State of California
Department of Cannabis Control
California Code of Regulations, Title 4, Division 19
Proposed Modified Regulation Text:
Pesticide Testing

LEGEND:

Initially proposed (45-day) text proposed for adoption is shown in underline

45-day text proposed for deletion is shown in ~~strikethrough~~

First modified text comment period (21-day) additions are shown in double underline

First modified text comment period (21-day) text deletions are shown in ~~double strikethrough~~

Second modified text comment period (15-day) additions are shown in *italicized underline*

15-day modified text deletions are shown in ~~*italicized strikethrough*~~

Third modified text comment period (15-day) additions are shown in *blue italicized double underline*

Third modified text comment period (15-day) deletions are shown in ~~*red italicized double strikethrough*~~

§15719. Residual Pesticide~~s~~ Testing.

(a) The licensed laboratory must~~shall~~ analyze at minimum 0.5 grams of the representative sample of cannabis and cannabis products to determine whether residual pesticides are present.

(b) The licensed laboratory must~~shall~~ report ~~whether any Category I Residual Pesticides are detected above the limit of detection (LOD) and shall report~~ the result of the ~~Category II Residual Pesticides~~ residual pesticide testing in unit micrograms per gram (µg/g) on the COA. The laboratory must~~shall~~ indicate "pass" or "fail" on the COA.

(c) Until [effective date + 18 months]:

(1) For each pesticide listed in ~~the table~~Table 1 below, the ~~The~~ licensed laboratory must~~shall~~ establish a limit of quantitation (LOQ) ~~of 0.10 µg/g or lower for all Category I Residual Pesticides~~ *at or below* ~~*0.10 µg/g*~~ ~~no greater than 50% of the indicated action~~

~~level for that pesticide~~ *the indicated action level for that pesticide*.

~~(d)~~(2) A ~~representative~~ sample passes residual pesticide testing if pesticide residues found in the sample do not exceed the indicated action levels in ~~the table~~Table 1 below. ~~The sample shall be deemed to have passed the residual pesticides testing if both of the following conditions are met:~~

(d) Beginning [effective date + 18 months]:

(1) For each pesticide listed in Table 2 below, the licensed laboratory must establish an LOQ as follows:

(A) At or below 0.10 µg/g if the action level is ≥0.10 µg/g.

(B) At or below the indicated action level if the action level is <0.10 µg/g.

(2) A sample passes residual pesticide testing if pesticide residues found in the sample do not exceed the indicated action levels in Table 2 below.

~~(1) The presence of any residual pesticide listed in the following tables in Category I are not detected, and~~

~~(2) The presence of any residual pesticide listed in the following tables in Category II does not exceed the indicated action levels.~~

(e) If ~~a representative~~the sample fails residual pesticide testing, then the batch from which the sample was collected fails residual pesticide testing and may not be released for retail sale.

Table 1

~~Category I Residual Pesticide~~	~~CAS No.~~
~~Aldicarb~~	~~116-06-3~~
~~Carbofuran~~	~~1563-66-2~~
~~Chlordane~~	~~57-74-9~~
~~Chlorfenapyr~~	~~122453-73-0~~
~~Chlorpyrifos~~	~~2921-88-2~~
~~Coumaphos~~	~~56-72-4~~
~~Daminozide~~	~~1596-84-5~~
~~DDVP (Dichlorvos)~~	~~62-73-7~~
~~Dimethoate~~	~~60-51-5~~
~~Ethoprop(hos)~~	~~13194-48-4~~
~~Etofenprox~~	~~80844-07-1~~
~~Fenoxycarb~~	~~72490-01-8~~

~~Fipronil~~	~~120068-37-3~~
~~Imazalil~~	~~35554-44-0~~
~~Methiocarb~~	~~2032-65-7~~
~~Methyl parathion~~	~~298-00-0~~
~~Mevinphos~~	~~7786-34-7~~
~~Paclobutrazol~~	~~76738-62-0~~
~~Propoxur~~	~~114-26-1~~
~~Spiroxamine~~	~~118134-30-8~~
~~Thiacloprid~~	~~11988-49-9~~

~~*Category II Residual* Pesticide~~	***CAS No.***	***Action Level (µg/g) for Inhalable Cannabis and Cannabis Products***	***Action Level (µg/g) for Non-Inhalable Cannabis Products***
Abamectin	~~71751-41-2~~ 65195-55-3	0.10	~~0.3~~ ~~0.10~~ 0.3
Acephate	30560-19-1	0.10	~~5~~ ~~0.14~~ 5.0
Acequinocyl	57960-19-7	0.10	4 ~~3.7~~ 4.0
Acetamiprid	135410-20-7	~~0.1~~ ~~3.0~~ ~~*0.10*~~ *3.0*	~~*5.0*~~ *6.5*
Aldicarb	116-06-3	~~0.50~~ 0.10	~~0.014~~ 0.10
Azoxystrobin	131860-33-8	~~0.1~~ ~~16.0~~ ~~*0.10*~~ *16.0*	~~40~~ ~~30.0~~ 40.0
Bifenazate	149877-41-8	0.10	~~*5.0*~~ *6.5*
Bifenthrin	82657-04-3	3.0	~~0.5~~ ~~1.6~~ ~~*0.50*~~ *2.0*
Boscalid	188425-85-6	0.10	~~10~~11 ~~*10.0*~~*14.0*
~~Buprofezin~~	~~69327-76-0~~	~~0.10~~	~~60~~
Captan ~~*+ 1,2,3,6-Tetrahydrophthalimide (THPI)*~~	133-06-2 + 85-40-5	0.70	~~*5.0*~~*6.5*
Carbaryl	63-25-2	0.50	0.50
~~Carbendazim~~	~~10605-21-7~~	~~2.0~~	~~5.0~~

Carbofuran	1563-66-2	~~0.50~~ 0.10	~~0.0050~~ 0.10
Chlorantraniliprole	500008-45-7	~~10~~ ~~14.0~~ ~~*10.0*~~ *14.0*	40.0
Chlordane	5103-71-9 (cis), 5103-74-2 (trans)	0.10	~~0.050~~ 0.10
Chlorfenapyr	122453-73-0	0.10	~~2.5~~ 0.10
Chlorpyrifos	2921-88-2	~~0.50~~0.10	~~0.0050~~ 0.10
Clofentezine	74115-24-5	0.10	~~0.5~~ ~~0.65~~ ~~*0.50*~~*0.85*
Coumaphos	56-72-4	0.10	~~0.010~~ 0.10
Cyfluthrin	68359-37-5	2.0	~~1~~0.59 1.0
Cypermethrin	52315-07-8	1.0	~~1~~0.70 1.0
~~Cyprodinil~~	~~121552-61-2~~	~~0.10~~	~~50.0~~
~~Dacthal (DPCA)~~	~~1861-32-1~~	~~0.10~~	~~0.050~~
Daminozide	1596-84-5	0.10	0.10
DDVP (Dichlorvos)	62-73-7	0.10	~~0.042~~0.10
Diazinon	333-41-5	0.10	~~0.2~~0.15 ~~0.20~~
Dimethoate	60-51-5	0.10	~~2.0~~ 0.10
Dimethomorph	110488-70-5	2.0	~~20~~13.0 ~~20.0~~
Ethoprop(hos)	13194-48-4	0.10	~~0.020~~ 0.10
Etofenprox	80844-07-1	0.10	5.0
Etoxazole	153233-91-1	0.10	1.50
Fenhexamid	126833-17-8	0.10	~~10~~19.0 ~~*10.0*~~ *25.0*
Fenoxycarb	72490-01-8	0.10	~~3.0~~ 0.10
Fenpyroximate	111812-58-9	0.10	~~*2*~~4.0 ~~*2.0*~~ *4.0*
~~Fenobucarb (BPMC)~~	~~3766-81-2~~	~~0.010~~	~~0.010~~
Fipronil	120068-37-3	0.10	~~0.030~~ 0.10
Flonicamid	158062-67-0	0.10	~~*2*~~6.0 ~~*2.0*~~ *7.9*
Fludioxonil	131341-86-1	0.10	~~30~~25 ~~30.0~~
~~Fluopyram~~	~~658066-35-4~~	~~5.0~~	~~25.0~~
Hexythiazox	78587-05-0	0.10	~~*2*~~6.0 ~~*2.0*~~ *6.0*
Imazalil	35554-44-0	0.10	~~5.0~~ 0.10

Imidacloprid	138261-41-3	5.0	~~*3.0*~~*3.9*
~~Isoprocarb (MIPC)~~	~~2631-40-5~~	~~0.010~~	~~0.010~~
Kresoxim-methyl	143390-89-0	0.10	1.0
Malathion	121-75-5	0.50	~~5~~8.0 ~~*5.0*~~ *8.0*
Metalaxyl	57837-19-1	2.0	15.0
~~Methamidophos~~	~~10265-92-6~~	~~1.0~~	~~0.049~~
Methiocarb	2032-65-7	~~0.20~~ 0.10	~~0.015~~ 0.10
Methomyl	16752-77-5	1.0	~~0.10~~0.075 ~~0.10~~
Methyl parathion	298-00-0	0.10	~~0.0013~~ 0.10
Mevinphos	7786-34-7	~~0.040~~ 0.10	~~0.017~~ 0.10
~~Monocrotophos~~	~~6923-22-4~~	~~0.30~~	~~0.0030~~
Myclobutanil	88671-89-0	0.10	9.0
Naled	300-76-5	0.10	~~0.5~~0.16 ~~0.50~~
~~Omethoate~~	~~1113-02-6~~	~~0.10~~	~~1.8~~
Oxamyl	23135-22-0	0.50	~~0.2~~0.13 ~~0.20~~
Paclobutrazol	76738-62-0	0.10	~~5.0~~ 0.10
Pentachloronitrobenzene	82-68-8	0.10	~~0.2~~1.0 ~~*0.20*~~ *1.0*
Permethrin	52645-53-1	0.50	20.0
Phosmet	732-11-6	0.10	~~0.20~~0.070 ~~0.20~~
Piperonyl butoxide	51-03-6	3.0	8.0
Prallethrin	23031-36-9	0.10	~~0.4~~1.0
~~Procymidone~~	~~32809-16-8~~	~~0.005~~	~~0.005~~
Propiconazole	60207-90-1	0.10	20.0
Propoxur	114-26-1	0.10	~~0.019~~ 0.10
~~Pymetrozine~~	~~123312-89-0~~	~~1.0~~	~~0.40~~
~~Pyraclostrobin~~	~~175013-18-0~~	~~0.10~~	~~2.5~~
Pyrethrins	8003-34-7	0.50	1.0
Pyridaben	96489-71-3	0.10	3.0
~~Pyrimethanil~~	~~53112-28-0~~	~~0.10~~	~~15.0~~

Spinetoram	~~187166-15-0,~~ ~~187166-40-1~~ ~~935545-74-7~~ 187166-15-0, 187166-40-1	0.10	~~3~~2.5 ~~3.0~~ 3.2
Spinosad	131929-60-7, ~~131929-63-0~~ ~~168316-95-8~~ 131929-63-0	0.10	~~3~~2.5 ~~3.0~~ 3.2
Spiromesifen	283594-90-1	0.10	~~12~~1.9 ~~-~~12.0
Spirotetramat	203313-25-1	0.10	13.0
Spiroxamine	118134-30-8	0.10	~~0.70~~ 0.10
Tebuconazole	107534-96-3	~~0.1~~18 ~~-~~ ~~0.10~~ 18.0	~~2~~1.5 ~~-~~2.0
Thiacloprid	111988-49-9	0.10	~~1.0~~ 0.10
Thiamethoxam	153719-23-4	5.0	4.5
Trifloxystrobin	141517-21-7	0.10	30.0

Table 2

Pesticide	CAS No.	Action Level (µg/g) for Inhalable Cannabis and Cannabis Products	Action Level (µg/g) for Non-Inhalable Cannabis Products
Abamectin	65195-55-3	0.10	0.10
Acephate	30560-19-1	0.10	0.18
Acequinocyl	57960-19-7	0.10	4.0
Acetamiprid	135410-20-7	~~0.10~~ 3.0	~~5.0~~ 6.5
Aldicarb	116-06-3	0.10	0.02
Azoxystrobin	131860-33-8	~~0.10~~16.0	30.0
Bifenazate	149877-41-8	0.10	~~5.0~~ 6.5
Bifenthrin	82657-04-3	3.0	~~0.50~~ 2.0
Boscalid	188425-85-6	0.10	~~10.0~~14.0
Buprofezin	69327-76-0	0.10	60.0

Captan + 1, 2,3,6-Tetrahydrophthalimide (THPI)	133-06-2 + 85-40-5	0.70	~~5.0~~6.5
Carbaryl	63-25-2	0.50	0.50
Carbendazim	10605-21-7	2.0	6.5
Carbofuran	1563-66-2	0.10	0.02
Chlorantraniliprole	500008-45-7	~~10.0~~14.0	40.0
Chlordane	5103-71-9 (cis) + 5103-74-2 (trans)	0.10	0.065
Chlorfenapyr	122453-73-0	0.10	0.10
Chlorpyrifos	2921-88-2	0.10	0.093
Clofentezine	74115-24-5	0.10	~~0.50~~0.85
Coumaphos	56-72-4	0.10	0.10
Cyfluthrin	68359-37-5	2.0	0.77
Cypermethrin	52315-07-8	1.0	0.92
Cyprodinil	121552-61-2	0.10	50.0
Dacthal (DPCA)	1861-32-1	0.10	0.07
Daminozide	1596-84-5	0.10	0.10
DDVP (Dichlorvos)	62-73-7	0.10	0.05
Diazinon	333-41-5	0.10	0.20
Dimethoate	60-51-5	0.10	0.10
Dimethomorph	110488-70-5	2.0	16.0
Ethoprop(hos)	13194-48-4	0.10	0.02
Etofenprox	80844-07-1	0.10	5.0
Etoxazole	153233-91-1	0.10	1.5
Fenhexamid	126833-17-8	0.10	~~10.0~~25.0
Fenoxycarb	72490-01-8	0.10	0.05
Fenpyroximate	111812-58-9	0.10	~~2.0~~4.0
Fenobucarb (BPMC)	3766-81-2	0.02	0.02
Fipronil	120068-37-3	0.10	0.03
Flonicamid	158062-67-0	0.10	~~2.0~~7.9

Fludioxonil	131341-86-1	0.10	30.0
Fluopyram	658066-35-4	5.00	33.0
Hexythiazox	78587-05-0	0.10	~~2.0~~6.0
Imazalil	35554-44-0	0.10	0.10
Imidacloprid	138261-41-3	5.0	~~3.0~~3.9
Isoprocarb (MIPC)	2631-40-5	0.02	0.02
Kresoxim-methyl	143390-89-0	0.10	1.0
Malathion	121-75-5	0.50	~~5.0~~ 8.0
Metalaxyl	57837-19-1	2.0	15.0
Methamidophos	10265-92-6	1.0	0.064
Methiocarb	2032-65-7	0.10	0.02
Methomyl	16752-77-5	1.0	0.10
Methyl parathion	298-00-0	0.10	0.023
Mevinphos	7786-34-7	0.04	0.022
Monocrotophos	6923-22-4	0.30	0.056
Myclobutanil	88671-89-0	0.10	9.0
Naled	300-76-5	0.10	0.21
Omethoate	1113-02-6	0.10	2.0
Oxamyl	23135-22-0	0.50	0.17
Paclobutrazol	76738-62-0	0.10	0.10
Pentachloronitrobenzene	82-68-8	0.10	~~0.20~~1.0
Permethrin	52645-53-1	0.50	20.0
Phosmet	732-11-6	0.10	0.092
Piperonyl butoxide	51-03-6	3.0	8.0
Prallethrin	23031-36-9	0.10	1.0
Procymidone	32809-16-8	0.02	0.02
Propiconazole	60207-90-1	0.10	20.0
Propoxur	114-26-1	0.10	0.025
Pymetrozine	123312-89-0	1.0	0.52
Pyraclostrobin	175013-18-0	0.10	3.3

Pyrethrins	8003-34-7	0.50	1.0
Pyridaben	96489-71-3	0.10	3.0
Pyrimethanil	53112-28-0	0.10	15.0
Spinetoram	187166-15-0, 187166-40-1	0.10	~~*3.0*~~ *3.2*
Spinosad	131929-60-7, 131929-63-0	0.10	~~*3.0*~~ *3.2*
Spiromesifen	283594-90-1	0.10	2.5
Spirotetramat	203313-25-1	0.10	13.0
Spiroxamine	118134-30-8	0.10	0.10
Tebuconazole	107534-96-3	~~*0.10*~~ *18.0*	2.0
Thiacloprid	111988-49-9	0.10	0.10
Thiamethoxam	153719-23-4	5.0	4.5
Trifloxystrobin	141517-21-7	0.10	30.0

~~(e) If the sample fails residual pesticides testing, the batch from which the sample was collected fails residual pesticides testing and shall not be released for retail sale.~~

NOTE: Authority cited: Section 26013, Business and Professions Code.
Reference: Sections 26100, 26104 and 26110, Business and Professions Code.

§15731. Limits of Detection (LOD) and Limits of Quantitation (LOQ) for Quantitative Analyses.

(a) The licensed laboratory ~~shall~~ must calculate the LOD for chemical method analyses ~~according to any of the following methods:~~ using the standard

~~(1) Signal-to-noise ratio of between 3:1 and 2:1;~~

~~(2) Standard~~ deviation of the response and the slope of calibration curve using a minimum of 7 spiked blank samples calculated as follows; LOD = (3.3 x standard deviation of the response) / slope of the calibration curve.~~;~~ ~~or~~

~~(3) A method published by the United States Food and Drug Administration (USFDA) or the United States Environmental Protection Agency (USEPA).~~

(b) For chromatographic analyses, the LOD must have a minimum signal-to-noise ratio of 3:1, which must be verified by visual inspection. For non-chromatographic analyses, the LOD must have a minimum signal-to-noise ratio of 3:1, which must be verified by software analysis or mathematical calculation.

(c) The licensed laboratory ~~shall~~ must calculate the LOQ for chemical method analyses ~~according to any of the following methods:~~ using the standard

~~(1) Signal-to-noise ratio of 10:1, at minimum;~~

~~(2) Standard~~ deviation of the response and the slope using a minimum of 7 spiked blank samples calculated as follows:

LOQ = (10 x standard deviation of the response) / slope of the calibration curve.~~;~~ ~~or~~

~~(3) A method published by the USFDA or the USEPA.~~

(d) For chromatographic analyses, the LOQ must have a minimum signal-to-noise ratio of 10:1, which must be verified by visual inspection. For non-chromatographic analyses, the LOQ must have a minimum signal-to-noise ratio of 10:1, which must be verified by software analysis or mathematical calculation.

NOTE: Authority cited: Section 26013, Business and Professions Code. Reference: Sections 26100, 26104 and 26110, Business and Professions Code.