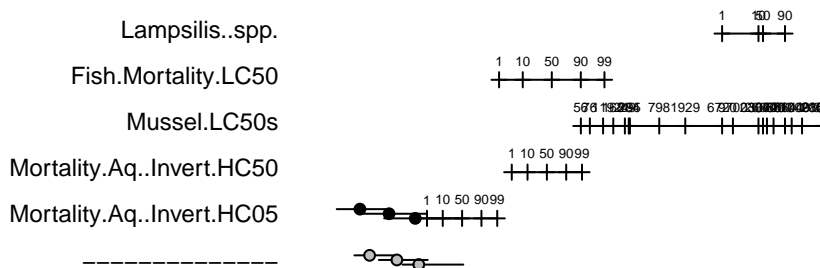


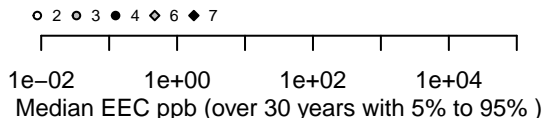
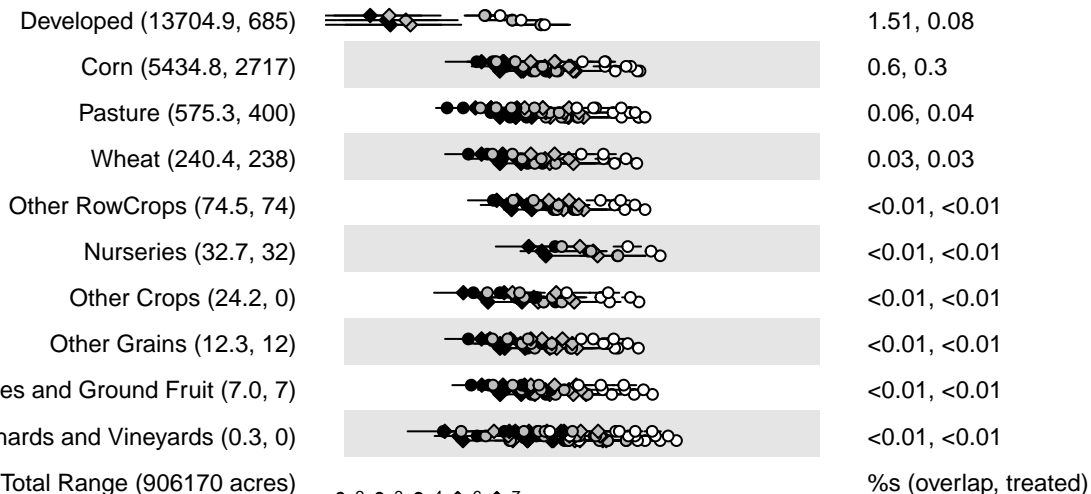
Appendix M: R-Plots

Mussels

Toxicities

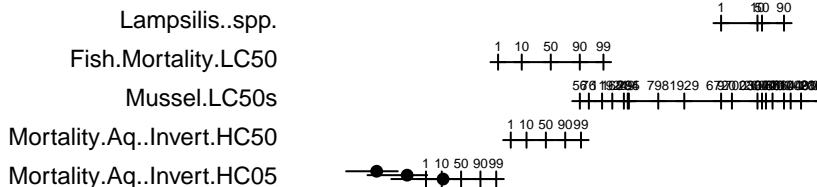


Uses

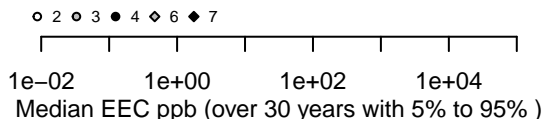
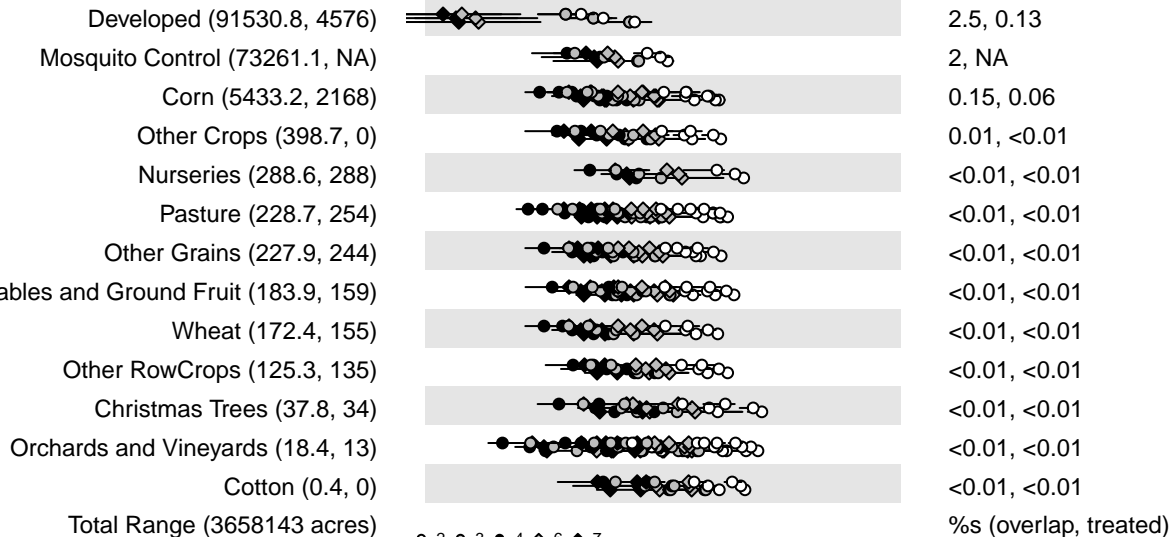


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5,6, bin:2,3,4,6,7
 Cumberland bean (pearlymussel) (317) Range

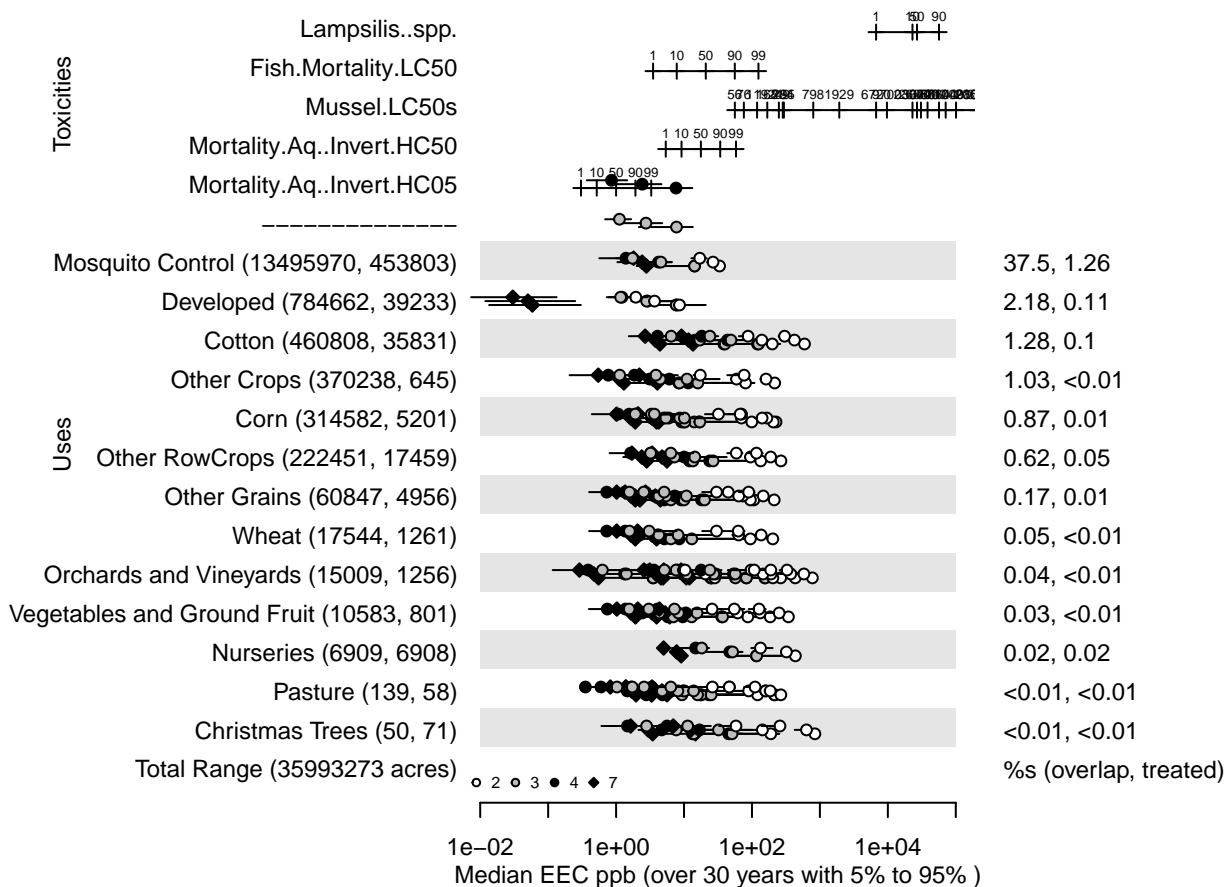
Toxicities



Uses

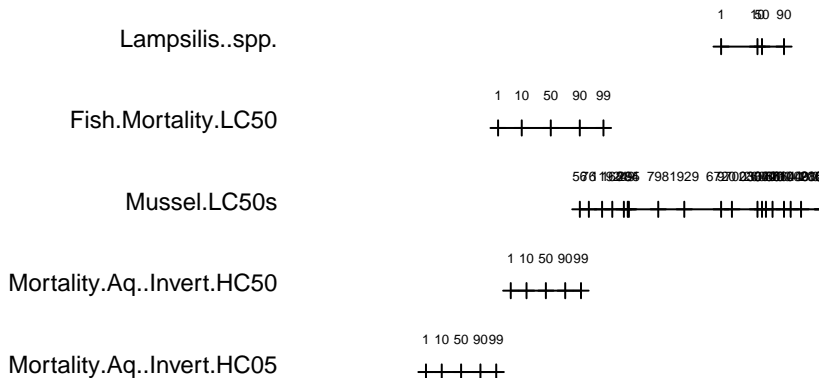


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5,6, bin:2,3,4,6,7
 Purple bean (318) Range

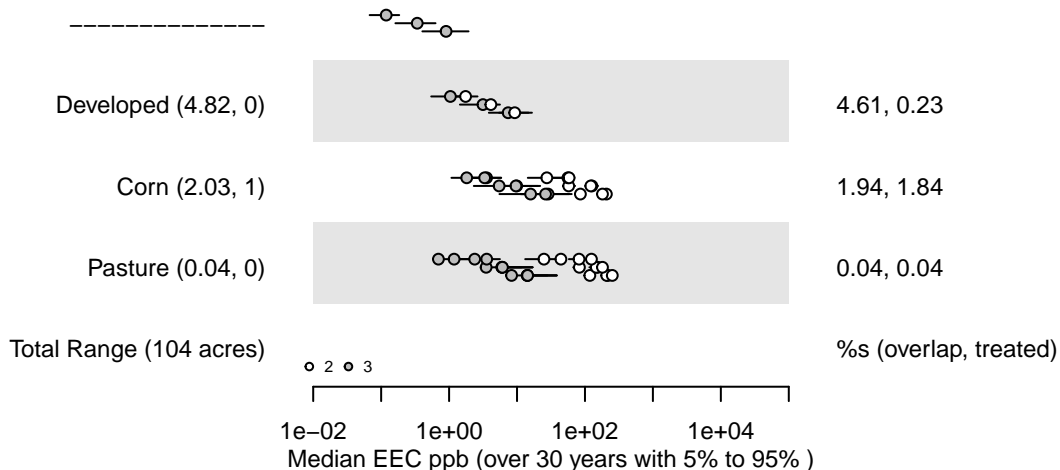


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5, bin:2,3,4,7
 Purple Cat's paw (=Purple Cat's paw pearlymussel) (323) Range

Toxicities

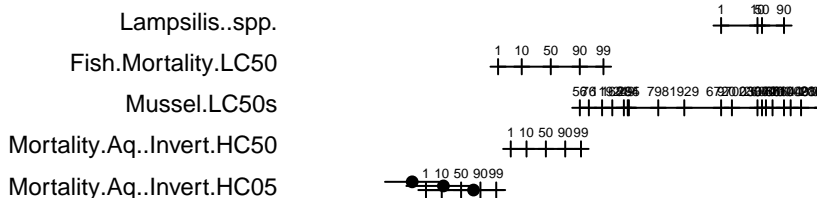


Uses

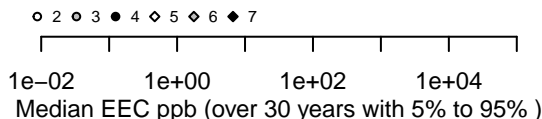
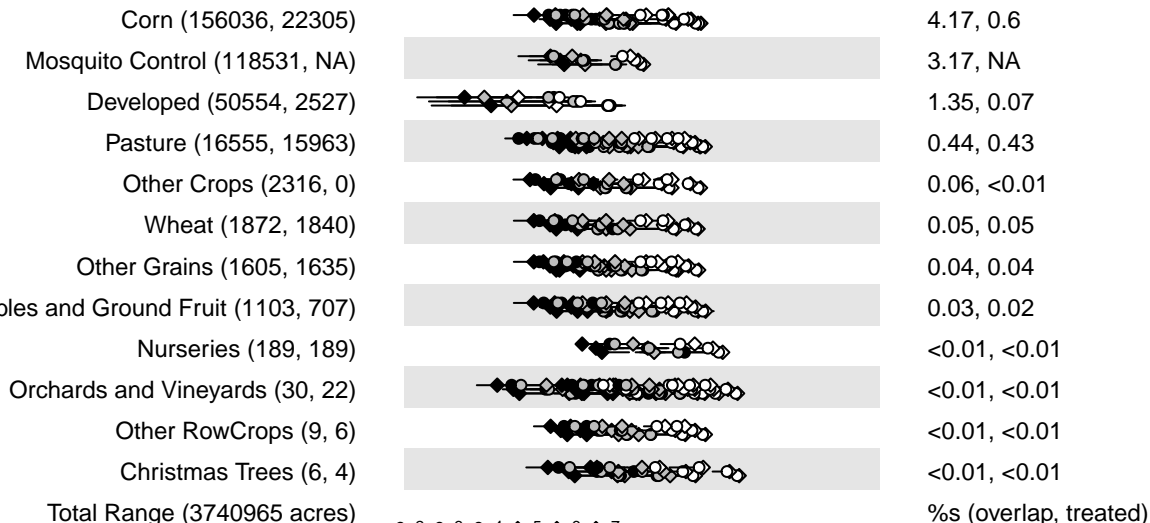


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:4, bin:2,3
 White catspaw (pearlymussel) (324) Range

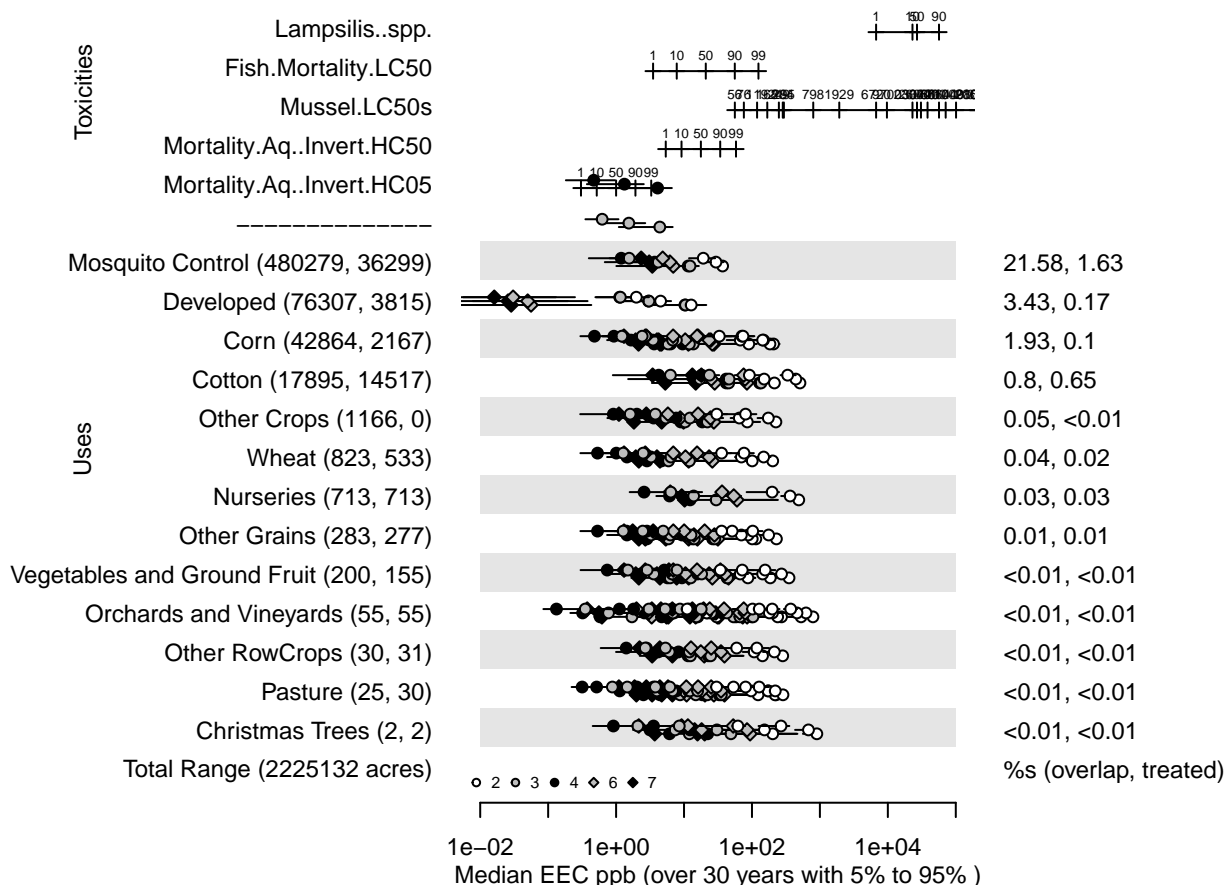
Toxicities



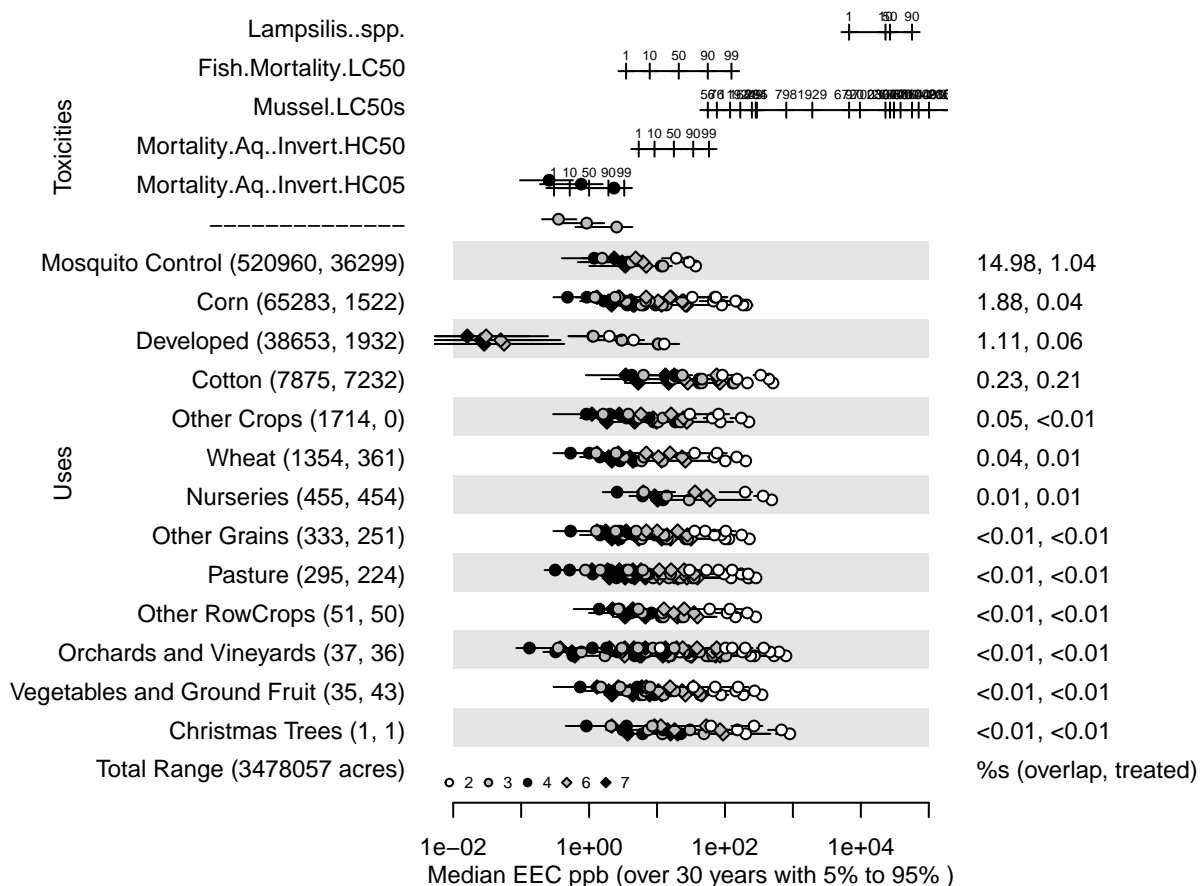
Uses



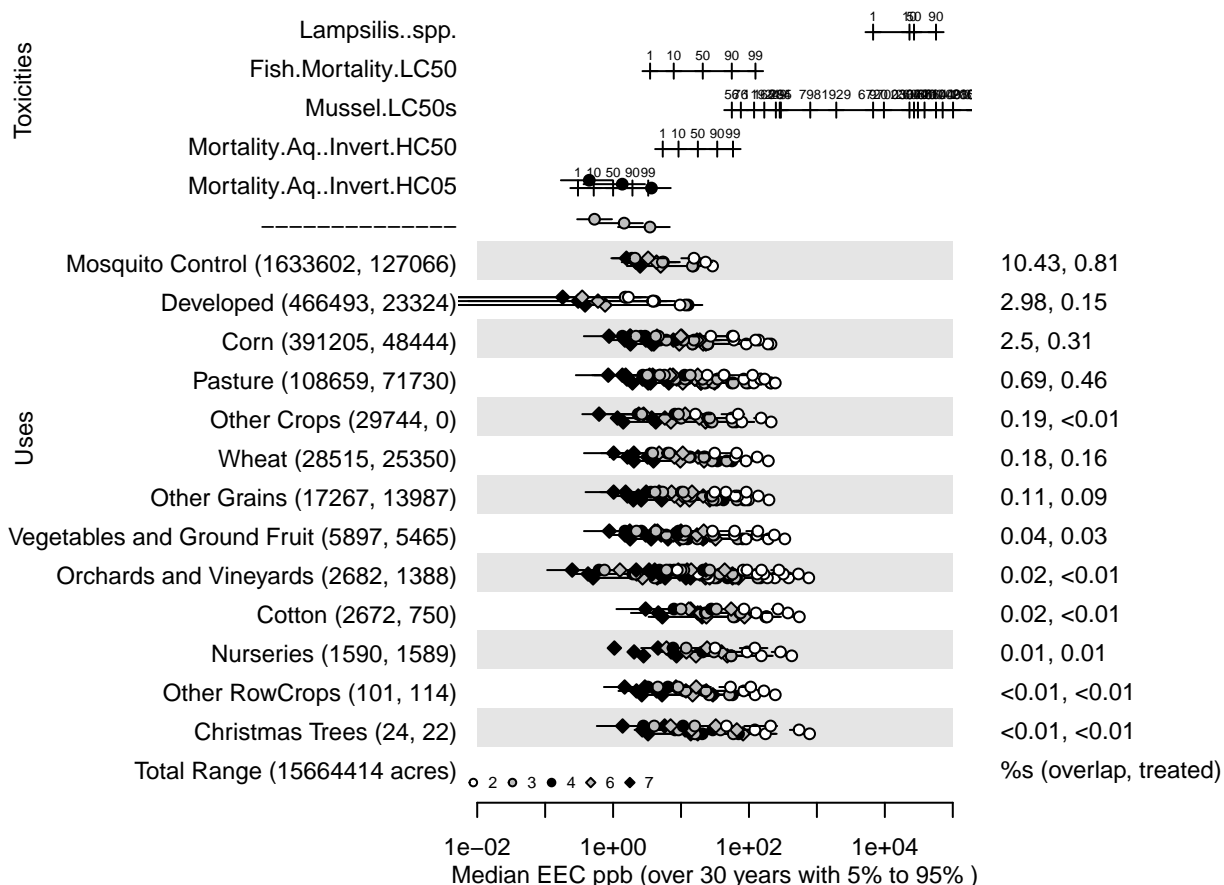
malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:7,10a, bin:2,3,4,5,6,7
 Higgins eye (pearlymussel) (325) Range



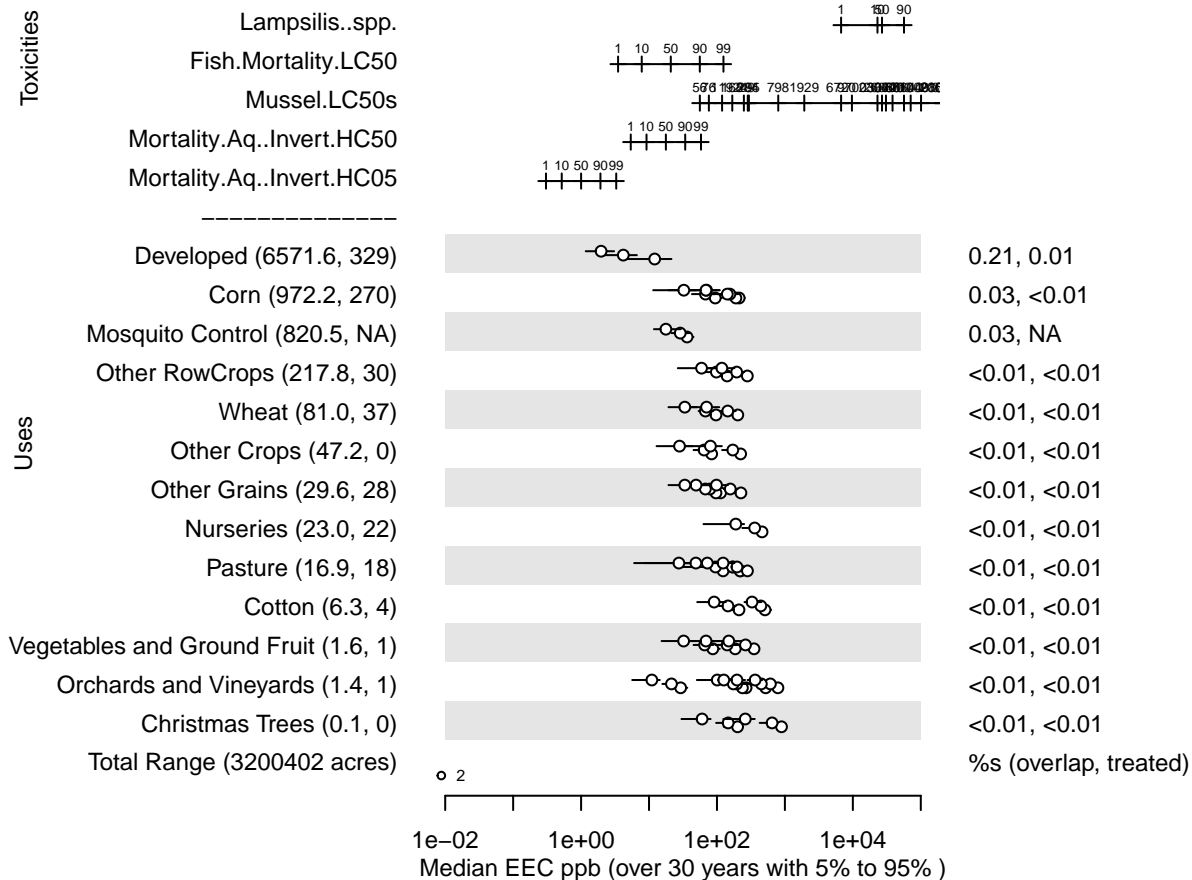
malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:6, bin:2,3,4,6,7
Alabama lampmussel (326) Range



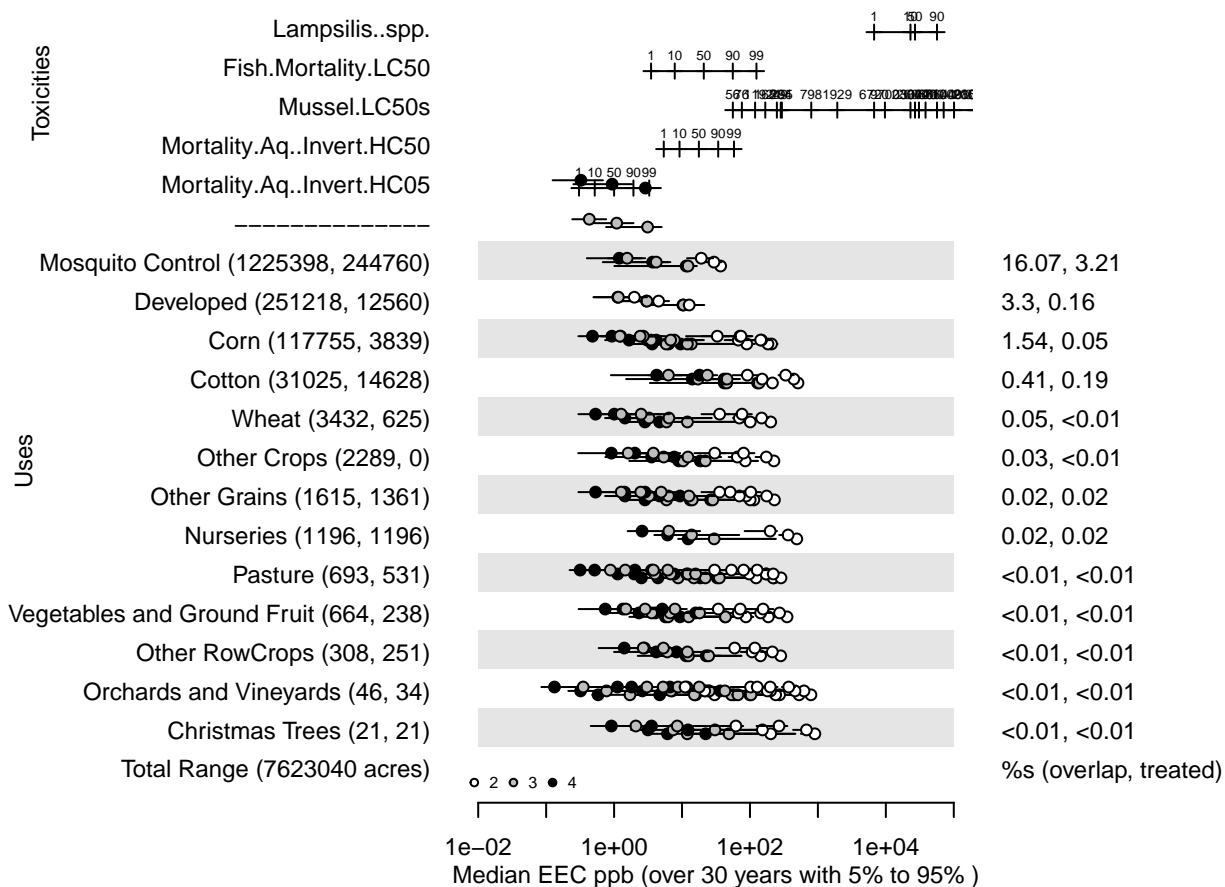
malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:6, bin:2,3,4,6,7
 Pale lilliput (pearlymussel) (327) Range



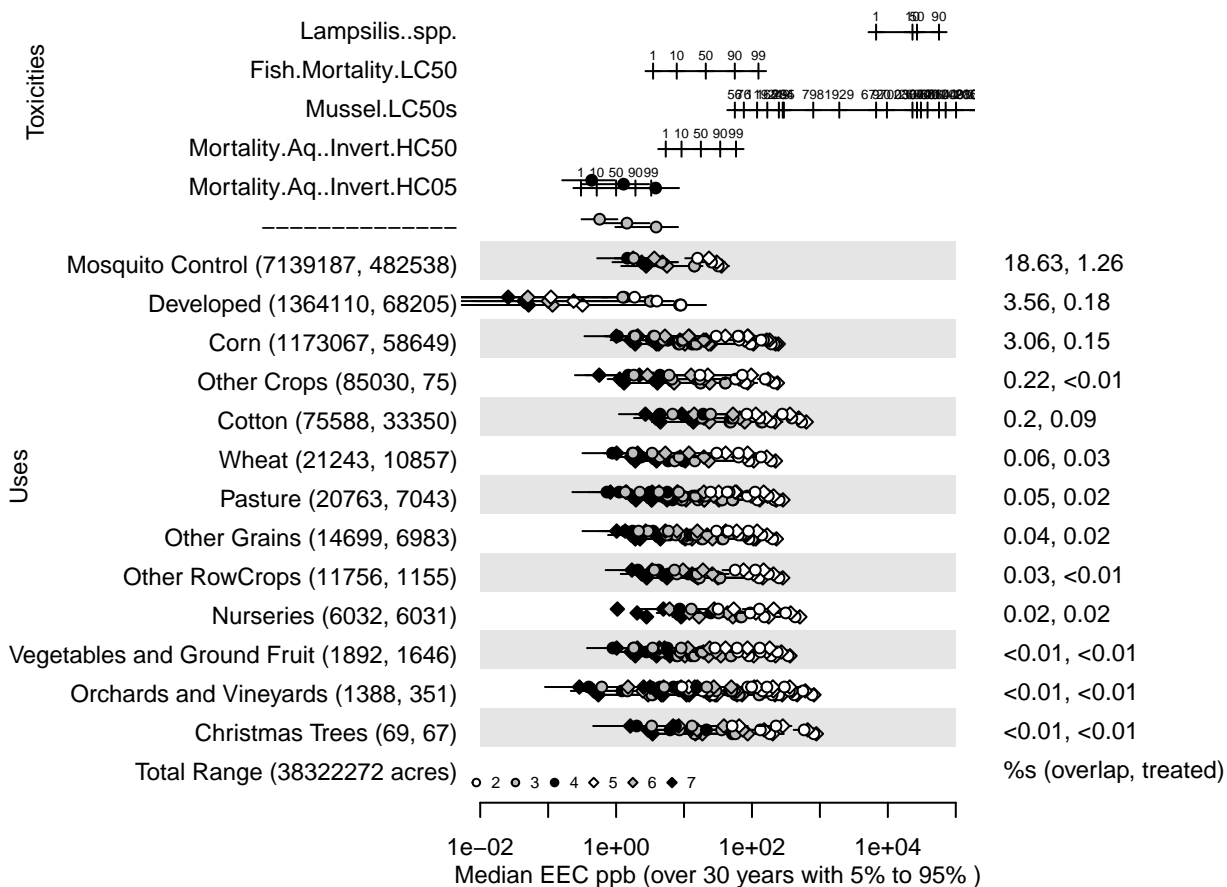
malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:6,7,8,11a, bin:2,3,4,6,7
Winged Mapleleaf (328) Range



malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:5,6, bin:2
Appalachian monkeyface (pearlymussel) (329) Range



malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:6, bin:2,3,4
Cumberland monkeyface (pearlymussel) (330) Range

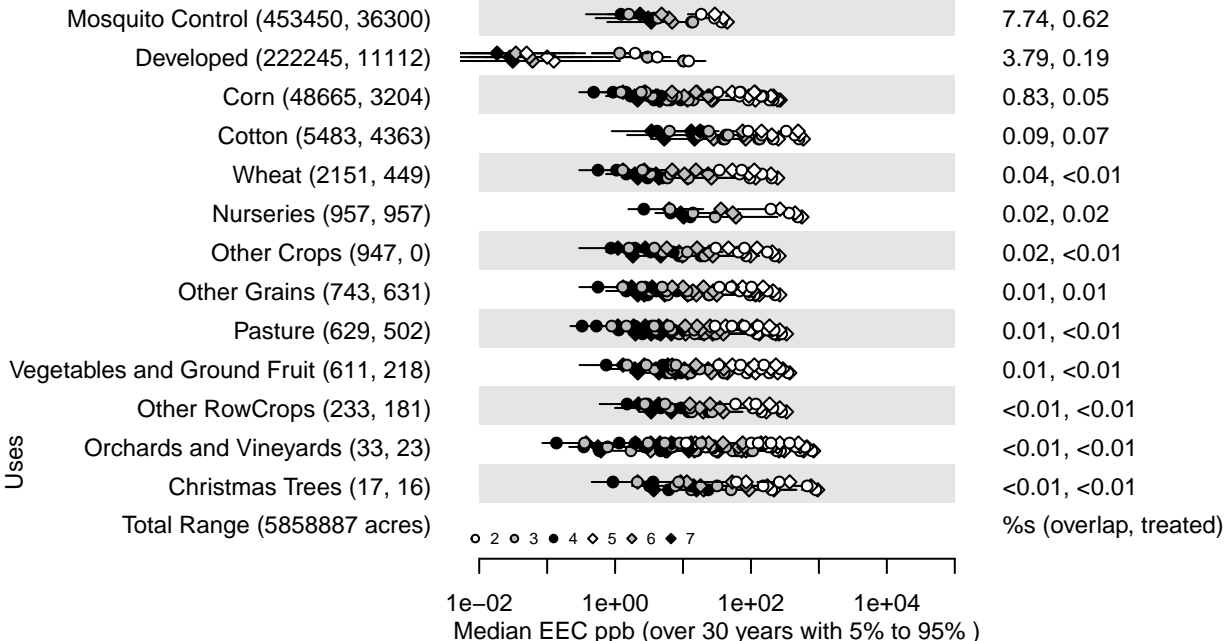


malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:5,6,7,8,10a,11a, bin:2,3,4,5,6,7
Pink mucket (pearlymussel) (331) Range

Toxicities



Uses



malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:5,6, bin:2,3,4,5,6,7
Birdwing pearlymussel (332) Range

Toxicities

Lampsilis..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05

Mosquito Control (463647.8, 108899)

Corn (60955.0, 7865)

Other Crops (37888.1, 0)

Developed (24107.6, 1205)

Other Grains (5408.0, 3788)

Other RowCrops (3347.4, 355)

Wheat (2664.7, 2600)

Cotton (2524.5, 2601)

Vegetables and Ground Fruit (258.3, 246)

Pasture (140.3, 146)

Nurseries (68.0, 68)

Orchards and Vineyards (34.9, 34)

Christmas Trees (0.1, 0)

Total Range (3189423 acres)

○ 2 ○ 3

1e-02 1e+00 1e+02 1e+04
Median EEC ppb (over 30 years with 5% to 95%)

malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:7,8,11a, bin:2,3

Curtis pearlymussel (333) Range

14.54, 3.41

1.91, 0.25

1.19, <0.01

0.76, 0.04

0.17, 0.12

0.1, 0.01

0.08, 0.08

0.08, 0.08

<0.01, <0.01

<0.01, <0.01

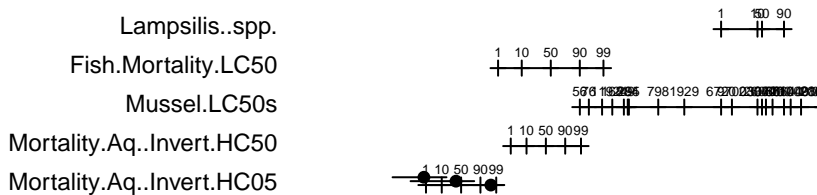
<0.01, <0.01

<0.01, <0.01

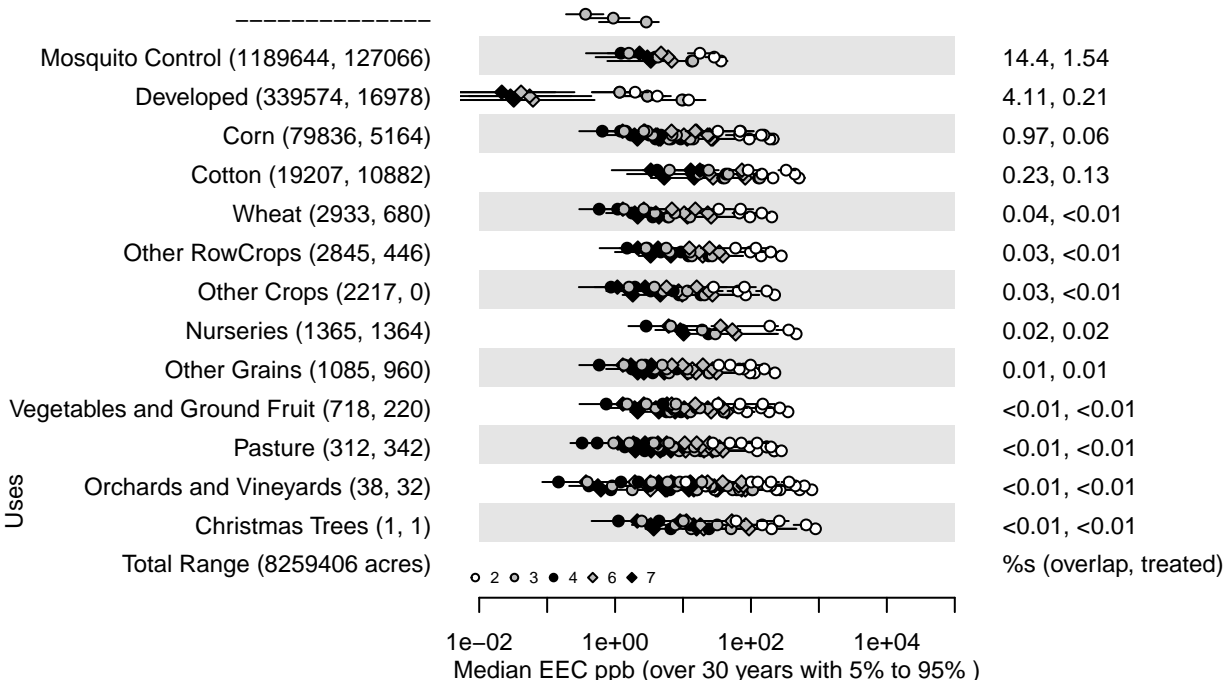
<0.01, <0.01

%s (overlap, treated)

Toxicities

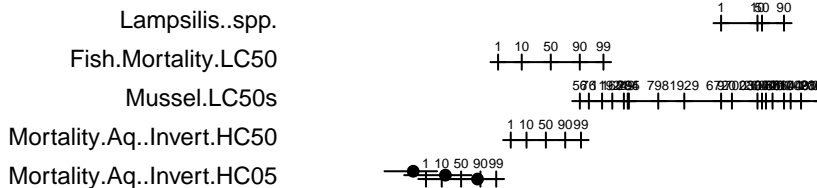


Uses

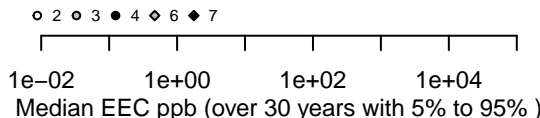
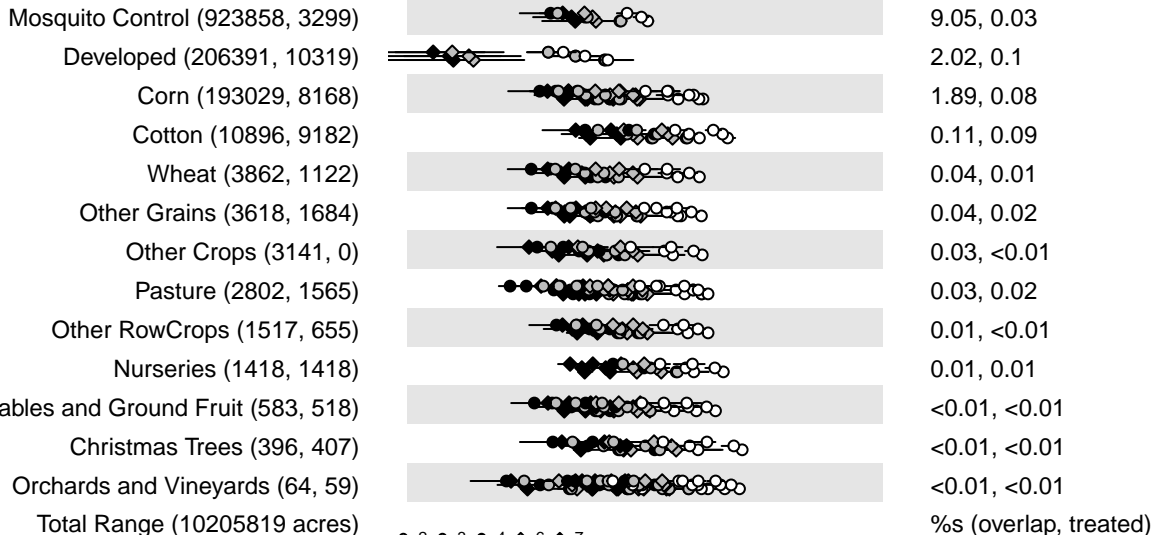


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5,6, bin:2,3,4,6,7
 Dromedary pearlymussel (334) Range

Toxicities

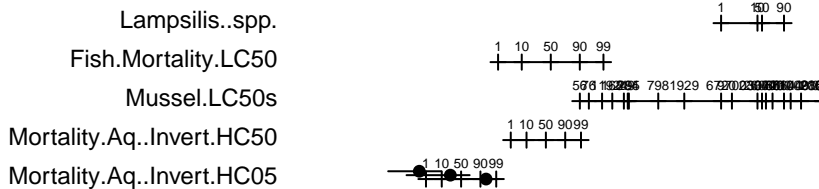


Uses

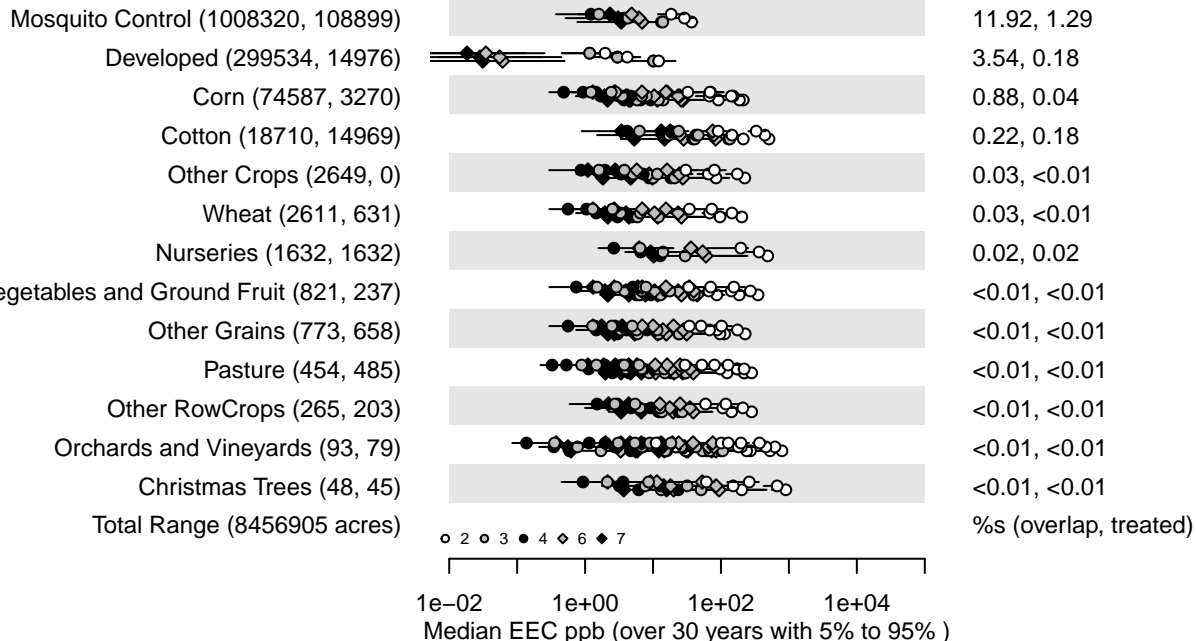


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:3,5,6, bin:2,3,4,6,7
 Littlewing pearlymussel (335) Range

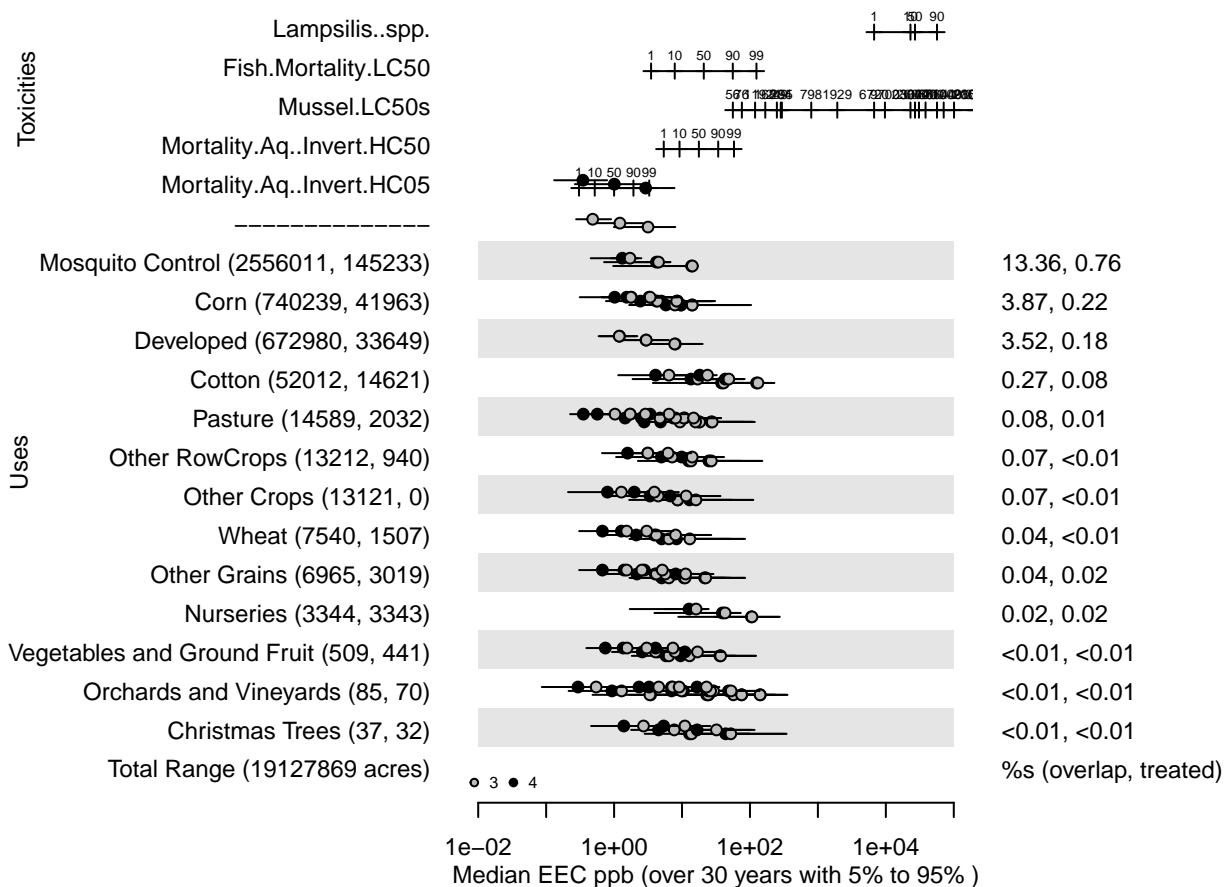
Toxicities



Uses

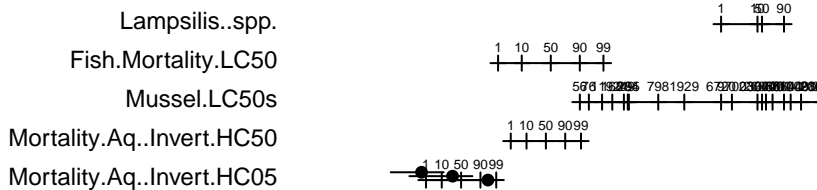


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5,6, bin:2,3,4,6,7
 Finerayed pigtoe (337) Range

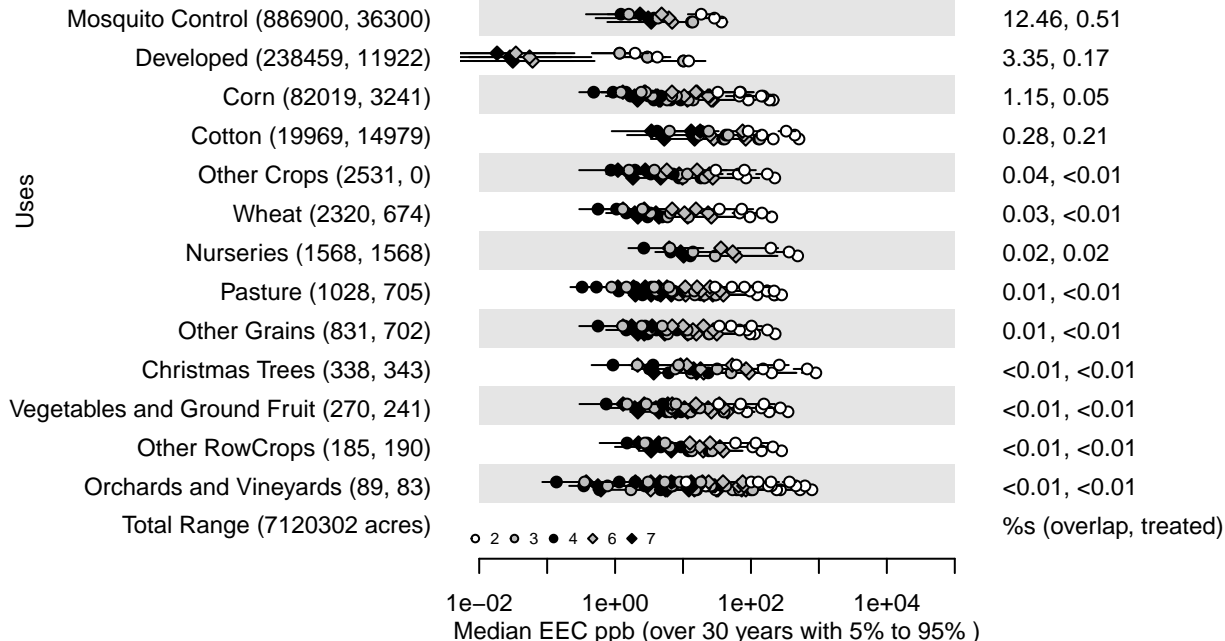


malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:5,6,8, bin:3,4
Rough pigtoe (338) Range

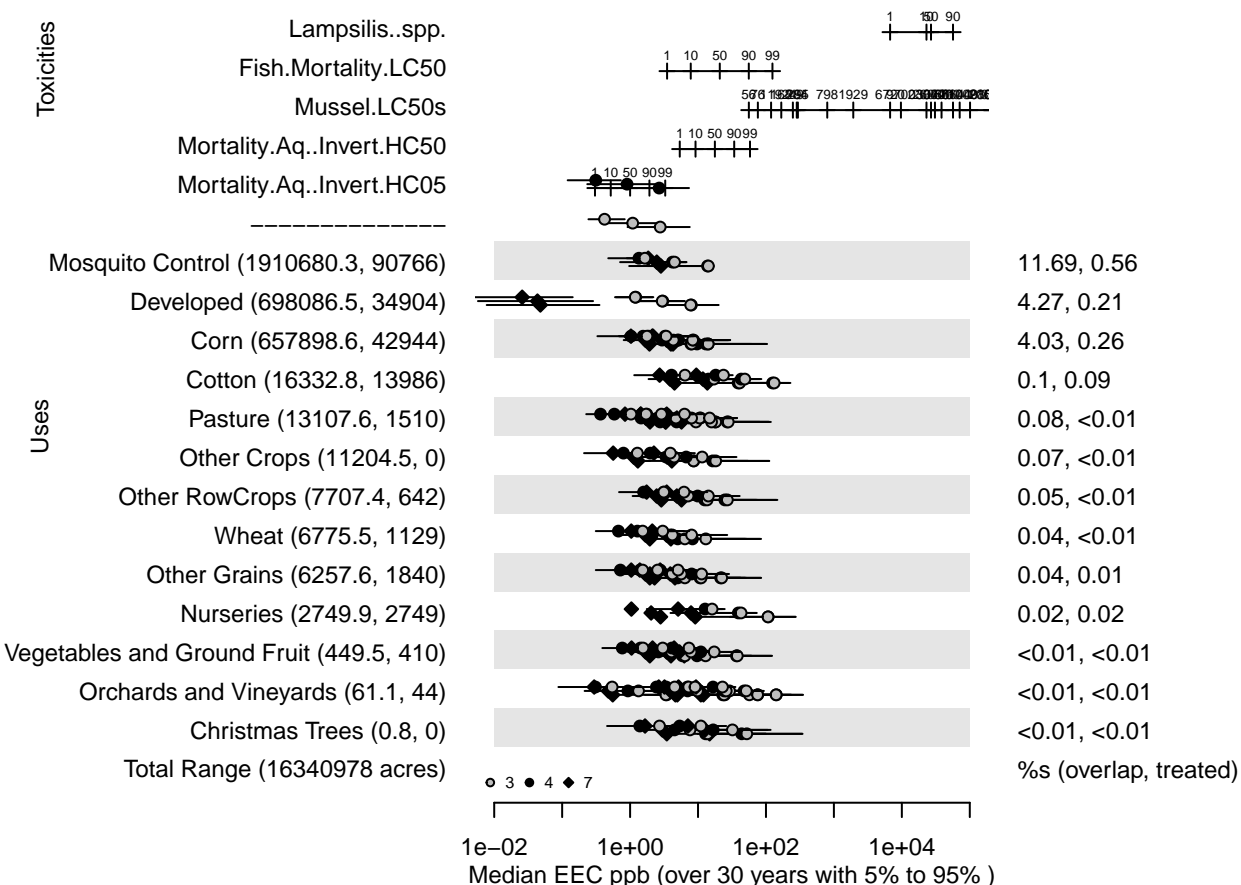
Toxicities



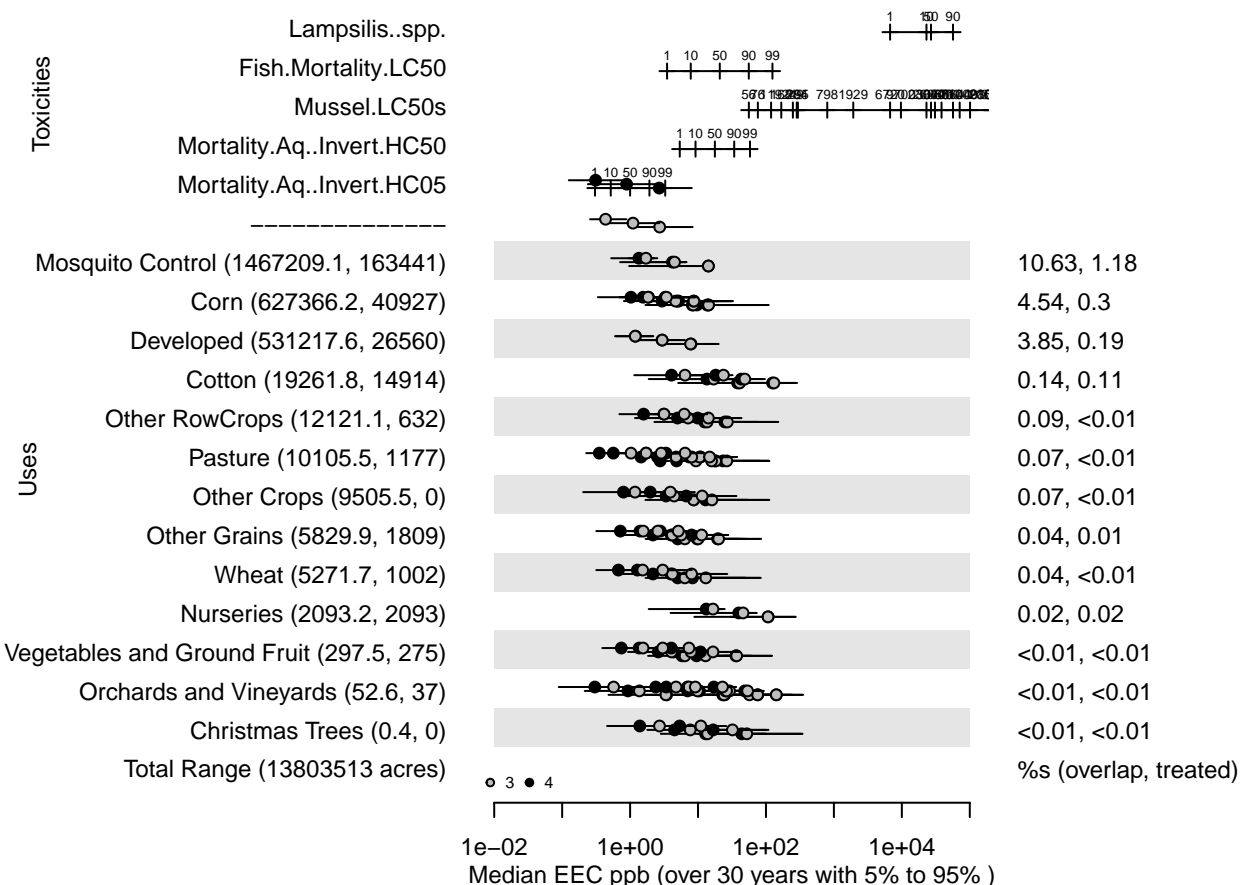
Uses



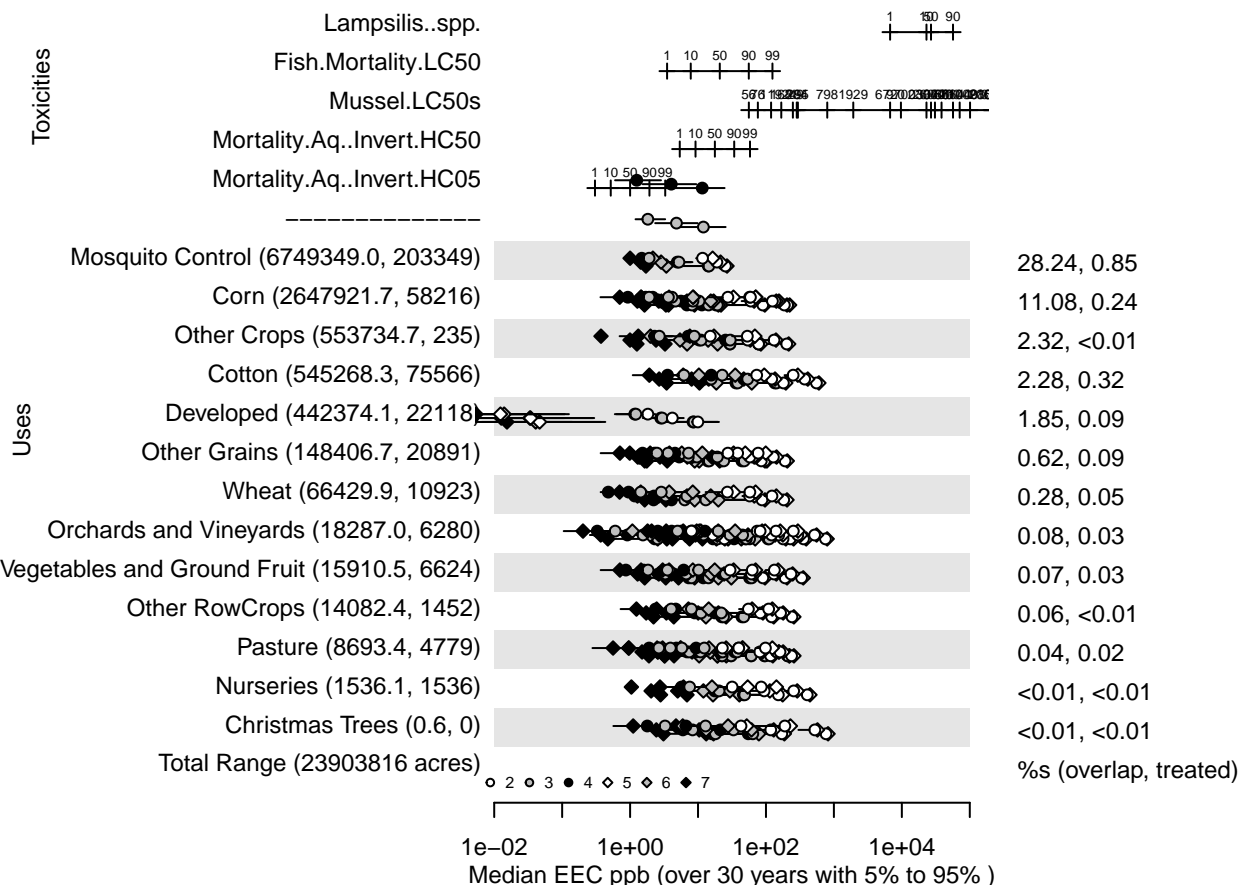
malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5,6, bin:2,3,4,6,7
 Shiny pigtoe (339) Range



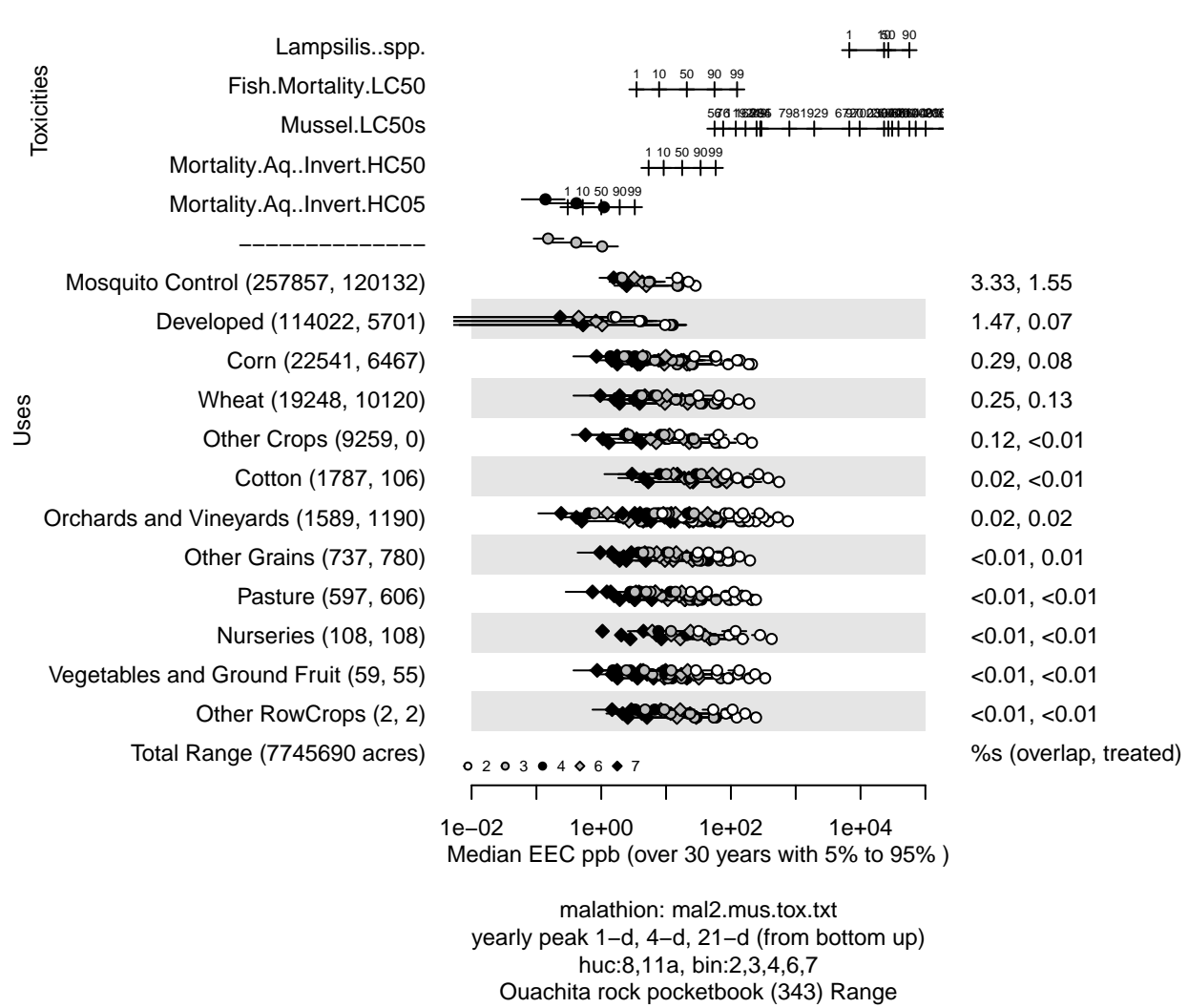
malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:5,6,7,8, bin:3,4,7
Orangefoot pimpleback (pearlymussel) (340) Range



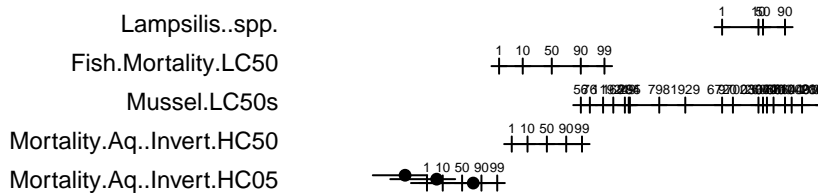
malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5,6,8, bin:3,4
 Ring pink (mussel) (341) Range



malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:8, bin:2,3,4,5,6,7
 Fat pocketbook (342) Range



Toxicities



Uses



○ 2 ○ 3 ● 4 ◆ 7

1e-02 1e+00 1e+02 1e+04

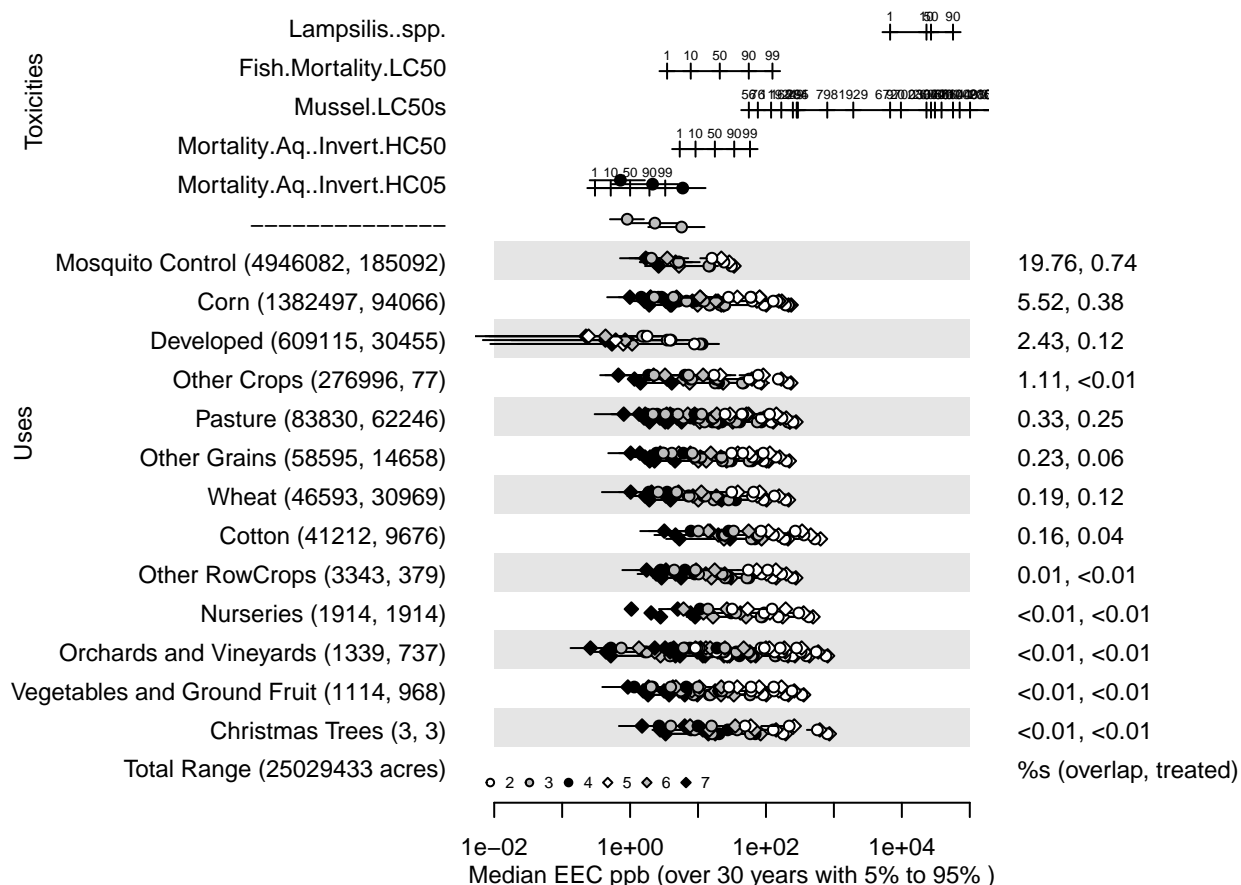
Median EEC ppb (over 30 years with 5% to 95%)

malathion: mal2.mus.tox.txt

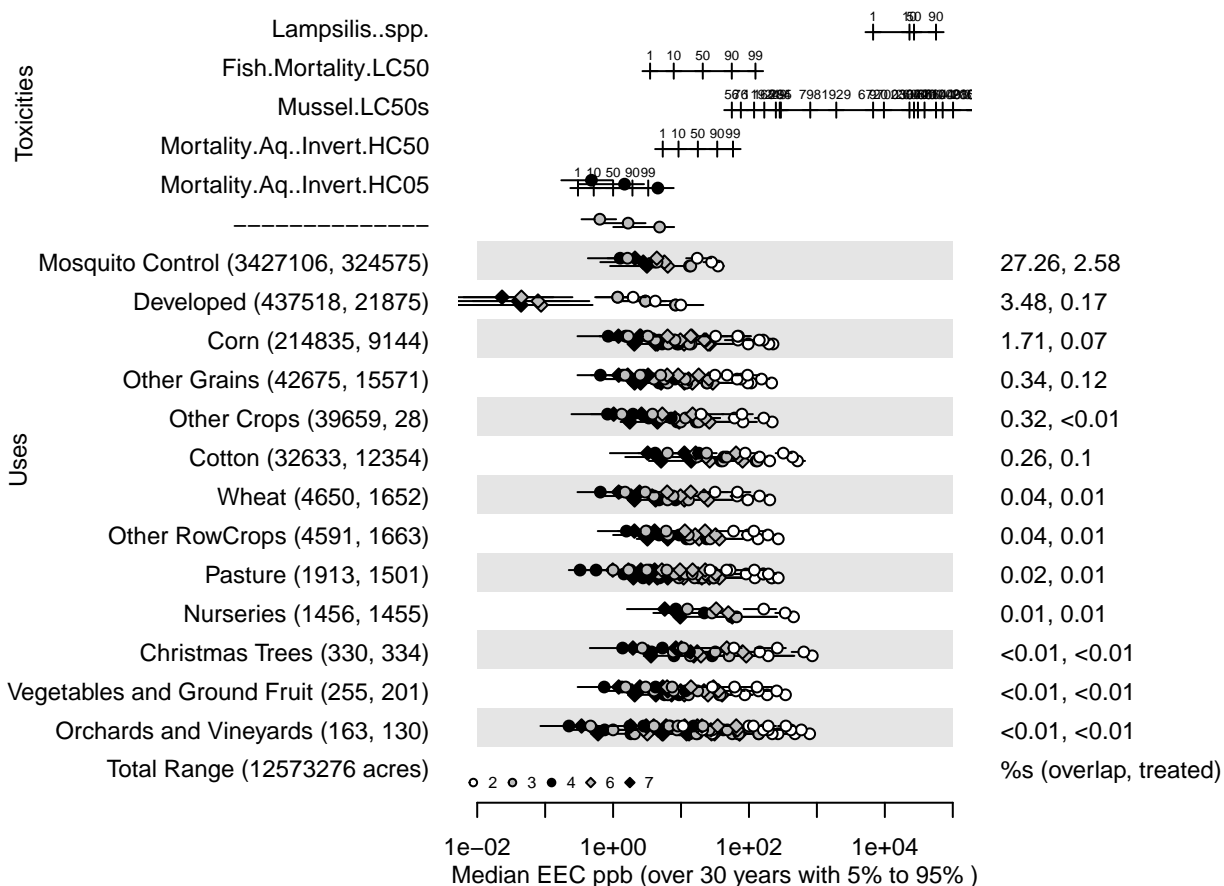
yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:5,6, bin:2,3,4,7

Rough rabbitsfoot (344) Range

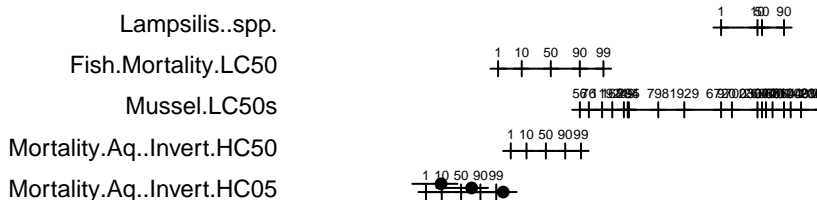


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5,7,8,10a,11a, bin:2,3,4,5,6,7
 Scaleshell mussel (345) Range

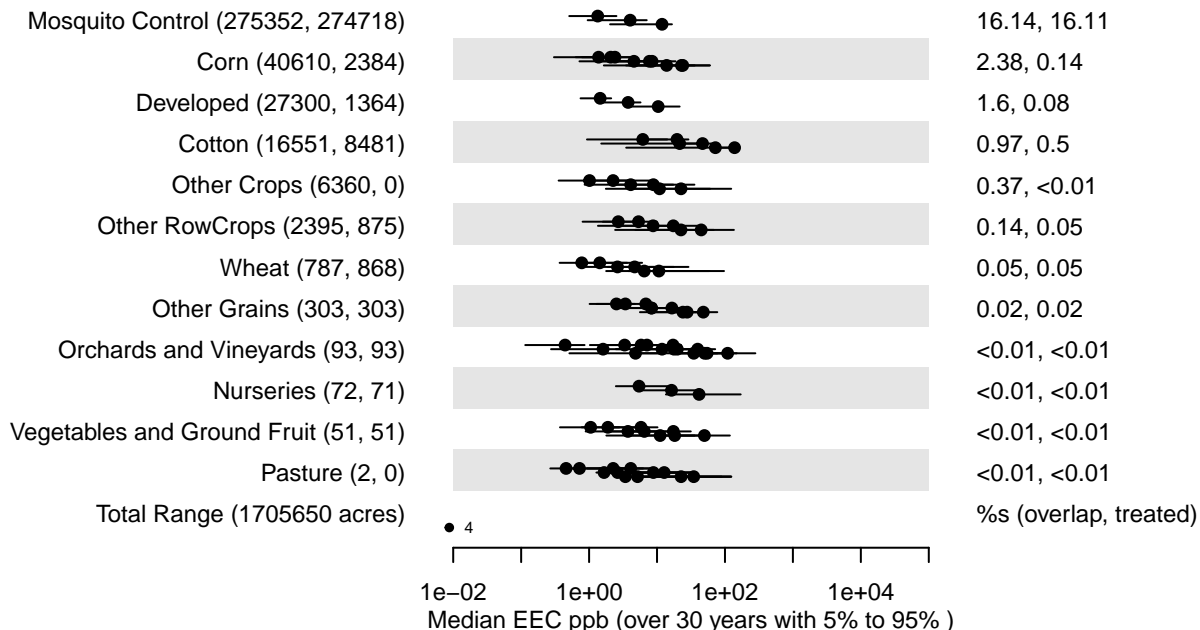


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5,6, bin:2,3,4,6,7
 Tan riffleshell (346) Range

Toxicities

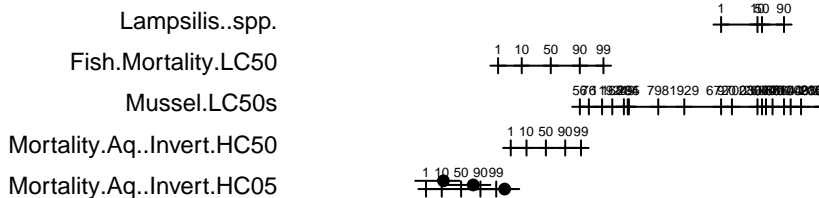


Uses

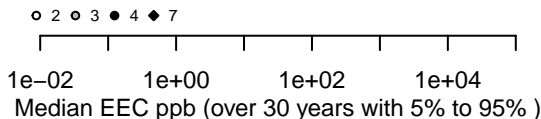
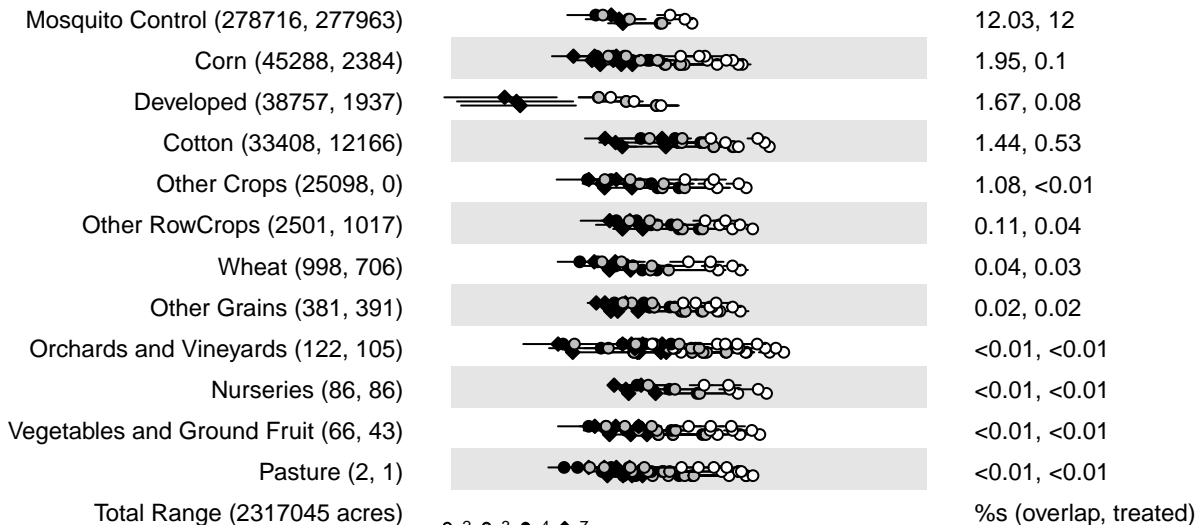


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:3, bin:4
 Black clubshell (347) Range

Toxicities

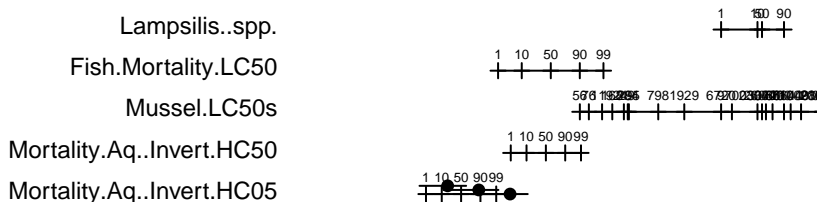


Uses

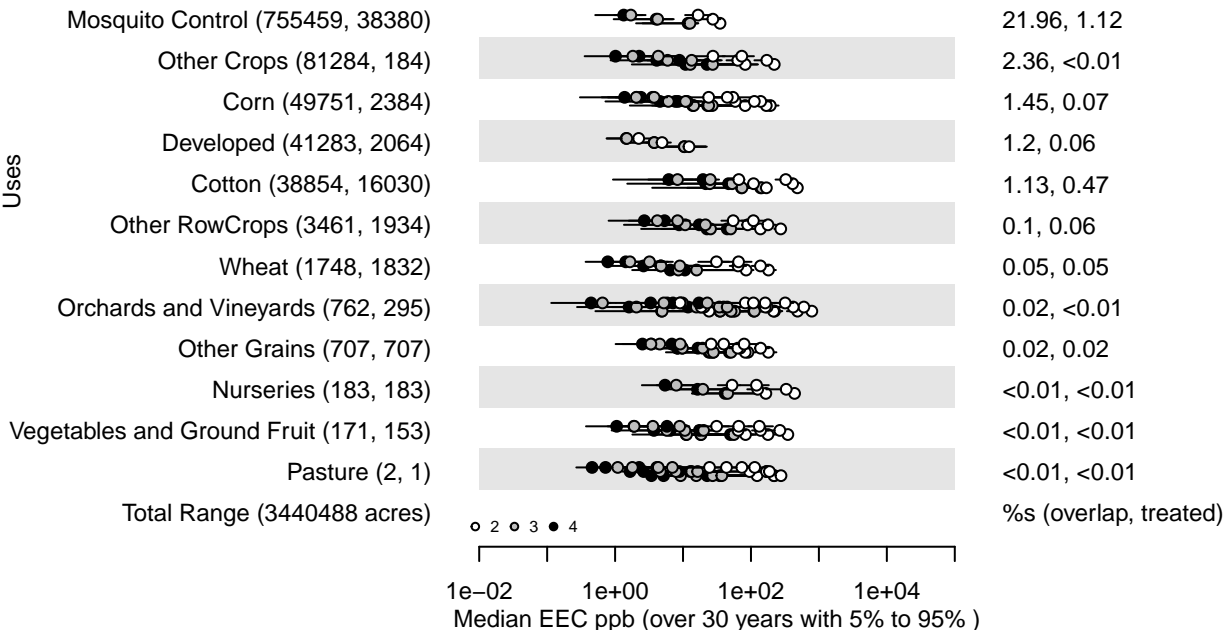


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:3, bin:2,3,4,7
 Southern combshell (348) Range

Toxicities

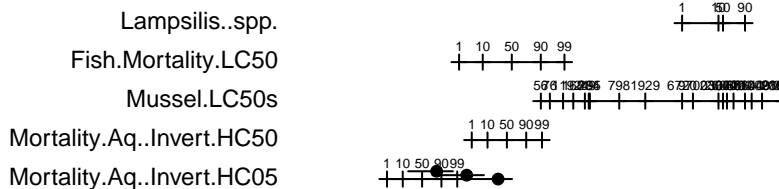


Uses

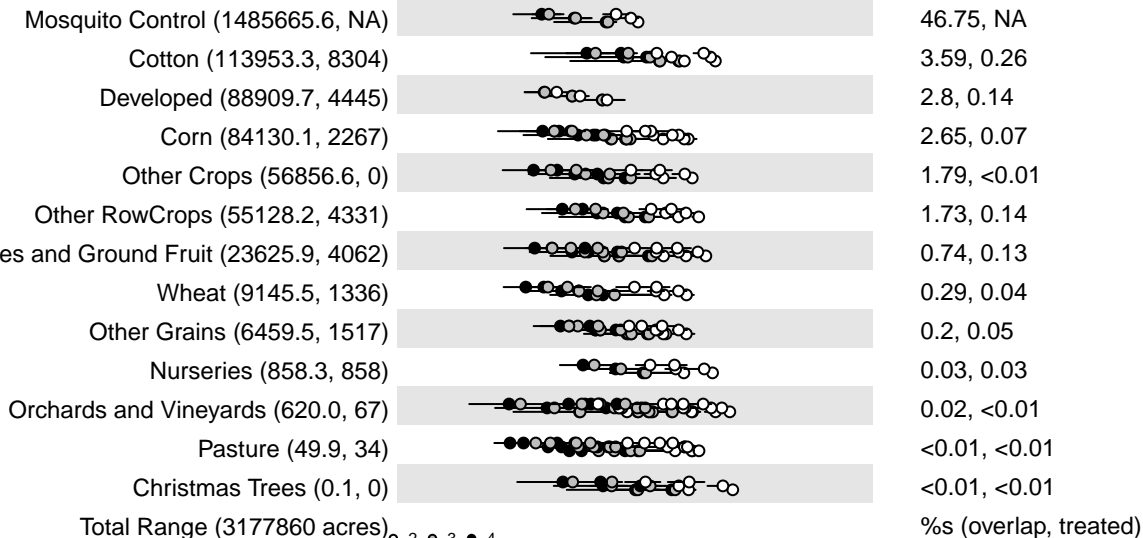


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:3, bin:2,3,4
 Heavy pigtoe (350) Range

Toxicities



Uses

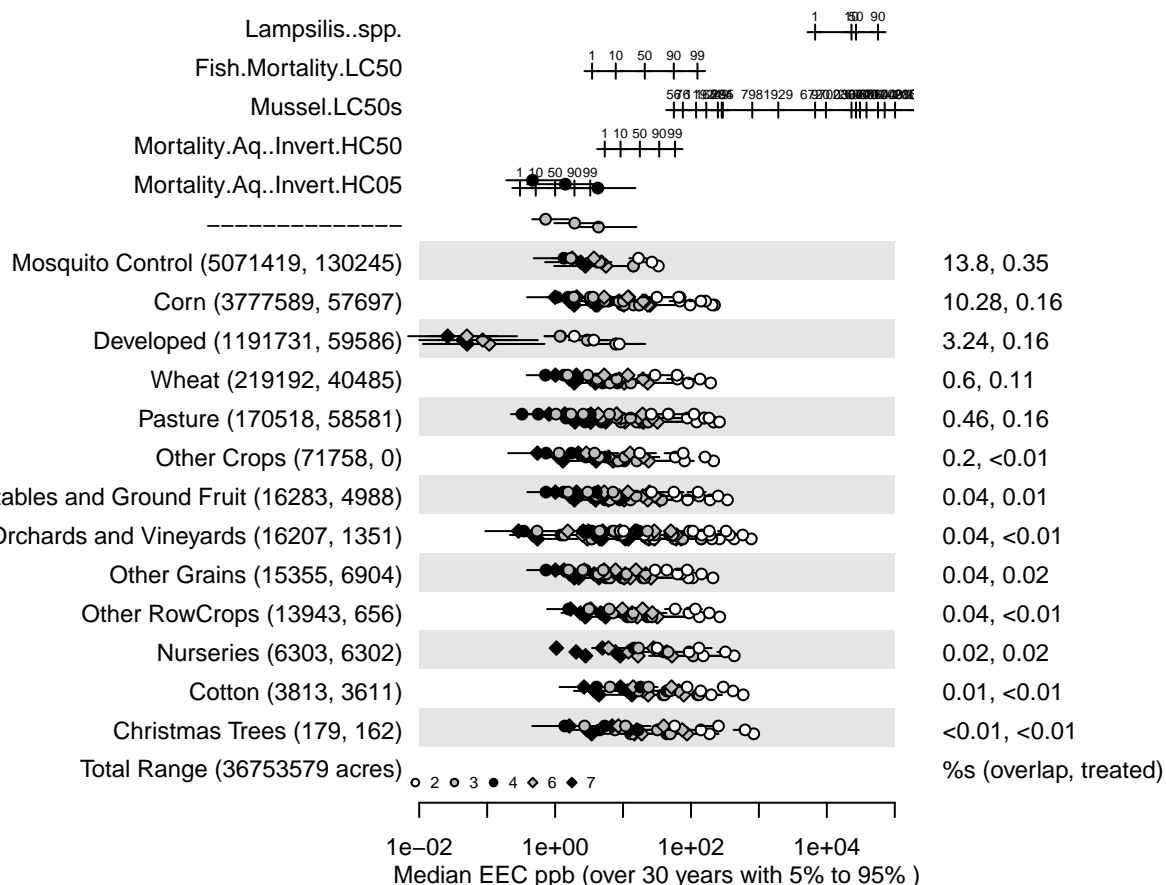


1e-02 1e+00 1e+02 1e+04
 Median EEC ppb (over 30 years with 5% to 95%)

malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:3, bin:2,3,4
 Tar River spiny mussel (351) Range

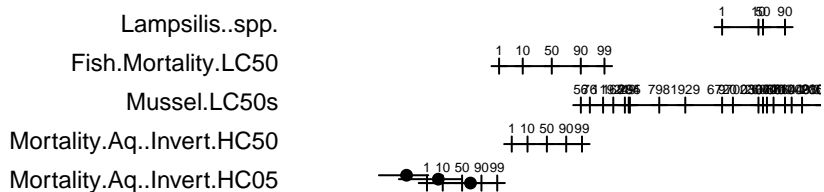
Toxicities

Uses

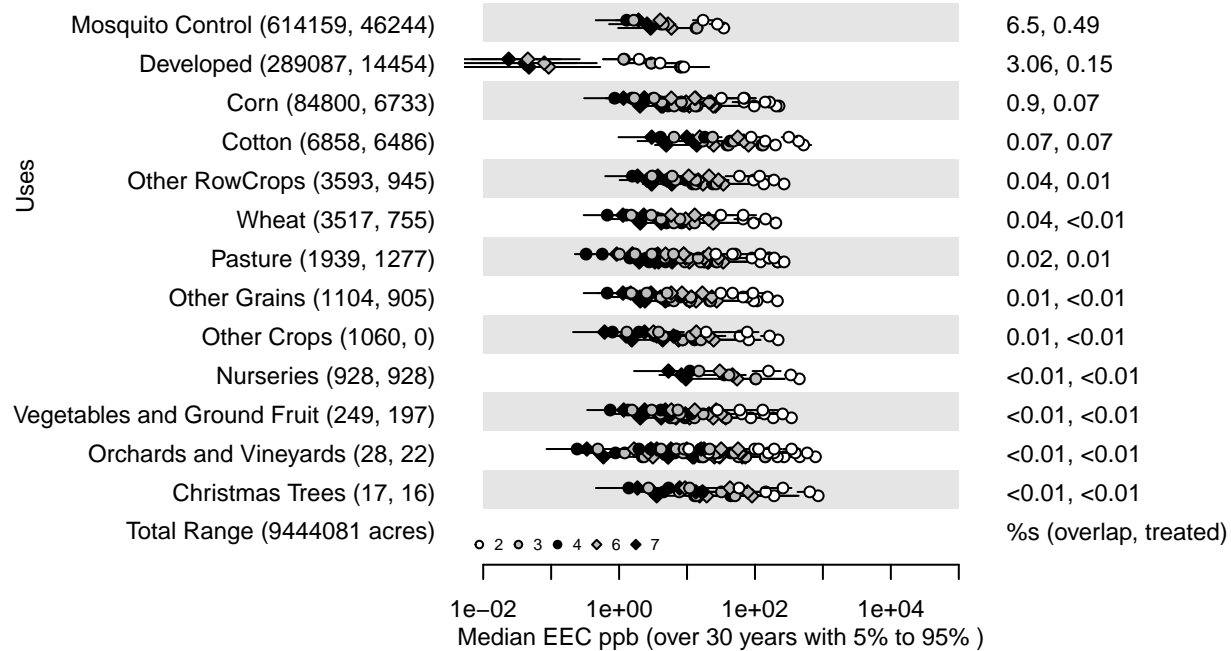


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:4,5,6,7,8, bin:2,3,4,6,7
 Clubshell (352) Range

Toxicities



Uses



malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5,6, bin:2,3,4,6,7
 Cumberlandian combshell (353) Range

Toxicities

Lampsisl..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05

Mosquito Control (64563.6, NA)

Developed (10765.6, 539)

Corn (3079.5, 611)

Orchards and Vineyards (1826.4, 862)

Other Crops (545.6, 0)

Vegetables and Ground Fruit (295.3, 250)

Wheat (200.8, 165)

Christmas Trees (88.4, 92)

Nurseries (80.3, 80)

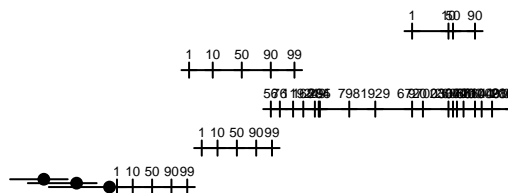
Pasture (24.6, 23)

Other Grains (24.6, 30)

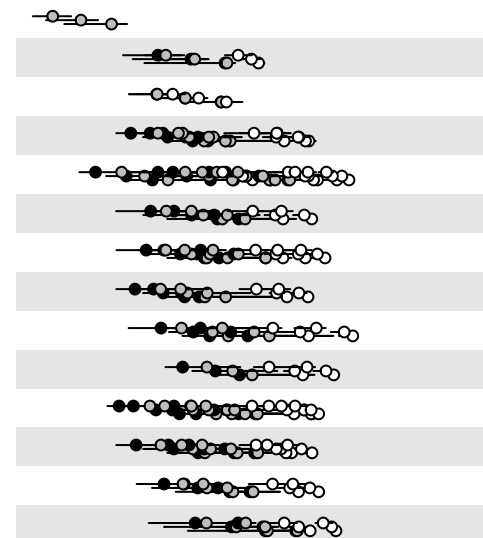
Other RowCrops (13.0, 7)

Cotton (0.6, 0)

Total Range (4771467 acres)



Uses



○ 2 ○ 3 ● 4

1e-02 1e+00 1e+02 1e+04
Median EEC ppb (over 30 years with 5% to 95%)

1.35, NA
0.23, 0.01
0.06, 0.01
0.04, 0.02
0.01, <0.01
<0.01, <0.01
<0.01, <0.01
<0.01, <0.01
<0.01, <0.01
<0.01, <0.01
<0.01, <0.01
<0.01, <0.01
<0.01, <0.01
<0.01, <0.01
%s (overlap, treated)

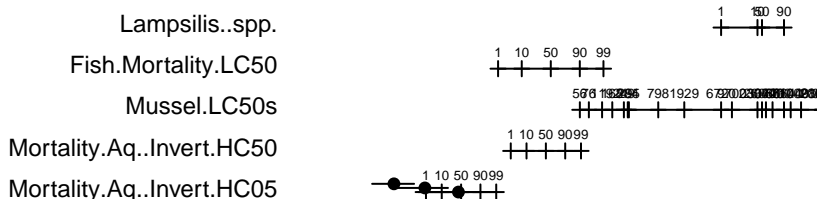
malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

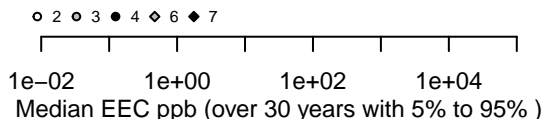
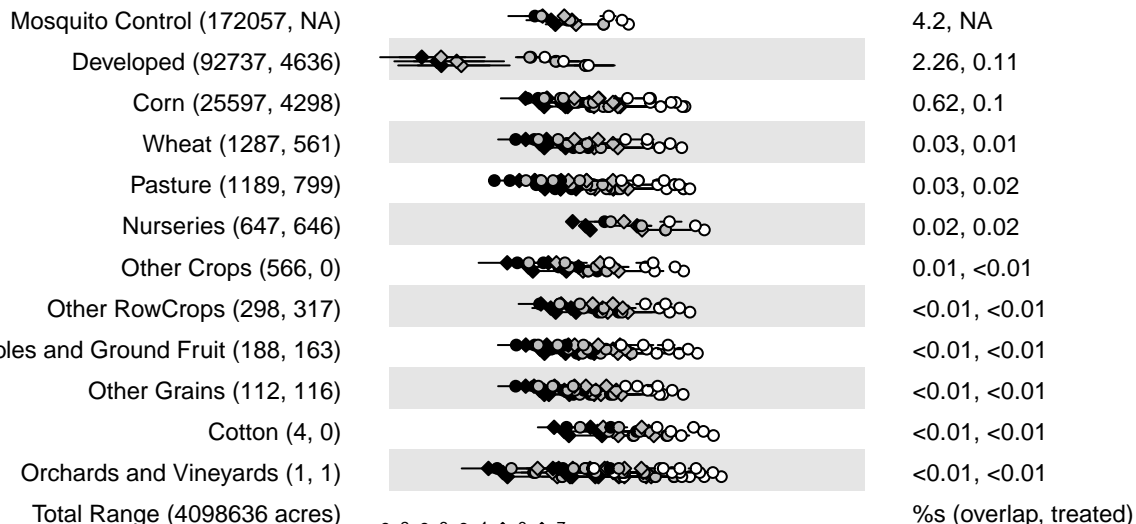
huc:3,6, bin:2,3,4

Appalachian elktoe (354) Range

Toxicities

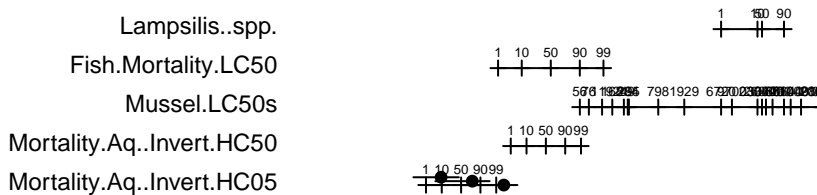


Uses

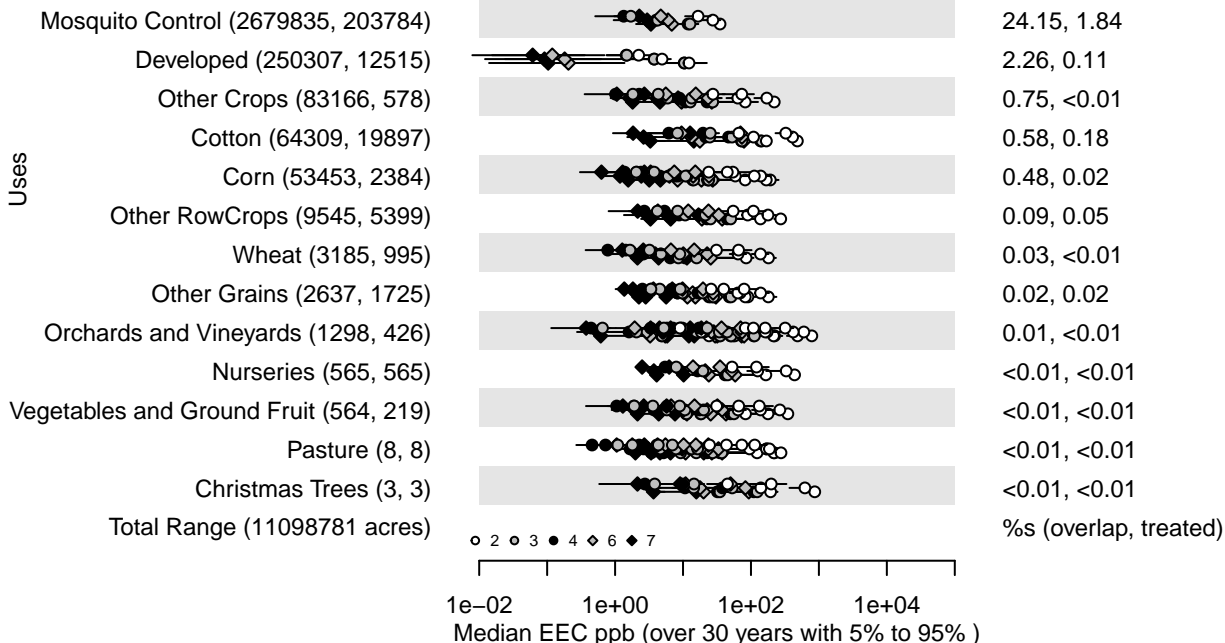


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5, bin:2,3,4,6,7
 Cumberland elktoe (355) Range

Toxicities



Uses



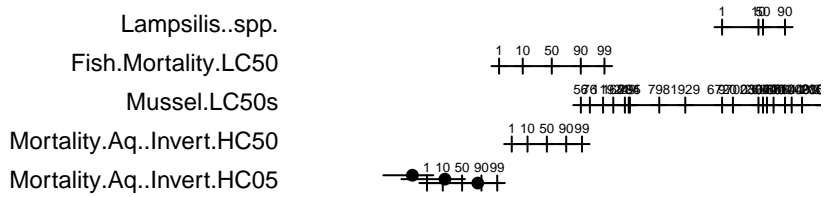
malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

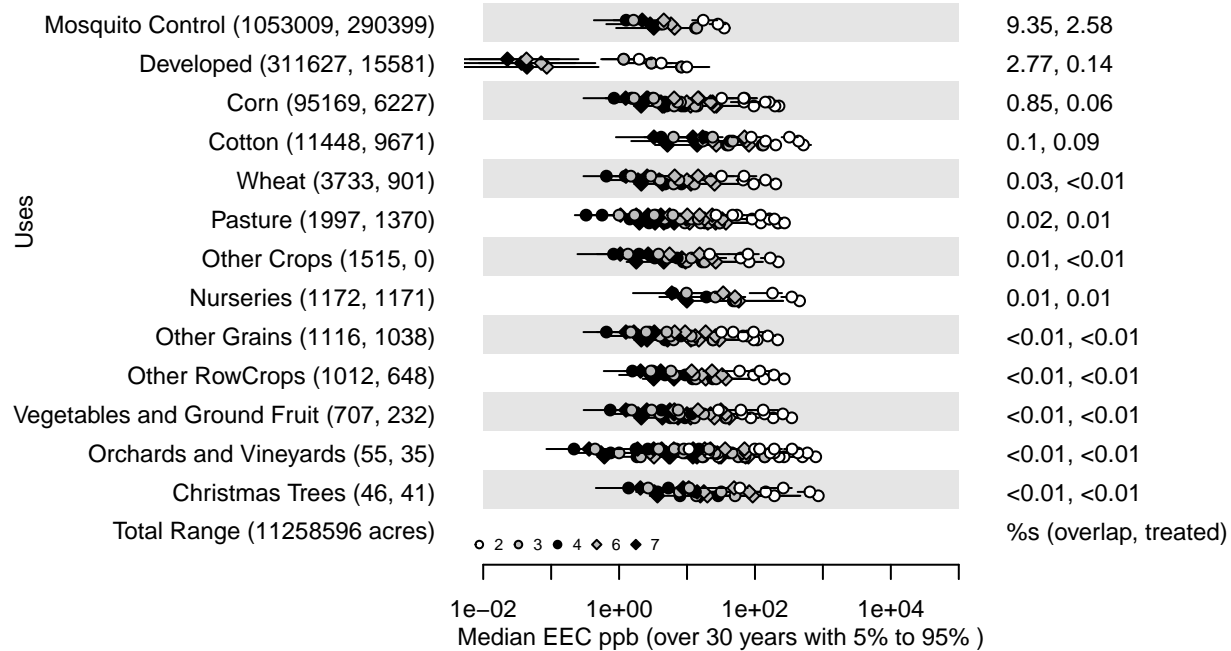
huc:3, bin:2,3,4,6,7

Orangenacre mucket (357) Range

Toxicities

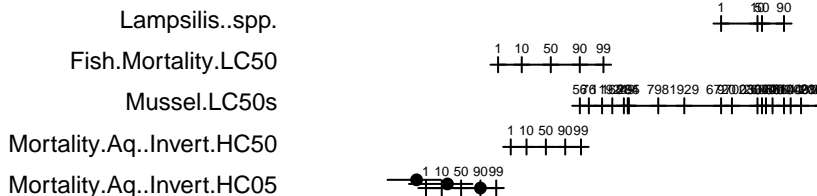


Uses

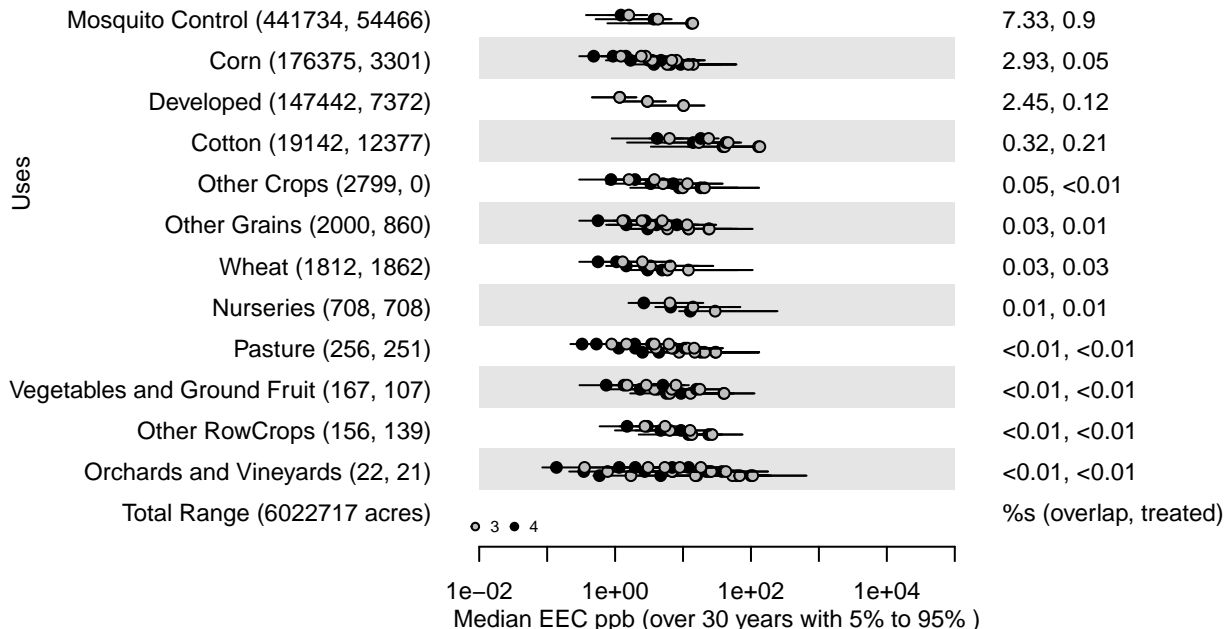


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5,6, bin:2,3,4,6,7
 Oyster mussel (358) Range

Toxicities

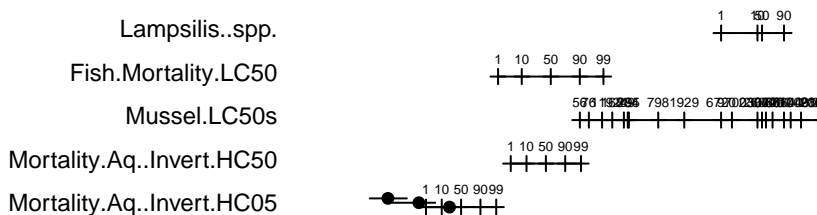


Uses

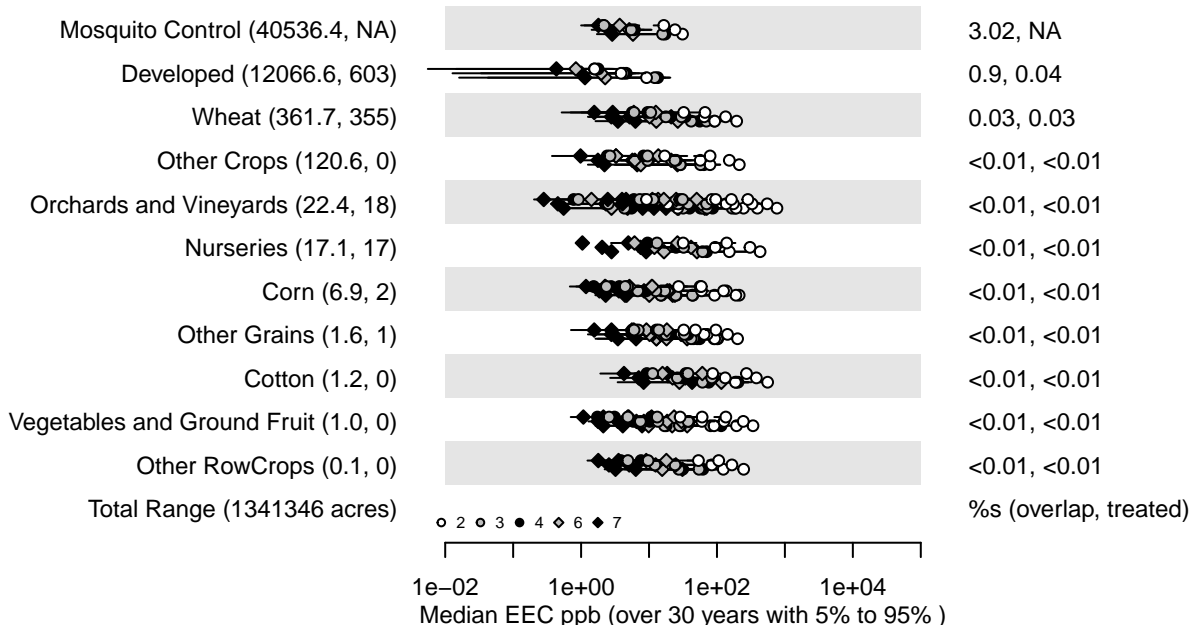


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5,6, bin:3,4
 Cracking pearlymussel (359) Range

Toxicities

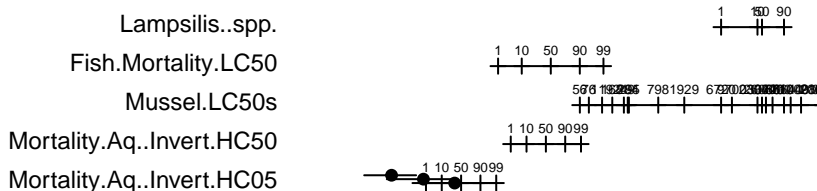


Uses

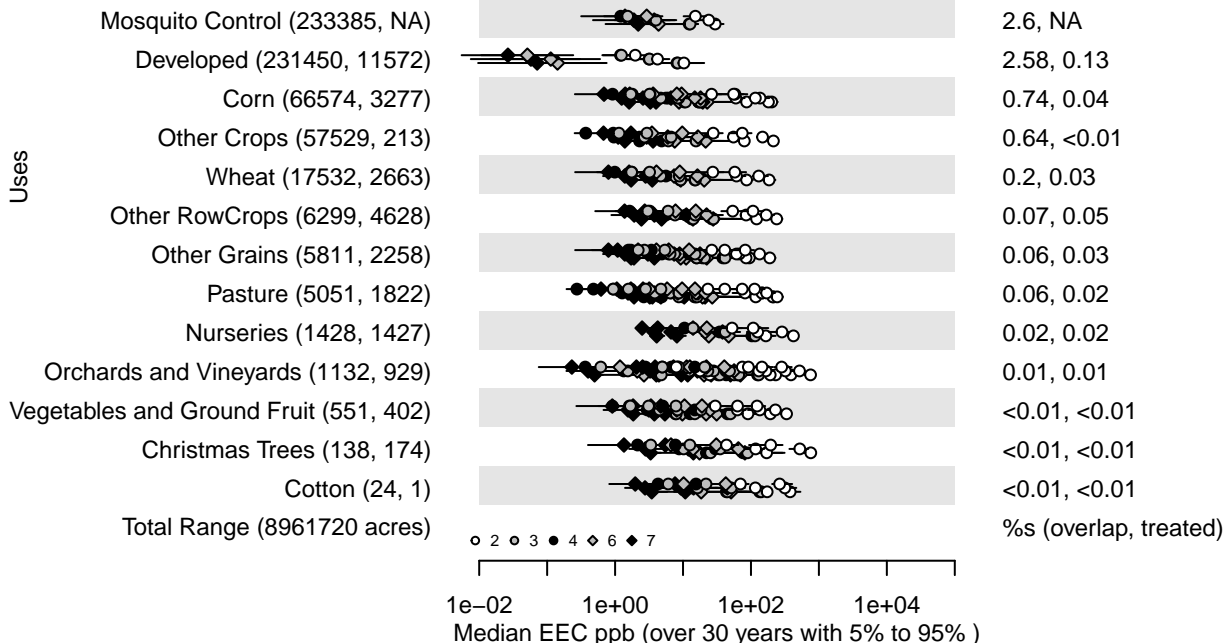


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:8,11a, bin:2,3,4,6,7
 Speckled pocketbook (360) Range

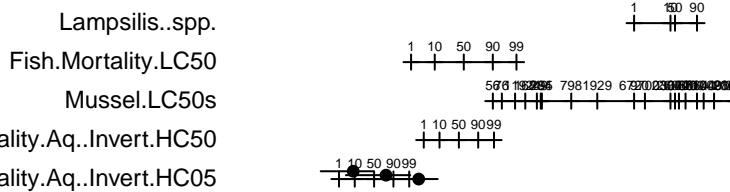
Toxicities



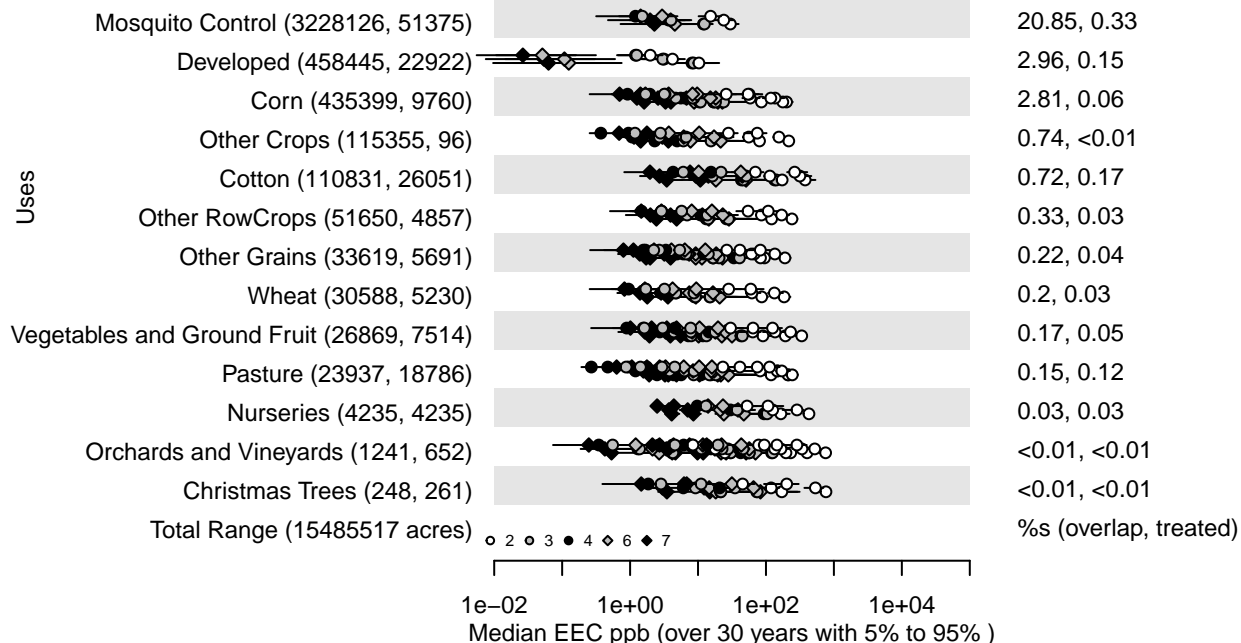
Uses



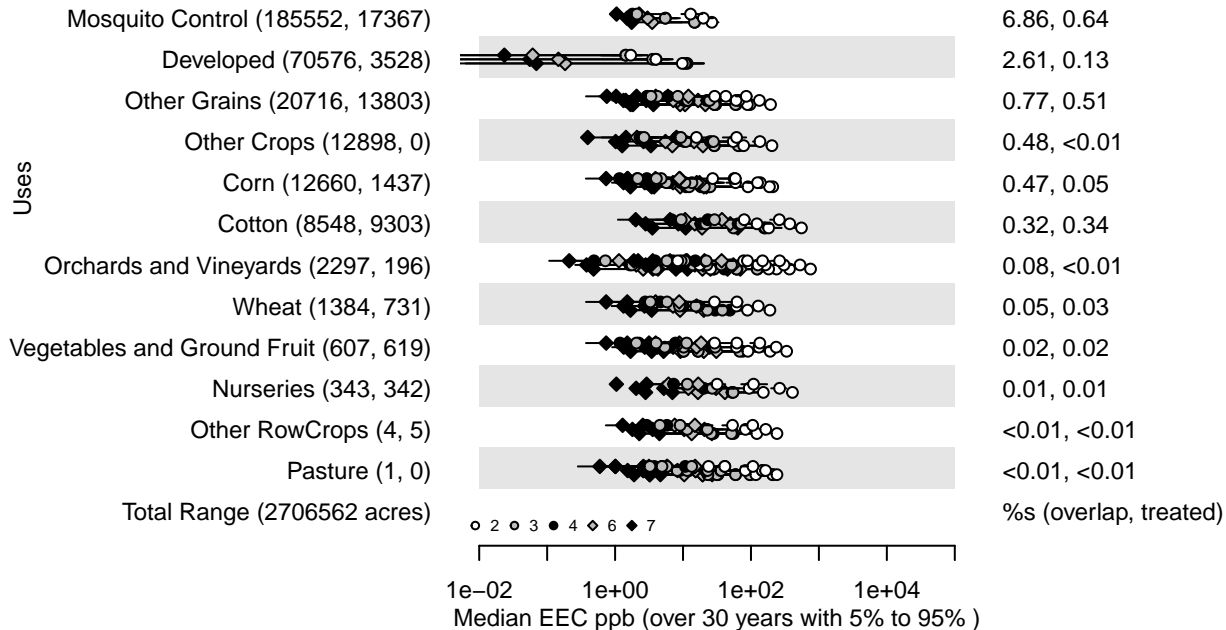
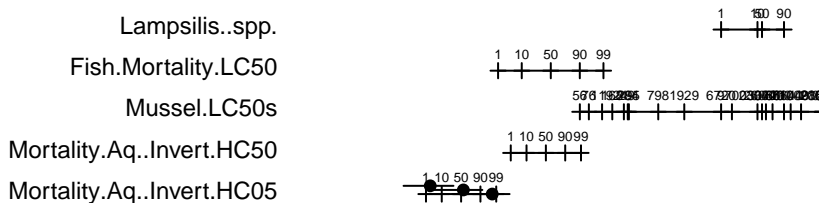
Toxicities



Uses



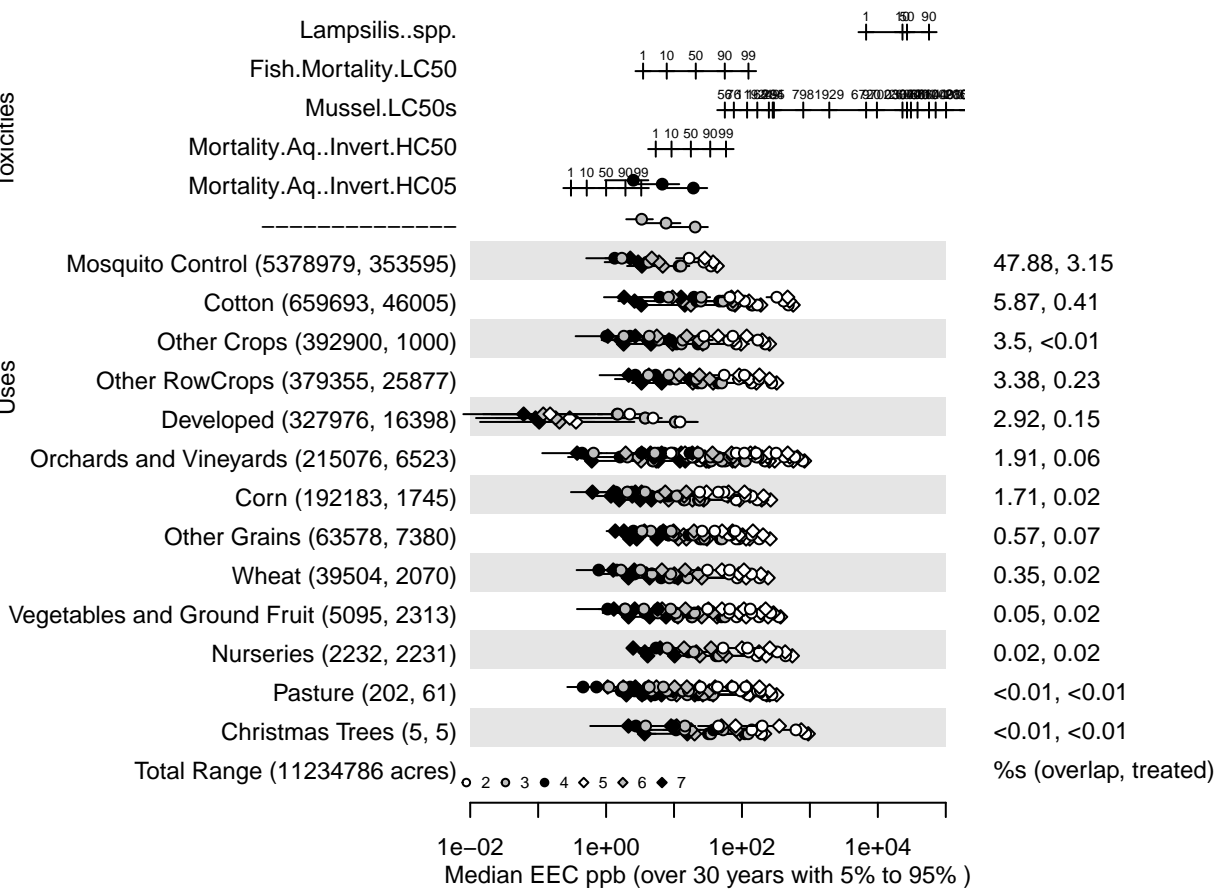
malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:1,2,3, bin:2,3,4,6,7
 Dwarf wedgemussel (363) Range



malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:8,11a, bin:2,3,4,6,7
Louisiana pearlshell (364) Range

Toxicities

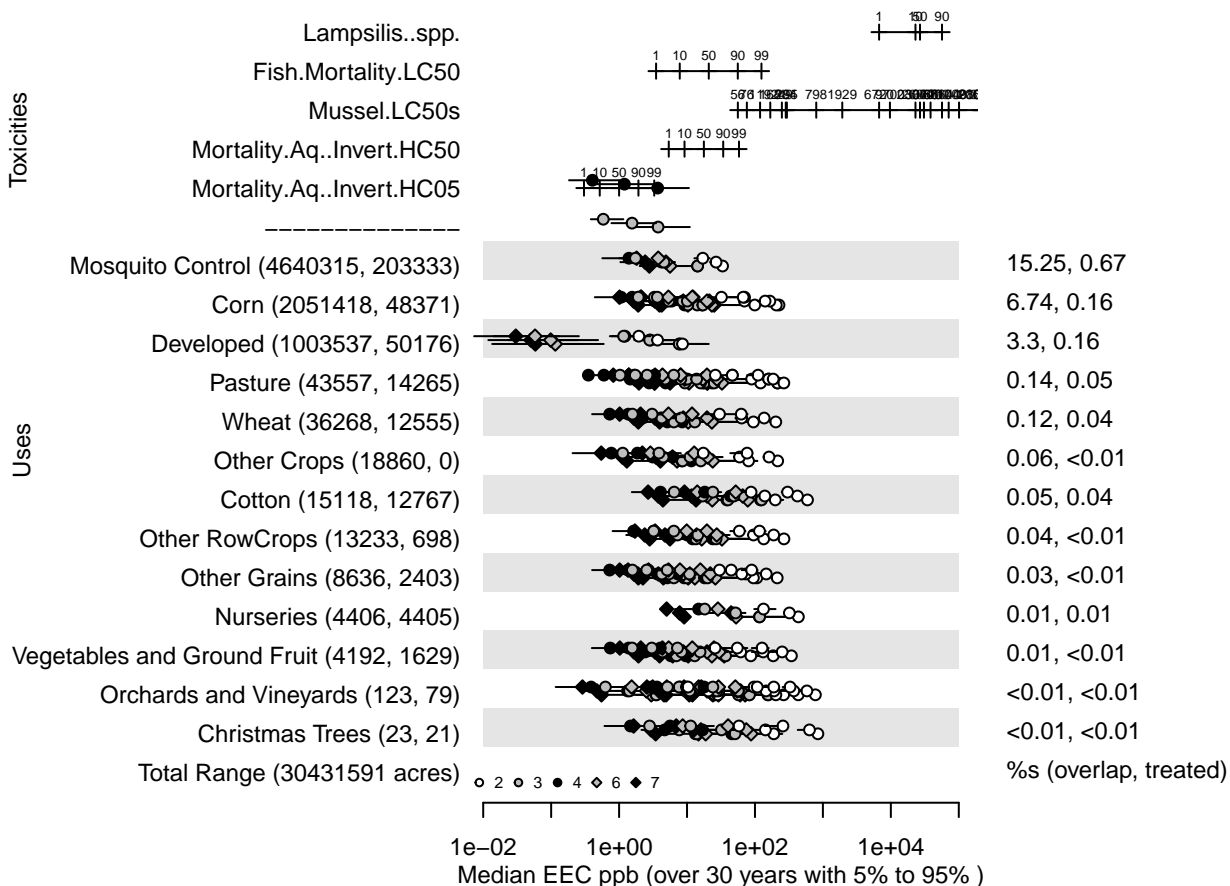
Uses



malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:3, bin:2,3,4,5,6,7
 Purple bankclimber (mussel) (366) Range

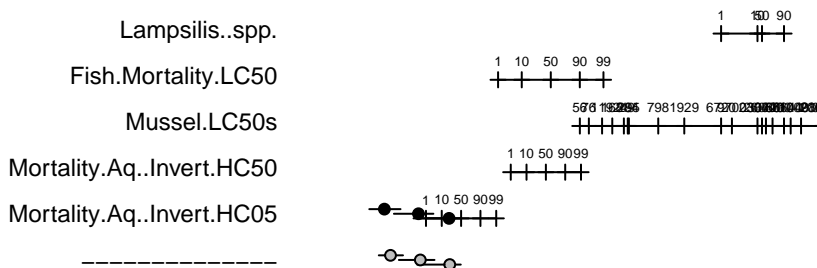
Toxicities

Uses

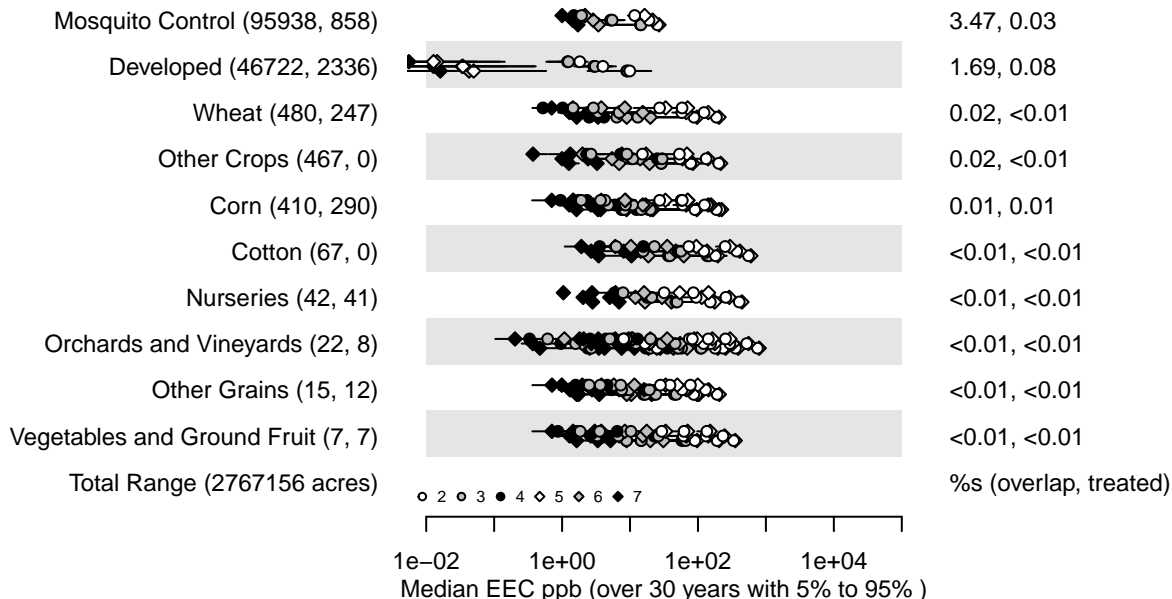


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5, bin:2,3,4,6,7
 Fanshell (368) Range

Toxicities

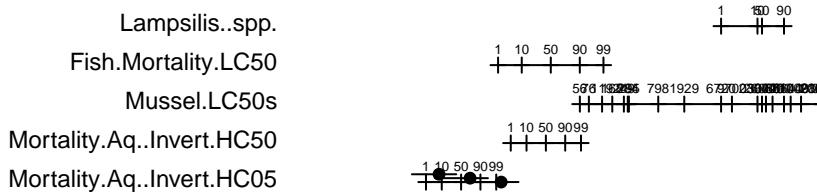


Uses

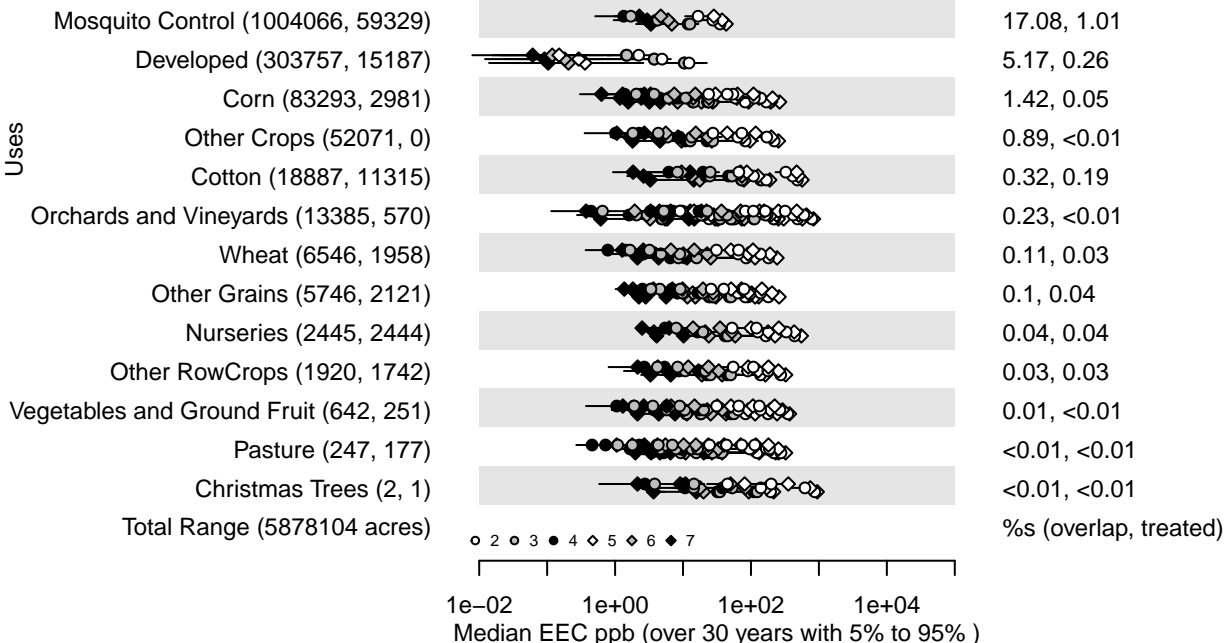


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:8,11a, bin:2,3,4,5,6,7
 Arkansas fatmucket (369) Range

Toxicities



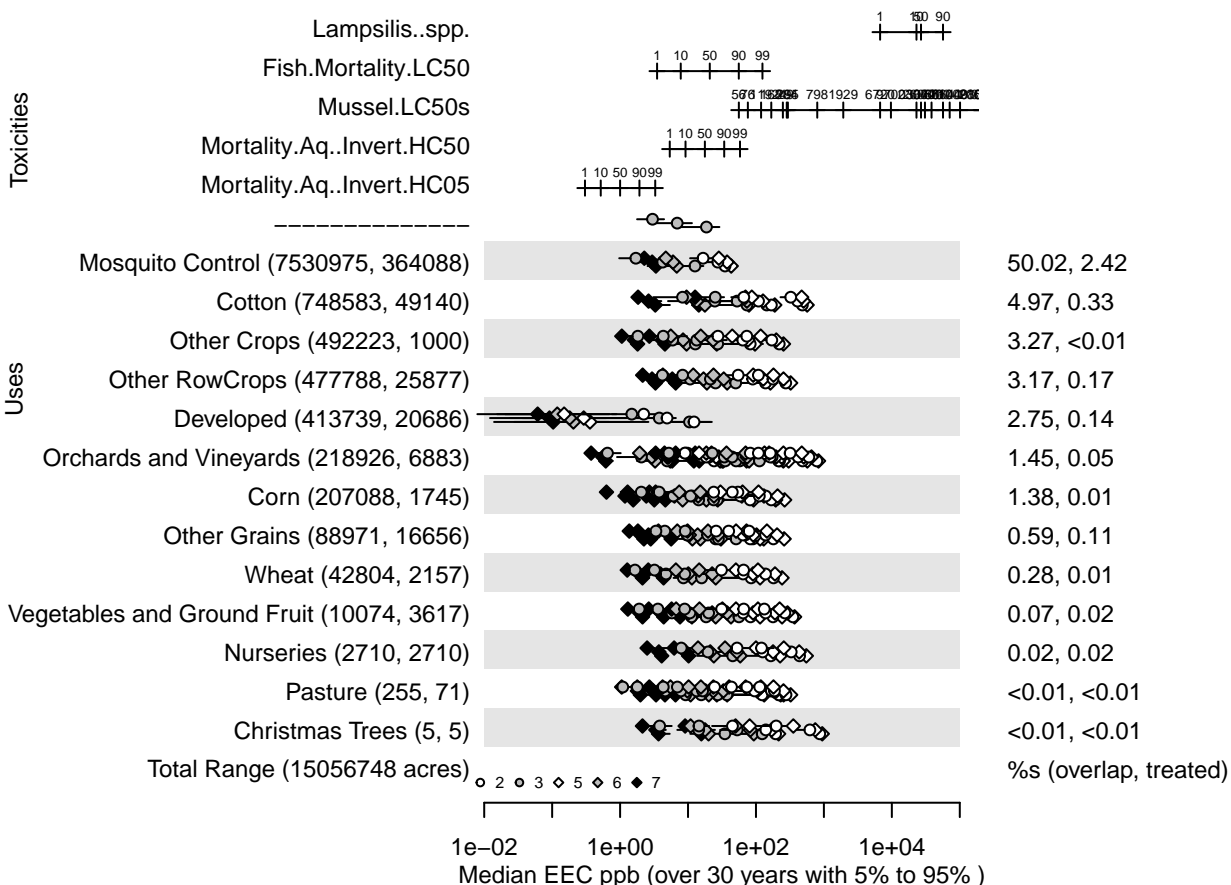
Uses



malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:3, bin:2,3,4,5,6,7
 Carolina heelsplitter (370) Range

Toxicities

Uses



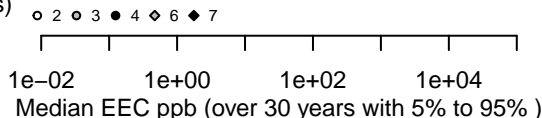
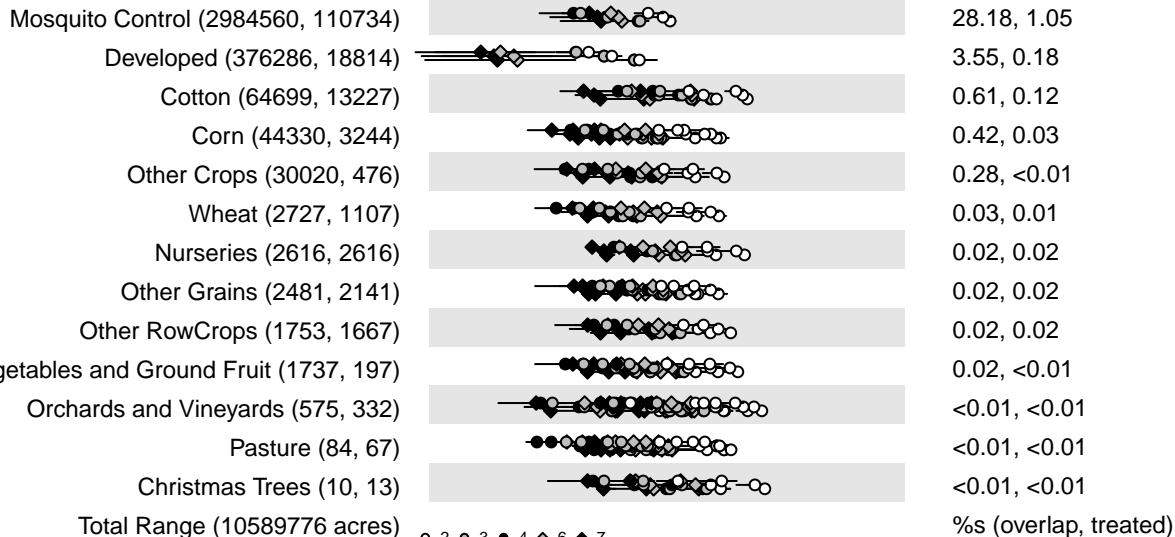
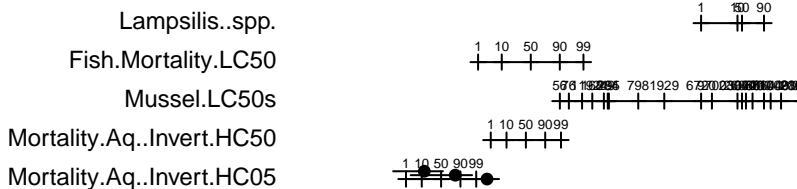
malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:3, bin:2,3,5,6,7

Oval pigtoe (371) Range

Toxicities



malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

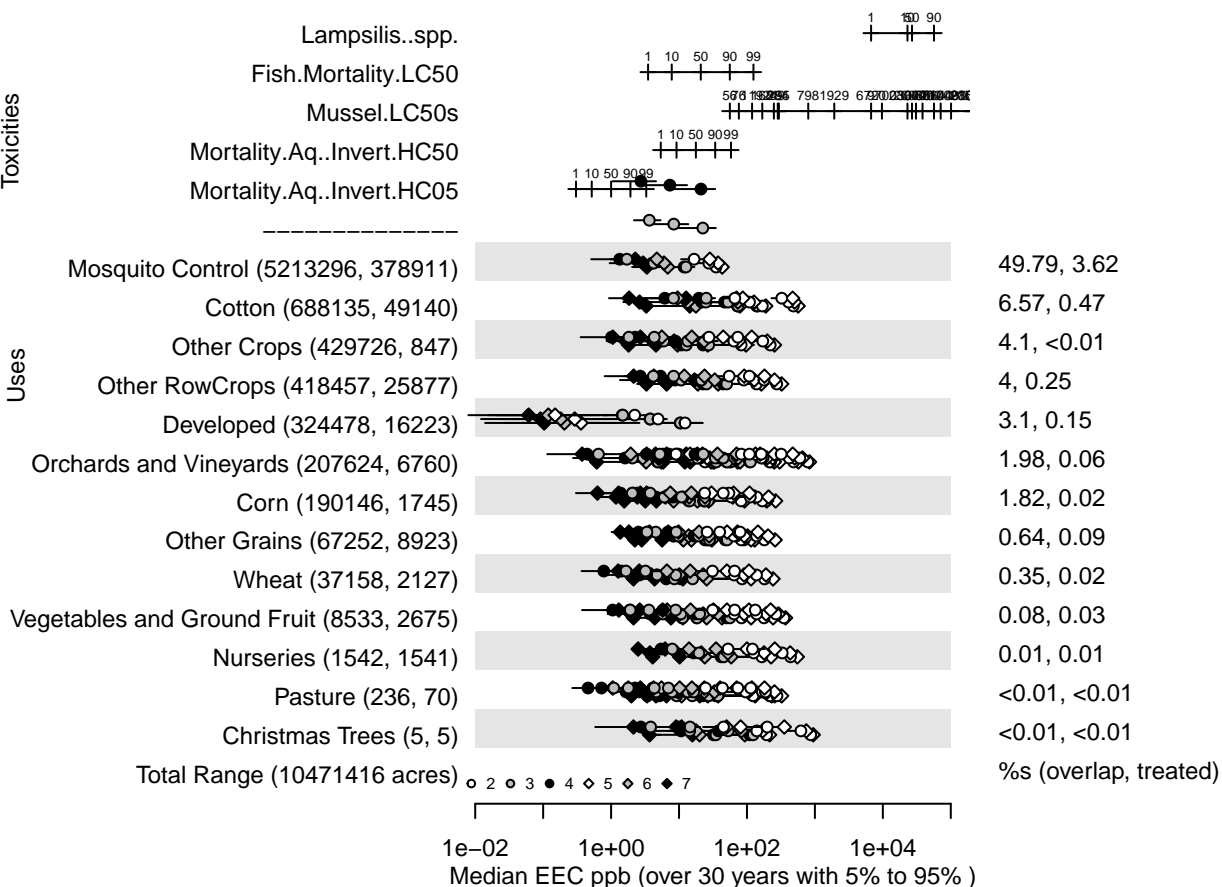
huc:3,6, bin:2,3,4,6,7

Finelined pocketbook (372) Range

Uses

Toxicities

Uses



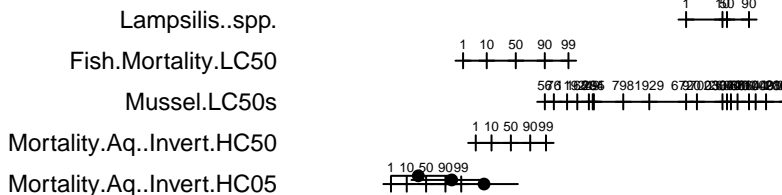
malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

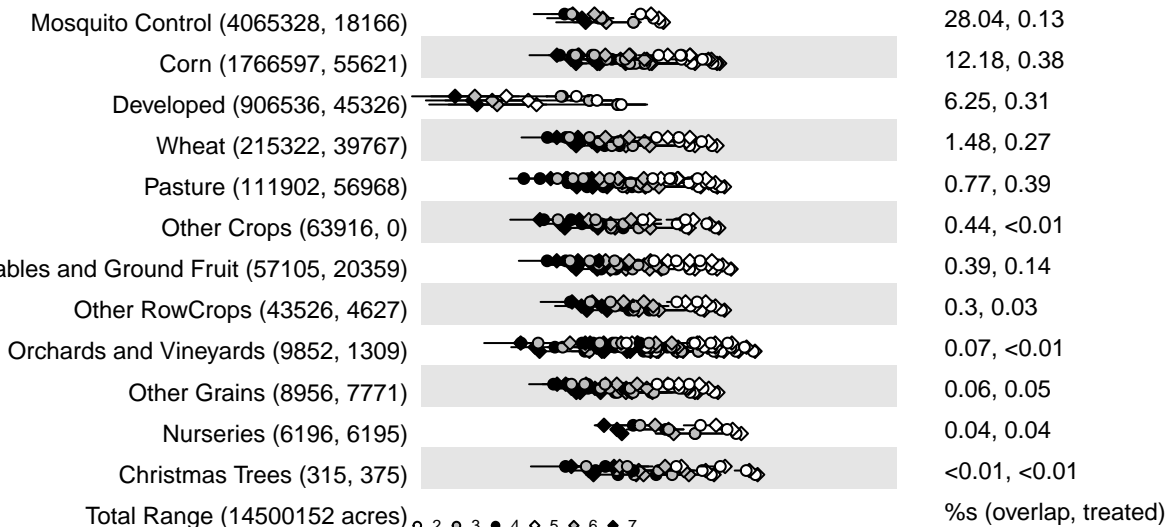
huc:3, bin:2,3,4,5,6,7

Shinyrayed pocketbook (373) Range

Toxicities



Uses



Median EEC ppb (over 30 years with 5% to 95%)

malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:4,5,7, bin:2,3,4,5,6,7
 Northern riffleshell (374) Range

Toxicities

Lampsilis..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05

Mosquito Control (3669221.8, 415100)

Cotton (459819.3, 45476)

Other RowCrops (253244.2, 25877)

Other Crops (238353.4, 0)

Orchards and Vineyards (146675.3, 6514)

Corn (108273.8, 1558)

Developed (77302.4, 3865)

Other Grains (35920.0, 7868)

Wheat (21741.4, 2008)

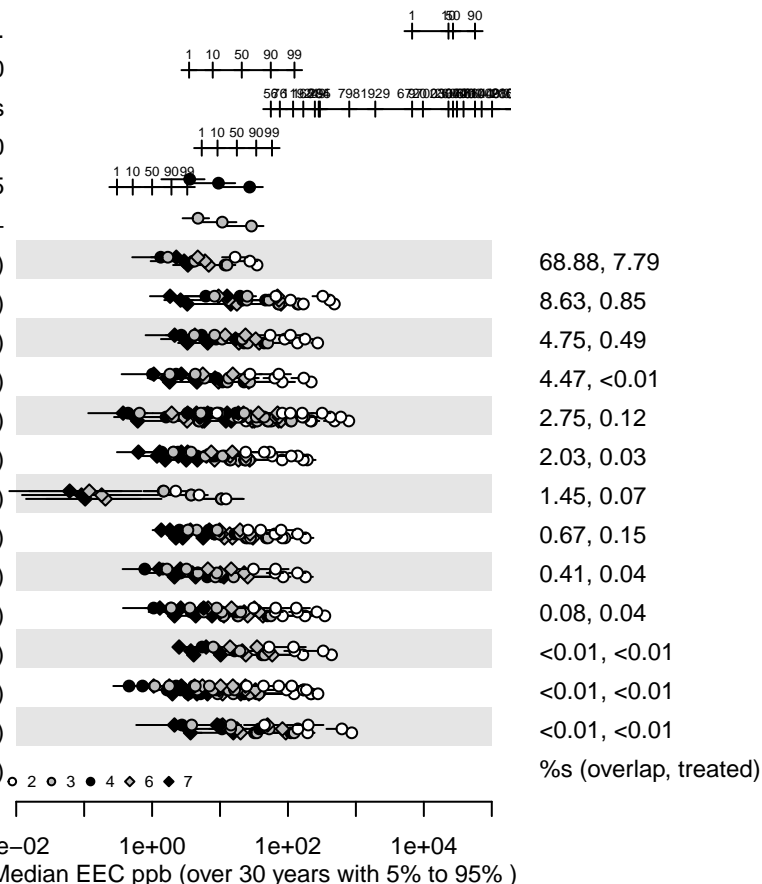
Vegetables and Ground Fruit (4275.5, 2241)

Nurseries (366.8, 366)

Pasture (80.3, 36)

Christmas Trees (0.2, 0)

Total Range (5326817 acres)



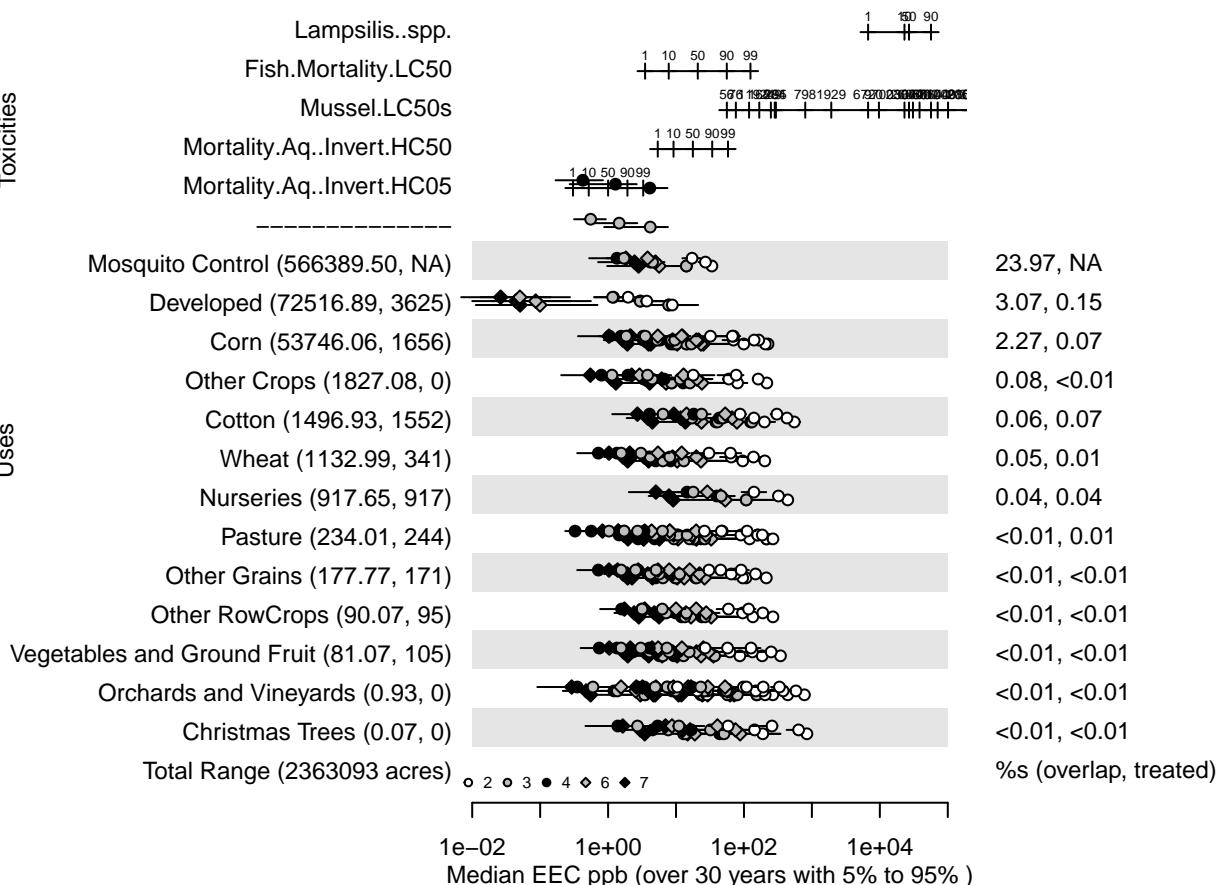
malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:3, bin:2,3,4,6,7

Fat threeridge (mussel) (375) Range

Uses



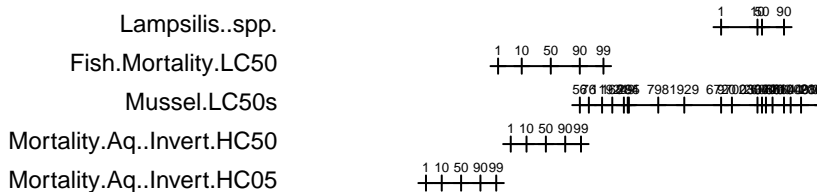
malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

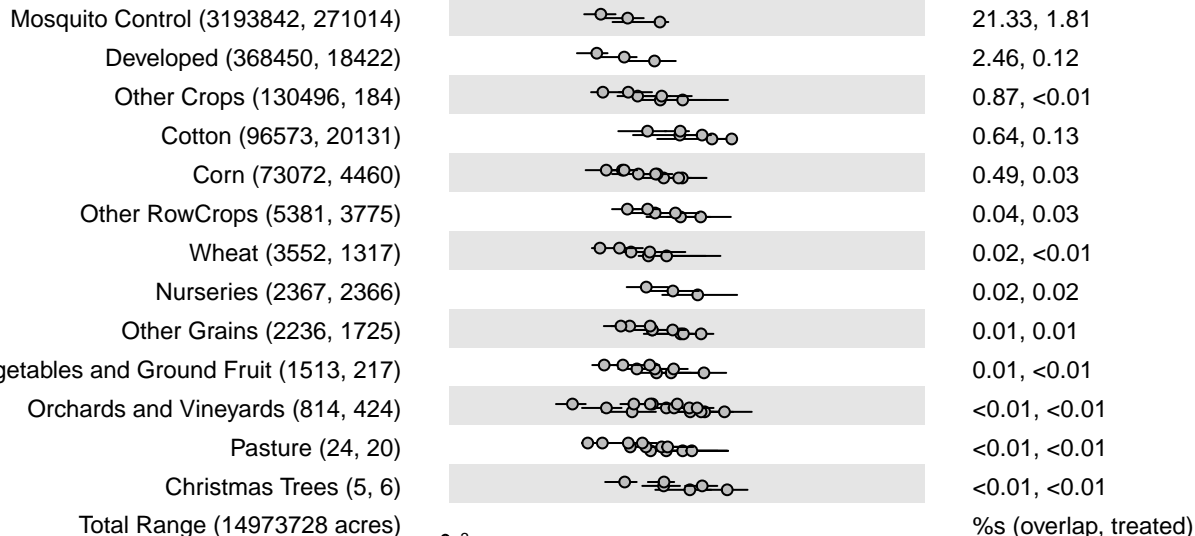
huc:5,6, bin:2,3,4,6,7

Cumberland pigtoe (376) Range

Toxicities



Uses



○ 3

1e-02 1e+00 1e+02 1e+04
Median EEC ppb (over 30 years with 5% to 95%)

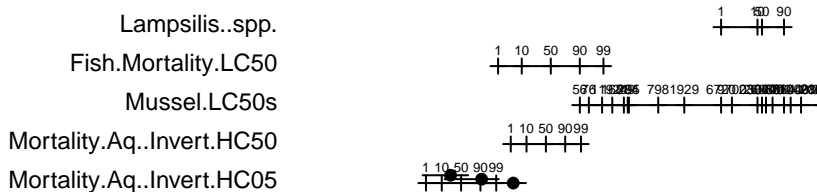
malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

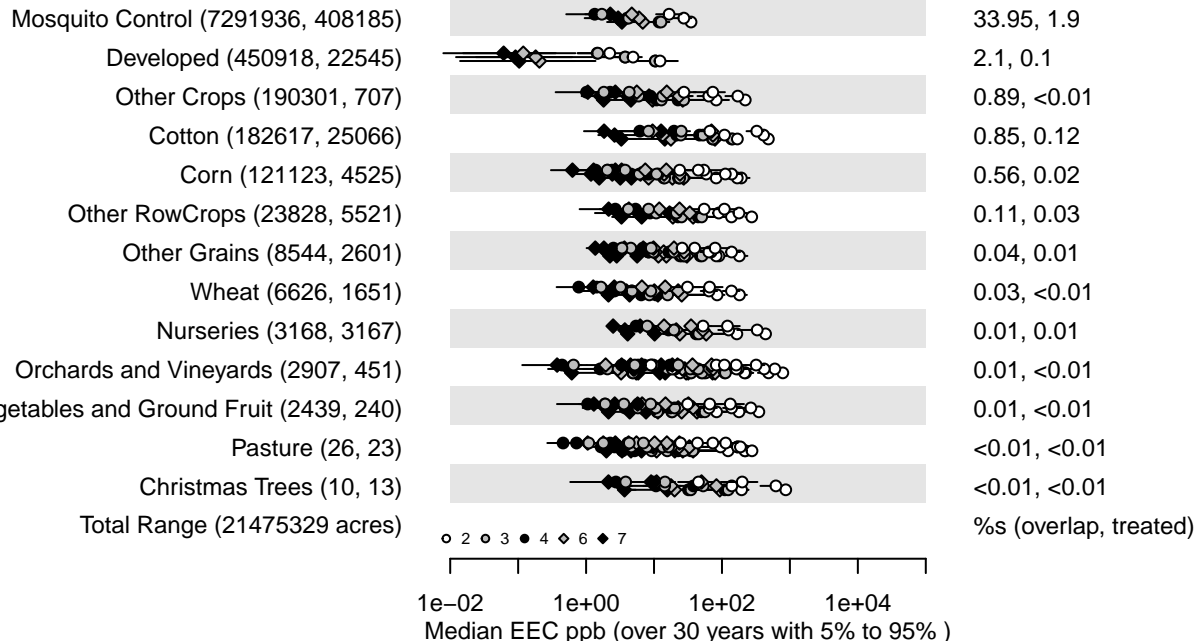
huc:3, bin:3

Ovate clubshell (377) Range

Toxicities



Uses



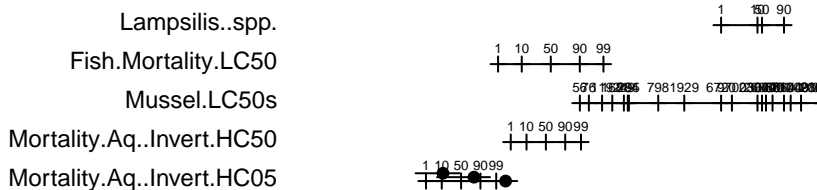
malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

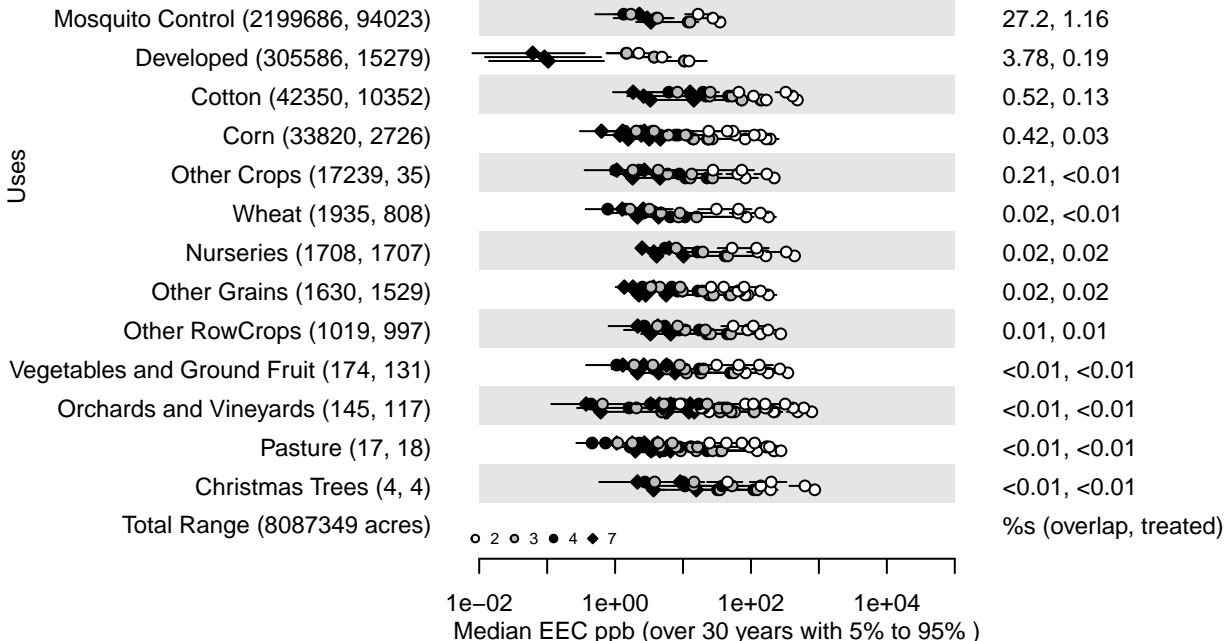
huc:3, bin:2,3,4,6,7

Southern clubshell (378) Range

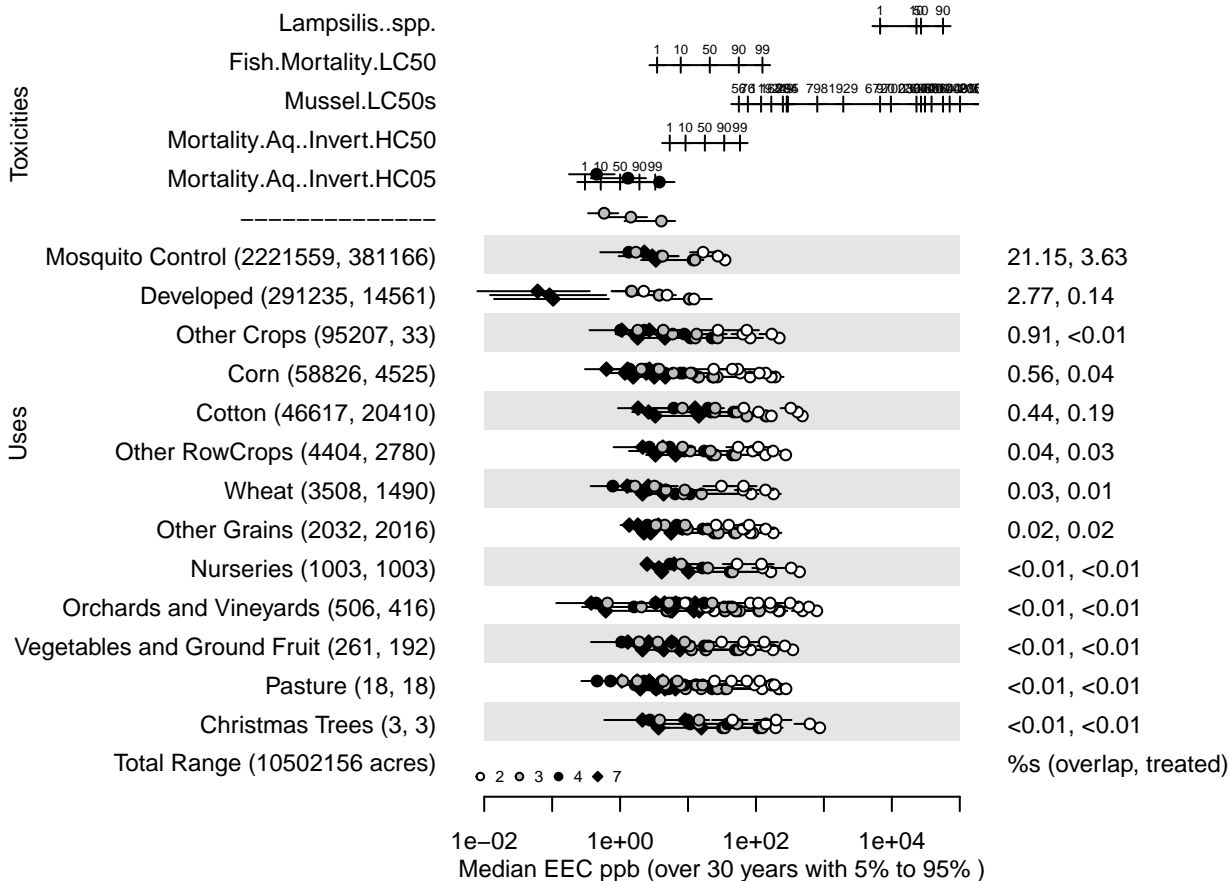
Toxicities



Uses



malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:3, bin:2,3,4,7
Triangular Kidneyshell (379) Range



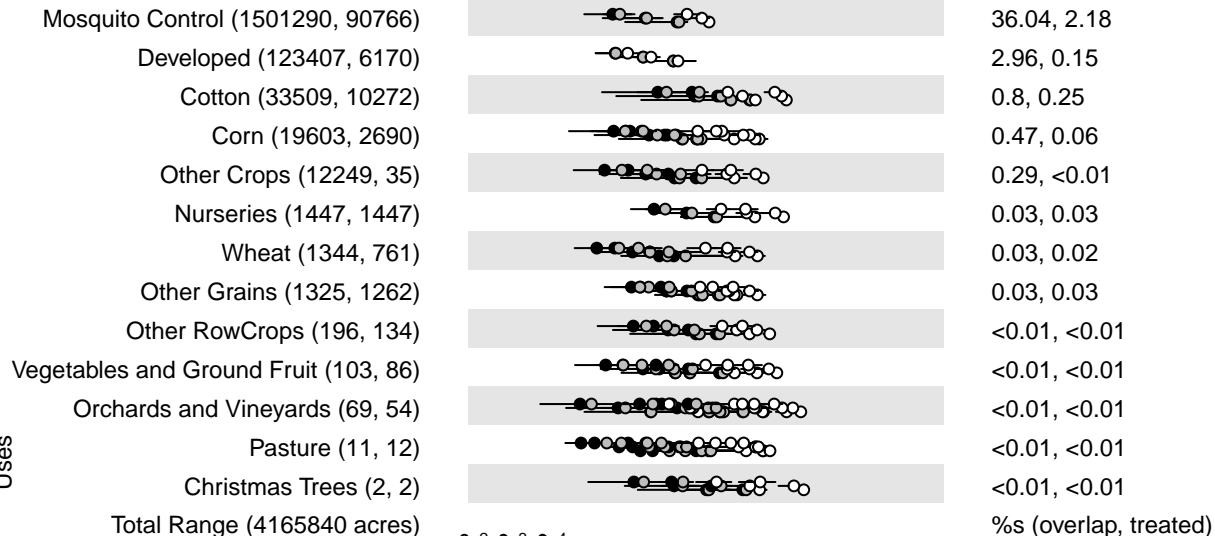
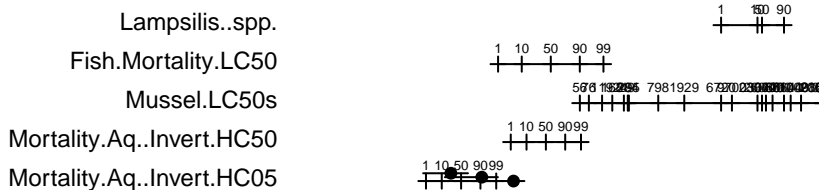
malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:3, bin:2,3,4,7

Alabama moccasinshell (380) Range

Toxicities



○ 2 ○ 3 ● 4

1e-02 1e+00 1e+02 1e+04

Median EEC ppb (over 30 years with 5% to 95%)

malathion: mal2.mus.tox.txt

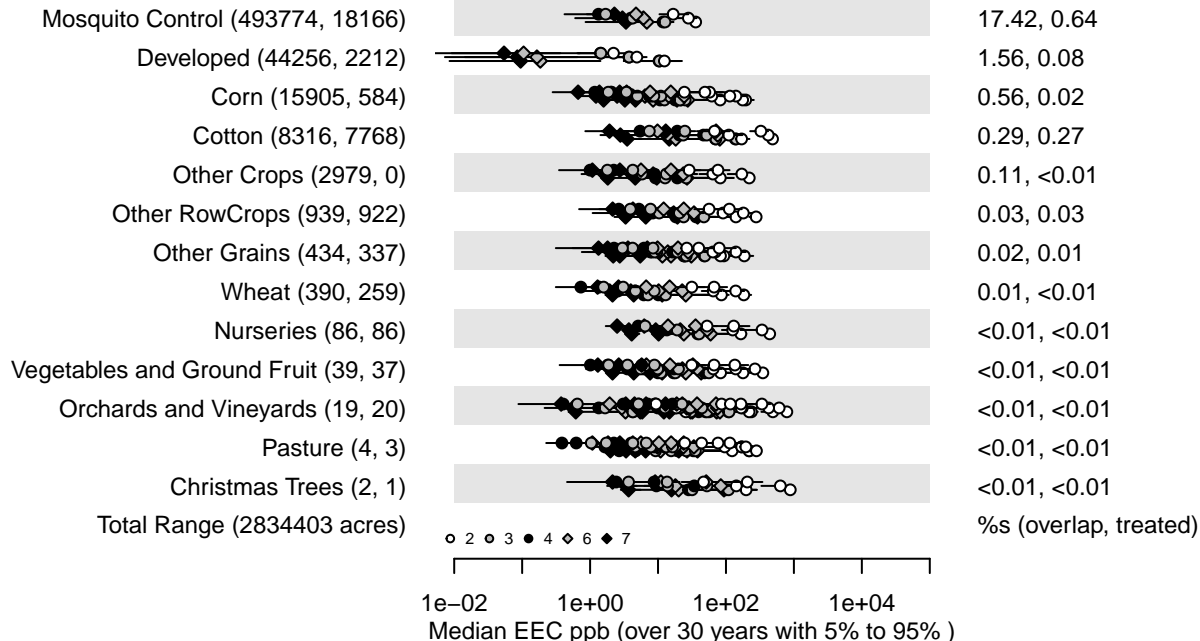
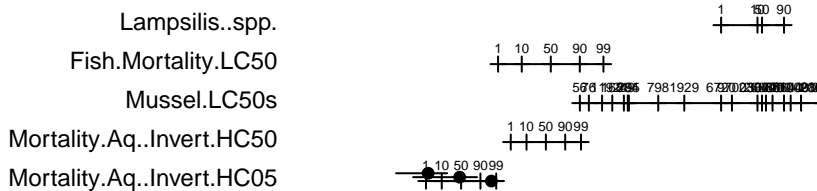
yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:3, bin:2,3,4

Coosa moccasinshell (381) Range

Uses

Toxicities



malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:3,6, bin:2,3,4,6,7

Dark pigtoe (382) Range

Toxicities

Lampsilis.spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05

Mosquito Control (2800867, 276121)

Cotton (376454, 45200)

Corn (330542, 1663)

Other Crops (281457, 1065)

Other RowCrops (261251, 20624)

Developed (153143, 7657)

Orchards and Vineyards (128409, 5342)

Other Grains (41370, 8474)

Wheat (25331, 29422)

Vegetables and Ground Fruit (5421, 1934)

Nurseries (725, 724)

Pasture (135, 28)

Total Range (5833077 acres)

○ 2 ○ 3 ● 4 ◇ 5

1e-02 1e+00 1e+02 1e+04
Median EEC ppb (over 30 years with 5% to 95%)

malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:3, bin:2,3,4,5

Gulf moccasinshell (384) Range

48.02, 4.73

6.45, 0.77

5.67, 0.03

4.83, 0.02

4.48, 0.35

2.63, 0.13

2.2, 0.09

0.71, 0.15

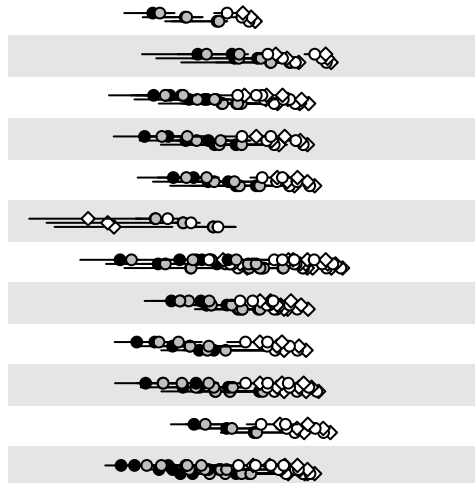
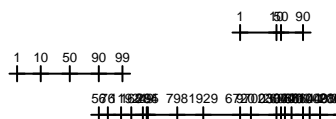
0.43, 0.5

0.09, 0.03

0.01, 0.01

<0.01, <0.01

%s (overlap, treated)



Toxicities

Lampsilis..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05

Mosquito Control (696760, 39366)

Cotton (96607, 33760)

Other Crops (35008, 0)

Other RowCrops (31749, 11988)

Orchards and Vineyards (24605, 5202)

Developed (16925, 846)

Corn (8383, 1157)

Other Grains (6214, 4285)

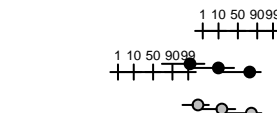
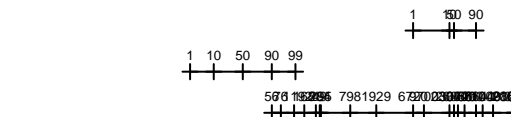
Wheat (1720, 2081)

Nurseries (707, 707)

Vegetables and Ground Fruit (504, 504)

Pasture (3, 3)

Total Range (1031377 acres)



67.56, 3.82

9.37, 3.27

3.39, <0.01

3.08, 1.16

2.39, 0.5

1.64, 0.08

0.81, 0.11

0.6, 0.42

0.17, 0.2

0.07, 0.07

0.05, 0.05

<0.01, <0.01

%s (overlap, treated)

○ 3 ● 4

1e-02 1e+00 1e+02 1e+04
Median EEC ppb (over 30 years with 5% to 95%)

malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:3, bin:3,4

Ochlockonee moccasinshell (385) Range

Uses

Toxicities

Lampsilis.. spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05

Uses

Mosquito Control (1840932, 136304)

Other RowCrops (88341, 13630)

Cotton (84213, 15540)

Other Crops (79941, 0)

Developed (21926, 1096)

Other Grains (9935, 5869)

Corn (8229, 1745)

Vegetables and Ground Fruit (4473, 729)

Wheat (3699, 636)

Orchards and Vineyards (791, 788)

Nurseries (76, 75)

Pasture (36, 12)

Total Range (2050573 acres)

○ 2 ○ 3 ● 4 ◆ 6 ◆ 7

1e-02 1e+00 1e+02 1e+04
 Median EEC ppb (over 30 years with 5% to 95%)

malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:3, bin:2,3,4,6,7

Chipola slabshell (386) Range

89.78, 6.65

4.31, 0.66

4.11, 0.76

3.9, <0.01

1.07, 0.05

0.48, 0.29

0.4, 0.09

0.22, 0.04

0.18, 0.03

0.04, 0.04

<0.01, <0.01

<0.01, <0.01

%s (overlap, treated)

Toxicities

Lampsilis..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05

Uses

Mosquito Control (4136642.43, 140290)

Cotton (186061.77, 12655)

Other Crops (173834.52, 0)

Other RowCrops (144677.43, 9835)

Developed (114225.97, 5711)

Other Grains (41225.20, 7057)

Corn (38023.04, 742)

Wheat (6077.50, 435)

Orchards and Vineyards (4309.54, 1150)

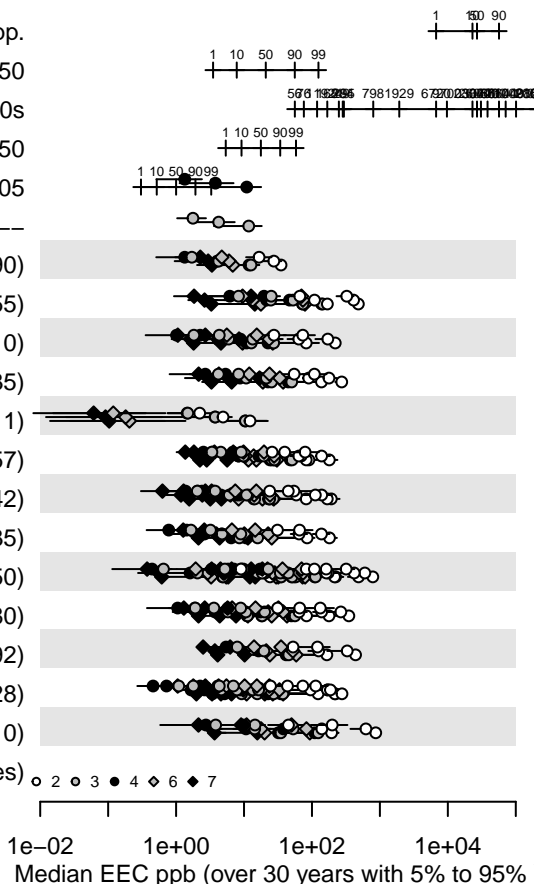
Vegetables and Ground Fruit (2668.75, 280)

Nurseries (492.39, 492)

Pasture (58.09, 28)

Christmas Trees (0.07, 0)

Total Range (8203649 acres)



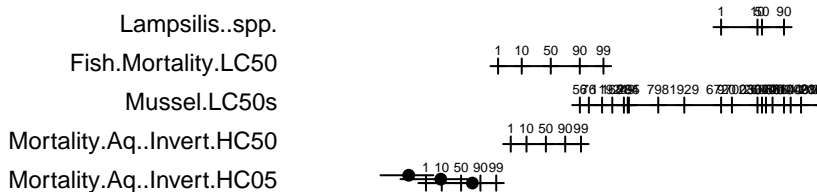
malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

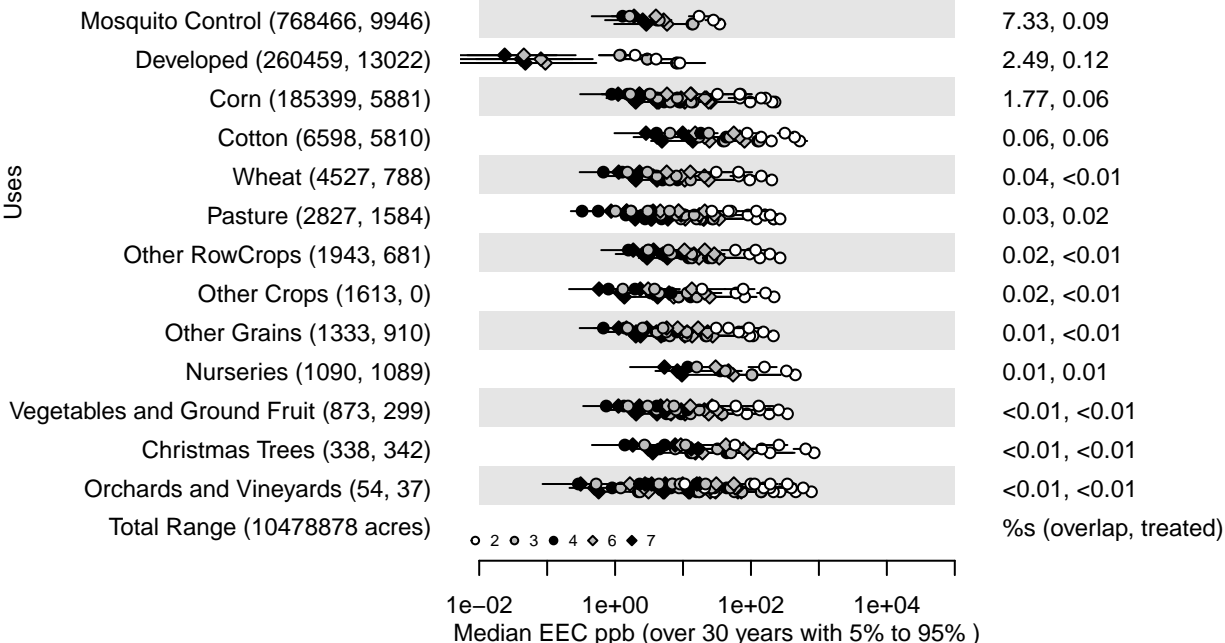
huc:3, bin:2,3,4,6,7

Fuzzy pigtoe (1369) Range

Toxicities



Uses



malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5,6, bin:2,3,4,6,7
 Fluted kidneyshell (1559) Range

>

1 10 50 90 99

56 76 119 168 242 395 798

1 10 50 90 99

1 10 50 90 99

11.39, 0.27

2.7, 0.14

1.51, 0.02

0.84, 0.1

0.77, <0.01

0.19, 0.19

0.13, 0.01

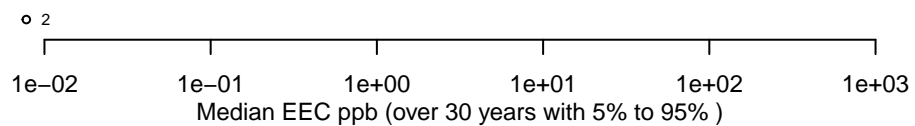
0.12, 0.02

0.06, <0.01

0.04, 0.02

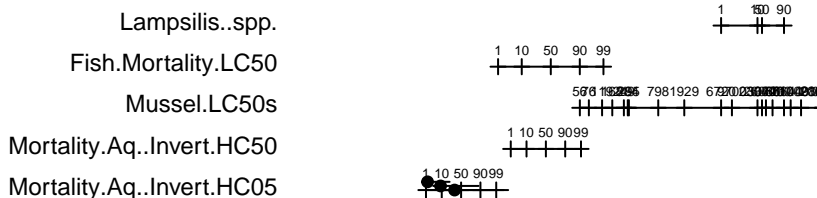
0.02, 0.02

%s (overlap, treated)

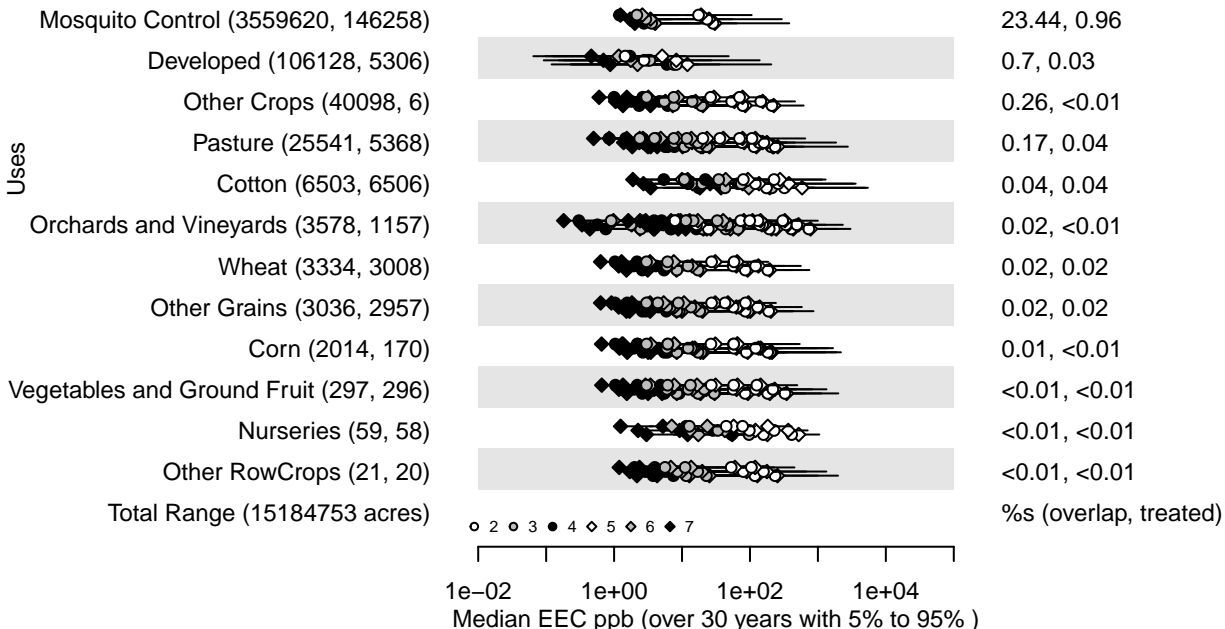


```
malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:2,3,5,6, bin:2
Green floater_2643
```


Toxicities



Uses



malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:12b,13, bin:2,3,4,5,6,7

Texas Hornshell (2917) Range

Toxicities

Lampisilis..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05

Uses

Mosquito Control (8890593, 610413)

Corn (4463375, 73811)

Developed (1394498, 69724)

Other Crops (567759, 0)

Cotton (232382, 60785)

Wheat (182519, 107863)

Other Grains (80668, 28113)

Pasture (66635, 31342)

Other RowCrops (25176, 1968)

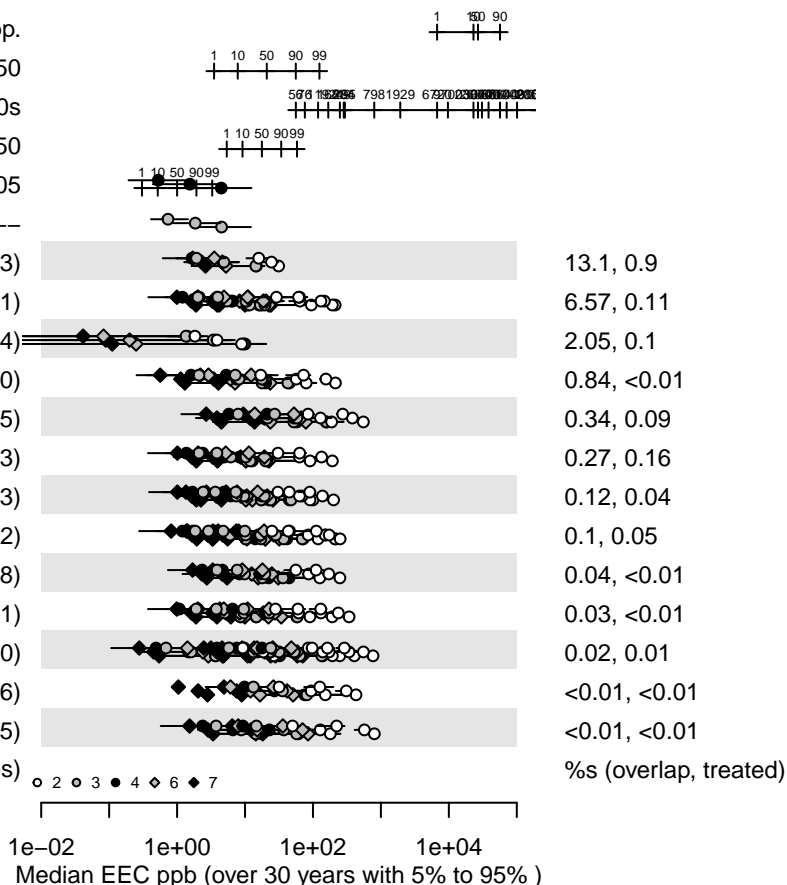
Vegetables and Ground Fruit (17307, 4841)

Orchards and Vineyards (11907, 6830)

Nurseries (5146, 5146)

Christmas Trees (92, 85)

Total Range (67889318 acres)



malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:4,5,6,7,8,10a,11a, bin:2,3,4,6,7

Rabbitsfoot (3645) Range

Toxicities

Lampsilis..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05

Mosquito Control (84993.3, 18166)

Developed (25875.8, 1293)

Orchards and Vineyards (1653.7, 13)

Corn (1570.3, 2697)

Cotton (710.6, 8215)

Wheat (696.1, 801)

Other Crops (111.2, 0)

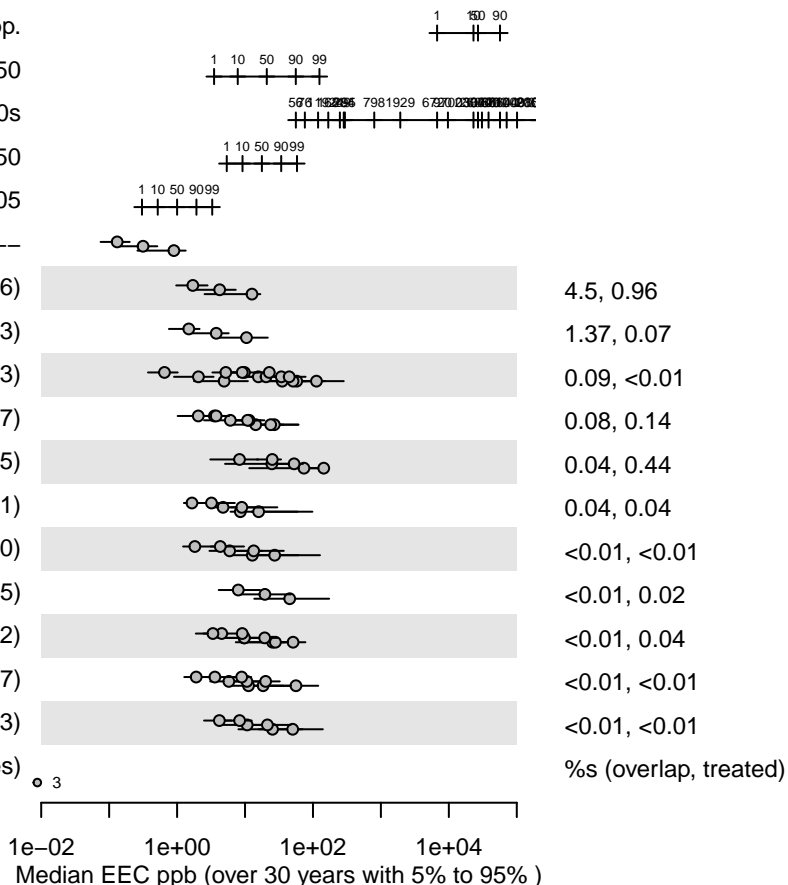
Nurseries (19.8, 345)

Other Grains (8.5, 702)

Vegetables and Ground Fruit (0.6, 47)

Other RowCrops (0.2, 43)

Total Range (1887086 acres)



malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:3, bin:3

Georgia pigtoe (3833) Range

Toxicities

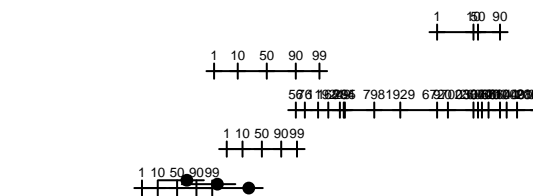
Lampsilis..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05



Mosquito Control (4589481, 141203)

Cotton (216455, 12655)

Other Crops (178002, 0)

Other RowCrops (159936, 9835)

Developed (119393, 5969)

Other Grains (44944, 7118)

Corn (42490, 742)

Wheat (6723, 433)

Orchards and Vineyards (4569, 1151)

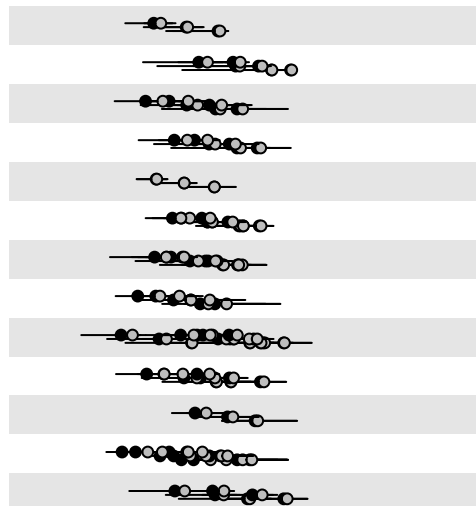
Vegetables and Ground Fruit (2704, 290)

Nurseries (507, 507)

Pasture (58, 28)

Christmas Trees (2, 1)

Total Range (8867858 acres)



51.75, 1.59

2.44, 0.14

2.01, <0.01

1.8, 0.11

1.35, 0.07

0.51, 0.08

0.48, <0.01

0.08, <0.01

0.05, 0.01

0.03, <0.01

<0.01, <0.01

<0.01, <0.01

<0.01, <0.01

%s (overlap, treated)

○ 3 ● 4

1e-02 1e+00 1e+02 1e+04
Median EEC ppb (over 30 years with 5% to 95%)

malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:3, bin:3,4

Choctaw bean (4042) Range

Uses

Toxicities

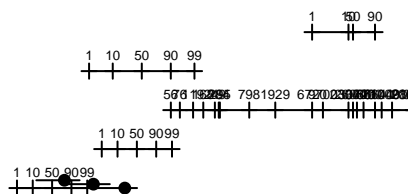
Lampsilis..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05



Uses

Mosquito Control (1243046, 18166)

Cotton (134423, 36484)

Developed (63214, 3160)

Other Crops (61512, 0)

Other RowCrops (48598, 16041)

Corn (30364, 1003)

Orchards and Vineyards (23377, 6244)

Other Grains (11793, 2698)

Vegetables and Ground Fruit (9647, 2115)

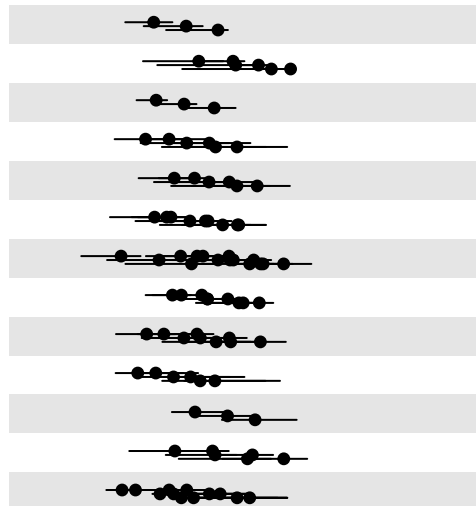
Wheat (3930, 1751)

Nurseries (149, 148)

Christmas Trees (17, 31)

Pasture (8, 6)

Total Range (3567417 acres)



34.84, 0.51

3.77, 1.02

1.77, 0.09

1.72, <0.01

1.36, 0.45

0.85, 0.03

0.66, 0.18

0.33, 0.08

0.27, 0.06

0.11, 0.05

<0.01, <0.01

<0.01, <0.01

<0.01, <0.01

%s (overlap, treated)

4

1e-02 1e+00 1e+02 1e+04

Median EEC ppb (over 30 years with 5% to 95%)

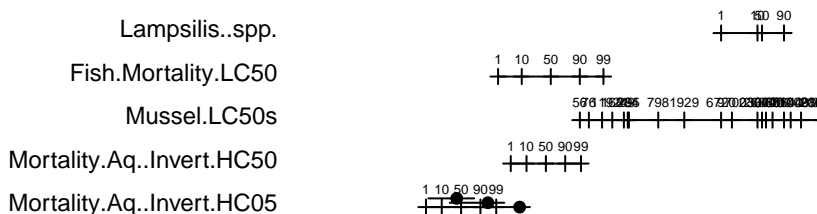
malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

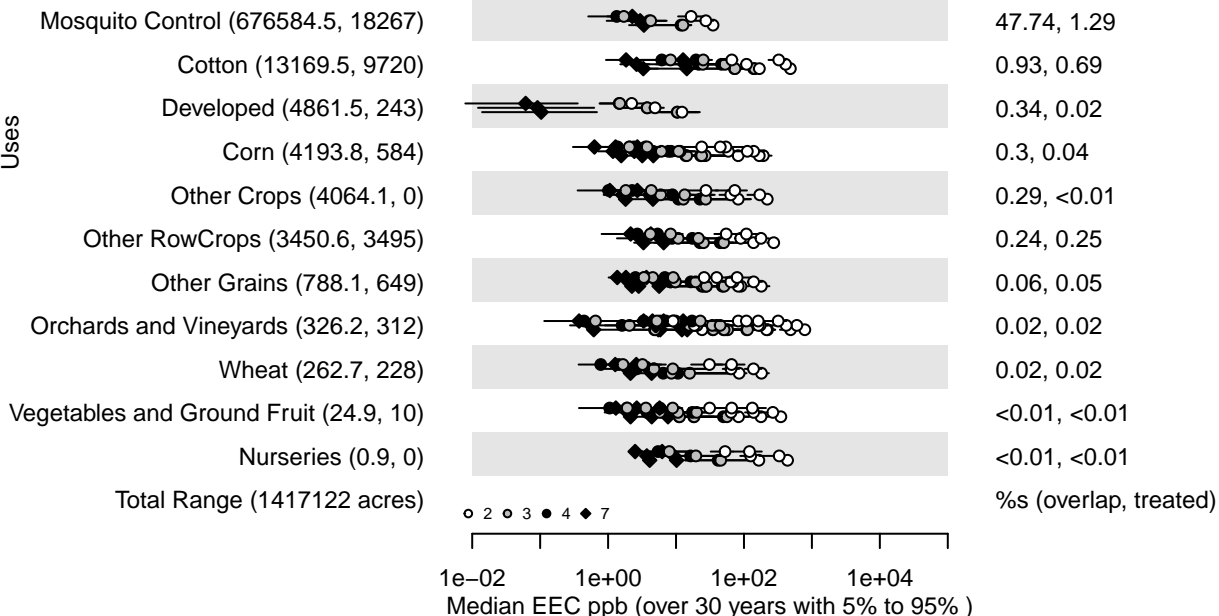
huc:3, bin:4

Altamaha Spiny mussel (4210) Range

Toxicities

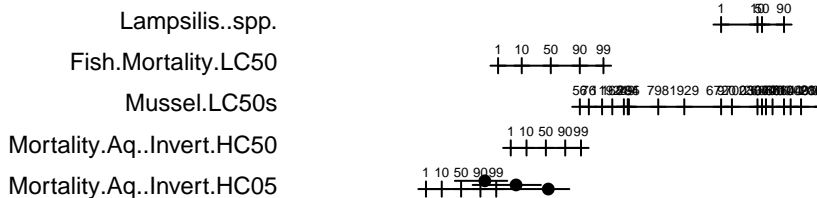


Uses

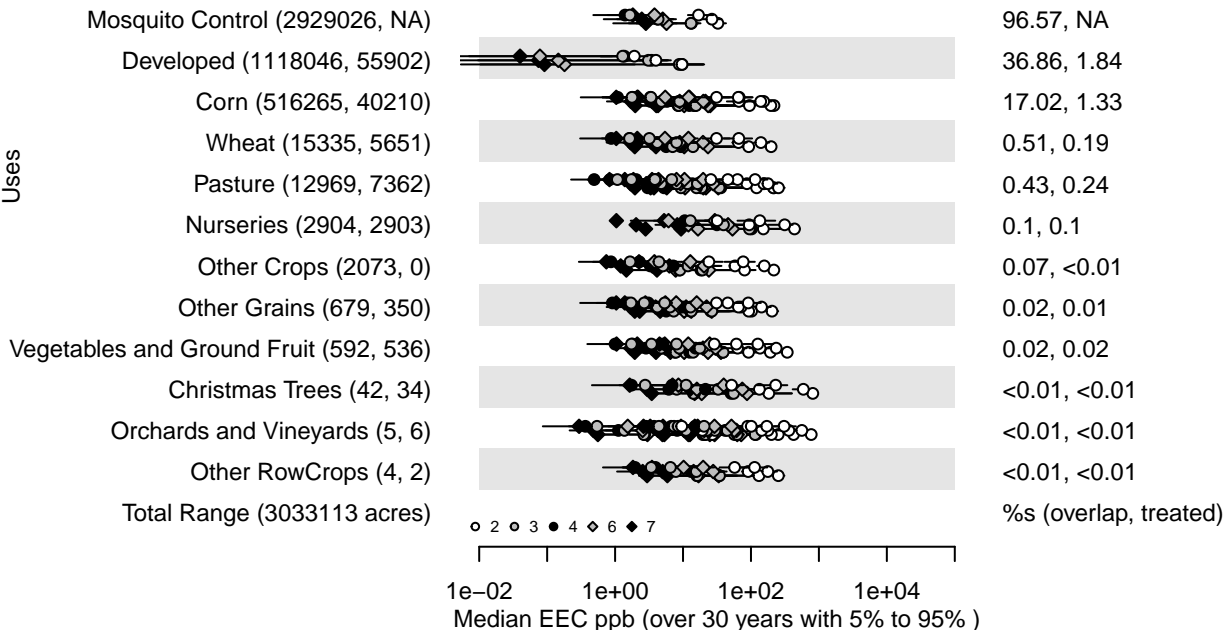


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:3, bin:2,3,4,7
 Alabama pearlshell (4411) Range

Toxicities



Uses



malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:5,6,7,8,10a,11a,14, bin:2,3,4,6,7

Spectaclecase (mussel) (4490) Range

Toxicities

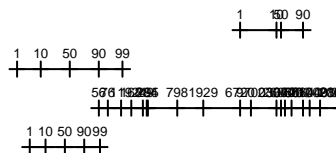
Lampsilis..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05



Uses

Mosquito Control (12926429, 463408)

Corn (4319666, 92237)

Developed (2911505, 145575)

Pasture (588375, 127656)

Wheat (250240, 54811)

Other Crops (155991, 22)

Vegetables and Ground Fruit (104700, 24565)

Cotton (56953, 17973)

Other Grains (53497, 21388)

Other RowCrops (38017, 5786)

Orchards and Vineyards (21014, 2997)

Nurseries (16836, 16835)

Christmas Trees (4304, 4180)

Total Range (57704063 acres)

22.4, 0.8

7.49, 0.16

5.05, 0.25

1.02, 0.22

0.43, 0.09

0.27, <0.01

0.18, 0.04

0.1, 0.03

0.09, 0.04

0.07, 0.01

0.04, <0.01

0.03, 0.03

<0.01, <0.01

%s (overlap, treated)

1e-02 1e+00 1e+02 1e+04

Median EEC ppb (over 30 years with 5% to 95%)

malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

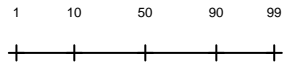
huc:4,5,6,7,8,10a,11a, bin:2,3,4,5,6,7

Snuffbox mussel (5281) Range

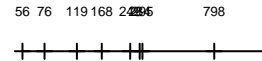
Lampsilis..spp.

>

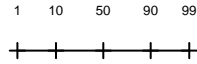
Fish.Mortality.LC50



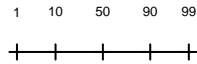
Mussel.LC50s



Mortality.Aq..Invert.HC50

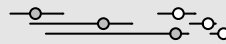


Mortality.Aq..Invert.HC05



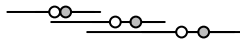
Toxicities

Mosquito Control (4397713, 1374294)



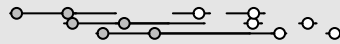
22.66, 7.08

Developed (1097155, 54857)



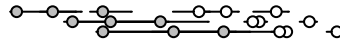
5.65, 0.28

Wheat (139684, 152333)



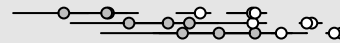
0.72, 0.78

Other Grains (57390, 57390)



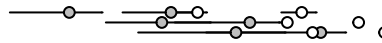
0.3, 0.3

Corn (55298, 4266)



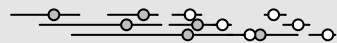
0.28, 0.02

Other Crops (42479, 0)



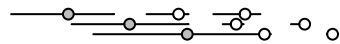
0.22, <0.01

Cotton (30381, 25519)



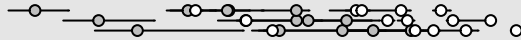
0.16, 0.13

Nurseries (4202, 4202)



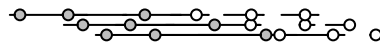
0.02, 0.02

Orchards and Vineyards (1131, 1123)



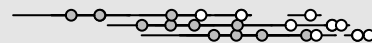
<0.01, <0.01

Vegetables and Ground Fruit (248, 247)



<0.01, <0.01

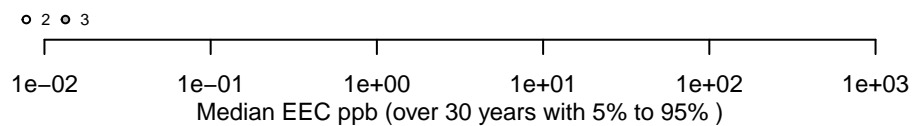
Pasture (189, 188)



<0.01, <0.01

Total Range (19410940 acres)

%s (overlap, treated)



malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:11a,12a, bin:2,3
Texas heelsplitter_5964

Toxicities

Lampisilis..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05

Mosquito Control (4899521, 37731)

Corn (2429810, 35772)

Developed (1235660, 61782)

Wheat (180118, 38037)

Pasture (130319, 57824)

Other Crops (54165, 0)

Vegetables and Ground Fruit (18758, 7925)

Orchards and Vineyards (9739, 1140)

Other RowCrops (8937, 4355)

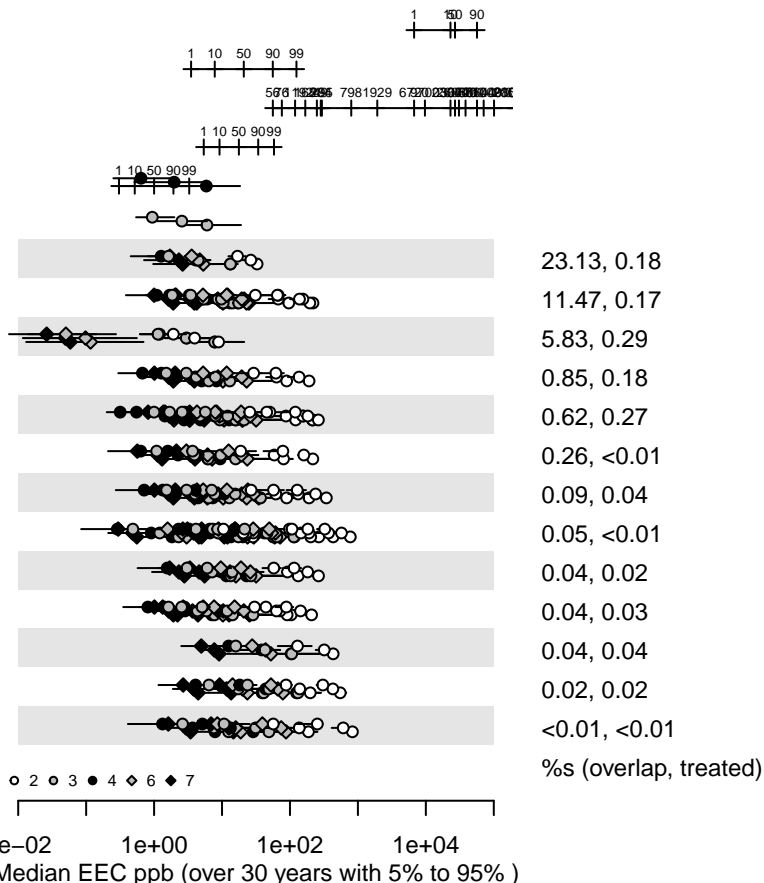
Other Grains (8780, 6583)

Nurseries (8095, 8095)

Cotton (3680, 3746)

Christmas Trees (613, 668)

Total Range (21184849 acres)



malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:4,5,6,7, bin:2,3,4,6,7

Rayed Bean (6062) Range

Toxicities

Lampisilis..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05

Uses

Mosquito Control (2062748.82, 49208)

Other Crops (131423.39, 0)

Cotton (119245.65, 12655)

Other RowCrops (108352.13, 9835)

Developed (53033.11, 2651)

Other Grains (36827.03, 5644)

Corn (27415.78, 742)

Wheat (4984.43, 416)

Vegetables and Ground Fruit (2509.92, 224)

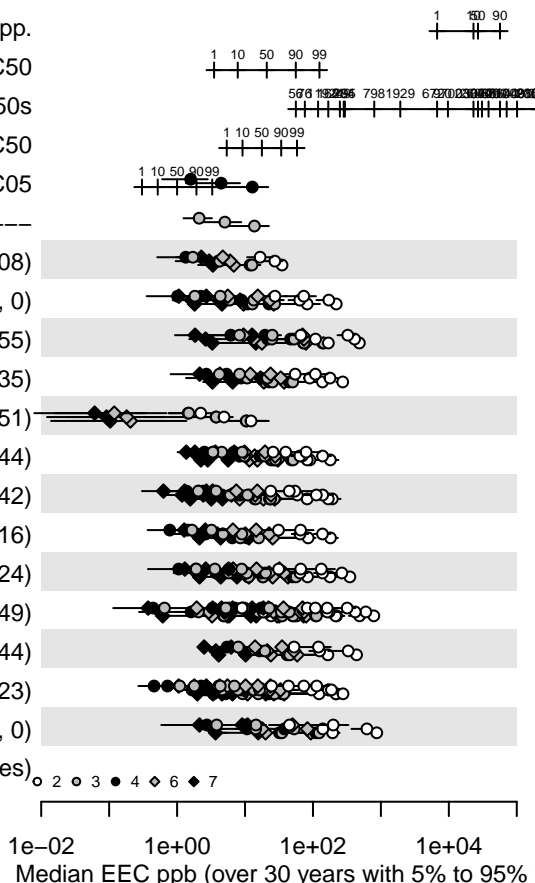
Orchards and Vineyards (2363.75, 949)

Nurseries (144.27, 144)

Pasture (40.20, 23)

Christmas Trees (0.04, 0)

Total Range (4070764 acres)



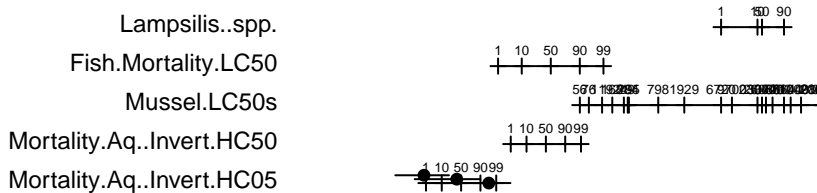
malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

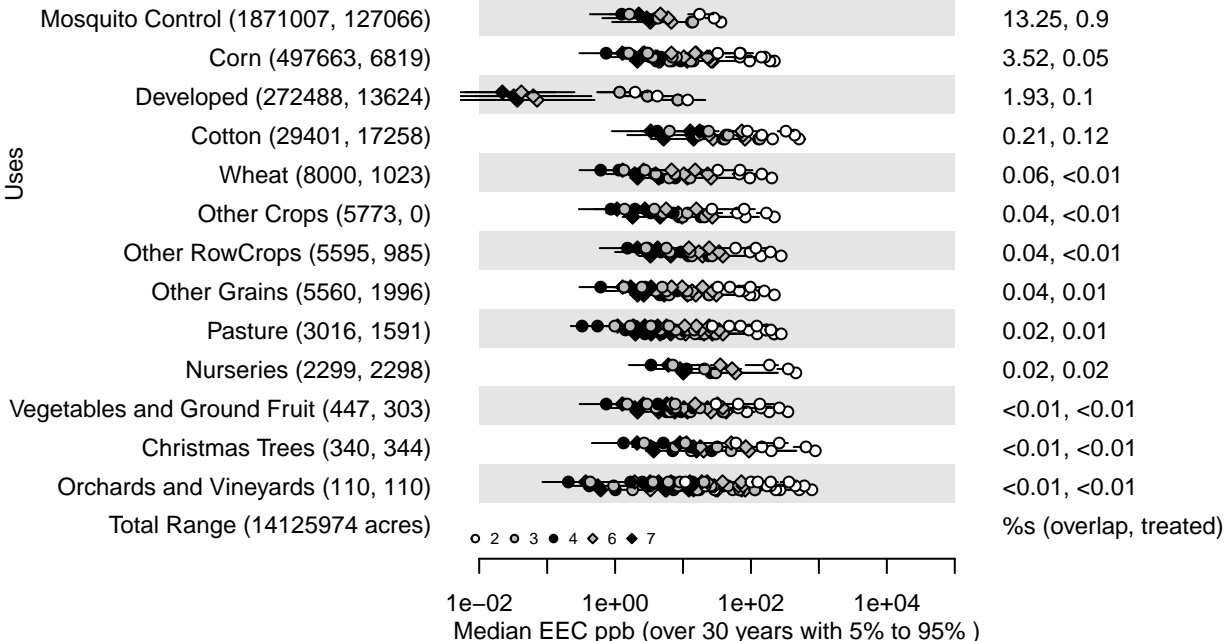
huc:3, bin:2,3,4,6,7

Tapered pigtoe (6534) Range

Toxicities



Uses

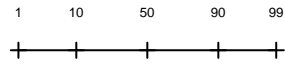


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:5,6, bin:2,3,4,6,7
 Slabside Pearlymussel (6841) Range

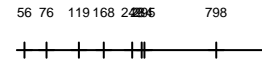
Lampsilis..spp.

>

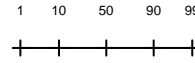
Fish.Mortality.LC50



Mussel.LC50s



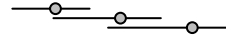
Mortality.Aq..Invert.HC50



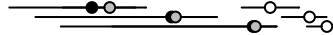
Mortality.Aq..Invert.HC05



Toxicities

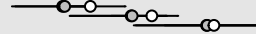


Mosquito Control (3052793, 0)



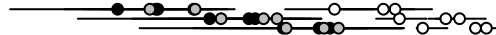
16.37, <0.01

Developed (588758, 29437)



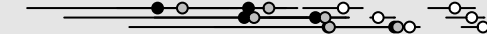
3.16, 0.16

Corn (336737, 3921)



1.81, 0.02

Cotton (220573, 27674)



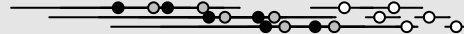
1.18, 0.15

Other Crops (209815, 153)



1.12, <0.01

Other RowCrops (96076, 4207)



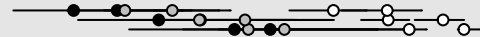
0.52, 0.02

Vegetables and Ground Fruit (36756, 2449)



0.2, 0.01

Wheat (36109, 36057)



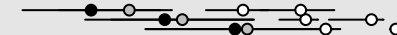
0.19, 0.19

Other Grains (25234, 4289)



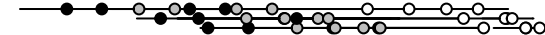
0.14, 0.02

Nurseries (5845, 5845)



0.03, 0.03

Pasture (2072, 559)



0.01, <0.01

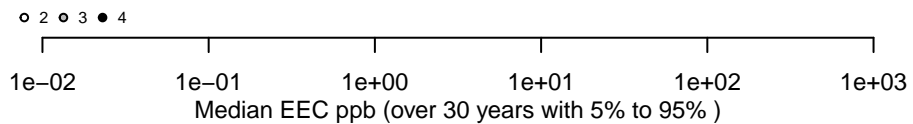
Orchards and Vineyards (1403, 881)



<0.01, <0.01

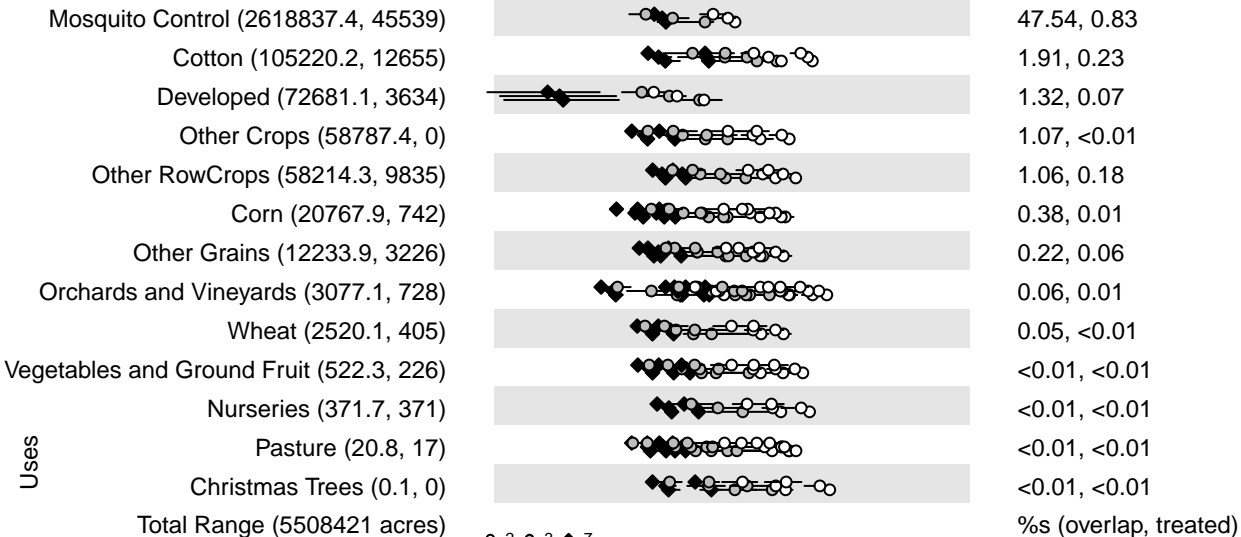
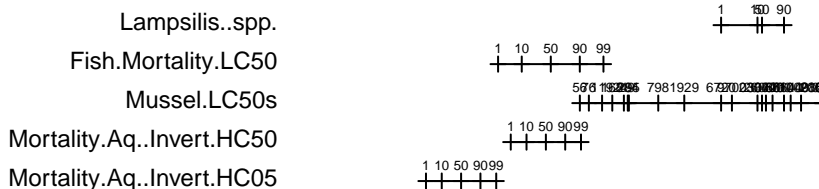
Total Range (18654160 acres)

%s (overlap, treated)



malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:2,3,5, bin:2,3,4
Atlantic pigtoe_7048

Toxicities



○ 2 ○ 3 ◆ 7

1e-02 1e+00 1e+02 1e+04
 Median EEC ppb (over 30 years with 5% to 95%)

malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:3, bin:2,3,7
 Narrow pigtoe (7177) Range

Toxicities

Lampisilis..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05

Uses

Mosquito Control (4087613.72, 140290)

Cotton (185836.87, 12655)

Other Crops (171211.16, 0)

Other RowCrops (144657.95, 9835)

Developed (113914.67, 5695)

Other Grains (41186.48, 7057)

Corn (37933.01, 742)

Wheat (6059.45, 436)

Orchards and Vineyards (4291.17, 1150)

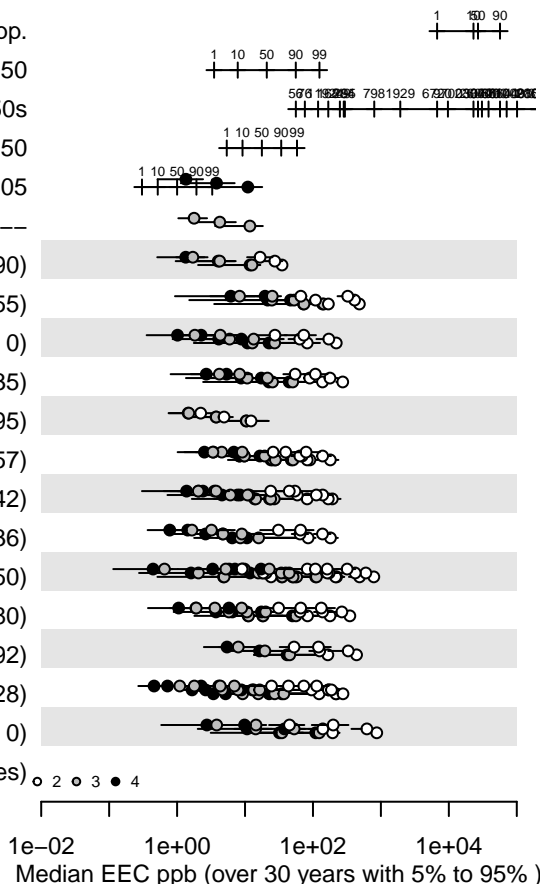
Vegetables and Ground Fruit (2663.52, 280)

Nurseries (492.39, 492)

Pasture (58.06, 28)

Christmas Trees (0.07, 0)

Total Range (8106348 acres)



malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:3, bin:2,3,4

Southern sandshell (7349) Range

Toxicities

Lampisilis..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05

Uses

Mosquito Control (1438964.57, 9631)

Cotton (66505.64, 12655)

Developed (53738.58, 2686)

Other RowCrops (35768.92, 9835)

Other Crops (25259.36, 0)

Corn (14533.05, 742)

Other Grains (7437.12, 2502)

Wheat (1852.28, 315)

Orchards and Vineyards (1736.64, 393)

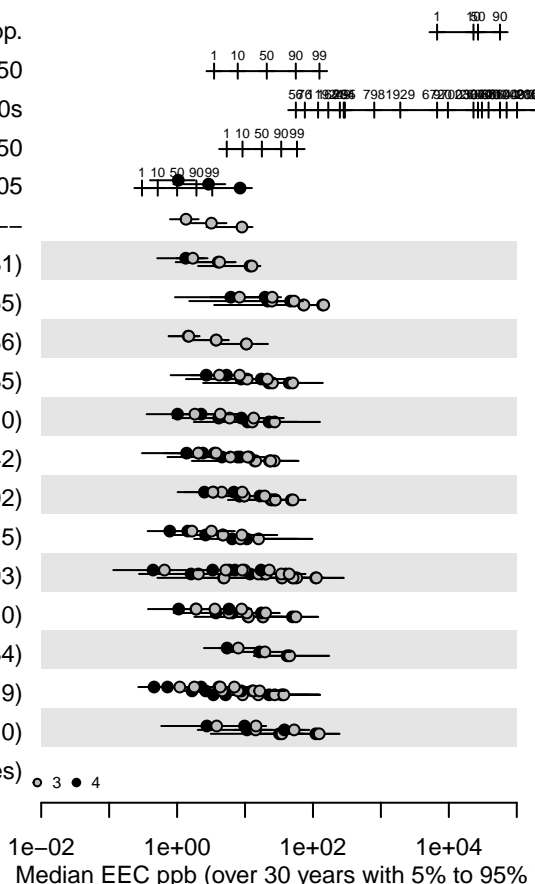
Vegetables and Ground Fruit (469.24, 210)

Nurseries (234.08, 234)

Pasture (11.30, 9)

Christmas Trees (0.04, 0)

Total Range (3538100 acres)



40.67, 0.27

1.88, 0.36

1.52, 0.08

1.01, 0.28

0.71, <0.01

0.41, 0.02

0.21, 0.07

0.05, <0.01

0.05, 0.01

0.01, <0.01

<0.01, <0.01

<0.01, <0.01

<0.01, <0.01

%s (overlap, treated)

malathion: mal2.mus.tox.txt

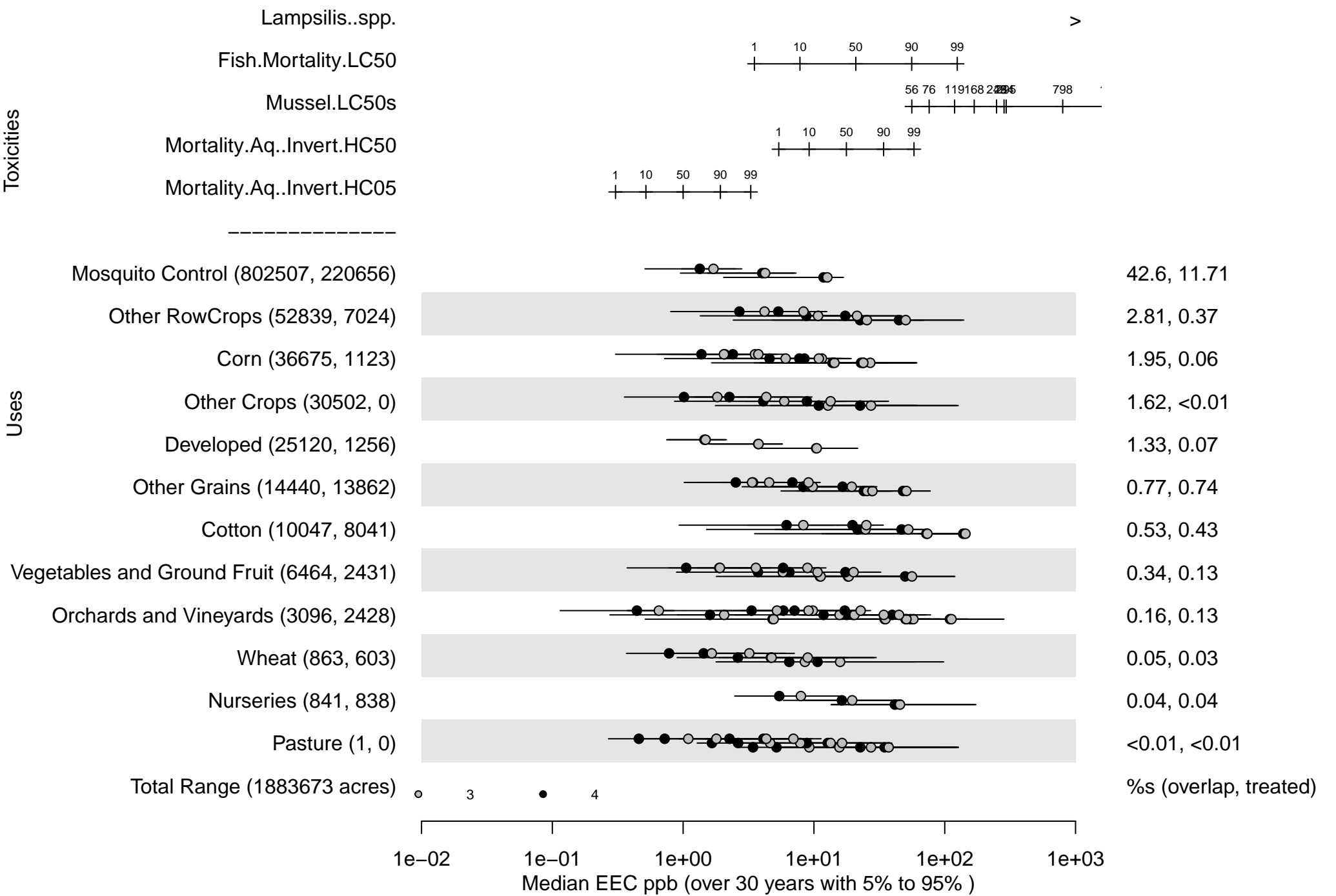
yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:3, bin:3,4

Round Ebonyshell (7363) Range

Toxicities

Uses



malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:3, bin:3,4
Suwannee moccasinshell (7372) Range

Toxicities

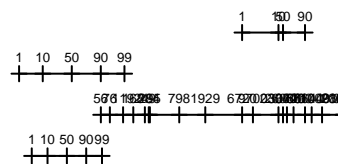
Lampsilis..spp.

Fish.Mortality.LC50

Mussel.LC50s

Mortality.Aq..Invert.HC50

Mortality.Aq..Invert.HC05



Uses

Corn (8745016, 72188)

Mosquito Control (7227846, 72599)

Wheat (1358077, 141111)

Pasture (1260958, 64917)

Developed (1016442, 50822)

Other RowCrops (517810, 30888)

Vegetables and Ground Fruit (284000, 34458)

Other Grains (168916, 20024)

Other Crops (70116, 0)

Nurseries (6553, 6553)

Orchards and Vineyards (908, 283)

Christmas Trees (219, 249)

Total Range (56625775 acres)

15.44, 0.13

12.76, 0.13

2.4, 0.25

2.23, 0.11

1.8, 0.09

0.91, 0.05

0.5, 0.06

0.3, 0.04

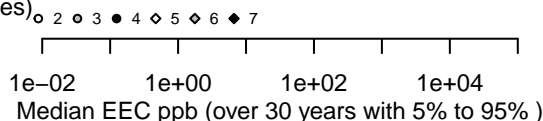
0.12, <0.01

0.01, 0.01

<0.01, <0.01

<0.01, <0.01

%s (overlap, treated)

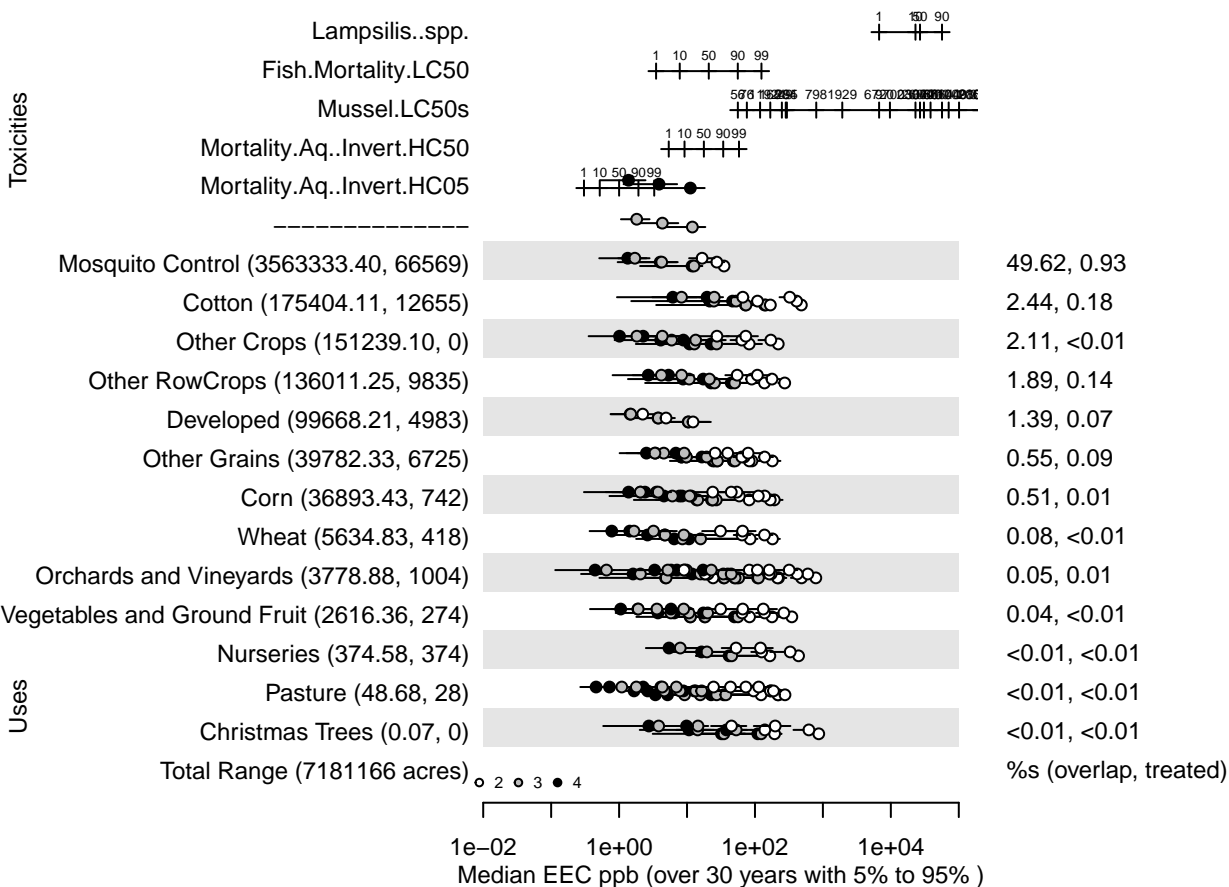
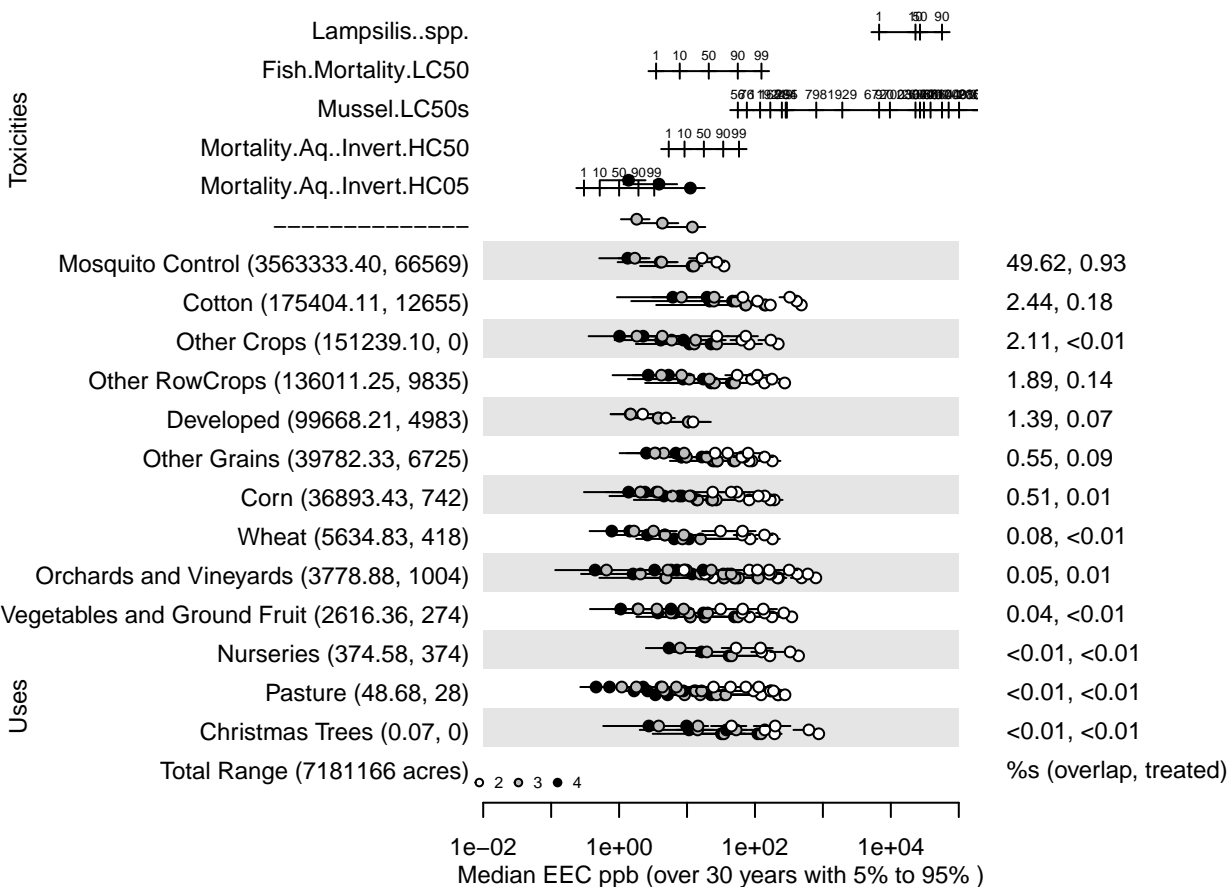


malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:5,6,7,8,10a, bin:2,3,4,5,6,7

Sheepnose Mussel (7816) Range



malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

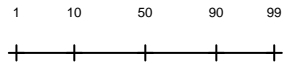
huc:3, bin:2,3,4

Southern kidneyshell (7949) Range

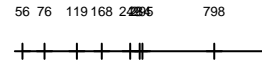
Lampsilis..spp.

>

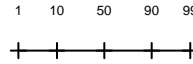
Fish.Mortality.LC50



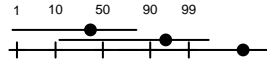
Mussel.LC50s



Mortality.Aq..Invert.HC50

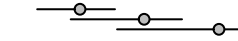


Mortality.Aq..Invert.HC05



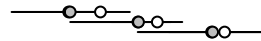
Toxicities

Mosquito Control (13497268, 1079798)



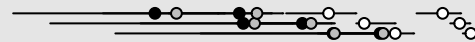
37.5, 3

Developed (784676, 39233)



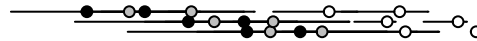
2.18, 0.11

Cotton (461013, 32788)



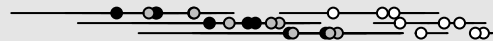
1.28, 0.09

Other Crops (370310, 262)



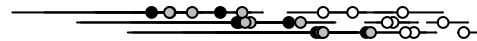
1.03, <0.01

Corn (314646, 5201)



0.87, 0.01

Other Grains (60859, 5826)



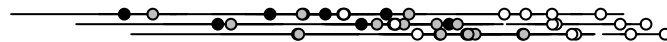
0.17, 0.02

Wheat (16709, 18414)



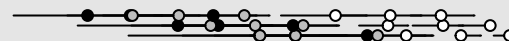
0.05, 0.05

Orchards and Vineyards (15008, 1311)



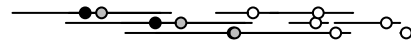
0.04, <0.01

Vegetables and Ground Fruit (10585, 1062)



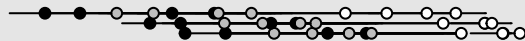
0.03, <0.01

Nurseries (6913, 6913)



0.02, 0.02

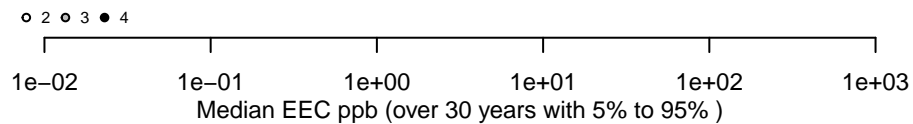
Pasture (139, 42)



<0.01, <0.01

Total Range (35993270 acres)

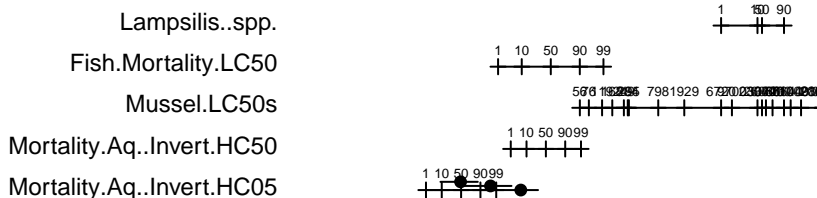
%s (overlap, treated)



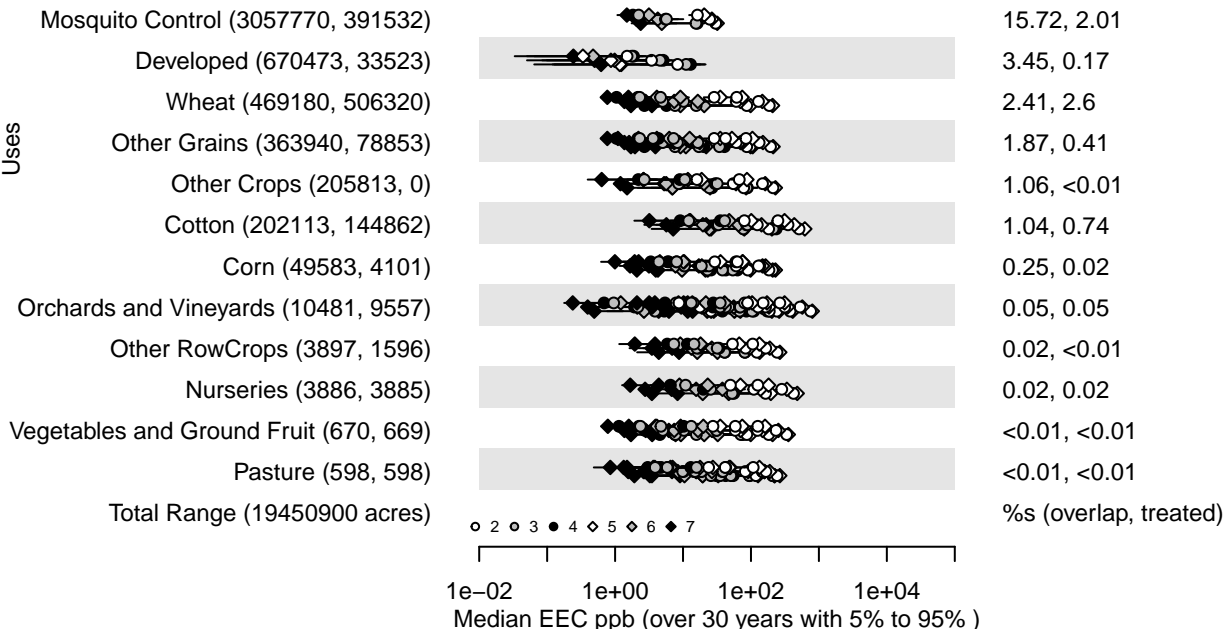
malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:3,6, bin:2,3,4
Canoe Creek clubshell_9222

Uses

Toxicities

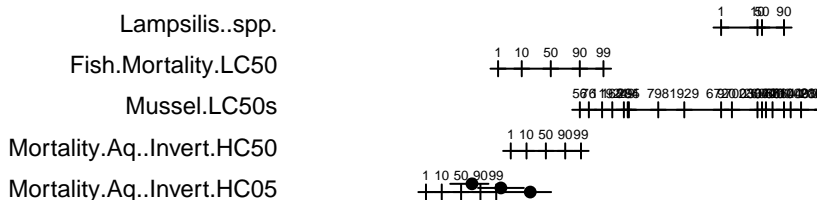


Uses

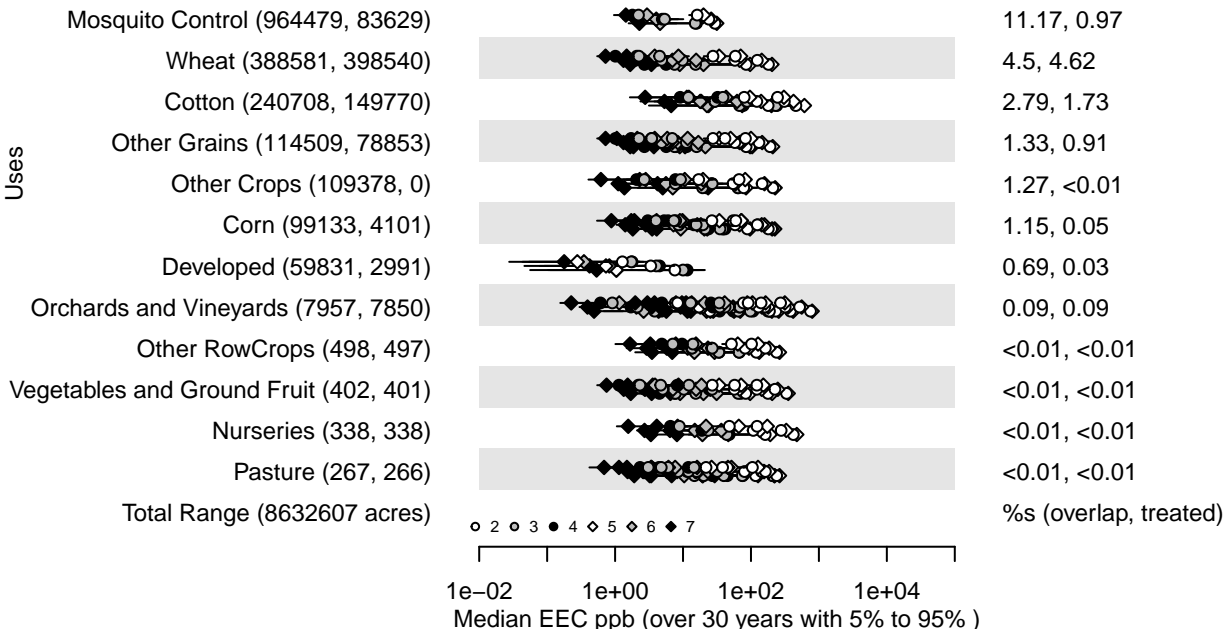


malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:11b,12a,12b, bin:2,3,4,5,6,7
 Texas fawnsfoot (9967) Range

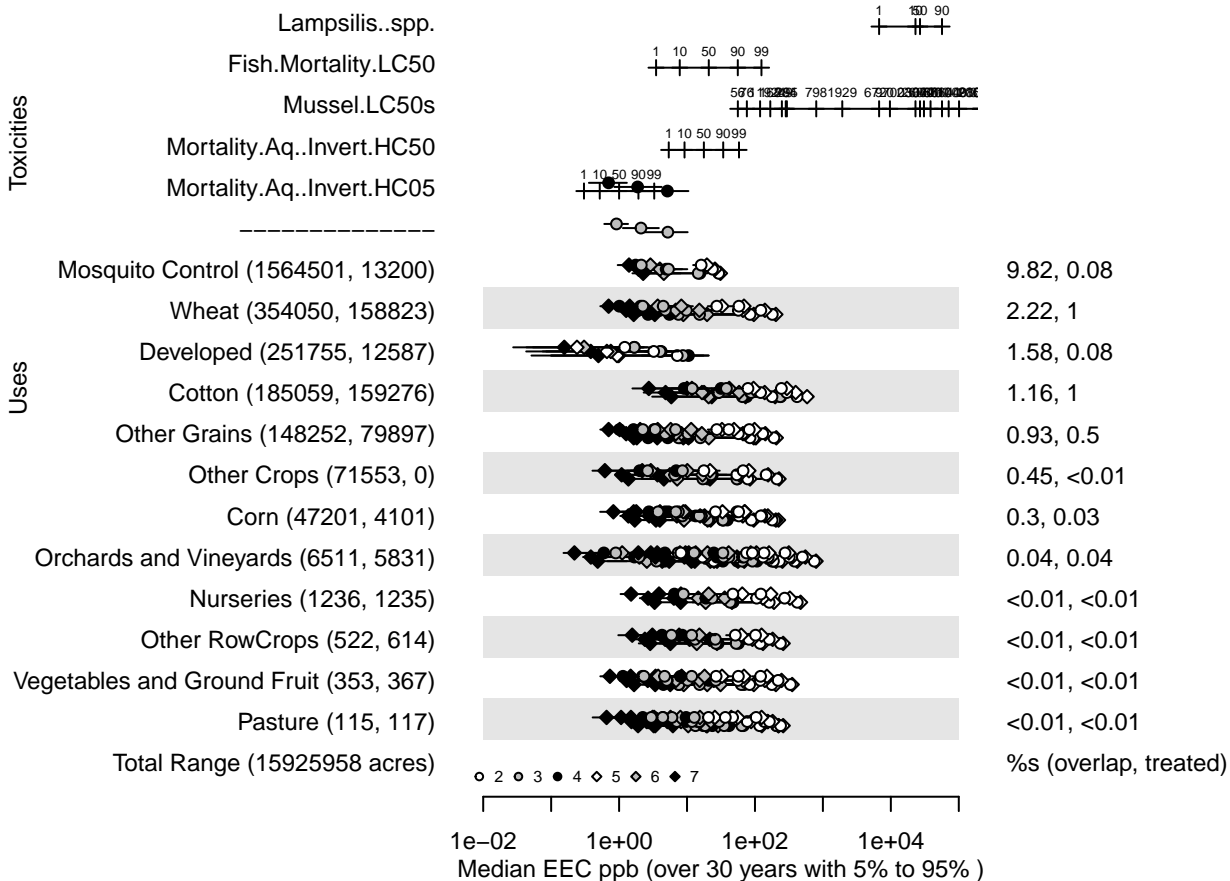
Toxicities

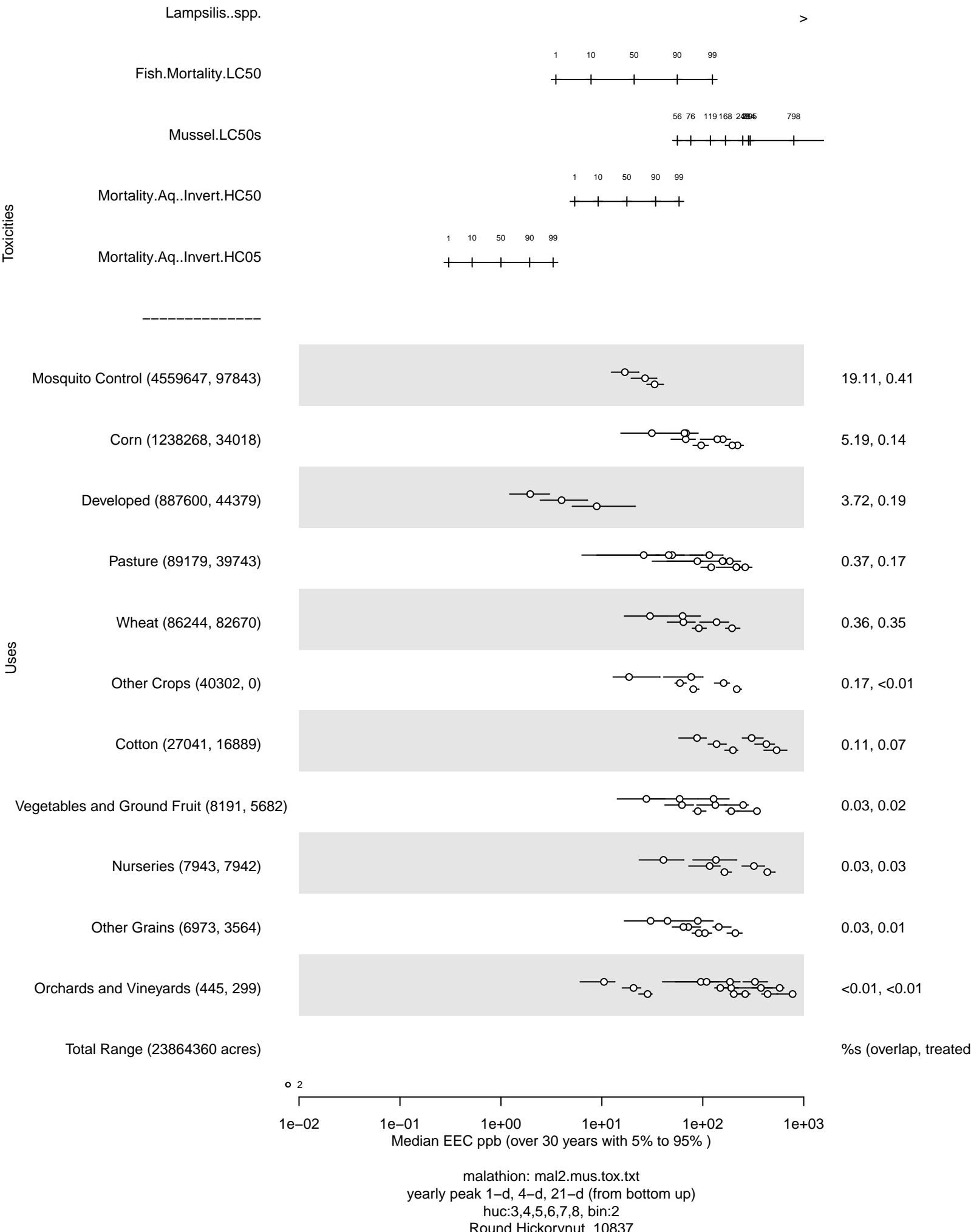


Uses



malathion: mal2.mus.tox.txt
 yearly peak 1-d, 4-d, 21-d (from bottom up)
 huc:12a,12b, bin:2,3,4,5,6,7
 Texas pimpleback (9968) Range

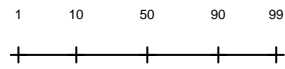




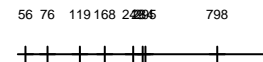
Lampsilis..spp.

>

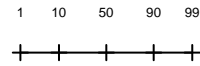
Fish.Mortality.LC50



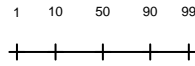
Mussel.LC50s



Mortality.Aq..Invert.HC50

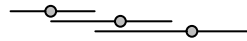


Mortality.Aq..Invert.HC05



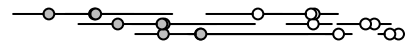
Toxicities

Mosquito Control (2504500, 148237)



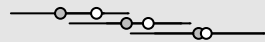
16.56, 0.98

Corn (419686, 47307)



2.77, 0.31

Developed (378753, 18937)



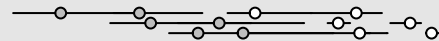
2.5, 0.13

Pasture (35241, 11548)



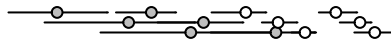
0.23, 0.08

Other Crops (24021, 0)



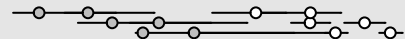
0.16, <0.01

Cotton (14861, 8607)



0.1, 0.06

Wheat (8889, 9062)



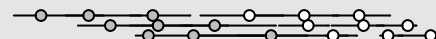
0.06, 0.06

Other Grains (6188, 3236)



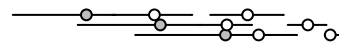
0.04, 0.02

Vegetables and Ground Fruit (2283, 1075)



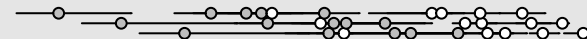
0.02, <0.01

Nurseries (1820, 1819)



0.01, 0.01

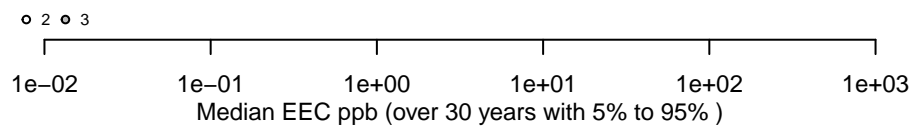
Orchards and Vineyards (262, 241)



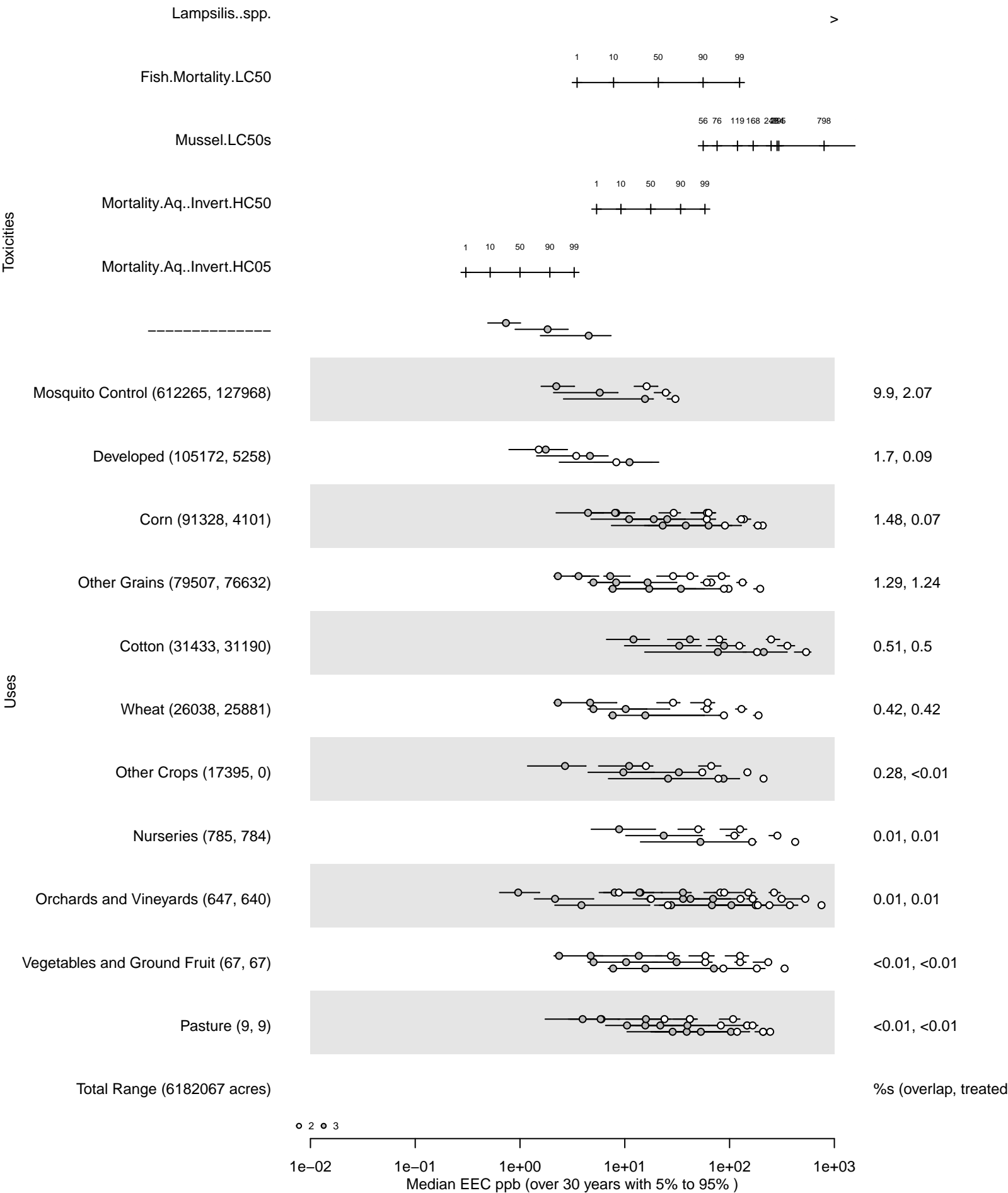
<0.01, <0.01

Total Range (15126300 acres)

%s (overlap, treated)



malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:2,3,4,5,6,7,8, bin:2,3
Longsolid_10838



malathion: mal2.mus.tox.txt
yearly peak 1-d, 4-d, 21-d (from bottom up)
huc:12b,12a, bin:2,3
Guadalupe orb_11577

Lampsilis..spp.

>

Fish.Mortality.LC50

1 10 50 90 99

Mussel.LC50s

56 76 119 168 245 306 798

Mortality.Aq..Invert.HC50

1 10 50 90 99

Mortality.Aq..Invert.HC05

1 10 50 90 99

Toxicities

Developed (20510, 1025)

1.1, 0.06

Mosquito Control (19118, 0)

1.03, <0.01

Other Grains (5308, 5308)

0.28, 0.28

Other Crops (3132, 0)

0.17, <0.01

Wheat (2293, 2291)

0.12, 0.12

Corn (660, 470)

0.04, 0.03

Nurseries (181, 180)

<0.01, <0.01

Cotton (135, 8)

<0.01, <0.01

Orchards and Vineyards (48, 48)

<0.01, <0.01

Vegetables and Ground Fruit (7, 6)

<0.01, <0.01

Pasture (6, 6)

<0.01, <0.01

Total Range (1864024 acres)

%s (overlap, treated)

○ 2 ○ 3

1e-02

1e-01

1e+00

1e+01

1e+02

1e+03

Median EEC ppb (over 30 years with 5% to 95%)

malathion: mal2.mus.tox.txt

yearly peak 1-d, 4-d, 21-d (from bottom up)

huc:12b,12a, bin:2,3

Guadalupe fatmucket_11578

Uses