

ECOTOX

ECOTOXicology Database System

Code List

Prepared for

U.S. Environmental Protection Agency
Office of Research and Development
National Health and Environmental Effects Research Laboratory
Mid-Continent Ecology Division (MED)
Duluth, Minnesota

By

CSC Corporation
Duluth, Minnesota 55804
Contract 68-W0-02-032, Task Order No. 2024

February 2007

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INTRODUCTION

This document contains all ECOTOX codes used in the storage and retrieval.

For brief information about data in each field, refer to the ECOTOX User Guide, Appendix E. For more detailed field definitions, refer to the coding guidelines for the aquatic database (AQUIRE Coding Guidelines) and the terrestrial database (TERRETOX Coding Guidelines) available in PDF format on the ECOTOX web site (under "What is" area).

In the ECOTOX browser reports, the fields lacking author reported data are left blank, but in the ASCII delimited file reports NR (not reported) or NA (not applicable) is used.

Asterisks are used for several reasons, depending upon the field. Please refer to the ECOTOX User Guide to accurately interpret the asterisk (*) usage.

For chemical collective index names and CAS numbers, refer to the Browse Chemical documentation. For species numbers, Scientific names, Common names, refer to the Browse Species documentation.

CHEMICAL CODES

Chemical Grade

Code	Definition	Code	Definition
A	Analytical Grade	ME	Monsanto Electrical Grade
A OR R	Analytical or Reagent Grade	MK	Merck Grade
A OR S	Analytical or Spectrophotometric Grade	NAF	National Formulary Grade
A OR T	Analytical or Technical grade	NC	Not Coded
A or GU	Analytical or Guaranteed Grade	NP	Normapur Grade
AASG	Atomic Absorbtion Spectrometry Grade	NR	Not Reported
ACS	American Chemical Society Grade	OP	Optima
AG	Agricultural Grade	PAN	Pestanal Grade
AL	Analysis Grade	PFG	Purified Grade
AN	Analar Grade	PG	Pure Grade
AN OR R	Analar or Reagent Grade	PH	Pharmaceutical Grade
AR	A.R. Grade	PR	Production Grade
B	Biological Grade	PRA	Practical Grade
C	Commercial Grade	PRG	Pesticide Residue Grade
C OR AN	Commercial or Analar Grade	PST	Pesticide Grade
CG	Chemical Grade	R	Reagent Grade
CH	Chromatographic Grade	RE	Research Grade
CL	Clinical Grade	RE or A	Research or Analytical Grade
CT	Certified Grade	RFG	Reference Grade

Code	Definition	Code	Definition
DG	Distilled in Glass Grade	RS	Residue Grade
DS	Dry Standard Grade	S	Spectrophotometric Grade
EL	Electrophoresis Grade	SC	Scintillation Grade
EM	Eastman Grade	SO	Solvent Grade
EX	Experimental Grade	SPC	Spectrochemical Grade
EXT	Extra Grade	T	Technical Grade
F	Field Grade	T OR A	Technical or Analytical Grade
FFL	Free flowing grade	T OR P	Technical or Purified grade
FOG	Formulated Grade	T OR PU	Technical Grade or Pure
GR	GR grade	TA	Technical Acid Grade
GU	Guaranteed Grade	TIS	Tissue Culture Grade
GUR	Guaranteed Reagent Grade	ULV	ULV Grade
HG	Histological Grade	UP	Ultrapure Grade
HPLC	High Performance Liquid Chromatography Gr	USP	United States Pharmacopeia Grade
I	Industrial Grade	UV	UV Grade
L	Laboratory Grade	UVS	Uvasol Grade

Chemical Formulation

Code	Definition	Code	Definition
AAPS	Atomic Absorption Primary Standard	ND	Neutralized, Desensitized
AE	Acid Equivalent	NF	Nonionized Form
AI	Active Ingredient	NR	Not Reported
AQ	Aqueous Solution	OCO	Oil Concentrate
ARST	Analytical Reference Standard	OD	Oil dispersion
AS	Aqueous Suspension	ODA	Organic Dispersal Agent
ASG	Agricultural Suspension	OS	Oil soluble
C	Commercial	PA	Pro Analsi Quality
CO	Concentrate	PAR	Particulate
CP	Chemically Pure	PEL	Pellet
CR	Controlled Release	PF	Purified
CRI	Chromatographically Impure	PO	Powder
CRP	Chromatographically Pure	PRE	Prepared in Lab
CRY	Crystal	PS	Primary Standard
D	Dust	PU	Pure, Purissium or Puris
DC	Detached Crystals	RC	Recrystallized
DG	Dispersable Granule (also known as "dry flowable")	RF	Registered Formulation
DP	Dispersable Powder	RST	Reference Standard
E	Emulsion	S	Solution
EC	Emulsifiable Concentrate	SC	Suspension concentrate
EF	Emulsifiable Formulation	SD	Solid

Code	Definition	Code	Definition
EG	Emulsified Granular	SF	Sand Formulated
EN	Encapsulated	SO	Soluble Concentrate
ES	Emulsifiable Solution, Agent	SP	Soluble Powder
FCASS	Fisher Certified Atomic Absorption Standard	SPCO	Spray concentrate
FF	Flowable Formulation	SPL	Spray Liquid
FFO	Field Formulated	SPO	Spray Powder
FG	Finely Ground	SRF	Slow release formulation
FO	Formulated	SS	Suspension concentrate
G	Granule, Granular	ST	Standard
GCR	Gas Chromatograph Standard	STD	Standard Solution for AA
GS	Gaseous	TC	Technical product
GU	Guaranteed	UD	Unneutralized, Desensitized
HG	Heavy Granular	W/W	Weight per Weight
LD	Liquid	WHO	World Health Organization
LDCO	Liquid Concentrate	WMC	Water Miscible Concentrate
MO	Miscible oil	WP	Wettable Powder
N	Nanograde	WS	Water Soluble
NC	Not Coded	WSC	Water Soluble Concentrate

Chemical Radiolabel

Code	Definition	Code	Definition
Ag-110	Silver	N-15	Nitrogen
Am-241	Americium	NC	Not Coded
As-73	Arsenic	NR	Not Reported
As-74	Arsenic	Ni-59	Nickel
As-76	Arsenic	Ni-63	Nickel
Ba-133	Barium	Np-235	Neptunium
Be-7	Beryllium	P-32	Phosphorus
C-12	Carbon	Pb-203	Lead
C-13	Carbon	Pb-210	Lead
C-14	Carbon	Po-208	Polonium
Ca-45	Calcium	Po-210	Polonium
Cd-109	Cadmium	Pu-237	Plutonium
Cd-113	Cadmium	Pu-239	Plutonium
Cd-115	Cadmium	Ra-226	Radium
Cl-36	Chlorine	Ru-106	Ruthenium
Cm-244	Curium	S-35	Sulfur
Co-57	Cobalt	Sb-125	Antimony
Co-60	Cobalt	Se-75	Selenium
Co-64	Cobalt	Sn-113	Tin
Cr-51	Chromium	Sr-85	Strontium
Cs-134	Cesium	Sr-90	Strontium

Code	Definition	Code	Definition
Cs-137	Cesium	Tc-95	Techninium
Cu-63	Copper	Tc-99	Technicium
Cu-64	Copper	Te-128	Tellurium
Cu-65	Copper	Th 238	Thorium
Eu-152	Europium	Th-232	Thorium
F-18	Fluorine	Tl-115	Thallium
Fe-59	Iron	U-232	Uranium
H-3	Hydrogen (Tritium)	U-235	Uranium
Hg-197	Mercury	U-238	Uranium
Hg-203	Mercury	V-48	Vanadium
I-125	Iodine	V-49	Vanadium
I-131	Iodine	YES	Unknown radiolabel
Mn-54	Manganese	Zn-65	Zinc

SPECIES CODES

Organism Source

Code	Definition	Code	Definition
CBC	Captive breeding colony	LAB	Laboratory
COM	Commercial source	MLT	Multiple sources
DOM	Domestic	NC	Not coded
GAM	Game farm	NR	Not reported
GO	Government agency	WLD	Wild
GOV	Government agency		

Lifestage

Code	Definition	Code	Definition
AD	Adult(s)	NR	Not reported, unknown
AL	Alevin	NU	Nauplii
BL	Blastula	NY	Nymph(s)
BS	Bud blast stage	OO	Oocyte, ova
CC	Cocoon(s)	PA	Parr
CO	Copepodid	PB	Mature (post-bloom stage) organism(s)
CP	Copepodite	PC	Pre-hatch
CS	Cleavage stage	PD	Pre-molt
CY	Cyst	PE	Post-emergence
EG	Egg(s)	PG	Post-spawning
EL	Elver	PH	Mature (pit-hardening stage) organism(s)
EM	Embryo(s)	PI	Post-molt
EX	Exponential growth phase	PJ	Pre-, sub-, semi- or near adult
EY	Eyed egg or stage, eyed embryo	PK	Post-smolt
F0	F0 generation	PN	Post-nauplius
F1	F1 generation	PO	Post-hatch
F2	F2 generation	PQ	Pre-larva
F6	F6 generation	PS	Pre-smolt
F11	F11 generation	PT	Protolarvae
FB	Mature (full-bloom stage) organism(s)	PU	Pupa(e)
FG	Female gametophyte(s)	PV	Post-larva

Code	Definition	Code	Definition
FI	Fingerling	PW	Pre-spawning
FO	Flower opening	PY	Post-embryo
FY	Fry	PZ	Protozoa
GA	Gastrula	RC	Rooted cuttings
GE	Gestation	RP	Reproductively mature organism(s)
GL	Glochidia	RST	Rootstock
GM	Gamete	SA	Subadult(s)
GP	Lag growth phase	SB	Shoot
GS	Germinated seed(s)	SC	Yolk sac larvae, sac larvae
IB	Incipient bud	SD	Seed(s)
IG	Imago	SE	Scape elongation
IM	Immature organism(s)	SF	Sac fry, yolk sac fry
IN	Instar	SG	Mature (side-green stage) organism(s)
IT	Intermolt	SI	Sexually immature organism(s)
JV	Juvenile(s)	SL	Seedling(s)
LC	Lactational	SM	Sexually mature organism(s)
LG	Log growth phase	SN	Sapling(s)
LO	Lobes	SO	Sporeling
LP	Larva-pupa	SMT	Smolt
LR	Prolarva	SP	Sperm
LV	Larva(e)	SR	Spore
MA	Mature organism(s)	ST	Spat

Code	Definition	Code	Definition
MD	Mature (dormant) organism(s)	SU	Swim-up
ME	Megalopa	SY	Stationary growth phase
MG	Male gametophyte(s)	TA	Tadpole
ML	Morula	TC	Tissue culture callus
MN	Mid-neurula	TU	Tuber
MO	Molt	UY	Underyearling
MT	Mature organism(s)	VE	Veliger
MU	Organisms at different lifestages	VG	Vegetatively mature organism(s)
MX	Organisms at different lifestages	VI	Virgin organism(s)
MY	Mysis	YA	Young adult
NB	Newborn	YE	Yearling
ND	Naiad	YO	Young organism(s)
NE	Neonate	YY	Young of Year
NH	New, newly or recent hatch	ZO	Zoea
NL	Neurala	ZY	Zygote

Organism Age Duration

Code	Definition	Code	Definition
BLM	Bloom stage	hph	Hours post hatch
LSI	Larval stage index	hpr	Hours post release
NA	Not applicable	ht	Until hatch
NC	Not coded	hv	Harvest
NR	Time information not reported	i2	Intermolt to 2nd molt
abs	Until abscission	inst	Instar
ac	Age class	it	Intermolt to molt
alv	Alevin	kh	Knee-high stage
ant	Until anthesis	lf	Lifetime;no associated numeric value
b0.25	0.25 bloom stage	lfd	Leaf drop
brd	Brood or litter	lgp	To lag phase
bt	Boot stage	lhv15-20	Leaf harvest, 15-20 cm
cfs	Commercial flowering stage	lhv20-25	Leaf harvest, 20-25 cm
clv	Until cleavage	log	To log phase
crs	Crab stage	ls	Leaf stage
cs	Cell stage	ls4-6	4-6 leaf stage
d	Day(s)	ls6	Six leaf stage
dbh	Days pre-hatch	ls9-10	9-10 leaf stage
dd	Degree days	lvp	Larva to pupa
dh	Degree hours	ma	Maturity
dpe	Days post-emergence	mi	Minute(s)

Code	Definition	Code	Definition
dpf	Days post fertilization	mo	Month(s)
dph	Days post-hatch	mpf	Minutes post-fertilization
dphv	Days post harvest	mph	Minutes post-hatch
dpn	Days post-natal	myp	Mysis - post-larvae
dpo	Days post-oviposition	pan	Panicle formation stage
dpr	Days post-release	pci	Phytochron index
dpref	Days pre-fertilization	pd	1st pod set
dps	Days post-spawn	pgm	Post germination
dpt	Days pre-fertilization	pm	Post molt
dpu	Days post-swim up	pr	Priming
dpw	Days post-swimming	pro	Propagation stage
ea	To earing	rc	Ready for consumption
eb	Early bloom stage	rhv3	Root harvest, 3 grams
ej	Egg to juvenile	s	Second(s)
el	Egg(s) laid	slk	Silk stage
em	Emergence	so	Shooting stage
epa	Egg to pre-adult	spf	Seconds post-fertilization
eslk	Early silk stage	spref	Seconds pre-fertilization
eso	End of shooting stage	ss	Squaring stage
ey	Eyed stage	sst	Substage
f5	50% flowering	stg	Stage
fb	Full bloom stage	su	Summer

Code	Definition	Code	Definition
fd	Fronnd	swm	Swim-up
fi	Floral initiation	tr	1st trifoliate leaf
fl	Flower stage	ts	Time to tassle
fr	Fruit stage	ubi	Until birth
frt	To fertilization	vg	Vegatative stage
fry	Fry	wbh	Weeks pre-hatch
fs	Flowering stage	wk	Week(s)
ge	Generation	wpe	Weeks post-emergence
ges	Gestation	wph	Weeks post-hatch
gm	Germination	wphv	Weeks pre harvest
go	Gosner stage	wps	Weeks post-swim-up
gs	Growing season	yc	Year class
gts	Gastrula stage	yph	Years post-hatch
h	Hour(s)	yr	Year(s)
hbf	Hours pre-fertilization	zm	Zoeae - megalop
hpe	Hours post-emergence	zmy	Zoeae - mysis
hpf	Hours post fertilization		

TEST CONDITION CODES

Aquatic Media Type

Code	Definition	Code	Definition
FW	Fresh water	NR	Not Reported; unable to determine whether laboratory or field
SW	Salt water		

Terrestrial Media Type

Code	Definition	Code	Definition
AGR	Agar	MIX	Media mixture (with comment)
AQU	Aqueous(hydroponic)	NAT	Natural soil
ART	Artificial soil	NC	Not coded
CUL	Culture	NONE	No substrate
FLT	Filter paper	NR	Not reported
HUM	Humus	POP	Plaster of Paris
HYP	Hydroponic	SED	Sediment
LIT	Litter	SLG	Sludge
MAN	Manure	UKN	Unknown media
MIN	Mineral soil	UKS	Unknown soil

Test Location

Code	Definition	Code	Definition
FieldA	Field, artificial	Lab	Laboratory, indoor
FieldN	Field, natural	NR	Not reported; unable to determine whether laboratory or field
FieldU	Field, unable to determine whether natural or artificial		

Exposure Duration Units

Code	Definition	Code	Definition
ABS	Abscission	HV	Harvest
ALV	Alevin	I2	Intermolt to second molt
ANT	Anthesis	IT	Intermolt-molt
B0.25	0.25 bloom stage	KH	Knee-high stage
BLM	Bloom stage	LF	Lifetime
BRD	Brood	LHV 15-20	Leaf harvest, 15-20 cm
BT	Boot stage	LHV 20-25	Leaf harvest, 20-25 cm
CFS	Commercial flowering stage	LS6	Six leaf stage
D	Day	MA	Maturity
DAE	Days after emergence	MI	Minute
DPE	Days post emergence	MO	Month
DPF	Days post fertilization	MYP	Mysis to Post-larvae
DPH	Days post hatch	PAN	Panicle formation stage
DPHV	Days post harvest	PCI	Phytochron index
EA	To earing	PD	First pod set
EB	Early bloom stage	PR	Priming
EL	Eggs laid	PM	Post molt
EM	Emergence	RC	Ready for consumption
ESLK	Early silk stage	RHV3	Root harvest, 3 grams
EY	Eyed stage	S	Second(s)
FI	Floral initiation	SO	Shooting stage

FL	Flower stage	SWM	Swim-up
FR	Fruit stage	SS	Squaring stage
FRT	To fertilization	STG	Stage
FRY	Fry	TR	First trifoliate stage
FS	Flowering stage	TS	Time to tassle
GE	Generation	V	Vegetative stage
GM	Germination	WK	Week
GS	Growing season	YR	Year
H	Hour	ZM	Zoeae-megalop
HPF	Hours post fertilization	ZMY	Zoeae to Mysis
HPH	Hours post hatch	-n	Negative values represent pretreatment times
HT	Until hatch	-x	Pretreatment response observation but time unknown

Exposure Types

Aquatic Exposure Types

Code	Definition	Code	Definition
B	Tidal (W)	IM	Intramuscular (I)
C	Topical (T)	IP	Intraperitoneal (I)
CM	Culture medium application (V)	IV	Intravenous (I)
D	Diet or oral exposure (D)	L	Leaching (W)
DA	Direct application (V)	MU	Multiple exposure routes (M)
DR	Chemical incorporated into the water (D)	NR	Not reported

E	Lentic - static water system without measurable flow rate (e.g. lake) (W)	O	Lotic (W)
EN	Environmental, unspecified (V)	OC	Ocular (I)
F	Flow through (W)	OR	Oral via capsule (D)
FD	Food (D)	P	Pulse (W)
GV	Gavage (D)	PT	Painted (T)
HP	Hydroponic solution application (V)	R	Renewal (W)
I	Injection (I)	S	Static (W)
IA	Intraarterial (I)	SC	Subcutaneous (I)
IB	Albumin injection (I)	SD	Subdermal (I)
IC	Air cell injection (I)	SO	Dipped or soaked (V)
IG	Intragastrical (D)	SP	Spray (V)
IH	Intrahemocoel (I)	SS	Soil slurry (V)
IJ	Injection, unspecified (I)	YK	Yolk (I)

Terrestrial Exposure Types

CM	Culture medium application (V)	IM	Intramuscular (I)
D	Diet or oral exposure (D)	IP	Intraperitoneal (I)
DA	Direct application (V)	IV	Intravenous (I)
DR	Chemical incorporated into the water (D)	MU	Multiple exposure routes (M)
EN	Environmental, unspecified (V)	NR	Not reported
FD	Food (D)	OC	Ocular (I)
GV	Gavage (D)	OR	Oral via capsule (D)
HP	Hydroponic solution application (V)	PT	Painted (T)

I	Injection (I)	SC	Subcutaneous (I)
IA	Intraarterial (I)	SD	Subdermal (I)
IB	Albumin injection (I)	SO	Dipped or soaked (V)
IC	Air cell injection (I)	SP	Spray (V)
IG	Intragastrical (D)	SS	Soil slurry (V)
IH	Intrahemocoel (I)	T	Topical (T)
IJ	Injection, unspecified (I)	YK	Yolk (I)

Application Frequency

Code	Definition	Code	Definition
ADL	Ad libitum; without limit or restraint	X for 60 MI	X times for 60 minutes
CON	Continual; non-pulsed	X for 84 H	X times for 84 hours
D/WK, 10-13 WK	X times per week for 10 to 13 weeks	X for 96 H	X times for 96 hours
DLY	Daily; dosing regime not specified	X in 12 H	X times in 12 hours
DLY for 2 H	Daily for 2 hours	X in 14 D	X times in 14 days
DLY for 5 D	Daily for 5 days	X in 24-72 H	X times in 24 to 72 hours
DLY for X D	Daily for X days	X in 48 H	X times in 48 hours
E X D	Every X days	X per 12 D	X times per 12 days
E X H	Every X hours	X per 14 D	X times per 14 days
E X H for 20 D	Every X hours for 20 days	X per 2 wk	X times per 2 weeks
E X MI	Every X minutes	X per 24 H	X times per 24 hours
E X WK	Every X week	X per 2D	X times per 2 days
EOD	Every other day	X per 3 D	X times per 3 days

Code	Definition	Code	Definition
G per D	Grams per day	X per 4D	X times per 4 days
H	1 hour	X per 5 D	X times per 5 days
H/D for 8 D	X hours per day for 8 days	X per 6 WK	X times per 6 weeks
HED	X hours every day	X per D	X times per day
NC	Not coded	X per D, 1 WK	X times per dar, 1 week
NR	Not reported	X per D, 10 X	X times per day, 10 times
RES	Restricted diet	X per D, 6 D/WK	X times per day, 6 days per week
STG	Stage	X per FI	Times per floral initiation
WK, 1X/wk	Weeks, 1 time per week	X per H	X times per hour
WKY	Weekly	X per MO	X times per month
X	Dosed x time(s) per study period	X per WK	X times per week
X E 7-15 D	X times every 7 to 15 days	X per Y	X times per year
X H E12H	X hours every 12 hours	X per wk/10 wk	X times per week per 10 weeks
X H E3D	X hours every 3 days	X, 1X/20D	X times, 1 time per 20 days
X H EOD	X hours every other day	X, 1X/2WK	X times, 1 time per 2 weeks
X H WKY	X hours weekly	X, 1X/4 WK	X times, 1 time per 4 weeks
X H per D	X hours per day	X, 1X/D	X times, 1 time per day
X MI per D	X minutes per day	X, 1X/Y	X times, 1 time per year
X for 1 H	X times for 1 hour	X, 1X/wk	X times, 1 time per week
X for 1 MI	X times for 1 minute	X, 2X in 14 H	X times, 2 times in 14 hours
X for 10 MI	X times for 10 minutes	X, 2X per WK	X times, 2 times per week
X for 12 H	X times for 12 hours	X, 96 H apart	X times, 96 hours apart

Code	Definition	Code	Definition
X for 15 MI	X times for 15 minutes	X,1 X E 15 D	X times, 1 time every 15 days
X for 2 D	X times for 2 days	X,1 X per 15 D	X times, 1 time per 15 days
X for 2 H	X times for 2 hours	X,1Xper9-13 D	X times, 1 time per 9-13 days
X for 24 H	X times for 24 hours	X,24 H per 14 D	X times, 24 hours per 14 days
X for 3 H	X times for 3 hours	X,48H apt E14D	X times, 48 hours apart every 14 days
X for 3.5 H	X times for 3.5 hours	X/Study	Dosed x time(s) per study period
X for 30 MI	X times for 30 minutes	X/WK for 3 WK	X times per week for 3 weeks
X for 5 H	X times for 5 hours	XperD, 1WK	X times per day for one week
X for 5 MI	X times for 5 minutes	XperD,10X	X times per day, 10 times
X for 6 H	X times for 6 hours		

Control Type

Code	Definition	Code	Definition
B	Baseline or background control	NR	Not reported
C	Concurrent control	O	Control outside of primary exposure system
D	Exposure Dose level identifier	P	Positive controls were used
E	Endpoint link identifier	S	Satisfactory
H	Historical control	U	Unsatisfactory
I	Insufficient	V	Carrier or solvent
K	Control data is presented but without accompanying methodology	Z	No controls were used in the study
M	Multiple types of controls were reported by the		

Code	Definition	Code	Definition
	author		

EXPOSURE CODES

Dose Type Code

Code	Definition	Code	Definition
C	Control	P or PC	Positive Control
D	Dose	R	Range of doses
E	Endpoint only (no dose values reported)	V	Solvent control

Concentration Type

Code	Definition	Code	Definition
A	Active Ingredient	NA	Not Applicable
D	Dissolved	NR	Not Reported
F	Formulation	T	Total
L	Labile (free metal ion)	U	Unionized

Gender

Code	Definition	Code	Definition
B	both	M	male
F	female	NR	not reported

Dose or Result Statistical Method

Code	Definition
CI	Confidence Interval
CL	Confidence Limit
CV	Confidence Value

R	Range
SD	Standard Deviation
SE	Standard Error

Chemical Analysis Method

Code	Definition	Code	Definition
C	Calculated	NR	Not reported
M	Measured	U	Unmeasured
NC	Not coded	X	Unmeasured values (some measured values reported in article)

Ionic Fraction

Code	Definition	Code	Definition
AE	Acid equivalent	MoO4	Molybdate
Ac	Actinium	N	Nitrogen
Ag	Silver	N3	Azide
Al	Aluminum	NC	Not Coded
Am	Americium	NH3	Ammonia (un-ionized)
Ar	Argon	NH4	Ammonium (total)
As	Arsenic	NO2	Nitrite
As2O3	Arsenic trioxide	NO2N	Ammonium nitrite
AsO4	Arsenate	NO3-	Nitrate
At	Astatine	NO3N	Ammonium nitrate
Au	Gold	NR	Not Reported
B	Boron	Na	Sodium
B2O3	Borate	NaN3	Sodium azide
B4O7	Bromate	Nb	Niobium
BO3	Borate	Nd	Neodymium
Ba	Barium	Ne	Neon
Be	Beryllium	Ni	Nickel
Bi	Bismuth	No	Nobelium
Bk	Berkelium	Np	Neptunium
Br	Bromine	O	Oxygen
Br2	Bromine	OH	Hydroxide
BrO3	Bromate	Os	Osmium
C	Carbon	P	Phosphorus
CN	Cyanide	P2O3	Phosphorus oxide
CNO	Cyanate	P2O5	Phosphate
CO3	Carbonate	PCP	Pentachlorophenate
CPOX	Chlorine produced oxidant	PO4	Phosphate
Ca	Calcium	PQT	Paraquat
Cd	Cadmium	Pa	Protactinium

Code	Definition	Code	Definition
Ce	Cerium	Pb	Lead
Cf	Californium	Pb3E	Triethyl lead
Cl	Chlorine	Pd	Palladium
Cl2	Chlorine	Pm	Promethium
ClO-	Hypochlorite	Po	Polonium
ClO2	Chlorite	Pr	Praseodymium
ClO3	Chlorate	Pt	Platinum
ClO4	Perchlorate	Pu	Plutonium
Cm	Curium	Ra	Radium
Co	Cobalt	Rb	Rubidium
Cr	Chromium	Re	Rhenium
Cr2O7	Dichromate	Rh	Rhodium
Cr3	Chromium (+3)	Rn	Radon
CrO3	Chromium trioxide	Ru	Ruthenium
CrO4	Chromate	S	Sulfur
CrVI	Chromium (+6)	S2O3	Thiosulfate
Cs	Cesium	SCN	Thiocyanate
Cu	Copper	SO2	Sulfur dioxide
Dy	Dysprosium	SO3	Sulfite
Er	Erbium	SO4	Sulfate
Es	Einsteinium	Sb	Antimony
Eu	Europium	SbO4	Antimonate
F	Fluorine	Sc	Scandium
Fe	Iron	Se	Selenium
Fm	Fermium	SeO3	Selenite
Fr	Francium	SeO4	Selenate
Ga	Gallium	Si	Silicon
Gd	Gadolinium	SiO2	Silicate
Ge	Germanium	Sm	Samarium
H	Hydrogen	Sn	Tin
H2S	Hydrogen sulfide	Sr	Strontium

Code	Definition	Code	Definition
HCN	Hydrogen cyanide	TBT	Tributyltin
HCO ₃	Bicarbonate	TBTO	Tributyltin oxide
HS-	Hydrogen sulfide ion	TRBr	Total Residual Bromine
HSO ₃	Bisulfite	TRCl	Total Residual Chlorine
He	Helium	TROX	Total residual oxidant
Hf	Hafnium	Ta	Tantalum
Hg	Mercury	Tb	Terbium
Ho	Holmium	Tc	Technetium
I	Iodine	TcO ₄	Pertechnetate
I ₂	Iodine	Te	Tellurium
IO ₃	Iodate	Th	Thorium
In	Indium	Ti	Titanium
Ir	Iridium	Tl	Thallium
K	Potassium	Tm	Thulium
Kr	Krypton	U	Uranium
La	Lanthanum	UO ₂	Uranium oxide (Uraninite)
Li	Lithium	V	Vanadium
Lr	Lawrencium	VO ₃	Vanadate
Lu	Lutetium	W	Wolfram
Md	Mendelevium	WO ₄	Tungstate
MeHg	Methylmercury	Xe	Xenon
Mg	Magnesium	Y	Yttrium
Mn	Manganese	Yb	Ytterbium
MnO ₄	Manganate	Zn	Zinc
Mo	Molybdenum	Zr	Zirconium

CONCENTRATION, DOSE AND RESPONSE UNITS

Code	Definition	Code	Definition
%	Percent	mg pro/mi	Milligrams protein per minute
% INHIB	Percent inhibition	mg urea/g org	Milligrams urea per gram organism
% * g	Percent multiplied by weight in grams	mg urea/g org/h	Milligrams urea per gram of organism per day
% AI	Percent active ingredient	mg%	Milligram %
% CEC	Percent of soil cation exchange capacity	mg/%	Milligrams per percent
% CNTL RI	Percent of control Ratcliff Index	mg/0/d	Milligrams per organism per day
% DT	Percent of digestive tract	mg/10 ml	Milligrams per 10 milliliters
% FATL	Percent of total fatty acids	mg/100 kg org	Milligrams per 100 kilograms of organism
% PC	Percent of positive control	mg/100 l	Milligrams per 100 liters
% PLIPD	Percent of total phospholipid	mg/100 lbs	Milligrams per 100 pounds
% PRTL	Percent of total protein	mg/100 mg TI	Milligrams per 100 milligrams tissue
% RI	Percent Ratcliff Index	mg/100g	Milligrams per 100 grams
% S/ppm Zn	Percent sulfur per parts per million zinc	mg/100g bw	Milligrams per 100 grams body weight
% TIME	Percent of time	mg/100g bw/d	Milligrams per 100 grams body weight/day
% WSF	Percent water soluble fraction	mg/100g org	Milligrams per 100 grams organism
% act	Percent activity	mg/100g sd	Milligrams per 100 grams seed
% arb	Percent arbuscularity	mg/100g/d	Milligrams per 100 grams per day

Code	Definition	Code	Definition
% ash	Percent ash	mg/100lb/d	Milligrams per 100 pounds per day
% cell volume	Percent cell volume	mg/100ml	Milligrams per 100 milliliters
% change	Percent change	mg/10g	Milligrams per 10 grams
% clitellate	Percent clitellate	mg/10g bdwt	Milligrams per 10 grams body weight
% corn	Percent corn pollen	mg/10g org	Milligrams per 10 grams organism
% cortex	Percent of cortex	mg/12 h	Milligrams per 12 hours
% d wght	Percent of dry weight	mg/15 cm3	Milligrams per 15 cubic centimeters
% dev CNTL	Percent deviation from control	mg/20 cm3	Milligrams per 20 cubic centimeters
% dose ret	Percent dose retained	mg/24 h	Milligrams per 24 hours
% dose/g TI	Percent of dose per gram of tissue	mg/24 h/kg	Milligrams per 24 hours per kilogram
% dose/h	Percent dose per hour	mg/3 kg	Milligrams per 3 kilograms
% earliness	Percent earliness	mg/3 ml	Milligrams per 3 milliliters
% fertile	Percent fertile	mg/454g	Milligrams per 454 grams
% g	Percent grams	mg/454g fd	Milligrams per 454 grams food
% g/g bdwt	Percent gram per gram body weight	mg/500 ml	Milligrams per 500 milliliters
% ingested	Percent of ingested	mg/70g	Milligrams per 70 grams
% intake	Percent of intake	mg/L	Milligram per liter
% lit	Percent of litter	mg/L media	Milligrams per liter media
% mg	Percent milligrams	mg/L/d	Milligrams per liter per day

Code	Definition	Code	Definition
% mg/g bdwt	Percent milligrams per gram body weight	mg/TI	Milligrams per tissue
% of CNTL	Percent of control value	mg/bee	Milligrams per bee
% of bdwt	Percent of body weight	mg/cc	Milligrams per cocoon
% of diet	Percent of diet	mg/cm	Milligrams per centimeter
% of initial	Percent of initial value	mg/cm2	Milligrams per square centimeter
% of max yld	Percent of maximum yield	mg/cm2*Torr	Milligrams per square centimeters*Torr
% of org	Percent of organisms	mg/cm2/d	Milligrams per square centimeter per day
% of total	Percent of total value	mg/cm3	Milligrams per cubic centimeter
% org	Percent of organisms	mg/cntr	Milligrams per container
% prod	Percent production [(# eggs/# hen days)*100]	mg/d	Milligrams per day
% sat	Percent saturation	mg/d/100 lbs	Milligrams per day per 100 pounds
% soil	Percent soil	mg/d/100 mg org	Milligrams per day per 100 grams organisms
% soln	Percent solution	mg/d/bdwt	Milligrams per day per body weight
% sperm	Percent sperm	mg/d/wght	Milligrams per day per weight
% tolerance	Percent tolerance	mg/dl	Milligrams per deciliter
% total dose	Percent total dose	mg/dm2/h	Milligrams per square decimeter per hour
% total oil	Percent of total oil content	mg/dm3	Milligrams per cubed decimeter
% v/v	Percent volume per volume	mg/dose	Milligrams per dose

Code	Definition	Code	Definition
% vol	Percent volume	mg/eu	Milligrams per experimental unit
% w/v	Percent weight per volume	mg/fish	Milligrams per fish
% w/w	Percent weight per weight	mg/ft2	Milligrams per square foot
% wet wght	Percent wet weight	mg/ft3	Milligrams per cubic foot
% wght	Percent of weight	mg/g	Milligrams per gram
% wght/org	Percent weight per organism	mg/g CRTN	Milligrams per gram creatinine
%/d	Percent per day	mg/g MIT	Micrograms per gram mitochondria
%/g	Percent per gram	mg/g N	Milligrams per gram nitrogen
%/g TI	Percent per gram tissue	mg/g TI	Milligrams per gram tissue
%/min	Percent per minute	mg/g TI/h	Milligrams per gram tissue per hour
%/ml	Percent per milliliter	mg/g ash	Milligrams per gram ash
%/org/d	Percent per organism per day	mg/g bdwt	Milligrams per gram body weight
%/wk	Percent per week	mg/g clay	Milligram per gram clay
%FM	Percent female	mg/g fd	Milligrams per gram food
%ML	Percent male	mg/g fluid	Milligram per gram fluid
%NaCl	Percent sodium chloride	mg/g humus	Milligrams per gram humus
%RBC	Percent red blood cells	mg/g org	Milligrams per gram of organism
%succ br/fm	Percent successful broods per female	mg/g pod	Milligrams per gram of pod
%w/w	Percent weight per weight	mg/g pro	Milligrams per gram protein
10x6/ul	10x6 microliters	mg/g soil	Milligrams per gram soil

Code	Definition	Code	Definition
1e+1 kg	1 X 10 +1 kilograms	mg/g/d	Milligrams per gram per day
1e+1 ug/g	1 X 10 +1 micrograms per gram	mg/gal	Milligrams per gallon
1e+12 no/L	1 X 10 +12 number/l	mg/gland/g bdwt	Milligrams per gland per gram body weight
1e+12/l	1 X 10 +12/liter	mg/h	Milligrams per hour
1e+2 cal/g	1 X 10 +2 calories per gram	mg/h/g bdwt	Milligrams per hour per gram body weight
1e+2 mm	1 X 10 +2 millimeters	mg/ha	Milligrams per hectare
1e+2 no/mm2	1 X 10 +2 per square millimeter	mg/in2/d	Milligrams per square inch per day
1e+2 no/mm3	1 X 10 +2 per cubic millimeter	mg/jv	Milligrams per juvenile
1e+2 ug/g	1 X 10 +2 micrograms per gram	mg/kg	Milligrams per kilogram
1e+3 RA	1 X 10 +3 ratio	mg/kg TI	Milligrams per kilogram tissue
1e+3 cell/mg TI	1 X 10 +3 cells per milligram tissue	mg/kg bdwt	Milligrams per kilogram body weight
1e+3 cells	1 X 10 +3 cells	mg/kg bdwt/d	Milligrams per kilogram body weight per day
1e+3 cells/mm3	1 X 10 +3 cells per cubic millimeter	mg/kg bdwt/wk	Milligrams per kilogram body weight per week
1e+3 cells/ul	1 X 10 +3 cells per microliter	mg/kg d fd	Milligrams per kilogram dry food
1e+3 cm	1 X 10 +3 number per centimeter	mg/kg d soil	Milligrams per kilogram dry soil
1e+3 cm/d	1 X 10 +3 centimeters per day	mg/kg diet	Milligrams per kilogram diet
1e+3 counts	1 X 10 +3 counts	mg/kg dry wt	Milligram per kilogram dry weight
1e+3 cpm	1 X 10 +3 counts per minute	mg/kg dw org/d	Milligrams per kilogram dry

Code	Definition	Code	Definition
			weight organism per day
1e+3 dpm/TI	1 X 10 +3 disintegrations per minute per tissue	mg/kg egg	Milligrams per kilograms egg
1e+3 dpm/g org	1 X 10 +3 disintegrations per minute per gram of organism	mg/kg fd	Milligrams per kilogram food
1e+3 dpm/ml	1 X 10 +3 disintegrations per minute per milliliter	mg/kg humus	Milligrams per kilogram humus
1e+3 dpm/org	1 X 10 +3/disintegrations per minute per organism	mg/kg litter	Milligrams per kilogram litter
1e+3 ng	1 X 10 +3 nanograms	mg/kg media	Milligrams per kilogram media
1e+3 ng/g	1 X 10 +3 nanograms per gram	mg/kg org	Milligrams per kilogram organism
1e+3 no	1 X 10 +3 number	mg/kg org/d	Milligrams per kilogram organism per day
1e+3 no/cm	1 X 10 +3 number per centimeter	mg/kg p/d	Milligrams per kilograms parent per day
1e+3 no/cm3	1 X 10 +3 number per cubic centimeter	mg/kg soil	Milligrams per kilogram soil
1e+3 no/g TI	1 X 10 +3 number per gram tissue	mg/kg wet wt	Milligrams per kilogram wet weight
1e+3 no/mg SP	1 X 10 +3 number per milligram spleen	mg/kg wt	Milligrams per kilogram weight
1e+3 no/ul	1 X 10 +3 no/microliter	mg/kg wt/d	Milligrams per kilogram weight per day
1e+3 org/acre	1 X 10+3 organisms per acre	mg/kg/C	Milligrams per kilograms per degree celcius
1e+3 sigma u/g	1 X 10+3 sigma units per gram	mg/kg/L	Milligrams per kilogram per liter
1e+3 um2	1 X 10 +3 square micrometers	mg/kg/d	Milligrams per kilogram per day
1e+3/ml	1 X 10 +3/milliliter	mg/kg/fish	Milligrams per kilogram per fish

Code	Definition	Code	Definition
1e+3/mm3	1 X 10 +3/cubic millimeter	mg/kg/h	Milligrams per kilograms per hour
1e+3/ul	1 X 10 +3/microliter	mg/kg/min	Milligrams per kilogram per minute
1e+3RNA/TCA/DNA	1 X 10 +3 (counts per minute RNA per milligram TCA) per milligra	mg/kg/org	Milligrams per kilogram per organism
1e+3dpm/mg DNA	1 x 10+3 disintegrations per minute per milligram DNA	mg/kg/wk	Milligrams per kilogram per week
1e+3dpm/mg RNA	1 x 10+3 disintegrations per minute per milligram RNA	mg/l	Milligrams per liter
1e+4 IU/TI	1 X 10 +4 International units per tissue	mg/lb	Milligrams per pound
1e+4 IU/g	1 X 10 +4 International units per gram	mg/m2	Milligrams per square meter
1e+4 no/mg TI	1 X 10 +4 number per gram tissue	mg/m3	Milligrams per cubic meter
1e+4 no/ml	1 X 10 +4 number per milliliter	mg/mg	Milligrams per milligrams
1e+4 no/mm2	1 X 10 +4 per square millimeter	mg/mg CREA	Milligrams per milligrams creatinine
1e+4 no/mm3	1 X 10 +4 per cubic millimeter	mg/mg node	Milligrams per milligram nodules
1e+4 ug/TI	1 X 10+4 micrograms per tissue	mg/mi	Milligrams per minute
1e+4 ug/g	1 X 10+4 micrograms per gram	mg/ml	Milligrams per milliliter
1e+4/mm	1 x 10+4 per millimeter	mg/mm2	Milligrams per square milliliter
1e+4/mm3	1 x 10+4 per cubic millimeter	mg/org	Milligrams per organism
1e+5 no	1 X 10 +5 number	mg/org/d	Milligrams per organism per day
1e+5 no/g TI	1 X 10 +5 number per gram tissue	mg/org/wk	Milligrams per organism per week

Code	Definition	Code	Definition
1e+6 cells	1 X 10 +6 cells	mg/orwt	Milligrams per organ weight
1e+6 cells/mm3	1 X 10 +6 cells per cubic millimeter	mg/sd	Milligrams per seed
1e+6 cm	1 X 10 +6 centimeters	mg/tuber	Milligrams per tuber
1e+6 cpm	1 X 10 +6 counts per minute	mg/vol	Milligrams per volume
1e+6 cpm/g TI	1 X 10 +6 counts per minute per gram tissue	mg/wk	Milligrams per week
1e+6 mm3	1 X 10 +6 per cubic millimeter	mg ^{1/3}	Milligrams to the 1/3 power
1e+6 no	1 X 10 +6 number	mi	Minute
1e+6 no/cm3	1 X 10 +6 number per cubic centimeter	mi/12 h	Minutes per 12 hours
1e+6 no/g TI	1 X 10 +6 number per gram tissue	mi/d	Minutes per day
1e+6 no/mg TI	1 X 10 +6 number per milligram tissue	mi/nmol Rh	Minutes per nanomoles rhodopsin
1e+6 no/ml	1 X 10 +6 number per milliliter	mi/org	Minutes per organism
1e+6 no/mm3	1 X 10 +6 number per cubic millimeter	micronaires	Micronaires
1e+6 no/org	1 X 10+6 number per organism	microns	Microns
1e+6 no/ul	1 X 10 +6 number per microliter	ml	Milliliters
1e+6/cm3	1 X 10 +6/cubic centimeter	ml CO2/mi	Milliliters CO2 per minute
1e+6/ml	1 X 10 +6/milliliter	ml O2	Milliliters O2
1e+6/mm3	1 X 10 +6/cubic millimeter	ml O2/mg TI	Milliliters O2 per milligram tissue
1e+6/ul	1 X 10 +6/microliter	ml/10 L	Milliliter per 10 liters
1e+6no/g	1 X 10 +6 number per gram	ml/100 g bdwt	Milliliter per 100 grams body weight

Code	Definition	Code	Definition
1e+7 cells	1 X 10+7 cells	ml/100 m2	Milliliters per 100 square meters
1e+7/ml sperm	1 X 10+7 cells per milliliter sperm	ml/100g	Milliliters per 100 grams
1e+8 no	1 X 10 +8 number	ml/100g bdwt/d	Milliliter per 100 grams body weight per day
1e+8/mm3	1 X 10 +8 per cubic millimeter	ml/100ml	Milliliters per 100 milliliters
1e+9 no	1 X 10 +9 number	ml/16 h	Milliliters per 16 hours
1e+9 no/l	1 X 10 +9 number per liter	ml/24 h	Milliliters per 24 hours
1e+9 no/ml	1 X 10 +9 number per milliliter	ml/50 kg seed	Milliliters per 50 kilograms seed
1e-1 M	1 X 10 -1 molar	ml/70d	Milliliters per 70 days
1e-1 mg	1 X 10 -1 milligrams	ml/L	Milliliters per liter
1e-1 mg/l	1 X 10 -1 milligrams/liter	ml/acre	Milliliters per acre
1e-1 mg/mg/d	1 X 10 -1 milligrams per milligrams per day	ml/body wt	Milliliter per body weight
1e-1 uM	1 X 10 -1 micromolar	ml/cntr	Milliliters per container
1e-1 ug	1 X 10 -1 micrograms	ml/d	Milliliters per day
1e-1 ug/l	1 X 10 -1 micrograms per liter	ml/d/100g BW	Milliliters per day per 100 grams body weight
1e-1 ug/ml	1 X 10 -1 micrograms per milliliter	ml/d/kg BW	Milliliters per day per kilogram body weight
1e-10 M	1 X 10 -10 molar	ml/d/org	Milliliters per day per organism
1e-11 M	1 X 10 -11 molar	ml/eu	Milliliters per experimental unit
1e-12 M	1 X 10 -12 molar	ml/eu/d	Milliliters per experimental unit per day
1e-13 M	1 X 10 -13 molar	ml/g food	Milliliters per gram food

Code	Definition	Code	Definition
1e-14 M	1 X 10 ⁻¹⁴ molar	ml/g/h	Milliliters per gram per hour
1e-15 M	1 X 10 ⁻¹⁵ molar	ml/gal	Milliliters per gallon
1e-2 J/beat/kg	1 x 10 ⁻² Joules per beat per kilogram	ml/h	Milliliters per hour
1e-2 M	1 X 10 ⁻² molar	ml/h/g bdwt	Milliliters per hour per gram body weight
1e-2 M/m ³	1 X 10 ⁻² molar per cubic meter	ml/ha	Milliliters per hectare
1e-2 Nm	1 X 10 ⁻² nanometers	ml/injection	Milliliters per injection
1e-2 g/l	1 X 10 ⁻² grams per liter	ml/kg	Milliliters per kilogram
1e-2 mM	1 X 10 ⁻² millimolar	ml/kg bdwt	Milliliters per kilogram body weight
1e-2 mg	1 X 10 ⁻² milligrams	ml/kg org/d	Milliliters per kilogram organism per day
1e-2 mg/l	1 X10 ⁻² milligrams/liter	ml/kg/d	Milliliters per kilogram per day
1e-2 mm	1 X 10 ⁻² millimeters	ml/l	Milliliters per liter
1e-2 no/ul	1 X 10 ⁻² number per microliter	ml/lit	Males per litter
1e-2 uM	1 X 10 ⁻² micromolar	ml/m ²	Milliliters per square meter
1e-2 ug/g	1 X 10 ⁻² micrograms per gram	ml/mi	Milliliter per minute
1e-2 ug/ml	1 X 10 ⁻² micrograms per milliliter	ml/mi/100g	Milliliters per minute per 100 grams
1e-2 umol Hg/g	1 X 10 ⁻² micromoles hemaglobin bound per g tissue	ml/mi/kg	Milliliters per minute per kilogram
1e-2 umol/g TI	1 X 10 ⁻² micromols per gram tissue	ml/org	Milliliters per organism
1e-2.5 M	1 X 10 ^{-2.5} molar	ml/org/d	Milliliters per organism per day

Code	Definition	Code	Definition
1e-3 M	1 X 10 ⁻³ molar	ml/plot	Milliliters per plot
1e-3 M/m ³	1 X 10 ⁻³ molar per cubic meter	ml/wk	Milliliters per week
1e-3 RA	1 X 10 ⁻³ ratio	mlcl/actin mlcl	Molecules per actin molecule
1e-3 cm/d	1 X 10 ⁻³ centimeters per day	mm	Millimeters
1e-3 cm ³ /l	1 X 10 ⁻³ cubic centimeters per liter	mm X 100	Millimetres X 100
1e-3 cpm	1 X 10 ⁻³ counts per minute	mm/d	Millimeters per day
1e-3 g/l	1 X 10 ⁻³ grams per liter	mm/h	Millimeters per hour
1e-3 g/ml	1 X 10 ⁻³ grams per milliliter	mm/org	Millimeters per organism
1e-3 mM	1 X 10 ⁻³ millimolar	mm/ug pro	Millimeters per microgram protein
1e-3 mg	1 X 10 ⁻³ milligrams	mm ²	Square millimeters
1e-3 mg/l	1 X 10 ⁻³ milligrams per liter	mm ² /mm ³ * 1e-9	Square millimeters per cubic millimeter X 1 X 10 ⁻⁹
1e-3 mg/mg/d	1 X 10 ⁻³ milligrams per milligrams per day	mm ² /org/d	Square millimeters per organism per day
1e-3 uM	1 X 10 ⁻³ micromolar	mm ³	Cubic millimeters
1e-3 ug/ml	1 X 10 ⁻³ micrograms per milliliter	mm ³ /100g d soil	Cubic millimeters per 100 grams dry soil
1e-3*dyn*s*cm-5	1 X 10 ⁻³ X dynes X seconds per centimeters to the fifth power	mm ³ /L	Cubic millimeter per liter
1e-3.5 M	1 X 10 ^{-3.5} molar	mm ³ /dm ³	Cubic millimeters per cubic decimeter
1e-3.6 M	1 X 10 ^{-3.6} molar	mm ³ /l	Cubic millimeters per liter
1e-4 M	1 X 10 ⁻⁴ molar	mm ³ /mg/h	Cubic millimeters per milligram per hour

Code	Definition	Code	Definition
1e-4 M/dm ³	1 X 10 ⁻⁴ molar per cubic decameter	mm ³ /mm ³	Cubic millimeters per cubic millimeter
1e-4 M/m ³	1 X 10 ⁻⁴ molar per cubic meter	mmHg	Millimeters mercury
1e-4 cm ³	1 X 10 ⁻⁴ cubic centimeters	mmHg/beat/mi ⁻³	Millimeters mercury per beat per minute * 1 X 10 ⁻³
1e-4 g/l	1 X 10 ⁻⁴ grams per liter	mmHg/s	Millimeters mercury/second
1e-4 g/ml	1 X 10 ⁻⁴ grams per milliliter	mmg	Micromilligrams
1e-4 in	1 X 10 ⁻⁴ inches	mmol	Millimoles
1e-4 mM	1 X 10 ⁻⁴ millimolar	mmol H ₂ O/m ² /s	Millimoles water per square meter per second
1e-4 mg	1 X 10 ⁻⁴ milligrams	mmol NO ₂ /kg	Millimoles nitrogen dioxide per kilogram
1e-4 mg/cm ³	1 X 10 ⁻⁴ milligrams per cubic centimeter	mmol/ g food	Millimoles per gram food
1e-4 mg/l	1 X 10 ⁻⁴ milligrams per liter	mmol/100 g	Millimoles per 100 grams
1e-4 no	1 X 10 ⁻⁴ number	mmol/L	Millimoles per liter
1e-4 uM	1 X 10 ⁻⁴ micromolar	mmol/L soil	Millimoles per liter soil
1e-4 ug/l	1 X 10 ⁻⁴ micrograms per liter	mmol/d	Millimoles per day
1e-4/0.5ml	1 X 10 ⁻⁴ milligrams per 0.5 milliliters	mmol/g	Millimoles per gram
1e-4dpm/g	1 x 10 ⁻⁴ disintegrations per minute per gram	mmol/g dry wt	Millimoles per gram dry weight
1e-4dpm/mg Pi	1 x 10 ⁻⁴ disintegrations per minute per milligram Pi	mmol/h/g TI	Millimoles per hour per gram tissue
1e-5 M	1 X 10 ⁻⁵ molar	mmol/kg	Millimoles per kilogram
1e-5 M/dm ³	1 X 10 ⁻⁵ molar per cubic decameter	mmol/kg fd	Millimoles per kilogram fd

Code	Definition	Code	Definition
1e-5 g/l	1 X 10 ⁻⁵ grams per milliliter	mmol/kg media	Millimoles per kilogram media
1e-5 g/ml	1 X 10 ⁻⁵ grams per milliliter	mmol/kg soil	Millimoles per kilogram soil
1e-5 mM	1 X 10 ⁻⁵ millimolar	mmol/kg/d	Millimoles per kilogram per day
1e-5 mg	1 X 10 ⁻⁵ milligrams	mmol/kg/h	Millimoles per kilogram per hour
1e-5 mg/10 ml	1 X 10 ⁻⁵ milligrams per 10 milliliters	mmol/m ² /s	Millimoles per square meter per second
1e-5 mg/l	1 X 10 ⁻⁵ milligrams per liter	mmol/m ³	Millimoles per cubic meter
1e-5 ug/l	1 X 10 ⁻⁵ micrograms per liter	mmol/mg/mi	Millimoles per milligram per minute
1e-5.4 M	1 X 10 ^{-5.4} molar	mmol/mi/mg	Millimoles per minute per milligram
1e-5.5 M	1 X 10 ^{-5.5} molar	mmol/ml/h	Millimoles per milliliter per hour
1e-5.7 M	1 X 10 ^{-5.7} molar	mmu	Absolute milli-mass units
1e-5/mm ³	1 X 10 ⁻⁵ /cubic millimeter	mo	Month
1e-6 M	1 X 10 ⁻⁶ molar	mol	Moles
1e-6 M/dm ³	1 X 10 ⁻⁶ molar per cubic decameter	mol NO ₂ /h/g	Moles nitrogen dioxide per hour per gram
1e-6 g/l	1 X 10 ⁻⁶ grams per liter	mol/L	Moles per liter
1e-6 g/ml	1 X 10 ⁻⁶ grams per milliliter	mol/egg	Moles per egg
1e-6 mol/mi/gTI	1 X 10 ⁻⁶ moles per minute per gram tissue	mol/g	Moles per gram
1e-6.1 M	1 X 10 ^{-6.1} molar	mol/g soil	Moles per gram soil
1e-6.5 M	1 X 10 ^{-6.5} molar	mol/ha	Moles per hectare
1e-6.7 M	1 X 10 ^{-6.7} molar	mol/kg	Moles per kilogram
1e-7 M	1 X 10 ⁻⁷ molar	mol/m ³	Moles per cubic meter

Code	Definition	Code	Definition
1e-7 M/dm ³	1 X 10 ⁻⁷ molar per cubic decameter	mol/ml	Moles per milliliter
1e-7 g/ml	1 X 10 ⁻⁷ grams per milliliter	mol/org	Moles per organism
1e-7 mg/10 ml	1 X 10 ⁻⁷ milligrams per 10 milliliter	mol/umol	Moles per micromole
1e-7.5 M	1 X 10 ^{-7.5} molar	molal	Molality
1e-8 M	1 X 10 ⁻⁸ molar	mole %	Mole percent
1e-8 g/ml	1 X 10 ⁻⁸ grams per milliliter	morph/org	Ectomycorrhizal morphotypes per organism
1e-9 M	1 X 10 ⁻⁹ molar	mosmols/l	Mosmoles (conc osmotic particles in solution) per liter
1e-9 M/dm ³	1 X 10 ⁻⁹ molar per cubic decameter	mouse unit/ml	Mouse units per milliliter
1e-9 g/ml	1 X 10 ⁻⁹ grams per milliliter	mp/mg pro/15mi	Microsomal proteins/milligram protein per 15 minutes
1e-9 moles	1 X 10 ⁻⁹ moles	ms	Milliseconds
1e-9/l	1 X 10 ⁻⁹ /liter	mu	Milliunits
1mg/10ml	1 milligram per 10 milliliters	mu/24 h	Milliunit per 24 hours
25 mg/40l	25 milligrams per 40 liters	mu/mg	Milliunit per milligram
AI	Active ingredient	mu/mi/ml	Milliunit per minute per milliliter
AI % w/w	Active ingredient percent weight per weight	mu/ml	Milliunit per milliliter
AI %/L	Active ingredient percent per L	mu/org	Milliunits per organism
AI g	Active ingredient grams	mumol/g	Mumoles per gram
AI g/100 L	Active ingredient grams per 100 liters	mumol/g/mi	Mumoles per gram per minute
AI g/100 gal	Active ingredient grams per	nCi	Nanocuries

Code	Definition	Code	Definition
	100 gallons		
AI g/100 kg	Active ingredient grams per 100 kilograms	nCi/L	Nanocuries per liter
AI g/305 m	Active ingredient grams per 305 meters	nCi/g org	Nanocuries per gram organism
AI g/ac	Active ingredient grams per acre	nM	Nanomolar (nanomoles per liter)
AI g/cm	Active ingredient grams per cent	nM DSMN:uM LYSI	Nanomoles desmosine to micromoles lysine ratio
AI g/cm of dbh	Active ingredient grams per centimeter of diameter breast height	nM/L	Nanomolar per liter
AI g/eu	Active ingredient grams per experimental unit	nM/g	Nanomolar per gram
AI g/fed	Active ingredient grams per feddan	ng	Nanograms
AI g/ha	Active ingredient grams per hectare	ng ATP/g d soil	Nanograms ATP per grams dry soil
AI g/kg plt	Active ingredient grams per kilogram pellet	ng/0.3 L	Nanograms per 0.3 liters
AI g/m	Active ingredient grams per meter	ng/100 ml	Nanograms per 100 milliliters
AI g/m2	Active ingredient grams per sq m	ng/100g bdwt	Nanograms per 100 grams per bodyweight
AI g/org	Active ingredient grams per organism	ng/24h	Nanograms per 24 hours
AI kg	Active ingredient kilograms	ng/L	Nanograms per liter
AI kg /0.4 ha	Active ingredient kilograms per 0.4 hectares	ng/TI	Nanograms per tissue
AI kg/100 kg sd	Active ingredient kilograms per 100 kilograms seed	ng/cm	Nanograms per centimeter

Code	Definition	Code	Definition
AI kg/ha	Active ingredient kilograms per hectare	ng/cm2	Nanograms per square centimeter
AI kg/ha soil	Active ingredient kilograms per hectare soil	ng/d	Nanograms per day
AI l/ha	Active ingredient liters per hectare	ng/dl	Nanograms per deciliter
AI lb/100 gal	Active ingredient pounds per 100 gallons	ng/egg	Nanograms per egg
AI lb/acre	Active ingredient pounds per acre	ng/eu	Nanograms per experimental unit
AI lb/ga	Active ingredient pounds per gallon	ng/fish	Nanograms per fish
AI mL/eu	Active ingredient milliliter per experimental unit	ng/g	Nanograms per gram
AI mg	Active ingredient milligrams	ng/g TE	Nanograms per gram Toxic Equivalences
AI mg/0.1 m2	Active ingredient milligrams per 0.1 square meters	ng/g TI	Nanograms per gram tissue
AI mg/L	Active ingredient milligram per Liter	ng/g TI/4 h	Nanograms per gram tissue per 4 hours
AI mg/d	Active ingredient milligrams per day	ng/g bdwt	Nanograms per gram body weight
AI mg/eu	Active ingredient milligrams per experimental unit	ng/g diet	Nanograms per gram diet
AI mg/kg	Active ingredient milligrams per kilogram	ng/g dry wt	Nanograms per gram dry weight
AI mg/kg bdwt/d	Active ingredient milligrams per kilograms body weight per day	ng/g egg	Nanograms per gram egg
AI mg/kg soil	Active ingredient milligrams per kilogram soil	ng/g org	Nanograms per gram organism

Code	Definition	Code	Definition
AI mg/org	Active ingredient milligrams per organism	ng/g wet wt	Nanograms per gram wet weight
AI ml/ha	Active ingredient milliliters per hectare	ng/g/d	Nanogram per gram per day
AI ng	Active ingredient nanograms	ng/gland	Nanograms per gland
AI ng/cm ²	Active ingredient. Nanograms per square centimeter	ng/kg	Nanograms per kilogram
AI ng/mL	Active ingredient nanograms per milliliter	ng/kg bdwt/d	Nanograms per kilogram body weight per day
AI ng/mg bdwt	Active ingredient nanograms per milligrams body weight	ng/kg fd	Nanograms per kilogram food
AI oz/ac	Active ingredient ounces per acre	ng/kg soil	Nanograms per kilogram soil
AI ug	Active ingredient micrograms	ng/kg/d	Nanograms per kilogram per day
AI ug/L	Active ingredient micrograms per Liter	ng/kg/wk	Nanograms per kilogram per week
AI ug/cm ²	Active ingredient micrograms per square centimeter	ng/mg	Nanograms per milligram
AI ug/g	Active ingredient micrograms per gram	ng/mg bdwt	Nanograms per milligram body weight
AI ug/g bdwt	Active ingredient micrograms per gram body weight	ng/mg fd	Nanograms per milligram food
AI ug/kg	Active ingredient micrograms per kilogram	ng/mg pro	Nanograms per milligram protein
AI ug/ml	Active ingredient micrograms per milliliter	ng/mg/mi	Nanograms per milligram per minute
ALB:YK	Albumen to yolk ratio	ng/min	Nanograms per minute
AU	Arbitrary units	ng/ml	Nanograms per milliliter
B'	Chromatid break	ng/ml blood/d	Nanograms per milliliter blood

Code	Definition	Code	Definition
			per day
B"	Isochromatid break	ng/ml/h	Nanograms per milliliter per hour
BB units	BB units	ng/ml/mi	Nanograms per milliliter per minute
BO:LI	Bone to liver ratio	ng/mm/day	Nanograms per millimeter per day
BR:BL	Ratio of brain to blood	ng/org	Nanograms per organism
BU	Bessey units	ng/orwt	Nanograms per organ weight
Bq	Becquerels	ng/ul	Nanograms per microliter
Bq/L	Becquerels per liter	ni/l	Nanoliters per liter
Bq/g	Becquerels per gram	nkat/mg pro	Nanokats per milligrams protein
Bq/kg	Becquerels per kilogram	nl/L	Nanoliter per liter
Bq/mg	Becquerels per milligram	nl/ml	Nanoliters per milliliter
Bq/ml	Becquerels per milliliter	nmol	Nanomoles
Bq/org	Becquerels per organism	nmol ATP/g soil	Nanomoles adenosine triphosphate per gram of soil
C	Centigrade, degrees	nmol DOPA/g/h	Nanomoles DOPA per gram per hour
CHLA:CHLB	Ratio of chlorophyll a to chlorophyll b	nmol H2O2/mi/mg	Nanomoles of peroxide per minute per milligram protein
CI	Color index	nmol MDA/mg pro	Nanomoles malonaldehyde per milligram protein
CRB:BR	Ratio of cerebellum to brain	nmol PBG/g TI/h	Nanomoles porphobilinogen per gram tissue per hour
CRM:BR	Ratio of cerebrum to brain	nmol PBG/h/ml	Nanomoles porphobilinogen per hour per milliliter

Code	Definition	Code	Definition
CWU	CW units	nmol enz/hr	Nanomoles enzyme per hour
Ci/L	Curies per liter	nmol mdhyde/g	Nanomoles malondialdehyde per gram
Ci/mmol	Curies per millimole	nmol/100 mg pro	Nanomoles per 100 milligrams protein
Ci/mol	Curies per mole	nmol/100mgpro/h	Nanomoles per 100 milligrams protein per hour
DB/mg pro	Lipid aliphatic double bonds per milligram protein	nmol/L	Nanomoles per liter
DNA:Protein	Ratio of DNA to protein	nmol/TI	Nanomoles per tissue
DNA:RNA	DNA to RNA ratio	nmol/egg	Nanomoles per egg
EU/g	Enzyme unit (amt of enzyme needed to catalyze)/g	nmol/g	Nanomoles per gram
FD:Gain	Ratio of weight of food consumed to weight gained	nmol/g TI	Nanomoles per gram tissue
FD:WTR	Food to water ratio	nmol/g TI/h	Nanomoles per g tissue per hour
FER	Feed efficiency ratio	nmol/g food	Nanomoles per gram food
FM/lit	Females per litter	nmol/g humus	Nanomoles per gram humus
FM:ML	Females to males ratio	nmol/g pro	Nanomoles per gram protein
FTS:PLC	Fetus to placenta ratio	nmol/g pro/mi	Nanomoles per gram protein per minute
FU/g	Fluorescence units per gram	nmol/g ro/4 h	Nanomoles per gram root per 4 hours
G'	Chromatid gap	nmol/g soil	Nanomoles per gram soil
G''	Isochromatid gap	nmol/g/30mi	Nanomoles per gram per 30 minutes
Gain:FD	Ratio of weight gained to	nmol/g/4 mi	Nanomoles per gram per 4

Code	Definition	Code	Definition
	weight of food consumed		minutes
H'	Shannon-Weiner Diversity index	nmol/g/h	Nanomoles per gram per hour
HA units	Hemagglutinating units	nmol/g/mi	Nanomoles per gram per minute
Haugh U	Haugh units	nmol/h/mg pro	Nanomoles per hour per milligram protein
IU	International units	nmol/h/ml RBC	Nanomoles per hour per milliliter red blood cells
IU/L	International units per liter	nmol/kg	Nanomoles per kilogram
IU/g	International Units per gram	nmol/kg bdwt	Nanomoles per kilogram body weight
IU/g TI	International Units per gram tissue	nmol/kg/mi	Nanomoles per kilogram per minute
IU/kg	International Units per kilogram	nmol/l	Nanomoles per liter
IU/kg bdwt	International Units per kilogram body weight	nmol/mg	Nanomoles per milligram
IU/l	International Units per liter	nmol/mg TI	Nanomoles per milligram tissue
IU/mg	International Units per milligram	nmol/mg pro	Nanomoles per milligram per protein
IU/mg Hb	International Units per milligram hemoglobin	nmol/mg pro/h	Nanomoles per milligram per hour
IU/mg TI	International Units per milligram tissue	nmol/mg pro/mi	Nanomoles per milligram protein per minute
IU/mg pro	International Units per milligram pro	nmol/mg/15mi	Nanomoles per milligram protein per 15 minutes
IU/ml	International Units per milliliter	nmol/mg/20mi	Nanomoles per milligram protein per 20 minutes
IU/orgwt	International Units per organ weight	nmol/mg/h	Nanomoles per milligram per hour

Code	Definition	Code	Definition
J/beat	Joules per beat	nmol/mg/mi	Nanomoles per milligram per minute
J/d	Joules per day	nmol/mgpro/30mi	Nanomoles per milligram protein per 30 minutes
K units	Karmen units	nmol/mi/g	Nanomoles per minute per gram
K/ml	Karmen units per milliliter	nmol/mi/mg	Nanomoles per minute per milligram
KA units	King/Armstrong units	nmol/mi/mg pro	Nanomoles per minute per milligram protein
KA/100ml	King/Armstrong units per 100 milliliters	nmol/mi/ml	Nanomoles per minute per milliliter
KA/g	King/Armstrong units per gram	nmol/mi/ml RBC	Nanomoles per minute per milliliter red blood cells
KI:BR	Kidney to brain ratio	nmol/mi/org	Nanomoles per minute per organism
Kunit/ml	K unit per milliliter	nmol/ml	Nanomoles per milliliter
L	Liters	nmol/ml RBC/h	Nanomoles per milliliter red blood cells per hour
L/feddan	Liters per feddan	nmol/mlpro/30mi	Nanomoles per milliliter protein per 30 minutes
L/ha	Liters per hectare	nmol/mol	Nanomoles per mole
L/m2	Liters per square meter	nmol/nm p450/mi	Nanomoles per nanomol cytochrome P450 per minute
LGTH/s	Length per second	nmol/org	Nanomoles per organism
LGTH:THIK	Length to thickness ratio	nmol/org/0.5h	Nanomoles per organism per 0.5 hours
LI:BR	Liver to brain ratio	nmol/org/h	Nanomoles per organism per hour
LU:BR	Lung to brain ratio	no	Number

Code	Definition	Code	Definition
M	Molar	no >15cm	Number that are greater than 15 centimeters
MK:SR	Milk to serum ratio	no errors	No errors
ML	Males	no follicles	Number of follicles
ML/lit	Males per litter	no sites	Number of sites
ML/total	Males per total population	no/1 mi	Number per 1 minute
ML:FM	Males to females ratio	no/10 mi	Number per 10 minutes
MPa	Megapascals	no/100 WBC	Number per 100 white blood cells
N	Normal	no/100 blsm clt	Number per 100 blossom cluster
NA	Not applicable	no/100 u2	Number per 100 square microns
NC	Not coded	no/100 um2	Number per 100 square micrometers
NR	Not reported	no/1000	Number per 1000
OD	Optical density	no/1000 RBCE	Number per 1000 red blood cells
OD/100% RBC	Optical density of 100% red blood cells	no/1000 sperm	Number per 1000 sperm
OD/50 mg pro	Optical density per 50 milligrams protein	no/1000 um2	Number per 1000 square micrometers
OD/WGHT	Optical density per unit weight	no/12 h	Number per 12 hours
OD/g pro	Units of optical density change per gram protein	no/15 mi	Number per 15 minutes
OD/mg pro	Optical density per milligram protein	no/15000x field	Number per 15000x field
OD/mi/mg pro	Optical density per minute per milligram protein	no/2.8 mm2	Number per 2.8 square millimeters

Code	Definition	Code	Definition
OT	Optical transmission	no/200 cells	Number per 200 cells
OT/1 cm WDTH	Optical transmission per 1 centimeter bone width	no/30 mi	Number per 30 minutes
OT/10 cm BO	Optical transmission per 10 centimeters bone	no/33 lbs	Number per 33 pounds
OT/10kg WGHT	Optical transmission per 10 kilograms weight	no/5 mi	Number per 5 minutes
OT/1mm CCT	Optical transmission per 1 millimeter combined cortical thicknes	no/5000 cells	Number per 5000 cells
OV:BR	Ovary to brain ratio	no/area	Number per area
Odx10x3	Optical density x10x3	no/cell	Number per cell
PCI	Plastochron index	no/cm	Number per centimeter
Plg/L	PI grams per liter	no/d	Number per day
PL:BL	Plasma to blood ratio	no/eu	Number per experimental unit
PLC:BL	Placenta to blood ratio	no/fm	Number per female
R	Weight/(lenght x width)	no/g	Number per gram
RA	Ratio	no/g soil	Number per gram soil
RA 1e-3	Ratio X 1e-3	no/h	Number per hour
RA/wk	Ratio per week	no/ha	Number per hectare
RF units	RF units	no/litter	Number of organisms per litter
RI	Ratcliffe index	no/m	Number per meter
RNA:DNA	RNA to DNA ratio	no/m2	Number per square meter
RNA:Protein	RNA to protein ratio	no/mg TI	Number per milligram tissue
RR	Centric fusions	no/mi	Number per minute

Code	Definition	Code	Definition
RSA/TI	Relative specific activity per tissue	no/mm2	Number per square millimeter
RV:TV	Ratio of right ventricle to total ventricle	no/mm2 * 1e-4	Number per square millimeter X 1 X 10 ⁻⁴
SA	Specific activity	no/mm3	Number per cubic millimeter
SFU	Sigma Frankel units	no/mm3 * 1e-4	Number per cubic millimeter X 1 X 10 ⁻⁴
SL units	SL units	no/mm3 * 1e-8	Number per cubic millimeter X 1 X 10 ⁻⁸
SL:ME	Slice to median ratio	no/mo	Number per month
SP:BR	Spleen to brain ratio	no/neuron *1e-3	Number per neuron X 1 X 10 ⁻³
T3:T4	Ratio of triiodothyronine (T3) to thyroxine (T4)	no/nuclei	Number per nuclei
TE:BR	Testes to brain ratio	no/org	Number per organism
TI:BL	Ratio of tissue to blood	no/org/d	Number per organism per day
TS:BR	Thymus to brain ratio	no/panicle	Numbers per panicle
U of fl	Units of fluorescence	no/plot	Number per plot
U/0.2 ml	Units per 0.2 milliliters	no/preg FM	Number per pregnant female
U/100 mg TI	Units per 100 milligram tissue	no/sec	Number per second
U/mg pro	Units per milligram protein	no/section	Number per section
U/ml	Units per milliliter	no/seed	Number per seed
U/ml RBC	Units per milliliter red blood cells	no/sertoli cell	Number per sertoli cells
V	Value	no/so	Number per shoot
W units	Wrobleski units	nuclei:nucleoi	Nuclei to nucleoi ratio

Code	Definition	Code	Definition
WER	Water efficiency ratio	oocytes	Oocytes
WO:LI	Whole organism to liver ratio	open bol/org	Opened bolls per organism
Wijs number	Wijs number	org	Organism
[%inhib]	[Percent inhibition: % is unit, inhib is measurement]	org conc/soil c	Organism concentration per soil concentration
a-amino N/24h	Alpha aminonitrogen per 24 hours	org/0.25ft2	Organisms per 0.25 square feet
absrb	Absorbance	org/0.25m2	Organisms per 0.25 square meters
ac/ft	Acre foot	org/0.3m	Organisms per 0.3 meters
act	Activity	org/10 m	Organisms per 10 meters
act/g TI	Activity per gram tissue	org/100g soil	Organisms per 100 grams soil
act/g pro	Activity per gram protein	org/200 m2	Organisms per 200 square meters
activ/nonactiv	Activated to non-activated ratio	org/200cm3 soil	Number of organisms per 200 cubic centimeters of soil
acts/3 mi	Acts per 3 minutes	org/50cm2	Organisms per 50 square centimeters
ad	Adults	org/60 leaves	Organisms per 60 leaves
ad/jv	Adults per juvenile	org/cm ro	Organisms per centimeter root
ae g/ha	Grams acid equivalents per hectare	org/cntr	Organisms per container
ae kg/ha	Kilograms acid equivalents per hectare	org/d/cntr	Organisms per day per container
ae lb/100 gal	Acid equivalent pounds per 100 gallons	org/eu	Organisms per experimental unit
ae lb/ac	Acid equivalents pounds per acre	org/fm	Organisms per female

Code	Definition	Code	Definition
ae mg/kg	Acid equivalents milligrams per kilograms	org/ft2	Organisms per square foot
ae ppm	Acid equivalents parts per million	org/g	Organisms per gram
ai g/100m2	Active ingredient grams per 100 square meters	org/g dry soil	Organisms per gram dry soil
ai g/L	Active ingredient grams per liter	org/g humus	Organisms per gram humus
ai g/ac	Active ingredient grams per acre	org/g root	Organisms per gram root
ai g/ha	Active ingredient grams per hectare	org/g soil	Organisms per gram soil
ai g/kg sd	Active ingredient grams per kilogram seed	org/ha	Organisms per hectare
ai kg/379 l	Active ingredient kilograms per 379 liters	org/kg soil	Organisms per kilogram soil
ai kg/ha	Active ingredient kilograms per hectare	org/km2	Organisms per square kilometer
ai lb/ha	Active ingredient pounds per hectare	org/lit	Organisms per liter
ai mg/kg org	Active ingredient milligrams per kilogram organism	org/m	Organisms per meter
ai mg/ml	Active ingredient milliliters per milliliter	org/m2	Organisms per square meter
ai ml/100m2	Active ingredient milliliters per 100 square meters	org/mi	Organisms per minute
ai oz/acre	Active ingredient ounces per acre	org/plot	Organisms per plot
ai oz/bu	Active ingredient ounces per bushel	org/sample	Organisms per sample
ai oz/bu sd	Active ingredient ounces per	org/sector	Number of organisms per sector

Code	Definition	Code	Definition
	bushel of seed		
ai ppm	Active ingredient parts per million	org/site	Organisms per site
ai ug/g soil	Active ingredient micrograms per gram soil	org/trap	Organism per trap
amend:unamend	Amended to unamended treatments ratio	org/trap/d	Organisms per trap per day
b/ml	Billions per milliliter	org/tree	Organisms per tree
beats*ml/mi2	Beats*milliliters per square minute	org/w>150 mmHg	Organisms with blood pressure >150 millimeters mercury
beats/mi	Beats per minute	org/w>160 mmHg	Organisms with blood pressure >160 millimeters mercury
bees/d	Bees per day	org/wk	Organisms per week
births	Births	oz	Ounces
bits	Bits	oz/100 gal	Ounces per 100 gallons
branches/org	Number of branches per organism	oz/100 gal/acre	Ounces per 100 gallons per acre
bt/mi		oz/1000 ft3	Ounces per 1000 cubic feet
bud/org	Buds per organism	oz/ac	Ounces per acre
burrows	Burrows	oz/acre	Ounces per acre
bushel/acre	Bushels per acre	oz/bu	Ounces per bushel
bushels	Bushels	oz/cwt	Ounces per hundred weight
cRNA/mgRNA/DNA	(counts per minute RNA per milligram RNA) per milligram DNA	oz/cwt sd	Ounces per hundred weight seed
cal	Calories	oz/gal	Ounces per gallon
cal/d	Calories per day	oz/lb	Ounces per pound

Code	Definition	Code	Definition
castings	Castings	oz/lb sd	Ounces per pound seed
casts/eu	Casts per experimental unit	pCi/L	Picocuries per liter
casts/m2/d	Casts per square meter per day	pCi/g	Picocuries per gram
casts/pl	Casts per plot	pCi/ml	Picocuries per milliliter
cc	Cocoons	pH	Ph
cc O2 evolved	Cubic centimeters of oxygen evolved	pair	Pair
cc/10 ad	Cocoons per 10 adults	pc	Permeability constant
cc/ad	Cocoons per adult	pecks/s	Pecks per second
cc/cntr	Cocoons per container	pellet/d	Pellets per day
cc/eu	Cocoons per experimental unit	pellet/org/d	Pellets per organism per day
cc/org	Cocoons per organism	pellets	Pellets
cc/org/8wk	Cocoons per organism per 8 weeks	pg	Picograms
cc/org/wk	Cocoons per organism per week	pg TE/g egg	Picograms Toxic Equivalent per gram egg
cc/sad	Cocoons per surviving adult	pg/L	Picograms per liter
cc/unit	Cocoons per unit	pg/TI	Picograms per tissue
cell/8 srl cel	Cells per 8 sertoli cells	pg/cell	Picograms per cell
cell/mi x10x3	Cells per minute x10x3	pg/dm3	Picograms per cubic decimeter
cell/mm3	Cells per cubic millimeter	pg/g	Picograms per gram
cell/u.a.	Cells per unit area	pg/g egg	Picograms per gram egg
cell:nuclei	Cells to nuclei ratio	pg/kg bdwt/d	Picograms per kilogram body weight per day

Code	Definition	Code	Definition
cells	Cells	pg/kg egg	Picograms per kilogram egg
cells/100 clm	Cells per 100 coelomocytes	pg/mg TE	Picograms per milligram Toxic Equivalences
cells/1e+6 cell	Cells per 1 X 10 +6 cells	pg/mg org	Picograms per milligram org
cells/50 mg	Cells per 50 milligrams	pg/ml	Picograms per milliliter
cells/TI	Cells per tissue	pg/org	Picograms per organism
cells/area	Cells per area	pmol	Picomoles
cells/mg TI	Cells per milligram tissue	pmol/L	Picomoles per liter
cells/ml	Cells per milliliter	pmol/egg	Picomoles per egg
cells/mm cortex	Cells per millimeter cortex	pmol/g	Picomoles per gram
cells/mm folium	Cells per millimeter folium	pmol/g egg	Picomoles per gram egg
cells/mm2	Cells per square millimeter	pmol/g/mi	Picomoles per gram per minute
cells/tubule	Cells per tubule	pmol/hr/mg	Picomoles per hour per milligram
cellx10x2/ul	Cells x10x2 per microliter	pmol/kg egg	Picomoles per kilogram egg
cfu/mg	Colony forming units per milligram	pmol/mg	Picomoles per milligram
chem/d	Chemical per day	pmol/mg pro	Picomoles per milligram protein
clusters	Clusters	pmol/mg pro/h	Picomoles per milligram protein per hour
clutches	Clutches	pmol/mg pro/mi	Picomoles per milligram protein per minute
cm	Centimeters	pmol/mg/10 mi	Picomoles per milligram per 10 minutes
cm H2O	Centimeters of water	pmol/mg/30 mi	Picomoles per milligram protein per 30 minutes

Code	Definition	Code	Definition
cm/cm ³	Centimeters per cubic centimeter	pmol/mg/d	Picomoles per milligram per day
cm/d	Centimeters per day	pmol/mg/h	Picomoles per milligram per hour
cm/dm ³	Centimeters per cubic decimeter	pmol/mg/mi	Picomoles per milligram per minute
cm/g bdwt/h	Centimeters per gram bodyweight per hour	pmol/mg/nmol r	Picomoles per milligram per nanomol rhodopsin
cm/g soil	Centimeters per gram soil	pmol/mi/g TI	Picomoles per minute per gram tissue
cm/org	Centimeters per organisms	pmol/mi/mg pro	Picomoles per minute per milligram protein
cm/wk	Centimeters per week	pmol/ml	Picomoles per milliliter
cm ²	Centimeters squared	pmol/nl	Picomoles per nanoliter
cm ² /100bees	Centimeters squared per 100 bees	pmol/nm p450/mi	Picomoles per nanomol cytochrome P450 per minute
cm ² /kg	Square centimeters per kilogram	ppb	Parts per billion
cm ² /org	Square centimeters per organism	ppb/2H/org	Parts per billion per two hours per organism
cm ³	Cubic centimeters	ppb/ml	Parts per billion per milliliter
cm ³ O ₂ /g/h	Cubic centimeters of O ₂ per gram per hour	pphr	Parts per hundred rubber
cm ³ /4L	Cubic centimeters per 4 liters	ppm	Parts per million
cm ³ /cm ³	Cubic centimeters per cubic centimeters	ppm H ₂ O	Parts per million water
cm ³ /eu	Cubic centimeters per experimental unit	ppm dw fd	Parts per million dry weight food
cm ³ /ft ²	Cubic centimeters per square foot	ppm food	Parts per million food

Code	Definition	Code	Definition
cm3/kg	Cubic centimeters per kilogram	ppm for 36hr	Parts per million per 36 hours
cm3/l	Cubic centimeters per liter	ppm soil	Parts per million soil
cm3/m2	Cubic centimeters per cubic meter	ppm-hour	Parts per million hour
cm3/yd	Cubic centimeters per yard	ppm/d/kg bdwt	Parts per million per day per kilogram body weight
cmol/kg	Centimoles of charges/kilogram	ppm/eu	Parts per million per experimental unit
cpm	Counts per minute	ppm/gal	Parts per million per gallon
cpm 1e-4	Counts per minute * 1 X 10 ⁻⁴	ppm/mi	Parts per million per minute
cpm x 1000	Counts per minute X 1000	ppm/ml	Parts per million per milliliter
cpm/1e+5 cells	Counts per minute per 1X10 ⁵ cells	ppm/organi	Parts per million per organism
cpm/L	Counts per minute per liter	ppmv	Parts per million by volume
cpm/cc	Counts per minute per cocoon	ppmv/eu	Parts per million by weight per pot
cpm/g TI	Counts per minute per gram tissue	ppmw	Parts per million by weight
cpm/mg	Counts per minute per milligram	ppt	Parts per thousand
cpm/mg DNA	Counts per minute per milligram DNA	pptr	Parts per trillion
cpm/mg RNA	Counts per minute per milligram RNA	prdt/mi/mg pro	Product formed per minute per milligram protein
cpm/mg UA	Counts per minute per milligram uronic acid	pt	Pints
cpm/mg pro	Counts per minute per milligram protein	pt/100 gal	Pints per 100 gallons

Code	Definition	Code	Definition
cpm/ml	Counts per minute per milliliter	pt/ac	Pints per acre
cpm/org	Counts per minute per organism	pt/acre	Pints per acre
cwt/acre	Hundredweights per acre	pt/gal	Pints per gallon
cyc/deg	Cycles per degree	q/ha	Quintals per hectare
d	Day	qt/100 gal	Quarts per 100 gallons
dS/m	Decisiemens per meter	qt/acre	Quarts per acre
dead:live	Dead to live organisms ratio	qt/gal	Quarts per gallon
degree	Degree	rate/100 org	Rate per 100 organisms
divisions/cell	Divisions per cell	rate/mi	Rate per minute
dm2	Decimeters squared	rev	Revolutions
dm3/ha	Cubic decimeter per hectare	rev/5 h	Revolutions per 5 hours
dpm	Disintegrations per minute	rgv	Relative gray value
dpm 1e-3/ml	Disintegrations per minute * 1 X 10 ⁻³ per milliliter	ro:so	Root to shoot ratio
dpm treat:cntl	Ratio of disintegrations per minute treated to control	rpm	Revolutions per minute
dpm/167 mg Tl	Disintegrations per minute per 167 milligrams tissue	s	Seconds
dpm/800g soil	Disintegrations per 800 grams soil	s/12 rpm	Seconds per 12 revolutions per minute
dpm/EU	Disintegrations per minute per experimental unit	s/16 rpm	Seconds per 16 revolutions per minute
dpm/g	Disintegrations per minute per gram of tissue	s/8 rpm	Seconds per 8 revolutions per minute
dpm/g*100	Disintegrations per minute per gram*100	s/g	Seconds per gram

Code	Definition	Code	Definition
dpm/mg	Disintegrations per minute per milligram	s/h	Seconds per hour
dpm/mg FA	Disintegrations per minute per milligram fatty acid	sd/org/d	Seeds per organism per day
dpm/mg GH	Disintegrations per minute per milligram growth hormone	sessions	Sessions
dpm/mg GH*100	Disintegrations per minute per milligram growth hormone*100	sgth:thik	Strength to thickness ratio
dpm/mg pro	Disintegrations per minute per milligram protein	sgth:wght	Strength to weight ratio
dpm/ml	Disintegrations per minute per milliliter	sigma u/100ml	Sigma units per 100 milliliters
dpm/n	Disintegrations per minute per N	so/ft2	Shoots per square foot
e/100hd	Eggs per 100 hen days	so:gr	Ratio plant shoot to grain
e/hd	Eggs per hen day	so:ro	Shoot to root ratio
e/org	Eggs per organism	spec gravity	Specific gravity
e/org/d	Eggs per organism per day	species	Species
e/org/wk	Eggs per organism per week	spines/u area	Spines per unit area
ea/eu	Ears per experimental unit	spots/le	Spots per leaf
egg cap/org	Egg capsules per organism	str:gr	Plant straw to grain ratio
egg/100 ad	Eggs per 100 adults	succ br	Successful broods
egg/org/wk	Eggs per organism per week	succ br/fm	Successful broods per female
eggs	Egg(s)	t/ha	Tons per hectare
eggs/10 wks	Eggs per 10 weeks	t/ha gr/t/ha gr	Tons per hectare grain over tons per hectare grains plus straw [

Code	Definition	Code	Definition
eggs/8 wks	Eggs per 8 weeks	taxa	Taxa
eggs/BDAY	Eggs per bird-day	tillers/m2	Tillers per square meter
eggs/d	Eggs per day	tons	Tons
eggs/fm	Eggs per female	tons/acre	Tons per acre
eggs/fm/8 wk	Eggs per female per 8 weeks	tons/ha	Tons per hectare
eggs/fm/d	Eggs per female per day	top:root	Ratio plant top to roots
eggs/fm/wk	Eggs per female per week	treated:cntl	Ratio treated to control
eggs/org	Eggs per organism	trials	Trials
eggs/org/d	Eggs per organism per day	u	Units
eggs/pair	Eggs per pair	u act	Unit activity (an increase in absorbance at 555 nm of 0.100, wit
eggs/raft	Eggs per raft	u act/h	Unit activity per hour
em	Embryos	u/TI	Units per tissue
em/FM	Embryos per female	u/co2/50mg/10mi	Units per carbon dioxide per 50 milligrams per 10 minutes
enz act	Enzyme activity or enzyme activity unit	u/d	Units per day
enz act/mg	Enzyme activity per milligram	u/g	Units per gram
eq/l	Equivalents per liter	u/l	Units per liter
eu	Enzyme unit	u/mg	Units per milligram
failures	Failures	u/mg N2	Units per mg N2
fet	Fetuses	u/mg TI	Units per milligram tissue
fetuses/litter	Fetuses per litter	u/ml	Units per milliliter

Code	Definition	Code	Definition
final:initial	Ratio of initial parameter to final parameter	u2	Square microns
fl	Femtoliters	u2/300,000 u2	Square micrometers per 300,000 micrometers squared
fl oz/100 gal	Fluid ounces per 100 gallons	u3	Cubic microns
fledge/pair	Fledglings/pair or young fledged/pair	uBq	Microbecquerels
fm	Females	uCi/g org	Microcuries per gram organism
fm/lit	Females per litter	uCi	Microcuries
fmol	Femtomol	uCi/100 g org	Microcuries per 100 grams organism
fmol/mg	Femtomol per milligram	uCi/3.6mg	Microcuries per 3.6 milligrams
fmol/mg pro	Femtomol per milligram protein	uCi/30mg	Microcuries per 30 milligrams
fr	Frames (bees)	uCi/L	Microcuries per liter
g	Grams	uCi/g	Microcuries per gram
g GAIN/g fd/d	Grams weight gained per gram food per day	uCi/g soil	Microcuries per gram soil
g GAIN/kg fd	Grams weight gained per kilogram food	uCi/kg	Microcuries per kilogram
g H2O/dm2/h	Grams H2O per squared decameter per hour	uCi/mg	Microcuries per milligram
g TI/100 g bdwt	Grams tissue per 100 grams bodyweight	uCi/ml	Microcuries per milliliter
g%	Gram percent	uCi/nmol	Microcuries per nanomoles
g% w/v	Gram percent on a weight per volume basis	uCi/org	Microcuries per organism
g/0.25 acre	Grams per 0.25 acres	uCi/ug	Microcuries per micrograms

Code	Definition	Code	Definition
g/0.5 m2	Grams per 0.5 meters squared	uCi/ul	Microcuries per microliter
g/1.2 kg soil	Grams per 1.2 kilograms soil	uIU/ml	Microinternational units per milliliter
g/1.4 kg soil	Grams per 1.4 kilograms soil	uM	Micromolar
g/1.6 kg soil	Grams per 1.6 kilograms soil	uM B-naph/h/mgP	Micromoles beta-naphthalene per hour per milligram protein
g/1.8 kg soil	Grams per 1.8 kilograms soil	uM B-naph/h/ml	Micromoles beta-naphthalene per hour per milliliter
g/100 L	Grams per 100 liters	uM BAPNA/mi/mgP	Micromoles of BAPNA inhibited per minute per milligram protein
g/100 cm3	Grams per 100 cubic centimeters	uM BAPNA/mi/ml	Micromoles of BAPNA inhibited per minute per milliliter
g/100 le	Grams per 100 leaves	uM BTEE/mi/mgP	Micromoles BTEE per minute per milligram protein
g/100 m2	Grams per 100 square meters	uM P/g	Micromoles Phosphorous per gram
g/100 sd	Grams per 100 seeds	uM SAPNA/mi/mgP	Micromoles of SAPNA inhibited per minute per milligram protein
g/100 stl	Grams per 100 stolons	uM SAPNA/mi/ml	Micromoles of SAPNA inhibited per minute per milliliter
g/1000 ft3	Grams per 1000 cubic feet	uM TAME/mi/mgP	Micromoles TAME per minute per milligram protein
g/1000 g	Grams per 1000 grams	uM/L	Micromolar per liter
g/1000g	Grams per 1000 grams	uM/TI	Micromoles per tissue
g/1000gr	Grams per 1000 grains	uM/cm3	Micromolar per cubed centimeter
g/100g	Grams per 100 grams	uM/g	Micromoles per gram
g/100g BW	Grams per 100 grams body weight	uM/h	Micromoles per hour

Code	Definition	Code	Definition
g/100g BW/d	Grams per 100 grams body weight per day	uM/h/l RBC	Micromoles per hour per liter red blood cells
g/100g bdwt/h	Grams per 100 grams per bodyweight/hour	uM/h/mg pro	Micromolar per hour per milligram protein
g/100g org	Grams per 100 grams organism	uM/kg	Micromolar per kilogram
g/100kg	Grams per 100 kilograms	uM/kg wght	Micromoles per kilogram weight
g/100kg org	Grams per 100 kilograms organism	uM/mg pro	Micromolar per milligram protein
g/100l	Grams per 100 liters	uM/min/g	Micromolar per minute per gram
g/100ml	Grams per 100 milliliters	uM/ml	Micromolar per milliliter
g/13125 ft2	Grams per 13125 square feet	uU/ml	Microunits per milliliter
g/15 cm	Grams per 15 centimeters	uV	Microvolts
g/200 m2	Grams per 200 square meters	ueq/L	Microequivalents per liter
g/2500cm2	Grams per 2500 centimeters squared	ueq/g	Microequivalents per gram
g/4 d	Grams per 4 days	ueq/g pro/mi	Microatom equivalents per gram protein per minute
g/400m	Grams per 400 meters	ueq/l	Microequivalents per liter
g/5 kg soil	Grams per 5 kilograms soil	ug	Micrograms
g/5 m2	Grams per 5 meters squared	ug %	Micrograms percent
g/70 d	Grams per 70 days	ug CO2/g d sl/h	Micrograms carbon dioxide per grams dry soil per hour
g/BDAY	Grams per bird-day	ug GHA/1e+6 c/h	Micrograms gamma-glutamylhydroximate per 1X10 ⁺⁶ cells per hour
g/FM	Grams per female	ug Hg203/g TI	Micrograms Hg203 per gram tissue

Code	Definition	Code	Definition
g/L	Grams per liter	ug N/g	Micrograms nitrogen per gram
g/LE	Grams per leaf	ug NANA/TI	Micrograms N-acetyl neuraminic acid per tissue
g/LIT	Grams per litter	ug O/g pro/mi	Micrograms oxygen per gram protein per minute
g/ML	Grams per male	ug PAP/g/20 mi	Micrograms peroxidase-anti-peroxidase (PAP) per gram per 20 min
g/ac	Grams per acre	ug PAP/g/30 mi	Micrograms peroxidase-anti-peroxidase (PAP) per gram per 30 min
g/acre	Grams per acre	ug POH/mg pro/m	Micrograms phenol per milligrams protein per minute
g/bdwt e0.75	Grams per body weight * 1e0.75	ug Pi/mg	Micrograms Pi/milligram
g/bee	Grams per bee	ug Pi/mg MIT	Micrograms Pi/milligram mitochondria
g/bu	Grams per bushel	ug Pi/mg TI	Micrograms Pi/milligram tissue
g/cc	Grams per cocoon	ug TE/kg	Micrograms Toxic Equivalent per kilogram
g/cm	Grams per centimeter	ug TEQ/kg bw/wk	Micrograms Toxic Equivalency Concentration per kg bdwt per week
g/cm2	Grams per square centimeter	ug TTC/mg pro/h	Micrograms triphenyl tetrazolium chloride reduced per milligram
g/cm3	Grams per cubic centimeter	ug chl/cm2	Micrograms chlorophyll per square centimeter
g/ctnr	Grams per experimental container	ug chl/mg leaf	Micrograms chlorophyll per milligram of leaf
g/d	Grams per day	ug enz/g/h	Microgram enzyme per gram per hour

Code	Definition	Code	Definition
g/d/100 g bdwt	Grams per day per 100 grams body weight	ug frmzn/100 g	Micrograms formazan formed per 100 grams tissue
g/d/100kg org	Grams per day per 100 kilograms organism	ug pro ld/ne	Ug proteolipid per nerve pair
g/d/org	Grams per day per organism	ug%	Microgram percent
g/d/wght	Grams per day per weight	ug/0.1 ml/d/org	Micrograms per 0.1 milliliter per day per organism
g/dl	Grams per deciliter	ug/0.5 g	Micrograms per 0.5 grams
g/eu	Grams per experimental unit	ug/10 g bdwt	Micrograms per 10 grams body weight
g/eu/d	Grams per experimental unit per day	ug/100 g bdwt	Micrograms per 100 grams body weight
g/fed	Grams per feddan (1 feddan = 1.038 acres)	ug/100 mg	Micrograms per 100 milligrams
g/fish	Grams per fish	ug/100 mg TI	Micrograms per 100 milligram tissue
g/fruit	Grams per fruit	ug/100g	Micrograms per 100 grams
g/ft2	Grams per square foot	ug/100g org/d	Micrograms per 100 grams organism per day
g/ft3	Grams per cubic foot	ug/100g/d	Micrograms per 100 grams per day
g/g bdwt	Grams per gram body weight	ug/100mg/30mi	Micrograms per 100 milligrams per 30 minutes
g/g TI	Grams per gram tissue	ug/100mg/h	Micrograms per 100 milligrams per hour
g/g bdwt	Grams per gram body weight	ug/100ml	Micrograms per 100 milliliters
g/g bdwt/d	Grams per gram body weight per day	ug/100ml RBC	Micrograms per 100 milliliters red blood cells
g/g dry humus	Grams per gram dry humus	ug/2.5 ul/h	Micrograms per 2.5 microliters per hour

Code	Definition	Code	Definition
g/g fd	Grams per gram food	ug/200mg/30mi	Micrograms per 200 milligrams per 30 minutes
g/g org	Grams per gram organism	ug/24h	Micrograms per 24 hours
g/h	Grams per hour	ug/24h/org	Micrograms per organism
g/ha	Grams per hectare	ug/4 d	Micrograms per 4 days
g/hd	Grams per hen day	ug/50 ml	Micrograms per 50 milliliters
g/jv	Grams per juvenile	ug/500g	Micrograms per 500 grams
g/kg	Grams per kilogram	ug/50ul	Micrograms per 50 microliters
g/kg bdwt	Grams per kilogram body weight	ug/72h	Micrograms per 72 hours
g/kg bdwt/d	Grams per kilogram body weight per dry soil	ug/L	Micrograms per liter
g/kg fd	Grams per kilogram food	ug/L/d	Micrograms per liter per day
g/kg feed	Grams per kilogram of feed	ug/L/hr	Microgram per liter per hour
g/kg soil	Grams per kilogram soil	ug/TI	Micrograms per tissue
g/kg/d	Grams per kilogram per day	ug/bee	Micrograms per bee
g/km	Grams per kilometer	ug/branch	Micrograms per branch
g/l	Grams per liter	ug/cell	Micrograms per cell
g/m	Grams per meter	ug/cm2	Micrograms per square centimeter
g/m2	Grams per square meter	ug/cm2 lf	Micrograms per square centimeter leaf
g/m3	Grams per cubic meter	ug/cm2/d	Micrograms per square centimeter per day
g/ml	Grams per milliliter	ug/cm3	Micrograms per cubic centimeter

Code	Definition	Code	Definition
g/org	Grams per organism	ug/d	Micrograms per day
g/org/42 d	Grams per organism per 42 days	ug/d/org	Micrograms per day per organism
g/org/d	Grams per organism per day	ug/disk	Micrograms per disk
g/org/eu	Grams per organism per experimental unit	ug/dl	Micrograms per deciliter
g/org/wk	Grams per organism per week	ug/dm3	Micrograms per cubic decimeter
g/org/yr	Grams per organism per year	ug/egg	Micrograms per egg
g/quadrant	Grams per quadrant	ug/em	Micrograms per embryo
g/sample	Grams per sample	ug/eu	Micrograms per experimental unit
g/shell	Grams per shell	ug/eu/d	Micrograms per experimental unit per day
g/ton	Grams per ton	ug/fish	Micrograms per fish
g/ug	Grams per microgram	ug/g	Micrograms per gram
g/wk	Grams per week	ug/g CREA	Micrograms per gram creatinine
g/yd2	Grams per square yard	ug/g TI	Micrograms per gram tissue
g/yr	Grams per year	ug/g ash	Micrograms per gram ash
gal	Gallons	ug/g bdwt	Micrograms per gram body weight
gal/0.5 rod2	Gallons per 0.5 square rods	ug/g bdwt/d	Micrograms per gram body weight per day
gal/100 gal	Gallons per 100 gallons	ug/g bdwt/wk	Micrograms per gram body weight per week
gal/ac f	Gallons per acre foot	ug/g d cmpst	Micrograms per gram dry compost
gal/acre	Gallons per acre	ug/g d soil	Micrograms per gram dry soil

Code	Definition	Code	Definition
gal/cwt	Gallons per 100 weight	ug/g d soil/h	Micrograms per gram dry soil per hour
gal/gal	Gallon per gallon	ug/g diet	Micrograms per gram diet
gamma/day	Gamma/day (Von Bertalanffy growth)	ug/g dry fd	Micrograms per gram dry food
gamma/g TI	Gamma counts per gram tissue	ug/g dry wt	Micrograms per gram dry weight
gg	Gamma gamma	ug/g food	Micrograms per gram food
gila:neruon	Gila to neuron ratio	ug/g npro	Micrograms per gram nonprotein
grade	Grade	ug/g om	Micrograms per gram organic matter
grain/panicle	Grains per panicle	ug/g org	Micrograms per gram organism
granules	Granules	ug/g org x 10+2	Micrograms per gram organism multiplied by 10+2
h	Hour	ug/g org x 1E2	Micrograms per gram organism x 1E2
hatchability	Hatchability	ug/g org/d	Micrograms per gram organism per day
hsk:gr	Ratio plant husk to grain	ug/g org/wk	Micrograms per gram organism per week
hz	Hertz	ug/g pro	Micrograms per gram protein
hz/s	Hertz per second	ug/g pro/mi	Micrograms per gram protein per minute
implants	Implants	ug/g soil	Micrograms per gram soil
in	Inches	ug/g wet wt	Micrograms per gram wet weight
in2	Inches squared	ug/g/30 min	Micrograms per gram per 30 minutes

Code	Definition	Code	Definition
inclusion	Internuclear inclusion body	ug/g/d	Micrograms per gram per day
index	Index	ug/g/wk	Micrograms per gram per week
jv	Juveniles	ug/h	Micrograms per hour
jv/ad	Juveniles per adult	ug/h/100 g	Micrograms per hour per 100 grams
jv/cc	Juveniles per cocoon	ug/h/100 ml	Micrograms per hour per 100 milliliters
jv/cntr	Juveniles per container	ug/kg	Micrograms per kilogram
jv/eu	Juveniles per experimental unit	ug/kg LD	Micrograms per kilogram lipid
jv/fm	Juveniles per female	ug/kg TI	Micrograms per kilograms tissue
jv/ftcc	Juveniles per fertile cocoon	ug/kg bdwt	Micrograms per kilogram body weight
jv/lit	Juveniles per litter	ug/kg bdwt/d	Micrograms per kilogram body weight per day
jv/mated fm	Juvenile per mated female	ug/kg bdwt/wk	Micrograms per kilogram body weight per week
jv/nest	Juveniles per nest	ug/kg egg	Micrograms per kilogram egg
jv/org	Juveniles per organism	ug/kg fd	Microgram per kilogram food
jv/org/wk	Juveniles per organisms per week	ug/kg org	Micrograms per kilogram organism
k2/d	Elimination rate constant 2 per day	ug/kg org/d	Micrograms per kilogram organism per day
kBq	Kilobecquerels	ug/kg soil	Micrograms per kilogram soil
kBq/L	Kilobecquerels per liter	ug/kg/d	Micrograms per kilogram per day
kBq/dm3	Kilobecquerels per cubic decimeter	ug/kg/mi	Micrograms per kilogram per minute

Code	Definition	Code	Definition
kBq/eu	Kilobecquerels per experimental unit	ug/kg/wk	Micrograms per kilogram per week
kBq/ml	Kilobecquerels per milliliter	ug/l	Micrograms per liter
kJ/d/org	Kilojoules per day per organism	ug/l/d	Micrograms per liter per day
ka/d	Elimination rate constant a per day	ug/lf	Micrograms per leaf
kcal	Kilocalories	ug/m3	Micrograms per cubic meter
kcal/100g	Kilocalories per 100 grams	ug/mg	Micrograms per milligram
kcal/d	Kilocalories per day	ug/mg MIT	Micrograms per milligram mitochondria
kg	Kilograms	ug/mg TI	Micrograms per milligram tissue
kg ae/ha	Kilograms acid equivalent per hectare	ug/mg food	Micrograms per milligram food
kg conc/d	Kilograms of concentrate per day	ug/mg pro	Micrograms per milligram protein
kg plt/ha	Kilograms pellet per hectare	ug/mg pro/hr	Micrograms per milligram protein per hour
kg silage/d	Kilograms of silage per day	ug/mi	Micrograms per minute
kg/0.5 m2	Kilograms per 0.5 square meters	ug/mi/mg pro	Micrograms per minute per milligram protein
kg/100 m2	Kilograms per 100 square meters	ug/min/ml	Micrograms per minute per milliliter
kg/11 meters	Kilograms per 11 meters	ug/ml	Micrograms per milliliter
kg/L	Kilograms per liter	ug/ml H2O	Micrograms per milliliter water
kg/ac	Kilograms per acre	ug/org	Micrograms per organism
kg/d	Kilograms per day	ug/org/d	Micrograms per organism per day

Code	Definition	Code	Definition
kg/eu	Kilograms per experimental unit	ug/org/wk	Micrograms per organism per week
kg/fed	Kilograms per feddan (1 feddan = 1.038 acres)	ug/sample	Micrograms per sample
kg/feddan	Mg per feddan	ug/tank/wk	Micrograms per tank per week
kg/hL	Kilograms per hektoliter (hectoliter)	ug/ul	Micrograms per microliter
kg/ha	Kilograms per hectare	ul	Microliters
kg/m	Kilograms per meter	ul Eq/ml	Microliters equivalents per milliliter
kg/m2	Kilograms per square meter	ul O2/g/h	Microliters O2 per gram per hour
kg/m3	Kilograms per cubic meter	ul O2/hr/g	Microliters oxygen per hour per gram
kg/mi2/mo	Kilograms per square mile per month	ul O2/mi/g	Microliters oxygen per minute per gram
kg/mm	Kilograms per millimeter	ul/100ml	Microliter per 100 milliliter
kg/mu	Kilograms per mu	ul/20ml	Microliter per 20 milliliter
kg/org	Kilograms per organism	ul/L	Microliters per liter
kg/org/d	Kilograms per organism per day	ul/L/24h	Microliters per liter per 24 hours
kg/wk	Kilograms per week	ul/L/7 h	Microliters per liter per 7 hours
kmol/m3	Kilomoles per cubic meter	ul/L/9 h	Microliters per liter per 9 hours
l/24 h	Liters per 24 hours	ul/beat	Microliters per beat
l/ha	Liter per hectare	ul/beat/kg	Microliters per beat per kilogram
l/l	Liter per liter	ul/cm2	Microliter per square centimeter
l/m2	Liters per square meter	ul/egg	Microliter per egg

Code	Definition	Code	Definition
l/mi	Liter per minute	ul/g	Microliter per gram
l/s	Liter per second	ul/g bdwt	Microliter per gram body weight
lamellae/axon	Lamellae per axon	ul/g/d	Microliters per gram per day
layers	Layers	ul/g/h	Microliters per gram per hour
lb	Pounds	ul/kg	Microliter per kilogram
lb/100 ft ²	Pounds per 100 square feet	ul/ml	Microliter per milliliter
lb/100 gal	Pounds per 100 gallons	ul/org	Microliter per organism
lb/100 gal/acre	Pounds per 100 gallons per acre	ul ³	Cubic microliters
lb/1000 ft ²	Pounds per 1000 square feet	ulCO ₂ /50mgTI/10	Microliters carbon dioxide per 50 milligrams tissue per 10 minut
lb/1000 ft ³	Pounds per 1000 cubic feet	um	Micrometers
lb/11 gal/acre	Pound per 11 gallons per acre	um/s	Micrometers per second
lb/40 gal	Ponds per 40 gallons	um/um ²	Micrometers per square micrometer
lb/90 ft ²	Pounds per 90 square feet	um ²	Square micrometers
lb/ac ft	Pounds per acre foot	um ³	Cubic micrometers
lb/acre	Pounds per acre	um ³ /cell	Cubic micrometers per cell
lb/cwt s	Pounds per hundred weight seed	umol	Micromoles
lb/cwt sd	Pounds per hundred weight seed	umol C ₂ H ₄ /g/h	Micromoles of ethylene produced per gram per hour
lb/d	Pound per day	umol C ₂ H ₄ /org/h	Micromoles of ethylene produced per organism per hour
lb/eu	Ponuds per experimental unit	umol CO ₂ /g ch/s	Micromoles carbon dioxide per gram chlorophyll per second

Code	Definition	Code	Definition
lb/ft2	Pounds per square feet	umol CO2/g/s	Micromoles CO2 per gram per second
lb/ft3	Pounds per cubic foot	umol CO2/m2/s	Micromoles CO2 per square meter per second
lb/gal	Pounds per gallon	umol GH/mgpro/m	Micromoles reduced glutathione per milligrams protein per minute
lb/gal/acre	Pounds per gallon per acre	umol HA/mg pro	Micromoles hippuric acid per milligram protein
lb/org/d	Pounds per organism per day	umol NADPH/mg P	Micromoles NADPH per milligram protein per minute
lb/plot	Pounds per plot	umol P/g/20 mi	Micromol phosphorus per gram per 20 minutes
lb/rod2	Pounds per square rod	umol P/g/h	Micromoles phosphorus per gram per hour
lbs ae/ac	Pounds acid equivalent per acre	umol P/mg pro/h	Micromoles phosphorus per milligram protein per hour
ld/gal	Pounds per gallon	umol Pbg/h/g	Micromoles of porphobilinogen per hour per gram tissue
lf prog/lf intl	Ratio of live females per live females initial	umol Pi/mgp/30m	Micromoles Pi per milligram protein per 30 minutes
lit	Litters	umol Pi/mgpro/h	Micromoles Pi per milligram protein per hour
lit/pr	Litters per pair	umol pyv mg p/h	Micromoles pyruvate per milligram protein per hour
litter %	Litter percent	umol/100 g	Micromoles per 100 grams
lm prog/lm intl	Ratio of live males per live males initial	umol/100 ml	Micromoles per 100 milliliters
ln(Wf/Wi)	Natural log(mean survivor weight/mean initial weight)	umol/100g org	Micromoles per 100 grams organism
log 10 ug/g org	Log 10 micrograms per gram	umol/10g/h	Micromoles per 10 grams per

Code	Definition	Code	Definition
	organism		hour
log rel	Log relative activity/intensity	umol/10mg/h	Micromoles per 10 milligrams per hour
log s	Log time in seconds	umol/L	Micromoles per liter
log2	Log squared	umol/TI	Micromoles per tissue
log2 titers	Log2 titers	umol/dl/h	Micromoles per decaliter per hour
lprog/lprog itl	Ratio of live progeny per live progeny initial	umol/dm3	Micromoles per cubic decimeter
m enz act/mg	Millienzyme activity per milligram	umol/eu	Micromoles per experimental unit
m/s	Meters per second	umol/g	Micromoles per gram
m3	Cubic meters	umol/g TI	Micromoles per gram tissue
mBq	Millibecquerels	umol/g TI/h	Micromoles per gram tissue per hour
mBq/ml	Millibecquerels per milliliter	umol/g ash	Micromoles per gram ash
mCi	Millicuries	umol/g pro/h	Micromoles per gram protein per hour
mCi mg	Millicuries milligram	umol/g soil	Micromoles per gram soil
mCi/kg	Microcurie per kilogram	umol/g wet wt	Micromoles per gram wet weight
mCi/mg	Millicuries per milligram	umol/g/15 mi	Micromoles per gram per 15 minutes
mCi/ml	Millicuries per milliliter	umol/g/30 mi	Micromoles per gram per 30 minutes
mCi/mmol	Millicuries per millimoles	umol/g/h	Micromoles per gram per hour
mM	Millimolar (millimoles per liter)	umol/g/mi	Micromoles per gram per minute

Code	Definition	Code	Definition
mM/L	Millimoles per liter	umol/h/TI	Micromoles per hour per tissue
mM/g	Millimoles per gram	umol/h/g TI	Micromoles per hour per gram tissue
mM/kg bdwt	Millimoles per kilogram body weight	umol/h/g pro	Micromols per hour per grams protein
mOsm	Milliosmoles	umol/h/mg TI	Micromols per hour per milligram tissue
mU	International milliunits (nmol substrate transformed/min/ml)	umol/h/mg pro	Micromoles per hour per milligram protein
mU/24 h	Milliunits per 24 hours	umol/kg	Micromoles per kilogram
mU/24 h/kg	Milliunit per 24 hours per kilogram	umol/kg bdwt	Micromoles per kilogram body weight
mU/d	Microunits per day	umol/kg egg	Micromoles per kilogram egg
mU/g	Milliunits per gram organism	umol/kg media	Micromoles per kilogram media
mU/mg pro	Microunits per milligram protein	umol/kg org	Micromoles per kilogram organism
mU/ml	Milliunit per milliliter	umol/kg soil	Micromoles per kilogram soil
mU/org	Milliunit per organism	umol/l	Micromoles per liter
mW	Milliwatts	umol/l RBC/mi	Micromoles per liter red blood cells per minute
maturity index	Maturity index	umol/mg pro	Micromoles per mg protein
meq	Milliequivalents	umol/mg pro/h	Micromoles per mg protein per hour
meq/100g	Milliequivalents per 100 grams	umol/mg pro/mi	Micromoles per mg protein per minute
meq/100g soil	Milliequivalents per 100 grams soil	umol/mg/15 mi	Micromol per milligram per 15 minutes
meq/L	Milliequivalents per liter	umol/mg/20	Micromoles per mg protein per

Code	Definition	Code	Definition
			20 minutes
meq/eu	Milliequivalents per experimental unit	umol/mg/h	Micromoles per milligram per hour
meq/g	Milliequivalents per gram	umol/mg/mi	Micromoles per milligram per minute
meq/kg	Milliequivalents per kilogram	umol/mgpro/20mi	Micromoles per mg protein per 20 minutes
metric t/ha	Metric tons per hectare	umol/mgpro/30mi	Micromoles per mg protein per 30 minutes
mg	Milligrams	umol/mi	Micromoles per minute
mg %	Milligrams percent	umol/mi/g	Micromoles per minute per gram
mg C/g OM	Milligrams carbon per gram organic matter	umol/mi/g TI	Micromoles per minute per gram of tissue
mg C ₂ H ₄ /eu/d	Milligrams of ethylene produced per experimental unit per day	umol/mi/l	Micromoles per minute per liter
mg C ₂ H ₄ /eu/h	Milligrams of ethylene produced per experimental unit per hour	umol/mi/mg	Micromoles per minute per milligram
mg CO ₂ /100g soi	Milligrams carbon dioxide per 100 grams of soil	umol/mi/mg pro	Micromoles per minute per mg protein
mg CO ₂ /dm ² /h	Milligrams carbon dioxide per square decameter per hour	umol/mi/ml	Micromoles per minute per milliliter
mg CO ₂ /h/g	Milligrams carbon dioxide per hour per gram	umol/ml/h	Micromole per milliliter per hour
mg CO ₂ /m ² /sec	Milligrams carbon dioxide per square meter per second	umol/ml/mi	Micromoles per milliliter per minute
mg H ₂ O/d*cm ² *T	Milligrams water per day*square centimeters*Torr	umolASCA/mg pro	Micromols ascorbic acid per milligram protein
mg N/100 ml	Milligrams nitrogen per 100	umolNH ₃ /1e+6c/h	Micromoles NH ₃ per 1X10+6

Code	Definition	Code	Definition
	milliliter		cells per hour
mg NH ₃ /g org	Milligrams ammonia per gram organism	umoles/g TI/h	Micromoles per gram tissue per hour
mg NH ₃ /g org/h	Milligrams ammonia per gram of organism per day	umoles/l agar	Micromoles per liter agar
mg O ₂ /g org	Milligrams oxygen per gram organism	unit/mg pro/mi	Enzyme unit per milligram protein per minute
mg O ₂ /g org/h	Milligrams oxygen per gram of organism per day	units	Units
mg P/100 g	Milligrams phosphorus per 100 grams	units/l	Units per liter
mg P/h/g TI	Milligrams phosphorus per hour per gram tissue	units/mg pro	Units per milligram protein
mg TI/g bdwt	Milligrams tissue per gram body weight	uoml C ₂ H ₄ /g/h	Micromoles of ethylene produced per gram per hour
mg TI/kg bdwt	Milligrams tissue per kilogram body weight	v/v	Volume per volume
mg co ₂ /hr/g ndl	Milligrams carbon dioxide per hour per gram of needles	wght/lit	Weight per litter
mg p/g	Milligrams protein per gram	wk	Week
mg pro/g	Milligrams protein per gram		

RESULTS CODES

Endpoint Codes

Code	Definition	Code	Definition
ATCN	Asymptotic threshold concentration	LC01	Lethal concentration to 1% of test organisms

Code	Definition	Code	Definition
BAF	Bioaccumulation factor	LC08	Lethal concentration to 8% of test organisms
BCF	Bioconcentration factor	LC10	Lethal concentration to 10% of test organisms
BCFD	Bioconcentration factor calculated using dry weight tissue conc	LC100	Lethal concentration to 100% of test organisms
EC0	Effective concentration to 0% of test organisms	LC15	Lethal concentration to 15% of test organisms
EC01	Effective concentration to 1% of test organisms	LC16	Lethal concentration to 16% of test organisms
EC03	Effective concentration to 3% of test organisms	LC20	Lethal concentration to 20% of test organisms
EC05	Effective concentration to 5% of test organisms	LC25	Lethal concentration to 25% of test organisms
EC10	Effective concentration to 10% of test organisms	LC30	Lethal concentration to 30% of test organisms
EC100	Effective concentration to 100% of test organisms	LC38	Lethal concentration to 38% of test organisms
EC13	Effective concentration to 13% of test organisms	LC5	Lethal concentration to 5% of test organisms
EC15	Effective concentration to 15% of test organisms	LC50	Lethal concentration to 50% of test organisms
EC18	Effective concentration to 18% of test organisms	LC51	Lethal concentration to 51% of test organisms
EC2	Effective concentration to 2% of test organisms	LC60	Lethal concentration to 60% of test organisms
EC20	Effective concentration to 20% of test organisms	LC65	Lethal concentration to 65% of test organisms
EC22	Effective concentration to 23% of test organisms	LC70	Lethal concentration to 70% of test organisms
EC23	Effective concentration to 23% of test	LC75	Lethal concentration to 75% of test

Code	Definition	Code	Definition
	organisms		organisms
EC24	Effective concentration to 24% of test organisms	LC80	Lethal concentration to 80% of test organisms
EC25	Effective concentration to 25% of test organisms	LC84	Lethal concentration to 84% of test organisms
EC3	Effective concentration to 3% of test organisms	LC85	Lethal concentration to 85% of test organisms
EC30	Effective concentration to 30% of test organisms	LC90	Lethal concentration to 90% of test organisms
EC32	Effective concentration to 32% of test organisms	LC94	Lethal concentration to 94% of test organisms
EC34	Effective concentration to 34% of test organisms	LC95	Lethal concentration to 95% of test organisms
EC35	Effective concentration to 35% of test organisms	LC99	Lethal concentration to 99% of test organisms
EC37	Effective concentration to 37% of test organisms	LC99.9	Lethal concentration to 99.9% of test organisms
EC38	Effective concentration to 38% of test organisms	LCxx	Lethal concentration to xx% of test organisms
EC40	Effective concentration to 40% of test organisms	LD0	Lethal dose to 0% of test organisms
EC46	Effective concentration to 46% of test organisms	LD0.1	Lethal dose to 0.1% of test organisms
EC5	Effective concentration to 5% of test organisms	LD05	Lethal dose to 5% of test organisms
EC50	Effective concentration to 50% of test organisms	LD1	Lethal dose to 1% of test organisms
EC52	Effective concentration to 52% of test organisms	LD10	Lethal dose to 10% of test organisms
EC58	Effective concentration to 58% of test organisms	LD100	Lethal dose to 100% of test organisms

Code	Definition	Code	Definition
EC60	Effective concentration to 60% of test organisms	LD15	Lethal dose to 15% of test organisms
EC64	Effective concentration to 64% of test organisms	LD16	Lethal dose to 16% of test organisms
EC66	Effective concentration to 66% of test organisms	LD20	Lethal dose to 20% of test organisms
EC69	Effective concentration to 69% of test organisms	LD25	Lethal dose to 25% of test organisms
EC70	Effective concentration to 70% of test organisms	LD30	Lethal dose to 30% of test organisms
EC72	Effective concentration to 72% of test organisms	LD40	Lethal dose to 40% of test organisms
EC75	Effective concentration to 75% of test organisms	LD50	Lethal dose to 50% of test organisms
EC8	Effective concentration to 10% of test organisms	LD60	Lethal dose to 60% of test organisms
EC80	Effective concentration to 80% of test organisms	LD62	Lethal dose to 62% of test organisms
EC81	Effective concentration to 81% of test organisms	LD70	Lethal dose to 70% of test organisms
EC85	Effective concentration to 85% of test organisms	LD75	Lethal dose to 75% of test organisms
EC89	Effective concentration to 89% of test organisms	LD90	Lethal dose to 90% of test organisms
EC90	Effective concentration to 90% of test organisms	LD95	Lethal dose to 95% of test organisms
EC92	Effective concentration to 92% of test organisms	LD99	Lethal dose to 99% of test organisms
EC94	Effective concentration to 94% of test organisms	LDxx	Lethal dose to xx% of test organisms
EC95	Effective concentration to 95% of test	LETC	Lethal Threshold Concentration

Code	Definition	Code	Definition
	organisms		
EC96	Effective concentration to 96% of test organisms	LOEC	Lowest Observable Effect Concentration
EC97	Effective concentration to 97% of test organisms	LOEL	Lowest-observable-effect-level
EC99	Effective concentration to 99% of test organisms	LR100	Lethal residue concentration to 100% of test organisms
ED01	Effective dose to 1% of test organisms	LR50	Lethal residue concentration to 50% of test organisms
ED10	Effective dose to 10% of test organisms	LT10	Time to 10% mortality of organisms
ED20	Effective dose to 20% of test organisms	LT100	Time to 100% mortality of organisms
ED25	Effective dose to 25% of test organisms	LT25	Time to 25% mortality of organisms
ED30	Effective dose to 30% of test organisms	LT50	Time to 50% mortality of organisms
ED50	Effective dose to 50% of test organisms	LT75	Time to 75% mortality of organisms
ED90	Effective dose to 90% of test organisms	LT90	Time to 90% mortality of organisms
ER50	Effective residue concentration to 50% of test organisms	LT95	Time to 95% mortality of organisms
ET20	Effective response time to 20% of test organisms	LTxx	Lethal time, median
ET50	Effective response time to 50% of test organisms	MATC	Maximum Acceptable Toxicant Concentration
ET80	Effective response time to 80% of test organisms	MULT	Multiple statistical significance in ranged observation values
IC1	Inhibition concentration to 1% of test organisms	NOEC	No-observable-effect-concentration
IC10	Inhibition concentration to 10% of test organisms	NOEL	No-observable-effect-level
IC20	Inhibition concentration to 20% of test	NR	Not Reported

Code	Definition	Code	Definition
	organisms		
IC25	Inhibition concentration to 25% of test organisms	NR-LETH	100% mortality or 0% survival of organism
IC50	Inhibition concentration to 50% of test organisms	NR-ZERO	0% mortality or 100% survival of organisms
IC80	Inhibition concentration to 80% of test organisms	NSIG	Statistically not significant measurement response values
IC90	Inhibition concentration to 90% of test organisms	SIG	Statistically significant measurement response values
ICxx	Inhibition concentration	T1/2	Time required for one-half of ingested dose to be eliminated
LC0	Lethal concentration to 0% of test organisms		

Effect Codes

Effect Group Codes	Definitinon
ACC	Accumulation: Effects, measurements and endpoints which characterize the process by which chemicals are taken into and stored in plants or animals. Includes lethal body burden.
BEH (AVO, BEH, FDB)	Behavior: Overt activity of an organism represented by three <i>effect</i> groups - avoidance, general behavior, and feeding behavior. All measurements related to reproductive behavior are listed under the major effect group REP.
BCM (BCM, ENZ, HRM)	Biochemical: measurement of biotransformation or metabolism of chemical compounds, modes of toxic action, and biochemical responses in plants and animals including three <i>effect</i> groups - biochemical, enzyme and hormone effects.
CEL (CEL, GEN, HIS)	Cellular Effects: measurements and endpoints regarding changes in structure and chemical composition of cells and tissues of plants or animals as related to their functions; the three <i>effect</i> groups include cellular, genetic and histological effects.
GRO (DVP, GRO, MPH)	Growth: a broad category which encompasses measures of weight and length and includes effects on development, growth and morphology. Development covers toxicant effects on tissue organization in growing progeny. Growth represents length and weight changes at any point in the life cycle. Morphology measurements and endpoints address the structure (bones) and form (organ/tissue development) of an organism at any stage of its life history.
MOR	Mortality: measurements and endpoints where the cause of death is by direct action of the chemical.
PHY (INJ, IMM, ITX, PHY)	Physiology: measurements and endpoints regarding basic activity in cells and tissues of plants or animals. Four <i>effect</i> groups include injury, immunity, intoxication and general physiological response.
POP	Population: measurements and endpoints relating to a group of organisms or plants of the same species occupying the same area at a given time.
REP (REP, AEG)	Reproduction: measurements and endpoints to track the effect of toxicants on the reproductive cycle. All measurements related to reproduction and care of progeny are included in this category, including behavioral and physiological measurements. Measurements related to development of progeny are found under the major <i>effect</i> group GRO, minor <i>effect</i> group DVP. The <i>effect</i> group AEG includes measurements of avian or reptilian eggs.
SYS (PRS)	Ecosystem: measurements and endpoints to track the effects of toxicants on ecosystem processes. Includes microbial processes.
NOC	No Group Code: measurements related to multiple or delayed effects or endpoints reported without a specific effect.

Effect/Measurement Codes

ACC Accumulation Group

Code	Definition	Code	Definition
ASML	Assimilation efficiency	LBCN	Lethal body concentration
BDBN	Body burden	RATO	Ratio
BDCN	Body concentration	RSDE	Residue
ELIM	Elimination	TSLC	Translocation
GACC	Accumulation, general	UPTK	Uptake

BEH Behavior Group

AVO Avoidance Behavior

Code	Definition	Code	Definition
CHEM	Chemical avoidance	STIM	Stimulus avoidance
FOOD	Food avoidance	WATR	Water avoidance
GAVO	Avoidance, general		

BEH Behavior

Code	Definition	Code	Definition
ACTP	Accuracy of learned task, performance	JUMP	Jumping
ACTV	Activity, general	KILL	Kill
ADOT	Adopt/Adoption	LOCO	Distance moved, change in direct movement
AGCL	Aggregation/Clumping	MIGR	Migration
AGGT	Aggression	MOTL	Motility
ALRT	Alert	NACT	Non-social activity

Code	Definition	Code	Definition
APCH	Approach	NCMV	Nocturnal movements
ATCL	Antennal cleaning	NGRX	Negative geotaxis reflex
ATSK	Acquired task	NMVM	Movements, number of
ATTK	Attack	NRES	No response
BATH	Bathing	NRSP	Neuroresponse
BBBH	Burrowing behavior, burrowing length	NVOC	Vocalizations, number of
BITE	Bite or biting	ORNT	Orientation
BOBB	Bob, bobbing	PALR	Palmar grasp
BOWW	Bow, bowing	PHTR	Phototactic response
BWAX	Bees wax produced	PLAR	Placing reflex
CASE	Case Leaving Behavior	PNPY	Prey penetration
CMST	Compactness of swimming track	POLC	Pollen collected
CNBL	Cannibalism	POST	Posture
COMA	Colony maintenance (bees)	PRVU	Predator vulnerability
COMB	Comb built	REST	Rest
CRDN	Coordination	RRSP	Righting response
C RTP	Continual reinforcement task performed	RSNR	Resting and not ruminating
DHST	Diameter of helix of swimming track	RSPT	Response time to a stimulus
DIGG	Dig/digging	RSRU	Resting and ruminating
DPLY	Displaying behavior	RUBB	Rub
DRMT	Dormant, adverse condition response	RVSE	Reversals
DTCH	Ability to detach from substrate	SACT	Social activity

Code	Definition	Code	Definition
DUMV	Diurnal movements	SCRT	Scratch
ECMB	Empty combs	SDNR	Standing and not ruminating
EQUL	Equilibrium	SDRU	Standing and ruminating
ERRR	Errors in trained behavior	SEBH	Search/explore behavior
EXTN	Extinction	SLEP	Sleeping
FLHM	Flehmen response	SMEL	Smell/Sniff
FLIT	Flight	SRCH	Stretch
FLTR	Filtration rate	SRED	Spread, spreading
FLYG	Flying behavior	STLT	Startle
FOOT	Foot retraction	STPY	Stereotypy
F RTP	Fixed ratio task performed	STRS	Observed stress
FRZG	Freezing behavior	SURF	Surfacing
FTTR	Flutter	SWIM	Swimming
GBHV	Behavioral changes, general	THML	Temperature tolerance
GPST	Grip strength	VACL	Valve closure
GRAB	Grab, grabbing	VCLF	Visual cliff
GROM	Grooming	VIBR	Vibrissea placing
HDLF	Head lift	VISP	Visual placing
HMVT	Horizontal movements	VMVT	Vertical or rearing movements
HONY	Honey produced	WTCH	Watch, watching
INST	Sleeping time, induced	YAWN	Yawn

FDB Feeding Behavior

Code	Definition	Code	Definition
BGNG	Begging behavior	FTIM	Feeding time
FCNS	Food consumption	GFDB	Feeding behavior, general
FDNG	Feeding behavior	LTBD	Litter breakdown
FECL	Fecal production	PRBE	Predatory behavior
FEFF	Feeding efficiency	STRK	Strikes (number of times food source was hit)
FSTR	Food storage	WCON	Water consumption

BCM Biochemical Group

BCM Biochemical

Code	Definition	Code	Definition
1HPY	1-Hydroxypyrene	ILEU	Isoleucine
25HC	25-Hydroxycholecalciferol	ILK6	Interleukin-6
3MDO	3-Methoxytyramine to Dopamine ratio	IMNT	Iso-menthone
3MTA	3-Methoxytyramine	ISDM	Isodesmosine
3PPG	3-Phosphoglycerate	KCDR	Potassium Cadmium Ratio
4ORA	4-Oxo-retinoic acid	KCON	Potassium content
5HAA	5-Hydroxyindole acetic acid	KCUR	Potassium Copper Ratio
5HSR	5-Hydroxyindole Acetic Acid to Serotonin ratio	KNAR	Potassium Sodium Ratio
7BRF	7-Benzyloxyoxyresorufin	LA2S	L-Ascorbyl-2-sulfate
7ERF	7-Ethoxyresorufin	LACT	Lactate
7MRF	7-Methoxyresorufin	LALN	Ratio of linoleic to linolenic fatty acids

Code	Definition	Code	Definition
7PRF	7-Pentoxoresorufin	LAMT	Total lauric acid metabolites
8ODG	8-hydroxydeoxyguanosine	LASC	L-ascorbic acid
AABA	Alpha-aminobutyric acid	LASS	L-ascorbyl-2-sulfate
AAIB	alpha-Aminoisobutyrate	LCCT	Leucocrit
AAUR	Aminoaciduria	LCTA	Lactic acid
ACAR	alpha-Carotene	LCTS	Lactose
ACHL	Acetylcholine	LDLP	Low density lipoprotein
ACHP	Acid-soluble hydroxyproline	LDNT	Lipids, neutral
ACID	Acid produced	LDPL	Lipids, polar
ACRR	Acetylene reduction rate/plant roots nodule	LDPO	Lipid peroxides
ACTN	Actin	LEUC	Leucine
ACTR	delta Aminolevulinic acid creatine ratio	LGHE	Leghemoglobin
ADOX	Adenosine diphosphate to oxygen ratio	LICO	Lithium content
ADPT	Adenosine diphosphate (ADP)	LIMO	Limonene
AGLB	alpha-Globulins	LINA	Linalool
AGPT	alpha-glycerophosphate	LINO	Linoleic acid
AIHP	Acid-insoluble hydroxyproline	LIPD	Lipid
AION	Anions	LIPT	Total lipids
AKLD	Alkoxylipids	LNEI	Linolenic and eicosanoic acid
ALAN	Alanine	LNLN	Linolenic acid
ALBE	Albumin energy	LNLT	Linoleate
ALBM	Albumin	LPFS	Lipofuscin

Code	Definition	Code	Definition
ALCO	Aluminum content	LPPX	Lipoperoxide
ALGL	Albumin to globulin ratio	LPSA	Lipid soluble antioxidants
ALLA	Allantoin	LUTE	Lutein
ALLT	Allantoic acid	LYSI	Lysine
AMAC	Amino acid(s), general term	MCHC	Mean corpuscular (cell) hemoglobin concentration
AMAN	Amino acid nitrogen	MCHG	Mean corpuscular hemoglobin
AMMO	Ammonia	MCON	Mineral content
AMNH	P-amino hippurate	MCPR	Microsomal proteins
AMNN	Amino nitrogen	MCPV	Mean corpuscular volume
AMPT	Adenosine monophosphate (AMP)	MCYS	Microcystin
AMYD	Amyloid	MDCH	Methyl-4,7,10,13,16,19-Docosahexanate
ANTH	Anthocyanin	METH	Methionine
APCY	Allophycocyanin	MGAL	Magnesium to aluminum ratio
APHT	Alkaline phosphate	MGCO	Magnesium (Mg) content
APRO	alpha-Proteins	MGCR	Monoglycerides
ARCH	Arachidonate	MGDG	Monogalactosyl diglyceride (glycolipid) content
ARGI	Arginine	MGLB	Methemoglobin
ASBT	Ascorbate	MLAT	Malate
ASCA	Ascorbic acid	MLDH	Malondialdehyde
ASCN	Arsenic to creatinine ratio	MNAC	Menthyl acetate
ASCO	Arsenic content	MNAI	Manganese accumulation index

Code	Definition	Code	Definition
ASHC	Ash content	MNCO	Manganese (Mn) content
ASPA	Aspartate	MNFE	Manganese to iron ratio
ASPR	Asparagine	MNTH	Menthone
ATCO	alpha-Tocopherol concentration	MOCO	Molybdenum content
ATPT	Adenosine triphosphate	MRNN	Marennine
ATRA	all-trans-retinoic acid	MRXC	Mirex concentration
B2MG	beta2-Microglobulin	MTHL	Menthol
BACO	Barium content	MTLN	Metallothionein
BAGA	Bisphenol A glucuronic acid	MYLN	Myelin
BCAR	beta-Carotene	NACO	Sodium content
BCON	Boron content	NADP	Nicatinamide-adenine dinucleotide phosphate, reduced
BFCO	Bromoform concentration	NAKR	Sodium Potassium ratio
BGLB	beta-Globulins	NAZN	Sodium Zinc Ratio
BGPR	beta- and gamma-Protein	NCON	Nitrogen (N) content
BHNC	Behenic acid	NEAA	Amino acids, nonessential
BIOT	Biotin content	NICO	Nickel content
BLAC	Bile Acids	NIFE	Nickel to nitrogen ratio
BLLB	Bilirubin	NKPH	Enkephalin
BPHY	b-Phycoerythrin	NO3-	Nitrate
BUNT	Blood urea nitrogen	NOCO	Nitric Oxide concentration
C4CD	C4 acids	NPSH	Nonprotein sulfhydryl
C9BT	Total 9B,19- cyclopropylsterols	NPSS	Ninhydrid-positive substances

Code	Definition	Code	Definition
CAAL	Calcium to aluminum ratio	NRGC	Energy compound
CACO	Calcium content	NRMA	Neuraminic acid
CAMP	Adenosine 3',5'-cyclic monophosphate	NSRA	Nitrogen to sulfur ratio
CANA	Calcium to sodium ratio	NSUG	Non-reducing sugars
CAPH	Calcium/phosphorus ratio	NUAC	Nucleic acids
CAPR	Calcium to phosphorus ratio	NUTR	Nutrient status
CARB	Carbohydrate	NXNT	Neoxanthine
CARC	Carotenoid content	O1LA	(omega -1)-Hydroxy lauric acid
CARO	Carotene	O2LA	(omega-2)-Hydroxy lauric acid
CAZN	Calcium to Zinc ratio	O3LA	(omega-3)-Hydroxy lauric acid
CCON	Carbon content	O6LA	(omega-6)-Hydroxy lauric acid
CCTR	Coproporphyrin creatine ratio	OACD	Organic acids
CDAI	Cadmium accumulation index	OCON	Oxygen content
CDCO	Cadmium content	OGLT	Oxidized glutathione
CDPR	Cadmium to phosphorus ratio	OHGL	O2 specific bond to hemoglobin
CDST	Acid soluble thiol	OLCO	Oil content
CDZN	Cadmium to zinc ratio	OLEC	Oleic acid
CERO	Ceruloplasmin	OLYD	Oil yield
CGMP	Cyclic guanylic acid	ONRA	Oxygen to nitrogen ratio
CHAB	Chlorophyll A:Chlorophyll B	ORGR	Oxidized to reduced glutathione ratio
CHCT	Chlorophyll:Carotenoids	ORNI	Ornithine
CHES	Cholesteryl ester	OSDB	Oestradiol breakdown products

Code	Definition	Code	Definition
CHLA	Chlorophyll A concentration	OTHN	Ornithine
CHLB	Chlorophyll B concentration	OXHC	Oxyhemocyanin
CHLC	Chlorophyll C concentration	PALL	Palmitoleic acid
CHLN	Choline	PALM	Palmitic acid
CHLO	Chlorophyll	PARG	Phosphoarginine
CHLR	Chloride	PBAI	Lead accumulation index
CHOL	Cholesterol	PBCO	Lead content
CHYM	Chymotrypsinogen	PBHB	Poly-beta-hydroxybutyrate
CITA	Citric acid	PBIC	Lead 131-Iodine content
CLCO	Chlorine concentration	PCBC	PCB concentration
CLLG	Collagen	PCLV	Packed cell volume
CLMD	Calmodulin	PCON	Phosphorus content
CMPH	Camphor Content	PCRE	Phosphocreatinine
CNRA	Carbon to nitrogen ratio	PDST	Phosphodiester
CO2C	CO2 concentration	PEGE	Polyethylene glycol (PEG) efflux
COAN	Chlorpyrifos-o-analog	PFER	Phosphorus to iron ratio
COCO	Cobalt concentration	PGE2	Prostaglandin E2
CODR	9-cis-4-oxo-13,14-dihydro-retinoic acid	PHEN	Phenylalanine
CP2K	Cytochrome P2K	PHPH	pH
CP3K	Cytochrome P3K	PHSC	Phosphatidyl choline (phospholipid) content
CPRP	Coproporphyrin	PHSE	Phosphatidyl ethanolamine (phospholipid) content

Code	Definition	Code	Definition
CRBR	Cerebroside	PHSG	Phosphatidyl glycerol (phospholipid) content
CRCO	Chromium content	PHSI	Phosphatidyl inositol (phospholipid) content
CREA	Creatinine	PHSP	Phosphatide phosphorus
CRMD	Ceramide	PHST	Total phospholipid content
CRPR	Chromium : Phosphorus	PHTC	Phytochelatin
CRTN	Creatine	PHYC	Phycocyanin
CUAI	Copper accumulation index	PINE	Alpha-pinene
CUCD	Copper to cadmium ratio	PLAC	Pulp:acid
CUCO	Copper (Cu) content	PLAT	Platelets
CUCR	Copper to Carbon ratio	PLSC	Polysaccharide
CUMN	Copper to manganese ratio	PMST	Phosphomonoester
CUMO	Copper to molybdenum ratio	PNAS	p-Nitroanisol
CUZN	Copper to zinc ratio	PNPY	Prey penetration
CYCB	Cytochalasin B	POLD	Peroxidizable lipids
CYSI	Cystine	PORP	Porphyrin
CYTN	Cysteine	PPHT	Phosphate
DABT	Dehydroascorbate	PPYT	Phaeophytin
DALA	delta-Aminolevulinic acid	PRCO	Protein content
DASC	Dehydroascorbic acid	PRLN	Proline
DCDA	3,4-Dihydroxyphenylacetic acid to Dopamine ratio	PROB	Protein binding
DDEC	DDE concentration	PRSH	Protein bound sulfhydryl

Code	Definition	Code	Definition
DDRP	Didehydroretinyl palmitate	PRSL	Soluble proteins
DGCR	Diglyceride	PRTL	Protein, total
DGDG	Digalactosyl diglyceride (glycolipid)	PRT0	Protoporphyrin
DHAP	Dihydroxyacetone-P	PRUR	Protein to urea ratio
DHCA	1,25-Dihydrocholecalciferol	PSCY	Plastocyanin
DHRT	Dehydroretinol	PSPH	Phosphagen
DISC	Diethylsuccinate hydrolysis	PSPI	Phosphatidylserine and phosphatidylinositol
DOPC	3,4-Dihydroxyphenylacetic acid	PSPY	Phosphoenol pyruvate
DPHZ	1,1-Diphenyl-2-picryl hydrazyl	PUTR	Putrescine
DPPA	2,3-Diphosphoglyceric acid	PYRT	Pyrethrum
DRYM	Dry matter	PYRV	Pyruvate
DSMN	Desmosine	PZNR	Phosphorus to Zinc ratio
DTBL	Direct bilirubin (conjugated)	RBGD	Retinoyl beta-glucuronide
ECCR	Echinochrome	RBVL	Relative blood volume (volume/100g body weight)
ECSP	Eicosapentaenoate	RGSH	Reduced glutathione
EICN	Ethyl isocyanide	RHDP	Rhodopsin
ELST	Elastin	RIBO	Riboflavin content
ELYT	Electrolytes	RIDX	Refractive index
ENKP	Enkephalin	RRRA	13-cis-Retinoic acid to 9,13-di-cis-Retinoic acid ratio
EPNP	O-Ethyl-O-p-nitrophenylbenzenethionophosphate	RSUG	Reducing sugars

Code	Definition	Code	Definition
ERUC	Erucic acid	RTES	Retinyl esters
ESAA	Amino acids, essential	RTND	Retinoids
ESGM	Estrogen metabolism	RTRP	Retinol/Retinyl palmitate ratio
ETCO	epsilon-Tocopherol concentration	RTST	Retinyl stearate
ETHL	Ethylene	SCCN	Succinate
ETSR	Erythrocyte sedimentation rate	SCON	Sulfur content
FAME	Fatty acid methyl ester	SECO	Selenium content
FATL	Fatty acid, total	SERI	Serine
FBNT	Fibronectin	SESR	Selenium to sulfur ratio
FBRG	Fibrinogen	SEWE	Steryl esters and wax esters
FEAI	Iron accumulation index	SFTD	Sulfatides
FECO	Iron content	SGMP	Sugar monophosphates
FEMN	Iron to manganese ratio	SGRV	Specific gravity
FENR	Fenretinide (4-Hydroxy-retinoic acid)	SICO	Silicon content
FEZN	Iron to zinc ratio	SILA	Sialic acid
FFTA	Fatty acids, free	SLAC	Silicic acid
FIBR	Fiber	SLFH	Sulfhydryl
FLRS	Fluorescence	SLFT	Sulfate concentration
FRCT	Fructose	SMET	Secondary metabolism
FSPP	Female specific proteins	SPHG	Sphingomyelin
FTIX	Free thyroxine index	SPHS	Sugar phosphates
GABA	gamma-Aminobutyric acid	SPIG	Spiggin

Code	Definition	Code	Definition
GBCM	General biochemical effect	SPMD	Spermidine
GCBN	Gap charge balance	SQVD	Sulfoquinovosyl diglyceride
GD1A	Ganglioside GD1a	SRCO	Strontium content
GD1B	Ganglioside GD1b	SSER	Sulfur to selenium ratio
GERA	Geranyl acetate	SSUG	Soluble sugar content
GERN	Geraniol	STER	Stearic acid
GESM	Geosmin	STES	Sterol esters
GGGH	Glutathione disulfide to glutathione ratio	STLD	Saturated lipid or fat
GGLB	gamma-Globulins	STOL	Sterols
GGM1	Ganglioside GM1	STRH	Starch content
GGT1	Ganglioside GT1	SUCR	Sucrose
GINS	Ginsenosides	SUFA	Ratio of saturated to unsaturated fatty acids
GLCN	Glycine	SUGA	Sugar content
GLOB	Globulin	TAUR	Taurine
GLTH	Glutathione	TBAR	Thiobarbituric acid reactive substances
GLTL	Galactolipid	TCTP	translationally controlled tumor protein
GLTT	Glutamate	TEAM	Tetraethyl ammonium
GLUC	Glucose	TERP	T-terpinene
GLYC	Glycogen	TFAA	Amino acids, total free
GLYP	Glycoprotein composition	THBA	Thiobarbituric acid
GLYT	Total glycolipid content	THIA	Thiamin
GMIN	Glutamine	THRE	Threonine

Code	Definition	Code	Definition
GNGL	Ganglioside	TICO	Titanium content
GPRO	Glial fibrillary acidic protein	TLBL	Bilirubin, total
GSSG	Glutathione disulfide	TLCO	Thallium content
GTAS	Glutamine and asparagine	TMAO	Trimethylamine oxide
GTCO	gamma-Tocopherol concentration	TMFA	Tumour necrosis factor-alpha
GTMA	Glutamic acid	TNSC	Total non-structural carbohydrates
GYCL	Glycerol content	TOPR	Protein, total
H108	Heat shock protein 108	TPPH	Thiamin pyrophosphate
H2O2	Hydrogen peroxide	TRIB	Tributyrin
HCO3	Bicarbonate (HCO ₃ ⁻) concentration	TRIG	Triglycerides
HDCB	Hydrocarbons	TRTY	Tryptophan to tyrosine ratio
HDCH	High density lipoprotein cholesterol:total cholesterol	TRYP	Tryptophan
HDLC	High density lipoprotein cholesterol	TRYS	Trypsinogen
HEME	Heme content	TSFN	Transferrin
HEMT	Hematological parameters (Temporary AQUIRE code)	TTAA	Amino acids, total
HGCO	Mercury concentration	TTRN	Transthyretin
HIHT	5-HIAA/5-HT Ratio	TYMD	Thymidine
HIST	Histidine	TYRO	Tyrosine
HITY	Histidine to tyrosine ratio	UCTR	Uroprophrin creatine ratio
HMCT	Hematocrit (anemia)	UDPA	Uridine diphosphate acetylglucosamine, UDP acetylglucosamine
HMCY	Hemocyanin	UPRP	Uroporphyrin

Code	Definition	Code	Definition
HMGL	Hemoglobin	UREA	Urea
HMG	Hemagglutinin	UREN	Urea nitrogen
HMPG	4-Hydroxy-3-methoxyphenylglycol	URIC	Uric acid
HNMS	N[3H-methyl]scopolamine	USFA	Total saturated to total unsaturated fatty acids ratio
HP20	Heat shock protein 20	VACC	Vaccenic acid
HP26	Heat Shock Protein 26 (HSP26)	VALI	Valine
HP30	Heat shock protein 30	VCON	Vanadium content
HP32	Heat shock protein 32	VEPO	Vitellogenin:protein ratio
HP40	Heat shock protein 40	VIDD	Retinyl palmitate:Dhydroretinyl palmitate
HP42	Heat shock protein 42	VITA	Vitamin A
HP52	Heat shock protein 52	VITE	Vitellogenin
HP60	Heat shock protein 60 (HSP60)	VIVT	Vitellogenin:Vitellin ratio
HP70	Heat shock protein 70 (HSP70)	VLDL	Very low density lipoprotein
HP72	Heat shock protein 72	VLXN	Violaxanthine
HP73	Heat shock protein 73	VMAC	Vanillylmandelic acid
HP75	Heat shock protein 75	VPRO	Vimetin heat shock protein
HP90	Heat shock protein 90	VTAE	Vitamin A ester (Retinyl ester)
HP96	Heat shock protein 96	VTD3	Vitamin D3
HPLN	Hydroxyproline	VTME	Vitamin E
HPXN	Hemopexin	WTCO	Water content
HS78	Heat shock protein 78	ZNAI	Zinc accumulation index
HSTM	Histamine	ZNCD	Zinc to cadmium ratio

Code	Definition	Code	Definition
HVLA	Homovanillic acid	ZNCO	Zinc content
HXBT	Hexobarbital	ZNFE	Zinc to iron ratio
HXDC	Hexadecenoate	ZNNA	Zinc to sodium ratio
IBIL	Indirect bilirubin (free)	ZNPP	Zinc protoporphyrin
ICON	Iodine concentration	ZPP2	Zona pellucide protein 2
IDMN	Isodesmosine + Desmonine	ZPRO	Zona radiata protein
IL1B	Interleukin-1 beta		

ENZ Enzyme

Code	Definition	Code	Definition
2OHB	2-OH biphenyl hydroxylase	HAFS	N-Hydroxy-2-acetylaminofluorene sulfotransferase
3HAO	3-Hydroxyanthranilate oxygenase	HBDS	alpha-Hydroxybutyrate dehydrogenase
450R	NADPH-cytochrome p-450 reductase	HCAR	beta-hydroxy-beta-methylglutaryl-CoA reductase
4CBH	4-chlorobiphenyl hydroxylase	HEPX	Heptachlor epoxidase
4OHB	4-OH biphenyl hydroxylase	HOXY	Heme oxygenase
5NLT	5-Nucleotidase activity	HPSE	Hydrogen peroxidase
6PGD	6-Phosphogluconate dehydrogenase	HXBH	Hexobarbital hydroxylase
AAPT	Alanine aminopeptidase	HXKN	Hexokinase
AATT	Alanine aminotransferase	ICDH	Isocitrate dehydrogenase
ACAC	Acetyl-CoA carboxylase	ICLY	Isocitric lyase
ACHE	Acetylcholinesterase	IPYR	Inorganic pyrophosphate

Code	Definition	Code	Definition
ACOH	Acetanilide-4-hydroxylase	ITMD	Iodothyronine 5'-monodeiodinase
ACPH	Acid phosphatase	LADH	Lactate dehydrogenase
ADNY	Adenylate	LCDH	Lactic dehydrogenase
AEPX	Aldrin epoxidase	LDMD	Lactate dehydrogenase/malic dehydrogenase ratio
AFCD	alpha-Fucosidase	LEAM	Leucine aminopeptidase
AGCE	Angiotensin converting enzyme	LGDD	L-Gulonate dehydrogenase and decarboxylase
AGCT	alpha-Galactosidase	LIPS	Lipase
AGKN	Arginine kinase	LNSE	L-Leucyl-beta-naphthylamide splitting enzyme
AGPD	alpha-glycerol phosphate dehydrogenase	LPLP	Lipoprotein lipase
AGSE	alpha-Glucosidase	LPPR	Liperoxidase
AGTF	Alanine gamma-glutamyltransferase	LPXG	Lipoxygenase
AHDX	Aniline hydroxylase	LTSE	Lactase
AHHD	Aryl hydrocarbon hydroxylase	LYSO	Lysyl oxidase
AKPT	Alkaline protease	LYZM	Lysozyme activity
AKPY	Alkaline pyrophosphatase	MADH	Malic dehydrogenase
ALAD	(delta) -aminolevulinic acid dehydrogenase	MALE	Malic enzyme
ALAS	(gamma) -ALA synthetase	MAOA	Mono amino oxidase
ALDH	Aldehyde dehydrogenase (ALDH)	MCAT	Magnesium carbonate adenosine triphosphatase
ALDO	Aldolase	MCOD	Methoxycoumarin O-dealkylase
ALIE	Ali esterase	MG6P	Microsomal glucose 6- phosphatase
ALLN	Allantoinase activity	MGAT	Magnesium adenosine triphosphatase

Code	Definition	Code	Definition
ALPH	Alkaline phosphatase	MLCB	Malathion carboxylesterase
ALTM	Alanine transaminase	MLDA	Malate dehydrogenase
AMNS	alpha-Mannosidase	MLTS	Maltase
AMTR	Arsenite methyltransferase	MNSD	Manganese superoxide dismutase (MnSOD)
AMYL	Alpha-amylase	MROD	Methoxyresorufin-o-deethylase
ANAE	G-naphthyl acetate esterase	MUDH	Multiple dehydrogenases (produced by soil microorganisms)
APND	Aminopyrine n-demethylase	NAAT	Sodium adenosine triphosphatase
APRT	Acid Protease	NABH	N-acetyl-beta-hexosaminidase
APYR	Acid pyrophosphatase	NACR	NADH-cytochrome c reductase
AREG	Arachidonate epoxigenase	NADG	beta-N-Acetyl-D-glucosaminidase
ARHY	Aromatic hydroxylase	NADH	Nicotinamide adenine dinucleotide (reduced) (NADH)
ARMT	Aromatase	NADN	Nicotinamide adenine dinucleotide (oxidized) (NAD)
ASAT	Aspartate aminotransferase	NAGD	N-Acetyl-beta-d-glucosaminidase
ASCP	Ascorbate peroxidase	NAOX	Nicotinamide adenine dinucleotide phosphate oxidase (NADPH) Oxidase
ASMT	Arsenite methyl transferase	NCB5	NADH cytochrome B5 reductase
ASOA	Ascorbic acid oxidase activity	NCCR	NADPH cytochrome C reductase
ASPT	Arylsulphatase	NCTR	Nicotinamide transferase
ATPA	Adenosine triphosphatase activity	NDCC	NADH cytochrome C reductase
ATRP	Alanine transpeptidase	NDDP	NADH-DT-diaphorase
B5P4	b5/P-450	NDFC	NADH ferricyanide reductase

Code	Definition	Code	Definition
BAMY	Beta-amylase	NDFH	NADPH- ferrihemoprotein reductase
BAPH	Benzo(a)pyrene hydroxylase	NDFR	NADH ferricyanide reductase
BAPM	Benzo(a)pyrene monooxygenase	NDMT	N-Demethylase
BCHE	Buterylcholinesterase	NDPD	NADPH-Diaphorase (nicotinamide adenine dinucleotide phosphate diaphorase)
BCOD	Butoxycoumurin O-dealkylase	NHCR	NADH cytochrome C reductase
BGAL	beta-Galactosidase	NITG	Nitrogenase
BGCR	beta-Glucuronidase	NKAT	Sodium potassium ATPase
BGMD	beta-Glucosaminidase	NNDE	Nitrosamine-N-demethylase
BGSE	beta-Glucosidase	NRDT	Nitrate reductase
BHXA	Benzpyrene hydroxylase	NRED	Nitroreductase
BPND	Benzphetamine-n-demethylase	O1LH	omega-1-Laurate hydroxylase
BROD	Benzylresorufin O-deethylase	O2LH	omega-2-Laurate hydroxylase
C1A2	Cytochrome P-450 1A2	OLHD	omega-Laurate hydroxylase
C2D6	Cytochrome p-450 cyp2d6	ORCT	Ornithine carbamoyl transferase
C2K1	Cytochrome P450 2K1	ORDC	Ornithine decarboxylase
C2M1	Cytochrome P450 2M1	P1A1	Cytochrome P-450 1A1
CA27	Cytochrome P450 3A27	P420	Cytochrome P-420
CAAH	Carbonic anhydrase	P450	Cytochrome P-450
CACA	Choline acetyltransferase	PBES	Phenyl benzoate esterase
CAPK	Choline phosphokinase	PBHD	Pentobarbital hydroxylase
CATP	Calcium adenosine triphosphatase (ATPase) [calcium ATPase]	PCCX	Picolinate carboxylase

Code	Definition	Code	Definition
CCAT	Calcium carbonate adenosine triphosphotase	PCHE	Pseudocholinesterase
CCOX	Cytochrome C-oxidase	PCLX	Picoline carboxylase
CEST	Cholinesterase	PCOD	Propoxycoumarin O-dealkylase
CHIT	Chitobiase	PCTN	Pectinase activity
CMYS	Chymotrypsin	PFRC	Phosphofructokinase
CP1A	Cytochrome P1A	PHBG	Porphobilinogen
CPDE	Cytochrome P450-dependent O-deethylation activity	PHLA	Phosphorylase A
CPOD	Cytochrome P450 dependent O-demethylase	PHLC	Phospholipase C
CPSE	Creatine phosphokinase	PHLD	Phenoxidase
CRKI	Creatine kinase	PKSC	Protein kinase C
CRLP	Ceruloplasmin activity	PLA2	Phospholipase A2
CSYN	Citrate synthase	PNAC	para-Nitrophenyl acetate carboxylesterase
CTHP	Cathepsin	PNAD	P-nitroanisoile demethylase
CTLS	Catalase	PNOD	para-Nitrophenetole-o-deethylase
CTMT	Catechol o-methyltransferase	PODA	Peroxidase activity
CTNS	Chitinase	PPDE	Phosphodiesterase
CY2B	Cytochrome P2B (CYP2B)	PPHL	Phosphorylase
CY2C	Cytochrome P-450 CYP2C	PPOX	Polyphenol oxidase
CYAA	Cytochrome aa3	PPPA	Phosphoenolpyruvic acid
CYAM	Cystine aminopeptidase	PPPC	Phosphoenol pyruvate carboxylase
CYB5	Cytochrome B-5	PPSN	Pepsin

Code	Definition	Code	Definition
CYCC	Cytochrome c + c1	PROD	Pentylresorufin O-deethylase
CYP2	Cytochrome P2	PRTA	Proteolytic activity
CYP3	Cytochrome P3A	PRTS	Protease
CYST	Cysteine dioxygenase	PSPM	Phosphoamidase
CYTA	Cytochrome P450A	PTCS	Phytochelatin synthase activity
CYTB	Cytochrome b	PYKN	Pyruvate kinase
CZSD	Copper Zinc superoxide dismutase	PYRC	Pyruvate carboxylase
DBHD	delta-5-3-beta hydroxysteroid dehydrogenase	QNPT	Quinolinate phosphoribosyltransferase
DBHX	Dopamine beta-hydroxylase	QORD	Quinone oxidoreductase
DEAS	Dehydroascorbatase	RBPC	Ribulose-1,5-bisphosphate carboxylase
DHYD	NADPH dehydrogenase	REHL	Retinyl Ester Hydrolase
DSCA	Diethylsuccinase	RNIN	Renin
DTDP	DT-diaphorase	RNPH	5'-Ribonucleotide phosphohydrolase
ECOD	Ethoxycoumarin O-deethylase	RNSE	RNase
ENCL	Endocellulase	RUBI	Bisphosphate carboxylase/oxygenase (Rubisco)
ENDM	Ethylmorphine-n-demethylase	SASE	Arylsulfatase
EPHY	Epoxide hydrase	SBDH	Sorbitol dehydrogenase
EPND	EPN (O-Ethyl-O-p-nitrophenyl phenylphosphonothionate) detoxification	SCDH	Succinate dehydrogenase
EROD	7-Ethoxyresorufin O-deethylase	SFTA	Sulfotransferase
ESLI	Esterase lipase	SGOT	Serum glutamate oxalo acetate transaminase
ESST	Estradiol sulfotransferase	SGPT	Serum glutamic pyruvic transaminase

Code	Definition	Code	Definition
ESTE	Esterase	SGPX	Selenium dependent glutathion peroxidase
ESTS	Elastase	SODA	Superoxide dismutase (SOD) enzyme activity
EXCL	Exocellulase	SPGX	Selenium dependant glutathione peroxidase
F16D	Fructose 1,6-diphosphatase	SSAR	SGOT & SPGT to ALPH ratio
F6PD	Fructose-6-phosphate dehydrogenase	SSRA	SGOT to SPGT ratio
FDPA	Fructose-diphosphate aldolase	SUPS	Sucrose phosphate synthase
FESD	Iron superoxide dismutase	T16A	Testosterone 16-alpha hydroxylase
FMOO	Flavin-containing monooxygenase	T3GL	Triiodotyrosine (T3) Glucuronidation
G6PD	Glucose-6-phosphate dehydrogenase	T4GL	L-Thyroxine (T4) Glucuronidation
G6PT	Glucose-6-phosphatase	TAMN	Transaminase
GCTA	Glucosyltransferase	TATS	Tyrosine aminotransferase
GENZ	Enzyme activity	TBHY	Testosterone 16 beta-hydroxylase
GGCS	gamma-Glutamylcysteine synthetase	THMN	Thiaminase
GGTP	gamma-glutamyl transpeptidase	THTR	Thiol transferase
GGTR	(gamma) -glutamyl transferase	TPHX	Tryptophan hydroxylase
GLAD	Glutamic acid dehydrogenase	TPOX	Tryptophan oxidase
GLMC	Glutamate decarboxylase	TPSY	Trypsin
GLMD	Glutamate dehydrogenase	TRBA	Tributyrylase
GLMS	Glutamine synthetase	TRIE	Triacetin esterase
GLMT	Glutamate transferase	TSHX	Tyrosine hydroxylase
GLPP	Glycogen phosphorylase	TSKT	Transketolase
GLPX	Glutathione peroxidase	TT2A	Testosterone 2-alpha hydroxylase

Code	Definition	Code	Definition
GLRE	Glutathione reductase	TT6A	Testosterone 6-alpha hydroxylase
GLTR	Glucuronyl transferase	TT6B	Testosterone 6-beta hydroxylase
GLUR	(beta) -glucoronidase	TT7A	Testosterone 7-alpha hydroxylase
GLUT	Glutaminase	TTRH	Testosterone hydroxylase
GLYD	Glyceraldehyde dehydrogenase	TUOX	Thiourea oxygenase
GMPP	Cyclic guanylic acid phosphodiesterase	TYKN	Thymidine kinase
GOTR	Glutamic-oxaloacetic transaminase	UDGT	UDP glucuronosyltransferase
GPIM	Glucose phosphate isomerase	UDPT	Uridine diphosphate glucuronyl transferase, UDP glucuronyl transferase
GPTR	Glutamic pyruvic transaminase	URON	Uronolactonase
GSTR	Glutathione S-transferase	URSE	Urease activity
GTPD	Glutamyl transpeptidase	VAAM	Valine aminopeptidase
GULO	L-Gulonolactone oxidase	XBME	Xenobiotic metabolizing enzymes
GUPX	Guaiacol peroxidase	XODA	Xanthine oxidase, XOD

HRM Hormone

Code	Definition	Code	Definition
11BT	11beta - hydroxytestosterone	G11K	Glucuronidated 11-Ketotestosterone
11DC	11-Deoxycortisol	GBDP	Glucuronidated 17,20beta-Dihydroxy-4-pregnen-3-one
15BH	15 Beta-hydroxytestosterone	GCRT	Glucocorticoid
16AT	16alpha-Testosterone	GHRM	Hormone, general changes in
16BH	16 beta-Hydroxytestosterone	GIBB	Gibberellin

Code	Definition	Code	Definition
18HC	18-Hydroxycorticosterone	GNTP	Gonadotropin
18HD	18-Hydroxy-11-deoxycorticosterone	GRHM	Gonadotropin releasing hormone
19HD	19-Hydroxytestosterone	GTHH	Growth hormone
4TO3	L-thyroxine outer ring 5'-monodeiodination	INHI	Inhibin
5HST	5-Hydroxyindole acetic acid:serotonin	INSL	Insulin
6BTT	6beta-Testosterone	IPTH	Immunoreactive parathyroid hormone
7ATT	7alpha-Testosterone	KTST	11-Ketotestosterone
ABPT	Androgen binding protein	LUTH	Luteinizing hormone
ABSA	Absciscic acid	ME4T	Total 4a- methylsterols
ACTH	Adrenocorticotrophic hormone	MITS	Monoiodotyrosine
ADDL	Androstanediol	NADG	beta-N-Acetyl-D-glucosaminidase
ADDN	Androstenedione	NORD	Noradrenaline
AHPG	17 alpha-Hydroxyprogesterone	NORE	Norepinephrine
ALDS	Aldosterone	PNMT	Phenylethanolamine N-methyl transferase
AMSH	alpha-Melanocyte stimulating hormone	PRGN	Pregnenolone
ANDR	Androgen	PRGS	Progesterone
AUXN	Auxin	PRLC	Prolactin
BDPG	17,20beta-Dihydroxy-4-pregnen-3-one	S11K	Sulfated 11-Ketotestosterone
BOES	beta-Oestradiol	SBDP	Sulfated 17,20-beta-Dihydroxy-4-pregnen-3-one
CORT	Corticosterone (Corticoid)	SMTC	Somatomedin C
CRCT	Cortisol and Cortisone	SRIF	Somatostatin
CRTS	Cortisol	SRTN	Serotonin

Code	Definition	Code	Definition
CTCL	Catecholamine	ST5T	Total (delta)5- sterols
CYTK	Cytokinin	ST8T	Total (delta)8- sterols
DECL	11-Deoxycortisol glucuronide	STRD	Steroids
DHTR	Dihydrotestosterone	STST	Sulfated Testosterone
DITS	Diiodotyrosine	T3T4	Triiodothyronine (T3) to thyroxine (T4)
DOCS	Deoxycorticosterone	T4T3	Thyroxine:Triiodothyronine
DOPA	Dopamine	TGLD	Testosterone glucuronide
ELTR	17beta-Estradiol:Testosterone ratio	THYR	Thyroxine
EPIN	Epinephrine	TRII	Triiodothyronine
ESDL	17-beta Estradiol	TSHT	Thyrotropin
ESTR	Estrogen (Oestrogen)	TSTR	Testosterone
FOSH	Follicle stimulating hormone		

GRO Growth Group*DVP Developmental*

Code	Definition	Code	Definition
68CL	6-8 Cell stage	GSTL	Gastrulation
ABNM	Abnormal	INCT	Incubation time
BSCY	Blastocyst stage	LRCF	Loricae formation
CCLV	Cell cleavage	MATR	Maturity
CLFT	Cleft palate	MMPH	Metamorphosis
COAT	Coat development	MOLT	Molting

Code	Definition	Code	Definition
COLR	Color	MRLA	Morula stage
DFRM	Deformation	NORM	Normal
DVLP	Development, general	PHRN	Postharvest character no effect
EARO	Ear opening	PHRV	Post harvest character influenced
EARP	Ear pinna detachment	PUPA	Pupation
EMRG	Emergence	RSPN	Resorption
ENDD	Endoderm differentiation	STGE	Stage
EVFO	Envelope formation	SXDP	Sexual development
EYOP	Eye opening	TEMR	Time to first emergence
FIRM	Firmness	TERA	Teratogenic measurements
FLDG	Fledged/female or /brood	TFLW	Time to flower
FLWD	Duration of Flowering	THED	Time to heading
FORM	Organ/tissue formation	TRRA	Transformation ratio
FURR	Fur Development	WEAN	Weaned
GDVP	Developmental changes, general	WGHT	Weight
GRRT	Growth rate	YLKA	Yolk sac absorption, Yolk sac utilization

GRO Growth

Code	Definition	Code	Definition
ABNM	Abnormal	NGAN	Net gain
AREA	Area	NLEF	Number of leaves
BMAS	Biomass	NODE	Number of nodules/nodulated plant roots

Code	Definition	Code	Definition
BDBN	Body burden	NROT	Number of roots
COND	Condition index	PMTR	Perimeter
DNSY	Density	RADI	Radius
DMTR	Diameter	RLGR	Relative growth rate
DIST	Distance	SIZE	Size
NNOD	Dry mass / plant roots non-nodulated	SPGR	Specific growth rate
DWGT	Dry weight (AQUIRE only)	STNT	Stunting
EBCN	Effective body concentrations	THIK	Thickness
GGRT	General growth rate	THRV	Time to harvest
GREI	Growth efficiency index	VGOR	Vigor
GRRT	Growth rate	VOLU	Volume
GGRO	Growth, general	WGHT	Weight
HGHT	Height	GAIN	Weight gain
LGTH	Length	WWGT	Wet weight (AQUIRE only)
RGNR	Limb/ body part regeneration	WDTH	Width
LINT	Lint		

MPH Morphology

Code	Definition	Code	Definition
ABDS	Apex to base distance	NORM	Normal
ABNM	Abnormal	OSSC	Ossification
ABST	Absence, absent	POSC	Parietal ossification

Code	Definition	Code	Definition
AREA	Area	PULP	Pulp
BVSL	Blood vessels	RADI	Radius
CAWT	Calcium weight	RATO	Ratio
COND	Condition index	RIBS	Number of ribs
COSC	Caudal ossification center	SFRB	Supernumerary full rib
CRCM	Circumference	SHPE	Shape
CRMF	Circumference	SIZE	Size
CTTK	Ratio of cortical thickness to diameter	SMIX	Organ weight in relationship to body weight
DEPO	Shell deposition	SMTE	Somite
DMTR	Diameter	SOSC	Sternal ossification center
DNSY	Density	SRIB	Supernumerary ribs
FSSR	Fissure	SSRB	Short supernumerary rib
GMPH	General morphological changes	STBD	Seminiferous tubule diameter
HGHT	Height	STRC	Structural changes
IMPS	Imposex, intersex conditions	STTO	Strength and tone
INTS	Intussusception	SVTE	Supernumerary vertebrae
IPOS	Inter-parietal ossification	THIK	Thickness
LFLV	Lens focal length variability	TKWD	Thickness:width
LGTH	Length	VOLU	Volume
MOSC	Metacarpal ossification center	WDTH	Width
MSSG	Missing, absent	WEAR	Wearing
NLRG	enlargement	WGHT	Weight

CEL Cellular Group*CEL Cellular*

Code	Definition	Code	Definition
AGGR	Aggregation/adhesion	MYLO	Myelocyte
AREA	Area	NCCM	Normochromatic cells, micronucleated
ARGY	Argyophilic cells	NCEL	Number of cells
BASO	Basophil	NESR	Nuclear Estrogen Receptor
BCEL	B-cell	NEUT	Neutrophil
BPCL	Bipolar cell	NLEI	Nuclei
CCHG	Cell changes	NMDR	NMDA Receptor
CDRT	Cell division rate	NRBC	Nucleated red blood cells
CESR	Cytosolic Estrogen Receptor	NROD	Rods
CILR	Ciliated type II receptors	OGNL	Organelle changes
CIRC	Choline acetyltransferase (ChAT) immunoreactive cells	OSRS	Osmotic resistance/ RBC
CLCE	Chloride cell	PCCM	Polychromatic cells, micronucleated
CMGR	Cell migration	PCRC	Polychromatic cells
CRCM	Circumference	PGRC	Progesterone Receptor
CTRV	Cell turnover	PKNJ	Purkinje cells
CYTO	Cytotoxicity	PKNS	Pyknosis
DEND	Dendrite receptors	PLAS	Plasmolysis
DIVC	Dividing cells	PMNC	Polymorphonuclear cells
DMTR	Diameter	PRKY	Perikarya

Code	Definition	Code	Definition
DNSY	Density	RATO	Ratio
DPTH	Depth	RBCE	Red blood cell
EOSN	Eosinophil	RETI	Reticulocytes
ERTH	Erythroblasts	RSBC	Receptor site binding capacity
ESRS	Estradiol receptor sites	SGDN	Signal density
FOCI	Foci	SIZE	Size
GABR	gamma aminobutyric acid receptor	SPLO	Splenocytes
GBLT	Goblet cells	SRTL	Sertoli cells
GLCL	Gland cells	STCL	Stippled cells
GNDT	Gonadotrophs	STRC	Structural changes
GRAN	Granulocyte	TCEL	T-cell
HGHT	Height	TCRA	T-cell receptor ab (TCR)
HMPS	Hematopoiesis	THRM	Thrombocytes
HTCY	Heterocyst frequency	TWBC	White blood cell count, total
HTPL	Heterophiles	UBWB	White blood cell, undifferentiated blasts
LEUK	Leukocytes	VIAB	Viability
LMFI	Lamellar fusion index	VOLU	Volume
LMPH	Lymphocyte	WBCI	White blood cell index
MONO	Monocyte	WDTH	Width
MUCR	Muscarinic cholinergic receptor		

Code	Definition	Code	Definition
2KMR	Cyp2K mRNA	MEIA	Meiotic abnormality
ACMR	Actin mRNA	MEIR	Meiosis rate
ACRD	Abnormal chromosomal distribution	MEIX	Meiotic Index
ALFR	Allele frequency	MIAT	Mitotic abnormalities, ana-telophase
AMRN	Cytochrome P450aromB mRNA	MIBC	Mitotic abnormalities, binucleate cell
APOP	Apoptosis, programmed cell death, DNA fragmentation	MIBG	Mitotic abnormalities, bridge
ATRN	Alpha-induced tumor necrosis factor mRNA	MICL	Mitotic abnormalities, clumping
BADF	beta-Actin cDNA fragments	MICY	Mitotic abnormalities, cytomixis
BNFM	Brain-derived neurotrophic factor mRNA	MIES	Mitotic abnormalities, early separation
BRAK	Chromosomal breaks	MIEX	Mitotic abnormalities, exclusion
CA1M	Cyp1A1 mRNA	MIFR	Mitotic abnormalities, fragment
CA2M	Cytochrome P-450 1A2 mRNA	MIIN	Mitotic abnormalities, interphase cells
CA3M	Cyp1A3 mRNA	MILG	Mitotic abnormalities, laggard
CABR	Chromosomal aberrations	MIMN	Mitotic abnormalities, micronuclei
CARN	CD36 antigen mRNA	MIMT	Mitotic abnormalities, metaphase
CFSM	c-fos mRNA	MINB	Mitotic abnormalities, nuclear budding
CGAP	Chromosomal gap	MINF	Mitotic abnormalities, nuclear fusion
CHDF	Choriogenin H cDNA fragments	MIPO	Mitotic abnormalities, disturbed polarity
CHLM	Chlorophyll mutation / albina mutants	MIPR	Mitotic abnormalities, prophase
CHMR	Choriogenin H mRNA	MISK	Mitotic abnormalities, stickiness
CLDF	Choriogenin L cDNA fragments	MITA	Mitotic abnormalities
CLMR	Choriogenin L-mRNA	MITI	Mitotic index (# mitoses/total cells)

Code	Definition	Code	Definition
CPRN	Cytochrome P1A messenger RNA	MITR	Mitotic rate
CYRN	Cyp1b1 mRNA	MMRN	Metallothionein mRNA
DAMG	Damage	MNUC	Micronuclei
DNAB	DNA binding	MRMT	Metallothionein mRNA metallothionein ratio
DNAC	DNA concentration	MRNA	Messenger RNA
DNAD	DNA Adducts	MTOS	Mitosis
DNAS	DNA synthesis rate	MUTA	Mutation
DNPR	DNA to protein ratio	NABN	Nuclear abnormality
DNRN	DNA to RNA ratio	NCPF	Nuclear phase frequency
DPLT	Diplotene	NGRN	Notch gene homolog 1 mRNA
EMRN	Estrogen mRNA	PACH	Pachytene
EMRR	Estrogen receptor : estrogen mRNA ratio	PCNA	PCNA Index
ESRG	Estrogen receptor gene	PCRN	Phosphoenolpyruvate carboxykinase 1 mRNA
FARN	Fatty acid binding protein 5 mRNA	PHFQ	Phenotype frequencies
FSMR	Follicle stimulating hormone beta mRNA	PLMR	Prolactin mRNA
G1PN	G1 phase neuclei	POLY	Chromosomal polyploidy
GDRN	Growth arrest and DNA-damage-inducible 45 beta mRNA	PRDN	Protein to DNA ratio
GEXP	Gene expression	PSMR	Pituitary specific transcription factor mRNA
GGEN	Genetics, general	RASO	RAS Oncogene
GHMR	Growth hormone mRNA	RNAC	RNA concentration

Code	Definition	Code	Definition
GLT1	Glucose transporter 1 mRNA	RNAS	RNA synthesis rate
GLT3	Glucose transporter 3 mRNA	RNDN	RNA to DNA ratio
GORN	Glutamate oxaloacetate transaminase 1 mRNA	RNGT	Glutathione S-transferase mRNA
GTPF	Genotype frequencies	RNPR	RNA to protein ratio
HTZY	Heterozygosity	RNRD	NAD(P)H dehydrogenase, quinone 1 mRNA
LEPT	Leptotene	SEXE	Sex expression change
LHMR	Lutenizing hormone mRNA	TSLE	Translocation efficiency
LLRN	Lipoprotein lipase mRNA	U1MR	UGT1a1 mRNA
LPDN	Lipid to DNA ratio	U6MR	UGT1a6 mRNA
M1MR	Metallothionein-I mRNA	U7MR	UGT1a7 mRNA
M2MR	Metallothionein-II mRNA	UDMR	UDP-glucuronosyltransferase Messenger RNA
ME1A	Meiotic abnormalities, 1st anaphase	UGRN	UDP-glucose dehydrogenase mRNA
ME1M	Meiotic abnormalities, 1st metaphase	VDNA	Vitellogenin cDNA
ME2A	Meiotic abnormalities, 2nd anaphase	VMRN	Vitellogenin mRNA
ME2M	Meiotic abnormalities, 2nd metaphase	WTDN	Weight to DNA ratio
MEDM	Meiotic abnormalities, diakinesis and 1st	ZRMR	Zona radiata mRNA
MYCT	Myocyte	ZYGO	Zygotene

HIS Histology

Code	Definition	Code	Definition
ACAP	Arterial cuff atrophy	HRNA	Hernia

Code	Definition	Code	Definition
ALYS	Autolysis	HYCE	Hypocellularity
ANSK	Anisokaryosis	HYCR	Hyperchromicity
ARTS	Arteriosclerosis	HYDS	Hydropic swelling
ASCT	Ascites	HYPL	Hyperplasia
ASLT	Alpha Islets	HYPT	Hypertrophy
ATPH	Atrophy	IFLM	Inflammation
ATRS	Atresia	IHGT	Increased height
BODS	Bodies	IMVL	Increased medullary volume
BSLT	Beta Islets	ININ	Intranuclear inclusions
CLFL	Collapsed follicles	IPDY	Increased portal density
CLLD	Colloids	IPHM	Increased perivenous homogeneity
CLPG	Clumping pigment granules	LESI	Lesions
CNGT	Congestion	LMLL	Lamellae
CRYT	Crystals	LPHD	Lymphoid depletion
CSTD	Cestodiasis	MALN	Misalign, misaligned
CSTS	Cyst	MAPH	Microphthalmia and anophthalmia
CTHN	Colloid thinning	MELM	Melanomacrophages
CTRRT	Cateracts	MHYP	Myeloid hyperplasia
CTYP	Percent cell type	MYOP	Myopathy
CYIN	Cytoplasmic inclusions	NCRO	Necrosis
CYTM	Cytomegaly	NCVS	Nuclear vesiculation
CYTP	Cytoplasm	NPHG	Nephrogenesis

Code	Definition	Code	Definition
CYVC	Cytoplasmic vacuoles	NPHR	Nephrosis
DBRS	Debris	PNCH	Parenchyma
DEGN	Degeneration	PRLF	Proliferation
DISO	Disorganization	PRVN	Proventriculitis
DLAT	Dilation	RCVL	Reduced corticle volume
EDMA	Edema	RFSZ	Reduced follicle size
EHYP	Erythroid hyperplasia	RPCD	Reduced periaarteriolar lymphocyte sheath cell density
ENCP	Encephalopathy	SCNG	Sinus congestion
ENDR	Endarteritis	SHMT	Sinus haematopoiesis
ESPH	Esophagitis	SHYP	Sinus hyperplasia
EXCS	Extracellular space	SMLN	Severe misalignment
EXPT	Exophthalmia	SMMN	Slight to moderate misalignment
FBRs	Fibrosis	SNAP	Synapses
FUSE	Fuse, fused	SOSS	Supernumerary ossification
GHIS	Histological changes, general	SWEL	Swelling
GLSN	Gross lesions	TFLR	Tissue fluorescence in UV light
HDPC	Hydropericardium	USTR	Ultrastructural changes
HEMR	Hemorrhage	VCLZ	Vacuolization
HFLX	Hyperflexion	XCPH	Exencephaly

MOR Mortality/Survivorship Group

Code	Definition	Code	Definition
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Code	Definition	Code	Definition
BDAY	Bird days	LIFE	Life expectancy
BDCN	Body concentration	MDTH	Mean time of death
DLMT	Dominant lethal mutations	MORT	Mortality
DTTM	Death with tumors	PSUR	Probability of Survival
EBCN	Effective body concentrations	SURV	Survival
GMOR	Mortality/survival, general	SVVS	Survivorship
HTCH	Hatch	TDTH	Time to death
LBCN	Lethal body concentration	TKNO	Knockdown
LFSP	Lifespan	TLET	Time to 100% mortality

PHY Physiological Group

IMM Immunological

Code	Definition	Code	Definition
ABDT	Antibody titres	LYMP	Lymphocyte activity
ABSC	Abscission	MCPG	Macrophage activity
ABSS	Abscess	MPHG	Microphage function, activity
ASHG	Anti-sheep red blood cell hemagglutinin	MYEL	Myelosis
CTKY	Cytokines	NKCA	Natural killer cell activity
DHYP	Delayed type hypersensitivity	PARA	Amount or percent animals infested with parasites
GIMM	Immunity, general	PFCR	Plaque forming cell response
HEAL	Healing	PHAG	Phagocytosis

Code	Definition	Code	Definition
HMRL	Humoral immunity	PNMA	Pneumonia
HTPL	Heterophiles	PRNF	Parasitic infection
IFCT	Infected	PRTU	Proteuria
IGMG	Immunoglobulin G	RSTT	Rosette response, rosette forming cell concentration
IGMM	Immunoglobulin M	THIK	Thickness
LKMA	Leukemia	THYM	Thymocyte activity

INJ Injury

Code	Definition	Code	Definition
ABSN	Abrasion	LYPA	Lymphoma
ADNM	Adenoma	MTMR	Malignant tumor
AMLD	Amyloidosis	MUTI	Mutigenesis
AUTO	Autotomy	PLYP	Polyp
BTMR	Benign tumor	POLP	Polyp
CLRS	Chlorosis	SYMP	Symptom severity index
CURV	Curvature	THMB	Thrombosis
DAMG	Damage	TUMR	Tumor induction
DESI	Desiccation	ULCR	Ulcer
GINJ	Injury, general	VASC	Vascular disruption
IFLM	Inflammation	WART	Papilloma, wart
IFRT	Infarction		

ITX Intoxication

Code	Definition	Code	Definition
ANOR	Anorexia	INCO	Incoordination
ATAX	Ataxia	MBLT	Mobility
CONV	Convulsions	PARL	Paralysis
GITX	Intoxication, general	TINT	Time to signs of intoxication
IMBL	Immobile		

PHY Physiology

Code	Definition	Code	Definition
ABSC	Abscission	KUPT	Potassium uptake
ADPE	Adsorption efficiency	LABS	Leucine absorption
ADPO	Oxidative phosphorylation	LDGT	Lipid digestion
ADTH	Auditory Threshold	LDMT	Lipid metabolism
AECG	Abnormal ECG (electrocardiogram)	LDPX	Lipid peroxidation
AECH	Adenylate energy charges (AEC)	LEUT	Leucine Transport
AEXR	Ammonia excretion	LPBS	Lipid biosynthesis
AHIN	A-H intervals	LTPT	Long-term potentiation
ALAE	Aminolevulinic acid excretion	LTSP	Leucine transport
ANBC	Aniline binding capability	MBCR	Metallothionein binding capacity ratio
APCT	Aerobic protein catabolism	MCCL	Malocclusion
ASML	Assimilation efficiency	MCCN	Microorganism census
ATFL	Aortic flow	MCUS	Mucus production
AVCD	AtrioVentricular conduction delay	MGUP	Magnesium uptake
AXSS	Axis shift	MILK	Milk
BAAT	rBAT induced amino acid transfer	MNER	Mineralization
BDVL	Blood volume	MNTL	Manganese translocation
BLPR	Blood pressure	MNUP	Manganese uptake
BLUM	Bioluminescence	MYCO	Mycorrhizal colonization
BNDS	Bending strength	NAFX	Sodium flux
BTFT	Butter fat	NASM	Nitrogen Assimilation

Code	Definition	Code	Definition
BTMP	Body temperature	NAST	Nastic movements
C14U	C-14 Uptake	NAUP	Sodium uptake
CAAS	Calcium assimilation	NCOS	Na and Cl osmolality
CAEX	Calcium excretion	NEXC	Nitrogen excretion
CANU	Calcium not excreted	NFIX	Nitrogen fixation
CARE	Calcium retained	NIUP	Nickel uptake
CARU	Calcium retention to utilization ratio	NMYC	Non-mycorrhizal colonization
CASS	Carbon assimilation	NPRA	Net photosynthetic rate
CATR	Calcium transfer	NRGA	Energy assimilation
CATU	Calcium transfer to utilization ratio	NRGF	Metabolic efficiency
CAUP	Calcium uptake	NRGI	Energy intake
CCCL	Coccolith formation	NRGM	Metabolized energy
CDIN	Cardiac index	NRGX	Energy excreted
CDOP	Cardiac output	NRSP	Neuroresponse
CDUP	Cadmium uptake	NRUP	Neutral red uptake
CEBS	Cytosolic estrogen binding site	NRXN	Nerve reaction
CFIX	Carbon fixation	NTSL	Nitrogen translocation
CFLW	Coronary flow	NUPT	Nitrogen uptake
CLFX	Chloride flux	NVAR	Nerve absolute refractory period
CLNC	Clearance	NVCV	Nerve conduction velocity
CLRC	Caloric content	NVRR	Nerve relative refractory period
CLUP	Chloride uptake	OCCP	Oxygen carrying capacity

Code	Definition	Code	Definition
CMPS	Compression strength	OSFG	Osmotic fragility
CMRB	Cholinergic muscarinic receptor binding	OSMO	Osmolality
CNVY	Conductivity	OUPT	Oxygen uptake
CO2A	Carbon dioxide assimilation	OXYG	Oxygen consumption
CO2F	CO2 Fixation	OXYT	Oxygen tension
CO2T	Carbon dioxide tension	PAEX	Primary amine excretion
COCE	Coupling coefficient	PAMP	P amplitude
COLD	Cold hardness	PBAL	Ponderal balance
COUP	Cobalt uptake	PBEX	Lead excretion
CPCT	Capacitance	PBUP	Lead uptake
CRAT	Contraction rate	PDGT	Protein digestion
CREX	Chromium excretion	PERA	Protein efficiency ratio
CRSP	Cellular respiration	PERM	Permeability, tissue, membrane
CRUP	Chromium uptake	PEXC	Phosphorus excretion
CTIM	Clotting time	PGPL	Pigment plug ejection
CTSL	Carbon translocation	PGSY	Prostaglandin synthesis
CUUP	Copper uptake	PIGM	Pigmentation
CYSU	Cystine uptake	PNUT	Phosphorus not excreted
DCRG	Discharge	PPUP	Phosphate uptake
DFIX	Dark fixation	PRET	Phosphorus retention
DGST	Digestion	PRIN	PR intervals
DORB	Dormancy break change, plants	PRSY	Protein synthesis

Code	Definition	Code	Definition
DORI	Dormancy induction, plants	PRUT	Phosphorus retention to utilization ratio
DRRH	Diarrhea	PSII	Photosystem II (PSII) electron transport activity
DSPS	Diastolic pressure	PSSR	Pressure
ECPT	Energy charge potential	PSYN	Photosynthesis
ECTG	Electrocorticogram	PTIM	Prothrombin time
ECYC	Estrous cycle	PTRN	Phosphorus transfer
EECG	Electroencephalogram	PTUC	Protein utilization coefficient
EEUR	Endogenous excreted urea	PTUT	Phosphorus transfer to utilization ratio
EFFC	Efficiency	PUPT	Phosphorus uptake
EMCN	Emaciation, emaciated	QAMP	Q amplitude
ENST	Encystment	QRSV	Decreased QRS voltage
EOCL	Electro-oculography	QTIN	QT interval
EPYR	Electrophysiological response	RAMP	R amplitude
ERLD	Electroretinography light peak/dark ratio	RBCD	Relative bradycardia
ERWA	Electroretinography wave amplitude	RCRA	Renal clearance ratio
ERWI	Electroretinography wave implicit time	RESP	Respiration
ERWL	Electroretinography wave latent time	RESQ	Respiration quotient
ERWV	Electroretinography wave	RPRT	Respiratory rate
ESGM	Estrogen metabolism	SAMP	S amplitude
ETSA	Electron transfer system activity	SBNF	Swim bladder inflation
EXCR	Excretion rate	SCGR	Scope for growth
EYTH	Erythema	SENI	Senescence induced/accelerated

Code	Definition	Code	Definition
FATT	Obese	SENR	Senescence retarded
FDCV	Food conversion efficiency	SEUP	Selenium uptake
FECL	Fecal production	SIDP	Siderophore production
FEPP	Fecal production	SLVN	Salivation
FEUP	Iron uptake	SMTR	Standard Metabolic Rate
FLUX	Flux, across membranes	SOXA	Sulfide oxidation activity
FVOL	Fluid volume	SOXG	Superoxide generation
GAEX	Glycolic acid excretion	SRLO	Spectral reflectance change/shift to long
GCBN	Gap charge balance	SRSR	Spectral reflectance change/shift to short
GFRT	Glomerular filtration rate	STAS	Stasis
GLFO	Galactocoele formation	STCG	S-T changes
GLGN	Glucogenesis	STIN	ST interval
GLSY	Glycogen synthesis	STOC	Stomatal conductance
GLUP	Glucose uptake	STOM	Stomatal aperture
GLYU	Glycine uptake	STVL	Stroke volume
GPHY	Physiology, general	STWK	Stroke work
GRAU	Granule/grain creation	SUPT	Sulfur uptake
GSTF	Gas transfer	SWEL	Swelling
GYCU	Glycerol uptake	SYPS	Systolic pressure
GYEX	Glycolate excretion	SZRE	Seizure
H3BD	Hemicholium-3 binding	T34C	T3/T4 Conversion rate
H3UP	H-3 uptake	TAMP	T amplitude

Code	Definition	Code	Definition
HCFX	Hydrogen Carbonate flux	TEAR	Lacrimation, Tearing
HGUP	Mercury uptake	TEUR	Total excreted urea
HLSS	Alopecia, Hair loss	TEVG	trans-epithelial voltage gradient
HNPH	Hydronephrosis	TEXT	Texture change
HPRR	Heat production rate	THBR	Thyroid hormone binding ratio
HPSR	High pressure	THRG	Thermoregulation
HTDP	Heart double product (heart rate*cardiac output)	TIRD	Languid,tired, weak
HTRT	Heart rate	TNST	Tensile Strength
HYDR	Hydration	TRAN	Transpiration
HYPR	Hyperactivity	VENT	Ventilation
HYTN	Hypertension	VMRS	Vasomotor response
INRE	Input resistance	VOLU	Volume
IOUP	Ion uptake	VSCR	Vascular resistance
IRRI	Irritation	WILT	Wilt
IUPT	Iodine uptake	WLSS	Water loss
IVCD	Intraventricular conduction defects	WTUP	Water uptake
JRAC	Junctional resistance (AC)	ZNUP	Zinc uptake
JRDC	Junctional resistance (DC)		

POP Population Group*POP Population*

Code	Definition	Code	Definition
ABND	Abundance	LCYC	Lifecycle
BMAS	Biomass	NCHG	Population change (change in N/change in time)
CHLA	Chlorophyll A concentration	NGEN	Number of generations
CHLB	Chlorophyll B concentration	PBMS	Biomass or weight for total population
CHLC	Chlorophyll C concentration	PBRA	Population biomass turnover ratio
CHLO	Chlorophyll	PCCP	Population carrying capacity
CNTL	Control	PGRT	Population growth rate
COVR	Cover	PRPE	Predator-prey dynamics
CVER	Cover, canopy	PSYN	Photosynthesis
DBLT	Population doubling time	RCLN	Colonization rate
DBMS	Dry Biomass	RCPR	Recapture ratio
DMTR	Diameter	SEXR	Sex ratio
DRFT	Drift	SRFA	Surface area
DVRS	Diversity	STTL	Settling
EBCN	Effective body concentrations	SURF	Surfacing
GENT	Generation time	SZDS	Size distribution
GPOP	Population changes, general	THCH	Thatch accumulation
INDX	Index to population size; count, number, abundance	TRAP	Trappability
IRIN	Intrinsic rate of increase	VIDX	Viability index
LAGT	Lag time	WGHT	Weight
LCON	Length/duration of a chemical effectiveness		

REP Reproduction Group*AEG Avian/Reptile Egg*

Code	Definition	Code	Definition
ALEG	Albumen:Eggshell Quality (Haugh Units)	SHLL	Percent shell
BLSP	Blood spots	SIZE	Size
BSCP	Basal cap	SOFT	Softness
CRAK	Cracking	STGH	Strength
ESIN	Eggshell index	THIK	Thickness
FERT	Fertility	VIAB	Viability
INFT	Infertile	VOLU	Volume
LGTH	Length	WDTH	Width
LSTE	Eggs lost	WGHT	Weight
MMMC	Mammary core	YOLK	Yolk, percent
QUAL	Quality		

REP Reproduction

Code	Definition	Code	Definition
ORSM	No resorbed embryos	NOPN	Number of organisms per nest
ABNM	Abnormal	NPOD	Pods, number of
ABRT	Abort	NPRG	Not pregnant
AFST	Atretic follicle stage	NREP	Non-reproducing organisms
BDEP	Bird day egg production	NRPR	Net Reproductive Rate
BMAS	Biomass	NSNT	Successful nests

Code	Definition	Code	Definition
BNDG	Pair bonding nesting behavior	NSPN	Number spawning
BRED	Bred	NSTI	Nest initiation
BTCF	Beat/Cross frequency	NSTS	Number of active nests
CLLT	Clutch length	NTSZ	Nest size
CLNE	Cloning efficiency	NUNT	Unsuccessful nests
CLPD	Clutch production	NVIB	Non-viable
CLUB	Clubbing (hydra reproduction)	OBRD	Open brood
COUR	Courtship behavior	OEGP	Onset of egg production
CRCE	Circular cells	OOCY	Fully developed oocytes
CYNG	Care of young, nest attentiveness	OVRT	Ovulation rate
DSTR	Diestrus	PCNT	Placentation
EBCN	Effective body concentrations	PFST	Primary follicle stage
EGPN	Eggs per nest	PILS	Post-implantation loss
EPTT	Epididymal transit time	PIPD	Pipped
EREM	Early resorbed embryos	PLBR	Pairs with litter or brood
ETRS	Estrus	PREG	Pregnant, Paris or Gravid
FCND	Fecundity	PRFM	Pregnant females in a population
FERT	Fertility	PROG	Progeny counts/numbers
FERZ	Fertilization	PRPL	Pre-implantation loss
FIDX	Fertility index	PRTH	Parthenocarpy
FLOR	Floral induction	PSPG	Pseudopregnancy
FRMS	Frames, bees	PSTG	Stage of pregnancy

Code	Definition	Code	Definition
FRUH	Percent fruit harvested	PSTR	Proestrus
FRUT	Fruit, fruiting	RBEH	Reproductive behavior changes
FTCC	Fertile cocoons	RBLM	Repeat bloom
GCCT	Germ cell count	REPO	Reproducing organisms
GERM	Germination	RPRD	Reproductive capacity
GEST	Gestation rate	RSEM	Resorbed embryos
GFST	Graafian follicle stage	RSUC	Reproductive success (general)
GIDX	Gestation index	SBRD	Sealed brood
GMEN	Germination energy	SDIX	Seed index
GMET	Gamete production	SEED	Seed number
GREP	Reproduction, general	SEPD	Seed or spore production
GSTT	Gestation time	SEXR	Sex ratio
HDEP	Hen-day egg production	SFST	Secondary follicle stage
HHEP	Hen-housed egg production	SPCL	Sperm cell counts
IFCC	Infertile cocoons	SPMC	Spermatocytes
INFL	Inflorescences (number of)	SPMG	Spermatogonia
INFT	Infertile	SPNF	Spawning frequency
LACG	Lactating	SPRD	Sporophyte production
LHMN	Mean amplitude of lateral head displacement	SRTL	Sertoli cells
LHMX	Maximum amplitude of lateral head displacement	SSET	Seed set (no. seeds/no. florets)
LIDX	Lactation index	STRL	Sterility
LNRY	Linearity	T50P	Time to 50% production

Code	Definition	Code	Definition
LREM	Late resorbed embryos	TFPG	Time to first progeny
MIDX	Mating index	TMNT	Time to mounting
MONT	Mounting, copulation, intercourse	TPRD	Total production
MOTL	Motility	TPRG	Time to pregnancy/gravidity
MSPW	Mean spawns per female	TSPN	Time to spawn
MSTR	Metestrus	TTPR	Time to peak reproduction
NANT	Nests abandoned	TUPR	Tuber production
NCLU	Corpus lutea, number of	USTS	Unknown estrus stage
NDAY	Number of days between eggs laid or litters	VAOP	Vaginal opening
NEGI	Number of eggs incubated	VCTY	Velocity
NINC	Number of nests incubated	VEGR	Vegetative reproduction
NMNT	Non-mount	VIAB	Viability
NOIM	Number of implantations	VPLG	Vaginal/Copulatory plug

SYS Ecosystem Group

PRS Ecosystem Processes

Code	Definition	Code	Definition
BGCM	Biogeochemical	NITR	Nitrification
CMIN	Carbon mineralization	NMIN	Net mineralization
CO2G	Carbon dioxide generation	OUPT	Oxygen uptake
CO2P	CO2 evolution	PPRO	Primary productivity
DCMP	Decomposition	SPRO	Secondary productivity

Code	Definition	Code	Definition
GPPR	Gross primary productivity/respiration	SRES	System respiration
GPRS	Ecosystem processes, general	TROP	Trophic transfer between different levels in the food chain

NOC No Group Code

Code	Definition	Code	Definition
NRNR	Endpoint reported without a specific effect	MULT	Multiple effects reported as one result

Sample Unit Codes

Code	Definition	Code	Definition
AB	Aboveground portion [plant]	LE8	8th leaf
AD	Adult	LT	Litters
BH	Both male and female organisms exposed or observed	LV	Larvae
BR	Brood	M1	Males, 1st generation
C1	First clutch	M2	Male, 2nd generation
C2	Second clutch	M3	Male, 3rd generation
CB	Combs	M4	Male, 4th generation
CC	Cocoons	M5	Male, 5th generation
CL	Cells	M6	Male, 6th generation
CT	Containers	MD	Mature dormant
DC	Deceased organism	MG	Male gametophyte
EG	Egg	ML	Male organisms

Code	Definition	Code	Definition
EM	Embryo	MT	Mature (no specified age)
EU	Experimental unit	MU	Multiple
F1	F1 generation	NC	Not coded
F2	F2 generation	NF	Non-pregnant females
F3	F3 generation	NR	Applicable information about the organisms was Not Reported
F4	F4 generation	NT	Nest
FB	Mature, full-bloom (fruit trees)	OR	Organism
FE1	1st leaf	P1	Parent, 1st generation
FET	Fetus	PB	Mature, post-bloom (fruit trees)
FF	Fields (agricultural)	PC	Plant cutting (unspecified)
FG	Female gametophyte	PF	Pregnant females
FL	Flower(s)	PG	Pollen grains
FM	Female organisms	PH	Mature, pit-hardening (fruit trees)
G1	Females, 1st generation	PL	Plots
G2	Female, 2nd generation	PR	Pair
G3	Female, 3rd generation	RB	Mature reproductive, 2nd generation
G4	Female, 4th generation	RC	Mature reproductive, 3rd generation
G5	Female, 5th generation	RO	Root
G6	Female, 6th generation	RP	Mature reproductive
GR	Grains	RS	Root segments
GS	Germinated seed	SA	Subadult
HC	Honey comb	SC	Second generation (M2), no specific stage

Code	Definition	Code	Definition
HT	Hatchling	SD	Seed
JV	Juvenile	SF	Sac fry, yolk sac fry
KR	Kernel	SG	Mature, side-green (fruit trees)
LE	Leaf	SHL	Shell
LE1	1st leaf	SL	Seedling
LE2	2nd leaf	SM	Samples
LE3	3rd leaf	SV	Survivor
LE4	4th leaf	TC	Tissue culture callus
LE5	5th leaf	TU	Tubers
LE6	6th leaf	VC	Vegetative clone
LE7	7th leaf	VG	Mature vegetative

Trend

Code	Definition	Code	Definition
CHG	Change	NC	Not Coded
DEC	Decreasing	NEF	No effect
INC	Increasing	NR	Not Reported

Significance

Code	Definition	Code	Definition
ANOSIG	Not significant at all concentrations	NOSIG	No significance
ASIG	Significant at all concentrations	NR	Not reported
MULT	Multiple significance	SIG	Significant

Code	Definition	Code	Definition
NA	Not applicable		

Reviewer Assigned Endpoint

Code	Definition	Code	Definition
P	Publication reported endpoint	R	Reviewer assigned endpoint

Response Site

Code	Definition	Code	Definition
AB	Aboveground Portion	MK	Milk, Lactating Female
ABD	Abdomen	MM	Mammary Tissue
ABP	Abdominal process	MO	Mucous
AD	Adipose Tissue	MOB	Medulla Oblongata
ADC	Auditory center	MOM	Mother Cells, Pollen
AF	Amniotic Fluid	MP	Metanephridium
AG	Accessory Gland	MR	Membrane
AL	Albumen (Egg White)	MRC	Motor Cortex
AM	Adductor Muscle	MS	Mesenteric Lymph Node
ANG	Antennal Gland	MSC	Mesencephalon
ANT	Antenna (Antennae)	MSI	Mucosa of the Small Intestine
AO	Anogenital	MT	Multiple Tissue/Organ
AP	Appendage(s)	MTC	Metacarpus
AR	Adrenal Gland	MTH	Mouth
ART	Artery	MTM	Mentum

Code	Definition	Code	Definition
AS	Air Sac	MU	Muscle
AT	Alimentary Tract	MUL	Multiple Sites
ATA	Aorta	MV	Microvilli
ATH	Abdomen and Thorax	MYC	Mycellium
ATM	Atrium	MYM	Myometrium
AX	Axons	NAC	Nucleus accumbens
BA	Bark	NB	Nasal Bone
BB	Bulb	NC	Nerve Cord
BC	Buccal mass	ND	Nodule, Root
BCT	Bract	NE	Nervous Tissue
BD	Bud	NG	Nasal Gland
BDT	Bile duct	NI	Nipple
BDW	Body Wall	NK	Neck
BI	Bile	NL	Needle
BIL	Bill	NOD	Node
BIT	Biliary Tract	NR	Not Reported
BK	Beak	NU	Nuclei
BL	Blood	NVL	Navel
BLC	Blood Cell	NY	Nymph
BM	Bone Marrow	OC	Oocyte
BMC	Bone marrow cells	OD	Oviduct
BMP	Bone marrow plasma	OF	Orifice

Code	Definition	Code	Definition
BO	Bone	OG	Organ
BOD	Body, Whole	OL	Olfactory
BOL	Boll (Cotton)	OPR	Operculum
BR	Brain	OR	Organelle
BRN	Branches	OS	Osphradium
BRS	Brain stem	OTO	Otoliths
BT	Breast	OV	Ovaries
BU	Bursa	PA	Palps
BV	Blood Vessel	PAN	Panicle
BW	Bee's Wax	PB	Pseudobranch
BY	Byssus	PBD	Projectile body
CA	Cartilage	PC	Pyloric Ceca
CAE	Caecum	PD	Pod
CAN	Canopy	PE	Penis
CAP	Cap, Mushroom	PEP	Pecten Epipharyngis
CB	Cob	PES	Petiole and Stem
CBC	Cerebral cortex	PF	Pseudofeces
CBH	Cerebral Hemisphere	PG	Prostate Gland
CBM	Cerebrum	PGL	Preening Gland
CC	Cocoon	PHG	Pheromone gland
CCM	Cecum	PHL	Phalanges
CDB	Caudal Bone	PI	Pituitary Gland

Code	Definition	Code	Definition
CDV	Caudal vertebrae	PL	Plasma
CE	Coelomic Fluid	PLA	Platelet
CEL	Cell	PLC	Placenta
CG	Cloacal Gland	PLL	Pellicle
CGG	Coagulating gland	PLN	Popliteal node
CH	Spinal Cord	PLP	Pulp
CHP	Choroid plexus	PLT	Palate
CIL	Cilia	PLV	Pelvis
CL	Claw	PM	Pons + Medulla
CLM	Coelomocytes	PO	Pollen
CLN	Colon	POS	Pod + Seed
CLT	Clitoris, Clitoral gland	PPG	Preputial Gland
CLV	Calvarium	PR	Proventriculus
CM	Crown to Rump	PRF	Particulate Fraction
CMB	Comb	PRG	Progeny
CN	Cotyledon	PRT	Peritoneum
CO	Collagen	PS	Pancreas
COL	Coleoptile	PT	Petiole
COR	Corm	PTB	Parietal Bone
COS	Corpuscles of Stannius	PTG	Parotid gland
CP	Capat	PTU	Plant, Unspecified
CPS	Carpus	PU	Pollen Tube

Code	Definition	Code	Definition
CPT	Chloroplast	PX	Pharynx
CR	Crop	PYR	Pyrenoid
CRB	Cerebellum	RA	Radius
CRG	Cerebral Ganglion	RAC	Rachis
CRI	Cervical rib	RAD	Radius, distal
CRM	Cerebrum	RB	Rib
CRP	Carapace	RBC	Erythrocyte
CRR	Cerebellar region	RC	Rectum
CS	Chromosome	RD	Radicle
CSF	Cerebrospinal fluid	RFM	Right femur
CST	Cisternae	RG	Rectal gland
CT	Cephalothorax	RH	Rhizome
CTE	Ctenidium	RL	Root, Lateral
CU	Culture Cells	RLP	Root, Primary Lateral
CUT	Cuticle	RLS	Root, Second Lateral
CV	Caudal Vertebra	RM	Retractor Muscle
CVM	Calvarium	RO	Root
CVV	Cervical vertebrae	ROC	Root Cortex
CVX	Cervix	ROE	Root Epidermis
CX	Caudex	ROI	Root, Inner Cortex
CY	Cytosol	ROO	Root , Outer Cortex
CYT	Cytoplasm	ROS	Root, Stele

Code	Definition	Code	Definition
DG	Digestive Gland	RP	Root, Primary
DN	Diencephalon	RPP	Renal papilla
DO	Duodenum	RR	Residual, Remnant, Carcass
DT	Digestive Tract	RS	Root + Stem
EA	Ear (Corn or Rice)	RT	Reproductive Tissue
EAL	Ear Leaf	RTB	Right tibia
EBP	External body parts	RTC	Root Tip Cells
EC	Excreta	RTP	Root Tips
ED	Endometrium	RU	Radius-Ulna
EG	Egg	RV	Right ventricle
EL	Elytrom	RZ	Root + Rhizome
EM	Embryo	SA	Salt Gland
EMS	Embryonic Shoot Cells	SAC	Striatum-Accumbens
EN	Entrails	SAP	Sap
EO	Endothelium	SB	Shell, Membrane
EP	Endoplasmic Reticulum	SB2	Stem/Stalk, Lower Half
EPD	Epididymis	SC	Scale
ER	Erythrocyte	SCH	Starch
ES	Esophagus	SCM	Scrotum
ET	Edible Tissue	SCP	Scapula
EU	Egg Cuticle	SCV	Sacral vertebrae
EV	Exuviae	SD	Seed

Code	Definition	Code	Definition
EX	Exoskeleton	SDL	Seedling
EY	Eye	SDM	Subdermis
EYS	Eyestalk	SE	Sensory Organs
EZ	Enzyme	SEM	Semen
F1	F1 Generation	SG	Shell Gland
FAC	Face	SH	Stomach
FB	Frontal Bone	SHF	Stomach or rumen fluid
FBR	Forebrain	SI	Siphon
FC	Feces	SIN	Small Intestine
FD	Fronnd	SINM	Small intestine mucosa
FE	Feathers	SINS	Small intestine serosa
FET	Fetus	SK	Skin, Epidermis
FG	Foregut	SKL	Skull
FI	Fin	SKM	Skeletal Muscle
FIB	Fibula	SL	Shell, Eggshell
FL	Fillet	SLK	Silk
FLB	Flower Bud	SLV	Stem to Leaves
FLW	Flower/Inflorescence	SM	Sperm
FM	Femur	SMT	Spermatheca
FMD	Femur diaphysis	SN	Skeleton
FML	Left femur	SO	Shoot
FMM	Femur metaphysis	SP	Spleen

Code	Definition	Code	Definition
FO	Foot	SPB	Sphenoid bone
FOD	Fodder	SPI	Spine
FOL	Foliage	SPK	Spikelet
FOR	Forage	SPR	Sporophyte
FP	Fatpad	SPT	Spermatid
FR	Fruit	SQ	Shell
FRL	Forelimb	SR	Serum
FX	Frontal cortex	SRB	Strobilus
GB	Gall Bladder	SRC	Secretory Cell
GC	Gland Complex	SS	Stem
GF	Green Forage	SSC	Somatosensory center
GG	Green Gland	SSI	Serosa of the Small Intestines
GI	Gill(s)	SSP	Stems plus Petioles
GL	Ganglion	ST	Soft Tissue
GMT	Germ Tube	STA	Setae
GNP	Genital papillae	STB	Semeniferous Tubules
GNT	Gnathopod	STE	Sternum or sternebrae
GO	Gonad(s)	STG	Straw and Grain
GOL	Golgi Apparatus	STH	Straw and Husk
GP	Gills+Palps	STL	Stolon
GPD	Gonopodium	STM	Striatum
GR	Grain	STR	Straw

Code	Definition	Code	Definition
GS	Germinated Seed	STV	Stover
GT	Gastrointestinal Tract	SU	Stalk/Stem,Upper Half
GU	Gut	SV	Seminal Vesicle
GZ	Gizzard	SVG	Salivary gland
HA	Hair	SWB	Swim Bladder
HAP	Haptonema	SX	Submaxillary Gland
HAY	Hay	TA	Tail
HC	Hypocotyl Callus Cell	TB	Tibia
HD	Head	TBC	Tubercles
HDG	Hindgut	TCH	Trachea
HE	Heart	TCV	Thoracic vertebrae
HIP	Hippocampus	TD	Transudate
HK	Heart and Kidneys	TE	Testes
HKG	Husks and Grain	TEL	Testicle, left
HL	Hemolymph	TER	Testicle, right
HLB	Hindlimb	TF	Tuber Flesh
HM	Humerus	TG	Thigh muscle
HMC	Hemocyte	TH	Thorax
HO	Honey	THA	Thorax and Abdomen
HOD	Hyoid	TI	Tissue
HP	Hepatopancreas	TIL	Tillers
HSK	Husk	TK	Trunk

Code	Definition	Code	Definition
HTC	Heterocyst	TLE	Trifoliolate Leaves
HTG	Hatching gland	TLI	Thalli
HY	Hypothalamus	TLM	Thalamus
HYA	Hypha	TLN	Telencephalon
HYD	Hypodermis	TLS	Talus
HYP	Hypocotyl	TM	Tarsus-Metatarsus
IB	Interparietal Bone	TMR	Tumor
IBP	Internal body parts	TN	Tentacles
ICL	Inclusions	TO	Tongue
IE	Ileum	TOP	Tops (Plants)
IL	Ilium	TOR	Torso
IN	Intestinal Tract	TP	Tuber Peeling
IR	Interrenal Gland	TR	Tarsus
IT	Internode	TRD	Tear duct
JA	Jaw	TS	Thymus
JE	Jejunum	TSC	Thymus cortex
JV	Juvenile	TSL	Tassel
KI	Kidney	TSM	Thymus medulla
KIL	Kidney, left	TT	Tibiotarsus
KIR	Kidney, right	TTH	Tooth, Teeth
KR	Kernal	TU	Tuber
LAM	Laminae	TY	Thyroid

Code	Definition	Code	Definition
LC	Leaf Chloroplast	UB	Urinary Bladder
LD	Lipid, Fat	UG	Uropygial Gland
LE	Leaf/Needle	UL	Ulna
LEI	Leaf Index	ULE	Unifoliate Leaves
LEN	Lens	UNT	Urinary Tract
LEO	Leaf, Old	UP	Urogenital Papillae
LEU	Leukocytes	UR	Urine
LEY	Leaf, Young	URT	Ureter
LG	Leg	UT	Uterus
LI	Liver	VA	Vagina
LIM	Liver microsomes	VAS	Vasculature
LIN	Large Intestine	VC	Visual center
LIP	Lip	VCL	Vacuole
LIT	Litters	VD	Vas Deferens
LM	Limb	VE	Vertebra
LMP	Lymphocyte	VG	Vegetative Portion
LMV	Lumbar vertebrae	VI	Viscera
LN	Lymph node	VL	Villi
LP	Labial Palps	VN	Vine
LTB	Left tibia	VNT	Ventricle
LU	Lung(s)	VNTL	Ventricle, left
LYS	Lysosome	VSC	Vesicle

Code	Definition	Code	Definition
MA	Mantle	WI	Wings
MB	Muscle+Bone	WL	Wall, Body
MBR	Midbrain	WM	White matter
MC	Microsome	WO	Whole Organism
ME	Meristem	WR	Wrist
MES	Mesentery	YO	Yolk
MI	Midgut or Midgut Gland	YS	Yolk sac
MIT	Mitochondria	ZP	Zona pellucida

AQUATIC WATER CHEMISTRY FIELDS

* denotes value is the dilution water chemistry

Water Chemistry Units

Code	Definition	Code	Definition
%	Percent	mg/L HA	milligrams per liter Humic Acid
% Sat	Percent saturation	mg/L MO	milligrams per liter Methyl Oran
C	Celsius	mg/L Mg	milligrams per liter Magnesium
F	Fahrenheit	mg/dm3	milligram per cubic decimeter
HCO3	Hydrogen carbonate	mg/kg	milligrams per kilogram
K	Kelvin	mg/l EDTA	milligrams per liter EDTA
M NaCl	Molar sodium chloride	ml N/100 HCl	milliliters nitrogen per 100 HCl
N	Normal	ml/L	Milliliter per liter
NC	Not coded	mm	Millimeters
NR	Not reported	mm Hg	Millimeters mercury

Code	Definition	Code	Definition
PSU	Practical salinity units	mmhos	Milli ohms
S	Siemens	mmhos/cm	Milli ohms per centimeter
cm	Centimeters	mmol/L	Millimoles per liter
dH	Degrees German hardness	ohm/cm	Ohm per centimeter
ft	Feet	ohms	Ohms
g CaCO ₃	Grams Calcium carbonate	ppm	Parts per million
g/L	Grams per liter	ppm CaCO ₃	Parts per million Calcium Carbon
g/kg	Grams per kilogram	ppm MO	Parts per million Methyl Orange
g/m ³	Grams per cubic meter	ppt	Parts per thousand
in	Inches	pptr	Parts per trillion
kDa	Kilo Daltons	uM	Micro molar
m	Meters	uS	Micro Siemens
mM	Millimolar	uS/cm	Micro Siemens per centimeter
mOsm	Milliosmoles	uS/cm ²	Microsiemens per square centimet
mS	Milli Siemens	uS/cm ³	Microsiemens per cubic centimete
mS/cm	Milli Siemens per centimeter	uS/m	Microsiemens per meter
mS/m	Milli Siemens per meter	ueq/L	Micro equivalents per liter
mV	Millivolts	ug/L	Micrograms per liter
meq	Milli equivalents	umho/sec ² × 1E-3	Microohms per second ² × 1E-3
meq/L	Milli equivalents per liter	umhos	Micro ohms
mg/L	Milligrams per liter	umhos/cm	Micro ohms per centimeter
mg/L C	Milligrams per liter Carbon	umhos/cm ²	Micro ohms per square centimeter

Code	Definition	Code	Definition
mg/L CaCO ₃	Milligrams/liter Calcium carbona	umol/L	Micromoles per liter
mg/L FA	Milligrams per liter Fulvic Acid	umol/cm	Micromoles per centimeter
		umol/g LIT	Micromoles per gram litter

Organic Carbon Type

Code	Definition	Code	Definition
D	Dissolved	T	Total
P	Particulate		

AQUATIC OUTDOOR FIELD CODES

Habitat Code

Code	Definition	Code	Definition
E	Estuarine	NR	Not Reported
L	Lacustrine	P	Palustrine
M	Marine	R	Riverine
NC	Not Coded		

Substrate Code

Code	Definition	Code	Definition
CL	Clay	NC	Not Coded

Code	Definition	Code	Definition
GR	Gravel	NR	Not reported
M	Mineral	O	Organic
MU	Mud	SA	Sand
MX	Mixture	SI	Silt

Water Depth Unit

Code	Definition	Code	Definition
cm	Centimeters	in	Inches
ft	Feet	m	Meters

Geographic Code

Code	Definition	Code	Definition
AS	Australia	SP58	Galicia
AS02	New South Wales	SU	Sudan
AS06	Tasmania	SW	Sweden
AS07	Victoria	SZ	Switzerland
BC	Botswana	SZ25	Zurich
BE	Belgium	TH	Thailand
BR	Brazil	TH20	Sakon Nakhon
CA	Canada	TH58	Chumphon
CA01	Alberta	TW	Taiwan

Code	Definition	Code	Definition
CA02	British Columbia	TZ	Tanzania
CA03	Manitoba	TZ18	Tanga
CA04	New Brunswick	UK	United Kingdom
CA05	Newfoundland	UK03	Berkshire
CA08	Ontario	UK08	Cornwall
CA09	Prince Edward Island	UK24	Kent
CA10	Quebec	UK39	Suffolk
CA11	Saskatchewan	UP	Ukraine
CH	China	US	United States
CM	Cameroon	US01	Alabama
DA	Denmark	US02	Alaska
EG	Egypt	US04	Arizona
EI	Ireland	US05	Arkansas
EZ	Czech Republic	US06	California
FI	Finland	US08	Colorado
FR	France	US09	Conneticut
FRA9	Languedoc-Roussillon	US10	Delaware
GH	Ghana	US12	Florida
GM	Germany	US13	Georgia
GM03	Bremen	US15	Hawaii
GM06	Niedersachsen	US16	Idaho
GR	Greece	US17	Illinois

Code	Definition	Code	Definition
HR	Croatia	US18	Indiana
HU	Hungary	US19	Iowa
ID	Indonesia	US20	Kansas
ID06	Jawa Barat	US22	Louisiana
IN	India	US23	Maine
IN28	West Bengal	US24	Maryland
IR	Iran	US25	Massachusetts
IS	Israel	US26	Michigan
IT	Italy	US27	Minnesota
IV	Cote D'Ivoire	US28	Mississippi
IV39	Bouafle	US29	Missouri
JA	Japan	US30	Montana
KS	Korea, Republic of	US31	Nebraska
MA	Madagascar	US32	Nevada
MB	Martinique	US33	New Hampshire
MX	Mexico	US34	New Jersey
MY	Malaysia	US35	New Mexico
NC	Not Coded	US36	New York
NI	Nigeria	US37	North Carolina
NL	Netherlands	US38	North Dakota
NO	Norway	US39	Ohio
NR	Not Reported	US40	Oklahoma

Code	Definition	Code	Definition
NZ	New Zealand	US41	Oregon
PL	Poland	US42	Pennsylvania
PL25	Bielsko	US44	Rhode Island
PL35	Katowice	US45	South Carolina
PM	Panama	US46	South Dakota
PO	Portugal	US47	Tennessee
RP	Philippines	US48	Texas
RP33	Laguna	US50	Vermont
RP37	Leyte	US51	Virginia
RQ	Puerto Rico	US53	Washington
RS	Russia	US54	West Virginia
SF	South Africa	US55	Wisconsin
SI	Slovenia	US56	Wyoming
SO	Somalia	UV	Burkina
SP	Spain		

Application Type Codes

Code	Definition	Code	Definition
AE	Aerial (unknown type)	HS	Hand-spray
AG	Aerial-granular	IS	In Situ
AS	Aerial-spray	MU	Multiple
DA	Direct application	PT	Painted

Code	Definition	Code	Definition
DW	Drop wise application	PU	Pump
EN	Environmental, Unspecified	SP	Spray (unknown type)
GG	Ground-granular	SS	Soil slurry
GS	Ground-spray		

Application Rate

Code	Definition	Code	Definition
AI %/L	Active ingredient percent per liter	kg ae/ha	Kilograms acid equivalent per hectare
AI g	Active ingredient gram	L	Liter
AI g/ac	Active ingredient grams per acre	K/ha	Liter per hectare
AI g/cm	Active ingredient grams per centimeter	L/m2	Liters per square meter
AI g/ha	Active ingredient grams per hectare	L/mi	Liter per minute
AI g/m2	Active ingredient grams per square meter	L/s	Liter per second
AI kg	Active ingredient kilogram	lb	Pound
AI kg/ha	Active ingredient kilograms per hectare	lb/ac	Pounds per acre
AI lb/ac	Active ingredient pounds per acre	lb/ac ft	Pounds per acre foot
AI lb/ga	Active ingredient pounds per gallon	lbs ae/ac	Pounds acid equivalent per acre
AI mg	Active ingredient milligram	lb/cwt s	Pounds per hundred weight seed
AI mg/L	Active ingredient milligram per liter	lb/ft2	Pounds per square feet
AI ng/cm2	Active ingredient nanograms per square centimeter	mg	Milligrams
AI oz/ac	Active ingredient ounces per acre	mg/L	Milligram per liter

Code	Definition	Code	Definition
AI ug/L	Active ingredient micrograms per liter	mg/m2	Milligram per square meter
ac/ft	Acre foot	ml	Milliliters
g	Gram	ml/ha	Milliliters per hectare
g/L	Grams per liter	ml/L	Milliliter per liter
g/ac	Grams per acre	ml/m2	Milliliter per square meter
g/cm3	Grams per cubic centimeter	ml/mi	Milliliter per minute
g/ha	Grams per hectare	ng/cm2	Nanogram per square centimeter
g/km	Grams per kilometer	oz/ac	Ounces per acre
g/m2	Grams per square meter	oz/gal	Ounces per gallon
g/m3	Grams per cubic meter	ppm	Parts per million
g/yr	Grams per year	ppm/mi	Parts per million per minute
gal	Gallon	tons	Tons
gal/ac	Gallon per acre	tons/ha	Tons per hectare
gal/acre	Gallon per acre	ug	Micrograms
gal/ac f	Gallon per acre foot	ug/L	Microgram per liter
gal/gal	Gallon per gallon	ug/L/hr	Microgram per liter per hour
kg	Kilograms	ug/cm2	Microgram per square centimeter
kg/ac	Kilograms per acre	ug/cm2/d	Micrograms per square centimeter per day
kg/d	Kilograms per day	ug/d	Micrograms per day
kg/ha	Kilograms per hectare	ug/kg	Microgram per kilogram
kg/m	Kilograms per meter	ug/ml	Microgram per milliliter

Code	Definition	Code	Definition
kg/m3	Kilograms per cubic meter	ul/L	Microliters per liter

Application Date /Season

Code	Definition	Code	Definition
AU	Autumn	SP	Spring
NC	Not Coded	SU	Summer
NR	Not Reported	WI	Winter

TERRESTRIAL SOIL PARAMETERS

* denotes value is from the pretreatment media

Media Organic Matter Type and Unit

Media Organic Matter Types			
Code	Definition	Code	Definition
ASH	ash free dry mass	N	nitrogen
C	carbon	NR	not reported
C:N	carbon to nitrogen ratio	OC	organic carbon
CPOM	carbon particulate organic matter	OM	organic matter
Cox	oxidized carbon	peat	peat
DOC	dissolved organic carbon	POC	particulate organic carbon
HUM	humus	POM	particulate organic matter
LOI	loss on ignition	TOC	total organic carbon
Media Organic Matter Units			

Code	Definition	Code	Definition
%	percent	mg/100 g soil	milligrams per 100 grams of soil
NR	not reported	mg/L	milligrams per liter
cmol/kg	centimoles per kilogram	mg/g soil	milligrams per gram soil
g	grams	mg/kg soil	milligrams per kilogram soil
g/100g	grams per 100 grams	uM	micromolar
g/kg	grams per kilogram	umol/g LIT	micromoles per gram litter
g/kg soil	grams per kilogram soil		

Media Cation Exchange Capacity Units

Code	Definition	Code	Definition
cmol P+/kg	Centimoles P+ per kilogram soil	meq/100g	Milliequivalents per 100 grams s
cmol+/kg	Centimoles + ions per kilogram s	meq/kg	Milliequivalents per kilogram
cmol/g	Centimoles per gram soil	mmol K+/kg	Millimoles K+ per kilogram soil
cmol/kg	Centimoles per kilogram soil	mmol/100g	Millimoles per 100 grams soil
me/100g	Milliequivalents per 100 grams s	mmol/kg	Millimoles per kilogram soil
meq	Milliequivalents	mval/100g	Millivalue per 100 grams
meq A/100g	Milliequivalents NH ₄ per 100g	NC	Not coded
meq mg/g	Milliequivalent milligrams per g	NR	Not reported

Media Measurement (wet/dry)

Code	Definition
D	Dry
W	Wet