

Response function summary

```
## Parsed with column specification:
```

```
## cols(
##   .default = col_character(),
##   eec = col_double(),
##   dose_response = col_double(),
##   half_life = col_double(),
##   best = col_double()
## )
```

```
## See spec(...) for full column specifications.
```

```
##
##   bottom-up direct larvae direct snail top-down
##           7           39           45           53
```

```
##
##   Haematobium      Mansoni      Other Snail predators
##           12           50           29           53
```

Chemical	Bottom Up	Direct Larvae	Direct Snail	Top Down	Total Records
Atrazine	3	7	5	1	16
Ammonium Fertilizer	4	7	2	1	14
Chlorpyrifos	0	5	3	6	14
Malathion	0	3	7	3	13
Glyphosate	0	5	6	0	11
Carbaryl	0	1	2	5	8
Profenofos	0	2	3	2	7
Endosulfan	0	0	2	3	5
Butachlor	0	2	1	1	4
Butralin	0	2	2	0	4
Other Fertilizer	0	0	4	0	4
Pendimethalin	0	2	2	0	4
2,4-D	0	0	0	3	3
Fluazifop-p-butyl	0	2	1	0	3
Lambda cyhalothrin	0	0	0	3	3
Terbufos	0	0	0	3	3
Deltamethrin	0	0	1	1	2
Diazinon	0	0	2	0	2
Esfenvalerate	0	0	0	2	2
Fenitrothion	0	0	0	2	2
Paraquat	0	0	1	1	2
Permethrin	0	0	0	2	2
Trifluralin	0	0	0	2	2

```
# For chemicals with adequate data, e.g. those that have evidence for approximately all hypothesized pat.
RFX_multis <- RFXSum %>% filter(Chemical %in% c("Atrazine", "Butachlor", "Butralin",
                                                "Chlorpyrifos", "Glyphosate", "Malathion", "Profenofos",
                                                System != "Other") %>%
```

```

group_by(Chemical, parameter, System) %>%
  summarise(nfx = n(),
            matches = paste(Study, collapse = " ; "),
            species = paste(Species, collapse = " ; ")) %>% filter(nfx > 1)

RFxSum <- RFxSum %>% full_join(RFx_multis, by = c("Chemical", "parameter", "System"))

RFxSum %>% group_by(Chemical) %>%
  summarise(EEC = mean(eec),
            Source = first(eec_source)) %>%
  knitr::kable()

```

Chemical	EEC	Source
2,4-D	762.000	https://archive.epa.gov/pesticides/reregistration/web/pdf/24d_red.pdf
Ammonium Fertilizer	1958.626	Study_Conc
Atrazine	102.000	https://doi.org/10.1038/s41467-018-03189-w
Azinphos-methyl	15.300	https://doi-org.libproxy.berkeley.edu/10.1016/S0045-6535(00)00601-9
Butachlor	202.000	https://archive.epa.gov/pesticides/reregistration/web/pdf/0177red.pdf
Butralin	16.890	Epa report
Carbaryl	33.500	https://doi.org/10.1645/GE-2078.1
Carbofuran	36.000	https://archive.epa.gov/pesticides/reregistration/web/pdf/carbofuran_red.pdf
Chlorpyrifos	28.000	https://doi.org/10.1016/j.chemosphere.2015.03.091
Cypermethrin	5.900	https://doi.org/10.1016/j.agwat.2012.01.009
Deltamethrin	4.520	https://doi.org/10.1016/j.agwat.2012.01.009
Diazinon	429.000	https://archive.epa.gov/pesticides/reregistration/web/pdf/diazinon_red.pdf
Dichlorvos	7.500	https://setac.onlinelibrary.wiley.com/doi/epdf/10.1002/ieam.1534
Dimethoate	33.400	https://archive.epa.gov/pesticides/reregistration/web/pdf/dimethoate_red.pdf
Endosulfan	7.600	https://archive.epa.gov/pesticides/chemicalsearch/chemical/foia/web/pdf/079401/079401.pdf
Esfenvalerate	1.030	http://dx.doi.org/10.1016/j.chemosphere.2015.03.091
Fenitrothion	36.600	https://archive.epa.gov/pesticides/reregistration/web/pdf/0445.pdf
Fluazifop-p-butyl	56.600	https://www.gpo.gov/fdsys/pkg/FR-2017-09-27/pdf/2017-20748.pdf
Glyphosate	230.000	https://www.federalregister.gov/documents/2000/09/27/00-24318/glyphosate-pesticide-
Lambda cyhalothrin	1.770	http://dx.doi.org/10.1016/j.chemosphere.2015.03.091
Malathion	18.400	http://dx.doi.org/10.1016/j.chemosphere.2015.03.091
Methyldemeton	12.400	https://archive.epa.gov/pesticides/reregistration/web/pdf/odm_red.pdf
Metolachlor	186.000	https://archive.epa.gov/pesticides/reregistration/web/pdf/0001.pdf
Monocrotophos	21.300	https://archive.epa.gov/pesticides/reregistration/web/pdf/dicrotophos_red.pdf
MSMA	360.000	https://archive.epa.gov/pesticides/reregistration/web/pdf/organic_arsenicals_red.pdf
Oryzalin	368.100	https://archive.epa.gov/pesticides/reregistration/web/pdf/0186.pdf
Other Fertilizer	4400.000	Halstead_2018
Oust	31.000	https://www3.epa.gov/pesticides/chem_search/reg_actions/reregistration/red_PC-122
Paraquat	4.800	https://archive.epa.gov/pesticides/reregistration/web/pdf/0262red.pdf
Pendimethalin	31.000	https://archive.epa.gov/pesticides/reregistration/web/pdf/0187red.pdf
Permethrin	5.980	http://dx.doi.org/10.1016/j.chemosphere.2015.03.091
Phosphamidon	22.000	http://www.fao.org/3/w5715e/w5715e06.htm
Profenofos	15.380	https://doi.org/10.1016/j.agwat.2012.01.009
Quinalphos	4.000	https://pubs.acs.org/doi/pdf/10.1021/es00174a001
Terbufos	36.600	http://dx.doi.org/10.1016/j.chemosphere.2015.03.091
Tributyltin	13.700	https://archive.epa.gov/pesticides/reregistration/web/pdf/0099red.pdf
Trifluralin	7.010	https://archive.epa.gov/pesticides/reregistration/web/pdf/0179.pdf