

Supplementary material from paper “A network meta-analysis on the efficacy of different mycotoxin binders to reduce aflatoxin M1 in milk after aflatoxin B1 challenge in dairy cows” by A. Kihal, M. Rodríguez-Prado, and S. Calsamiglia

Submitted to the J Dairy Sci, 2023

Figure S1: Prisma diagram representing the inclusion summary of papers for the network meta-analysis.

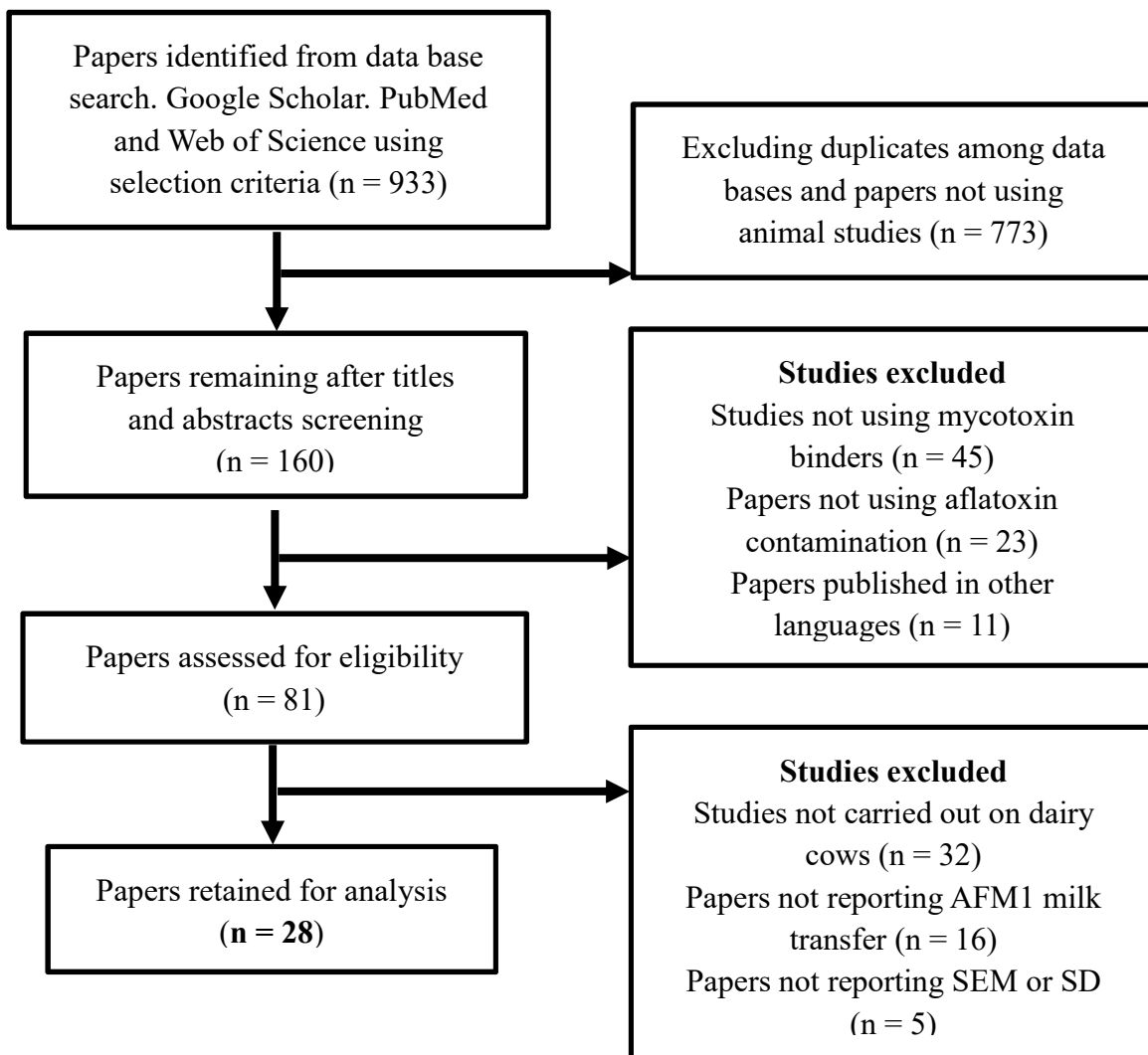


Figure 1. Kihal et al

Table S1. The included studies for the NMA indicating the nature of each binder type with the respective commercial name and the dose inclusion of the binder and aflatoxin.

N°	Reference	Breed	Design <sup>1</sup>	MTB type <sup>2</sup>	MTB <sup>®3</sup>	Cow (n)	MTB g/d	AFB1 µg/kg
1	Rodrigues et al., 2018	Holstein	CRBD	Clay + YCW	Toxy-Nil	8	100	107.6
1	Rodrigues et al., 2018	Holstein	CRBD	Clay + YCW	Unike +	8	100	102.5
2	Weatherly et al., 2018	Holstein	CRBD	Bentonite + YCW	.	16	30	100
2	Weatherly et al., 2018	Holstein	CRBD	Bentonite + YCW	.	16	60	100
2	Weatherly et al., 2018	Holstein	CRBD	Prototype	.	16	60	100
3	Moschini et al., 2008	Holstein	CRBD	Bentonite + Sepiolite + AC	Atox	6	50	134
3	Moschini et al., 2008	Holstein	CRBD	YCW	Mycosorb	6	50	108
3	Moschini et al., 2008	Holstein	CRBD	HSCAS	Novasil+	6	150	138.1
4	Kutz et al., 2009	.	LSD	HSCAS	Solis	12	140	112.2
4	Kutz et al., 2009	.	LSD	HSCAS	Novasil+	12	140	112.2
4	Kutz et al., 2009	.	LSD	YCW + HSCAS	MTB-100	12	140	112.2
5	Maki et al., 2016	.	LSD	HSCAS	Novasil+	15	12.1	121
5	Maki et al., 2016	.	LSD	HSCAS	Novasil+	15	6	121
6	Jiang et al., 2018	Holstein	LSD	Na Bent	Astr-Ben20	24	200	63.4
6	Jiang et al., 2018	Holstein	LSD	Na Bentonite + YCW	19gnutriTek	24	235	63.4
7	Pate et al., 2018	Holstein	LSD	HSCAS	FloMatrix	16	113	100
7	Pate et al., 2018	Holstein	LSD	HSCAS	FloMatrix	16	227	100
8	Queiroz et al., 2012	Holstein	LSD	MMT	Calibrin	8	46	75
8	Queiroz et al., 2012	Holstein	LSD	MMT	Calibrin	8	230	75
9	Xiong et al., 2015	Holstein	FD	Na MMT + YCW	Solis Mos	10	6.0	20
10	Cha et al., 2021	Holstein	CRBD	MMT + Dialomite	.	10	15	168
10	Cha et al., 2021	Holstein	CRBD	MMT + Dialomite + YCW	.	10	15	168

11	Gonçalves et al., 2016	Holstein	CRBD	Cell wall	ICC Brazil	2	20	480
11	Gonçalves et al., 2016	Holstein	CRBD	Autolyzed yeast	ICC Brazil	2	20	480
11	Gonçalves et al., 2016	Holstein	CRBD	Dried yeast	ICC Brazil	2	20	480
11	Gonçalves et al., 2016	Holstein	CRBD	Brewery yeast	ICC Brazil	2	20	480
12	Mojtahedi et al., 2013	Holstein	CRBD	Ester.Glucomanan	.	12	18	4.6
12	Mojtahedi et al., 2013	Holstein	CRBD	Ester.Glucomanan	.	12	27	4.6
12	Mojtahedi et al., 2013	Holstein	CRBD	Ester.Glucomanan	.	12	36	4.6
13	Diaz et al., 2004	Holstein	CRBD	Bentonite	Astr-Ben20	32	1.20%	55
13	Diaz et al., 2004	Holstein	CRBD	Bentonite	Flow Guard	32	1.20%	55
13	Diaz et al., 2004	Holstein	CRBD	Bentonite	Mycosorb	32	1.20%	55
13	Diaz et al., 2004	Holstein	CRBD	AC	AC-A	4	0.25%	55
13	Diaz et al., 2004	Holstein	CRBD	Bentonite	AB-20	4	1.20%	55
13	Diaz et al., 2004	Holstein	CRBD	YCW	MTB-100	4	0.05%	55
13	Diaz et al., 2004	Holstein	CRBD	Bentonite	Red Crown Bentonite	4	1.20%	55
14	Masoero et al., 2009	.	CRBD	Mg-Smectite	Atox	4	22.2	7.47
15	Sulzberger et al., 2017	Holstein	CRBD	Mixed clay	.	10	10.91	100
15	Sulzberger et al., 2017	Holstein	CRBD	Mixed clay	.	10	22.34	100
15	Sulzberger et al., 2017	Holstein	CRBD	Mixed clay	.	10	42.86	100
16	Guo et al., 2019	Holstein	CRBD	<i>Bacillus.subtilis</i>	.	8	38	63
17	Ogunade et al., 2016	Holstein	I-Crossover	Chlorophyll	.	12	20	75
17	Ogunade et al., 2016	Holstein	I-Crossover	Chlorophyll	.	12	20	75
17	Ogunade et al., 2016	Holstein	I-Crossover	Combined Na- Bentonite	.	12	20	75
18	Intanoo et al., 2020	Holstein	CRBD	Yeast	CPY1	4	2	22.28
18	Intanoo et al., 2020	Holstein	CRBD	Yeast	RSY5	4	2	22.29
18	Intanoo et al., 2020	Holstein	CRBD	Yeast	YSY2	4	2	22.29
19	Allen et al., 2019	Holstein	CRBD	Bentonite	.	6	50	300
20	Maki et al., 2017	Holstein	CRBD	HSCAS	Novasil+	15	4.185	50

20	Maki et al.,2017	Holstein	CRBD	HSCAS	Novasil+	15	8.615	50
21	Sumantri et al.,2012	Crossbred	CRBD	Bentonite	.	4	2.84	30.81
21	Sumantri et al.,2012	Crossbred	CRBD	Bentonite	.	4	22.84	30.65
22	Rojo et al., 2014	Holstein	CRBD	HSCAS	.	12	44	40
22	Rojo et al., 2014	Holstein	CRBD	HSCAS	.	12	44	40
22	Rojo et al., 2014	Holstein	CRBD	YCW	.	12	16.5	40
22	Rojo et al., 2014	Holstein	CRBD	HSCAS	.	4	44	40
22	Rojo et al., 2014	Holstein	CRBD	HSCAS	.	4	44	40
22	Rojo et al., 2014	Holstein	CRBD	YCW	.	4	16.5	40
23	Kissell et al., 2012	Holstein	CRBD	Glucomanan + HSCAS	Lallemand	12	100	3.70
23	Kissell et al., 2012	Holstein	CRBD	Glucomanan	MTB-100_2004	12	10	3.97
23	Kissell et al., 2012	Holstein	CRBD	Glucomanan	MTB-100_2006	12	10	3.93
23	Kissell et al., 2012	Holstein	CRBD	Glucomanan	Prototype	12	10	3.97
23	Kissell et al., 2012	Holstein	CRBD	Glucomanan	MTB-100_2006	5	50	3.72
23	Kissell et al., 2012	Holstein	CRBD	Ca Bentonite	Astr-Ben20	5	227	3.44
24	Harvey et al., 1991	Holstein	Reversal.D	HSCAS	.	3	60	200
24	Harvey et al., 1991	Holstein	Reversal.D	HSCAS	.	3	120	100
25	Hajmohammadi et al., 2021	Holstein	CRBD	Bent	.	4	129.5	41
25	Hajmohammadi et al., 2021	Holstein	CRBD	Clay + YCW + AC + Algae	B.I.O. Tox	4	119.5	41
26	Moran et al., 2013	Ayrshire	Crossover	YCW	Mycosorb	4	10	5
26	Moran et al., 2013	Ayrshire	Crossover	YCW	Mycosorb	4	50	5
27	Stroud, 2006	Holstein	CRBD	YCW	MTB-100	6	100	171
27	Stroud, 2006	Holstein	CRBD	YCW	UltraSorb	6	100	171
27	Stroud, 2006	Holstein	CRBD	HSCAS	Mexil	6	100	171
27	Stroud, 2006	Holstein	CRBD	HSCAS	Novasil+	6	100	171
27	Stroud, 2006	Holstein	CRBD	YCW	Toxynil+	6	100	171
27	Stroud, 2006	Holstein	CRBD	Smectite	Condition Ade	6	100	171
27	Stroud, 2006	Holstein	CRBD	Bentonite	Astra Ben	6	100	171

27	Stroud, 2006	Holstein	CRBD	HSCAS	Milbond-TX	6	100	171
28	Galvano et al., 1996	Holstein	Reversal.D	HSCAS	.	4	500	56.4
28	Galvano et al., 1996	Holstein	Reversal.D	AC	.	4	500	56.4
28	Galvano et al., 1996	Holstein	Reversal.D	AC	.	4	500	56.4

<sup>1</sup>CRBD: complete randomized bloc design; LSD: Latin square design; FD: factorial design; I-crossover: inverse crossover design; Reversal.D:

reversal design.

<sup>2</sup>MTB: mycotoxin binder; AC: Activated carbon; MMT: montmorillonite; YCW: yeast cell wall; HSCAS: hydrated sodium calcium silicate.

<sup>3</sup>Commercial name of each MTB type