

**Table S2.** General characteristics of all *in vivo* preclinical studies evaluating the effect of Glyphosate on the intestinal microbiota.

Author	Country	Animal	Age	Sex	Formulation-Glyphosate	Administration route	Dose	Exposition time
ALMASRI <i>et al.</i> 2022	France	Honey bees <i>Apis mellifera</i>	(-)	(-)	(-)	(-)	0,1 µg/L	(-)
BREDE <i>et al.</i> 2022	Germany	Cows <i>Holstein-Frisia</i>	(-)	F	Roundup®	Oral	0,1 mg/L; 1,0 mg/L or 10 mg/L	9 days
CHEN <i>et al.</i> 2022	China	Fish <i>Cyprinus carpio</i>	(-)	(-)	GLY	(-)	0; 5 or 15 mg/L	60 days
DEL CASTILO <i>et al.</i> 2022	Brazil	Swiss mice <i>Mus musculus</i>	10 weeks	(-)	Roundup®	(-)	0,075% w/v	(-)
LIU <i>et al.</i> 2022	China	Rats (-)	(-)	M	GLY	Oral	0; 2 and 50 mg/kg	2 months
MOTTA <i>et al.</i> 2022	USA	Honey bees <i>Apis mellifera</i>	(-)	M	GLY	Oral	0,1 or 1,0 mM	5 days
TLAIS <i>et al.</i> 2022	Italy	Honey bees <i>Apis mellifera</i>	(-)	(-)	Roundup®	Oral	3,0 ml/L	24 h
BILLENKAMP <i>et al.</i> 2021	Germany	Cows (-)	(-)	(-)	(-)	(-)	56,2 mmol/L	16 weeks
CASTELLI <i>et al.</i> 2021	Switzerland	Honey bees <i>Apis mellifera</i>	(-)	M	GLY	Oral	10 mg/L	7 days
DING <i>et al.</i> 2021	China	Zebrafish <i>Danio rerio</i>	6 months	(-)	GLY	(-)	3,5 mg/L	21 days

<b>HU et al. 2021</b>	USA	Rats	(-)	0 day	F and M	GBH	(-)	1,75 mg/kg	90 days
<b>MESNAGE et al. 2021</b>	United Kingdom	Rats	<i>Sprague Dawley</i>	8 weeks	F	(-)	(-)	0; 5; 50 and 175 mg/kg	90 days
<b>OWAGBORIAYE, et al. 2021</b>	Nigeria	Earthworms	<i>Alma millsoni</i> , <i>Eudrilus eugeniae</i> and <i>Libyodrilus violaceus</i>	(-)	(-)	Roundup®	(-)	7,20 g/L	8 weeks
<b>GÓMEZ-GALLEGO et al. 2020</b>	Finland	Colorado potato beetle	<i>Leptinotarsa decemlineata</i>	(-)	(-)	Roundup®	(-)	(-)	9 days
<b>IORI et al. 2020</b>	Italy	Mussel	<i>Mytilus galloprovincialis</i>	(-)	(-)	GLY	(-)	100 µg/L	7 and 21 days
<b>KRAUSE et al. 2020</b>	Germany	Pigs	(-)	(-)	(-)	Roundup® LB plus	Oral	10 µg/mL	(-)
<b>MOTTA et al. 2020</b>	USA	Honey bees	<i>Apis mellifera</i>	(-)	(-)	Roundup®	(-)	1,0 mM	5 days
<b>MOTTA AND MORAN, 2020</b>	USA	Honey bees	<i>Apis mellifera</i>	1-day-old and 5-day-old	M	GLY	Oral	1,691 or 1,375 mg/L	5 to 20 days
<b>RUUSKANEN et al. 2020</b>	Finland	Japanese quail	<i>Coturnix japonica</i>	(-)	F and M	Roundup®	Oral	160 mg/kg	10 days - 52 weeks
<b>SONG et al. 2020</b>	China	Chinese mitten crab	<i>Eriocheir sinensis</i>	(-)	(-)	GLY	Oral	48,945 mg/L	14 days
<b>SUPPA et al. 2020</b>	Italy	Water flea	<i>Daphnia</i>	(-)	(-)	Roundup®	(-)	1 mg/L	(-)

<b>TANG et al. 2020</b>	China	Rats	<i>Sprague Dawley</i>	8 weeks	M	GLY	Oral	0; 5; 50 and 500 mg/kg	35 days
<b>BILAN et al. 2019</b>	Ukraine	Rats	(-)	(-)	M	GLY	Oral	(-)	42 days
<b>BLOT et al. 2019</b>	USA	Honey bees	<i>Apis Mellifera</i>	(-)	M	GLY	Oral	0,21 or 1,08 g/kg	15 days (Summer and Winter)
<b>BOTE et al. 2019</b>	Germany	Cows	<i>Holstein-Frisia</i>	(-)	F	GLY	Oral	360 g/L	7 days
<b>DECHARTRES et al. 2019</b>	France	Rats	(-)	(-)	(-)	GLY	(-)	5 mg/kg	5 weeks
<b>MESNAGE et al. 2019</b>	France	Rats	<i>Sprague-Dawley</i>	8 weeks	(-)	GBH	(-)	0,5; 50 and 175 mg/kg	6 months
<b>PÖPPE et al. 2019</b>	Germany	Swine and poultry	(-)	(-)	(-)	GLY	Oral	1,25 mg/mL	16 h
<b>YANG et al. 2019</b>	China	Chinese mitten crab	<i>Eriocheir sinensis</i>	(-)	(-)	GLY	Oral	48,95 mg/L	7 days
<b>AITBALI et al. 2018</b>	Morocco	Swiss mice	<i>Mus musculus</i>	4 weeks	M	Roundup®	Oral	250 mg/kg or 500 mg/kg	6 and 12 weeks
<b>DAI et al. 2018</b>	China	Honey bees	<i>Apis mellifera</i>	(-)	M	GLY	Oral	0,8; 4 e 20 mg/L	5 days
<b>KITTLE et al. 2018</b>	USA	Green turtles	<i>Cheloniemydas Linnaeus</i>	(-)	(-)	GLY	(-)	$1,76 \times 10^{-3}$ g/L	3 weeks
<b>LOZANO et al. 2018</b>	France	Rats	<i>Sprague-Dawley</i>	(-)	F and M	Roundup®	Oral	0,1 ppb; 400 ppm and 5.000 ppm	673 days

<b>MADISON et al. 2018</b>	USA	Turtle	<i>Graptemys pseudogeographic a</i>	(-)	F	Roundup®	Oral	10 µg/L	72 h
<b>MAO et al. 2018</b>	USA	Rats	<i>Sprague Dawley</i>	(-)	F and M	GBH	(-)	1,75 mg/kg	(-)
<b>MOTTA et al. 2018</b>	USA	Honey bees	(-)	(-)	(-)	GLY	Oral	5 or 10 mg/L	5 days
<b>NIELSEN et al. 2018</b>	Denmark	Rats	<i>Sprague Dawley</i>	4 weeks	M	GLY	Oral	0,04 or 0,08 or 0,16 mg/mL	3 weeks
<b>ACKERMANN et al. 2015</b>	Germany	Cows	<i>Holstein-Frisia</i>	4 years old	(-)	(-)	(-)	0; 1; 10 and 100 µg/ml	2 weeks
<b>KRÜGER et al. 2013</b>	Germany	Cattle, horses, and algae	(-)	(-)	(-)	Roundup®	Oral	(-)	48h
<b>SHEHATA et al. 2013</b>	USA	Poultry	(-)	(-)	(-)	GLY	(-)	450 mg/ml	5 days

**CAPTION:** (-) Data not reported or investigated; M: male; F: female; Roundup®: Monsanto, Creve Coeur, MO, USA; GLY: glyphosate; GBH: glyphosate-based herbicides; Roundup® LB plus: 024142-60/MOT, Nordland Agrar, Süderlügüm, Germany.

**OBSERVATION:** In the case of bees, *Apis mellifera* is the male.