metribuzin	0.10*
183.	Milbemectin (sum of milbemycin A4 and milbemycin A3, expressed as milbemectin)	0.02*
184.	Monocrotophos	0.01*
185.	Myclobutanil	1.00
186.	Nereistoxin	0.01*

Sr. No.	Chemicals	Harmonized EU-MRL (mg/kg)
187.	Nitenpyram	0.01*
188.	Novaluron	0.01*
189.	Omethoate	0.01*
190.	Orthosulfamuron	0.01*
191.	Oxadiargyl	0.01*
192.	Oxadiazon	0.05*
193.	Oxathiapiprolin	0.70
194.	Oxycarboxin	0.01*
195.	Oxydemeton- methyl (sum of oxydemeton methyl and demeton-S-methylsulfone expressed as oxydemeton-methyl)	0.01*
196.	Oxyfluorfen	0.10
197.	Paclobutrazol (sum of constituent isomers)	0.01*
198.	Paraquat	0.02*
199.	Parathion - methyl (sum of Parathion-methyl and paraoxon-methyl expressed as Parathion -methyl)	0.01*
200.	Parathion ethyl	0.05*
201.	Penconazole	0.50
202.	Pencycuron	0.05*
203.	Pendimethalin	0.05*
204.	Penoxsulam	0.01*
205.	Permethrin (sum of isomers)	0.05*
206.	Phenthoate	0.01*
207.	Phorate (sum of phorate, its oxygen analogue and their sulfones expressed as phorate)	0.01*
208.	Phosalone	0.01*
209.	Phosphamidon	0.01*
210.	Picoxystrobin	0.01*
211.	Pinoxaden	0.02*
212.	Pirimiphos-methyl	0.01*
213.	Pretilachlor	0.01*
214.	Profenophos	0.01*
215.	Propamocarb (sum of propamocarb and its salt expressed as propamocarb)	0.01*
216.	Propanil	0.01*
217.	Propargite	0.01*
218.	Propetamphos	0.01*
219.	Propiconazole (sum of isomers) (F)	0.30
220.	Propineb	1.0
221.	Propoxur	0.05*

Sr. No.	Chemicals	Harmonized EU-MRL (mg/kg)
222.	Pymetrozine	0.02*
223.	Pyraclostrobin	1.00
224.	Pyrazosulfuron-ethyl	0.01*
225.	Pyridaben	0.01*
226.	Pyridalyl	0.01*
227.	Pyriproxyfen	0.05*
228.	Pyrithiobac-sodium	0.01*
229.	Pyroxasulfone	0.01*
230.	Quinalphos	0.01*
231.	Simazine	0.20
232.	Spinetoram	0.50
233.	Spinosad (sum of Spinosyn A+D)	0.50
234.	Spirodiclofen	2.00
235.	Spiromesifen	0.02*
236.	Spirotetramat (Spirotetramat and its 4 metabolites BYI08330-enol, BYI08330-ketohydroxy, BYI08330-monohydroxy, and BYI08330 enol-glucoside, expressed as spirotetramat (R))	2.00
237.	Sulfentrazone	0.01*
238.	Sulfosulfuron	0.01*
239.	Sulfoxaflor (sum of isomers)	2.00
240.	<i>tau</i> -Fluvalinate	1.00
241.	Tebuconazole	0.50
242.	Tembotrione	0.02*
243.	Temephos	0.01*
244.	Tetraconazole	0.50
245.	Thiabendazole	0.01*
246.	Thiacloprid	0.01*
247.	Thiamethoxam	0.40
248.	Thifluzamide	0.01*
249.	Thiobencarb (4-chlorobenzyl methyl sulfone) (A)	0.01*
250.	Thiocyclam	0.01*
251.	Thiodicarb	0.01*
252.	Thiometon	0.01*
253.	Thiophanate-methyl	0.10*
254.	Tolfenpyrad	0.01*
255.	Topramezone	0.01*
256.	Transfluthrin	0.01*
257.	Triadimefon	0.01*
258.	Triadimenol (any ratio of constituent isomers)	0.30

Sr. No.	Chemicals	Harmonized EU-MRL (mg/kg)
259.	Triafamone	0.01*
260.	Tri-allate	0.10*
261.	Triasulfuron	0.01*
262.	Triazophos	0.01*
263.	Trichlorfon	0.01*
264.	Tricyclazole	0.01*
265.	Tridemorph	0.01*
266.	Trifloxystrobin	3.00
267.	Triflumezopyrim	0.01*
268.	Trifluralin	0.01*
269.	Uracil	1.00†

http://ec.europa.eu/sanco_pesticides/public/index.cfm?event=substance.selection

* Indicates lower limit of analytical determination

† These are natural products. EU-MRL does not exist for these chemicals. Hence, their MRL is set at the LOQ of the method developed and validated at the National Referral Laboratory of the ICAR-NRC for Grapes.