**Supplementary Table 1.** Summary of the studies and selected moderators for dry matter intake in dairy cows supplemented with chromium.

| Study | Cr supp1 | | | Control2 | | | Cr dose3 | BW4 | Exp. duration, wk5 | Parity6 | Parturition stage7 | Cr-complex8 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| N | M | SD | N | M | SD |
| Yang et al. (1996) | 6 | 16.8 | 2.20 | 6 | 16.4 | 2.20 | 5.50 | 532 | 22 | PP | AFP | Amino Acid |
| Yang et al. (1996) | 11 | 22.5 | 2.32 | 11 | 22.2 | 2.32 | 5.50 | 672 | 22 | MP | AFP | Amino Acid |
| Yang et al. (1996) | 9 | 15.5 | 1.20 | 9 | 15.1 | 1.20 | 7.75 | 643 | 22 | PP | BFP | Amino Acid |
| Yang et al. (1996) | 11 | 20.7 | 1.33 | 11 | 20.8 | 1.33 | 10.25 | 716 | 22 | MP | BFP | Amino Acid |
| Hayirli et al. (2001) | 10 | 11.1 | 1.26 | 10 | 10.9 | 1.26 | 3.90 | 720 | 7 | MP | BFP | Methionine |
| Hayirli et al. (2001) | 10 | 11.8 | 1.26 | 10 | 10.9 | 1.26 | 8.30 | 742 | 7 | MP | BFP | Methionine |
| Hayirli et al. (2001) | 11 | 12.5 | 1.33 | 10 | 10.9 | 1.26 | 16.50 | 739 | 7 | MP | BFP | Methionine |
| Hayirli et al. (2001) | 10 | 14.9 | 1.90 | 10 | 13.8 | 1.90 | 3.70 | 621 | 7 | MP | AFP | Methionine |
| Hayirli et al. (2001) | 10 | 17.2 | 1.90 | 10 | 13.8 | 1.90 | 7.70 | 636 | 7 | MP | AFP | Methionine |
| Hayirli et al. (2001) | 11 | 16.3 | 1.99 | 10 | 13.8 | 1.90 | 15.70 | 642 | 7 | MP | AFP | Methionine |
| Al-Saiady et al. (2004) | 80 | 21.24 | 2.50 | 80 | 19.56 | 2.68 | 5.00 | 600 | 10 | MP | AFP | Yeast |
| McNamara and Valdez (2005) | 10 | 11.4 | 1.42 | 10 | 10.6 | 1.42 | 10.00 |  | 8 | MP | BFP | Propionate |
| McNamara and Valdez (2005) | 10 | 23.1 | 2.21 | 10 | 20 | 2.21 | 10.00 |  | 8 | MP | AFP | Propionate |
| Smith et al. (2005) | 25 | 13.9 | 1.00 | 22 | 13.6 | 0.94 | 4.18 | 723 | 7 | MP | BFP | Methionine |
| Smith et al. (2005) | 25 | 13.6 | 1.00 | 22 | 13.6 | 0.94 | 8.37 | 723 | 7 | MP | BFP | Methionine |
| Smith et al. (2005) | 25 | 18.9 | 2.00 | 22 | 18.2 | 1.88 | 3.73 | 619 | 7 | MP | AFP | Methionine |
| Smith et al. (2005) | 25 | 19.7 | 2.00 | 22 | 18.2 | 1.88 | 7.62 | 619 | 7 | MP | AFP | Methionine |
| Soltan (2010) | 60 | 21.98 | 3.33 | 60 | 19.9 | 3.33 | 6.00 | 627 | 15 | MP+PP | AFP | Organic |
| An-Qiang et al. (2009) | 6 | 17.96 | 0.34 | 6 | 17.64 | 0.34 | 3.60 | 593 | 9 | MP | AFP | Picolinate |
| An-Qiang et al. (2009) | 6 | 18.18 | 0.34 | 6 | 17.64 | 0.34 | 7.20 | 593 | 9 | MP | AFP | Picolinate |
| An-Qiang et al. 2009 | 6 | 18.17 | 0.34 | 6 | 17.64 | 0.34 | 10.8 | 593 | 9 | MP | AFP | Picolinate |
| Sadri et al. (2009) | 8 | 12.7 | 0.99 | 8 | 11.6 | 0.99 | 10.94 | 705 | 7 | MP | BFP | Methionine |
| Sadri et al. (2009) | 8 | 11.9 | 0.99 | 8 | 12.1 | 0.99 | 10.88 | 700 | 7 | MP | BFP | Methionine |
| Sadri et al. (2009) | 8 | 18.4 | 1.67 | 8 | 16.9 | 1.67 | 10.32 | 652 | 7 | MP | AFP | Methionine |
| Sadri et al. (2009) | 8 | 17.8 | 1.67 | 8 | 18.3 | 1.67 | 10.17 | 633 | 7 | MP | AFP | Methionine |
| Mirzaei et al. (2011) | 5 | 24.2 | 1.19 | 5 | 21.8 | 1.19 | 6.21 | 620 | 7 | MP+PP | AFP | Methionine |
| Mirzaei et al. (2011) | 5 | 23.7 | 1.19 | 5 | 21.8 | 1.19 | 12.42 | 620 | 7 | MP+PP | AFP | Methionine |
| Jin et al. (2012) | 20 | 15.53 | 11.67 | 20 | 15.42 | 11.67 | 1.55 |  | 13 | PP | BFP | Propionate |
| Jin et al. (2012) | 20 | 16.36 | 11.67 | 20 | 15.42 | 11.67 | 3.27 |  | 13 | PP | BFP | Propionate |
| Jin et al. (2012) | 20 | 16.52 | 11.67 | 20 | 15.42 | 11.67 | 6.60 |  | 13 | PP | BFP | Propionate |
| Jin et al. (2012) | 20 | 16.43 | 11.67 | 20 | 15.42 | 11.67 | 9.85 |  | 13 | PP | BFP | Propionate |
| Vargas-Rodriguez et al. (2014) | 30 | 22.2 | 6.02 | 12 | 19.9 | 3.81 | 8.00 |  | 5 | MP+PP | AFP | Propionate |
| Yasui et al. (2014) | 30 | 16.5 | 1.64 | 31 | 15.8 | 1.67 | 8.00 | 714 | 12 | MP | BFP | Propionate |
| Yasui et al. (2014) | 30 | 22.9 | 1.64 | 31 | 22.9 | 1.67 | 8.00 | 6199 | 12 | MP | AFP | Propionate |
| Zhang et al. (2014) | 12 | 21.48 | 2.08 | 12 | 22.02 | 2.31 | 3.25 | 600 | 3 | PP | AFP | Picolinate |
| Zhang et al. (2014) | 12 | 23.7 | 4.21 | 12 | 20.89 | 2.29 | 3.25 | 600 | 3 | PP | AFP | Picolinate |
| Zhang et al. (2014) | 12 | 21.33 | 3.27 | 12 | 22.03 | 3.78 | 3.25 | 600 | 3 | PP | AFP | Picolinate |
| Rockwell and Allen (2016) | 24 | 11.8 | 2.06 | 24 | 12.7 | 2.06 | 8.00 | 780 | 8 | MP | BFP | Propionate |
| Rockwell and Allen (2016) | 12 | 18.5 | 2.32 | 12 | 18.1 | 2.32 | 8.00 | 780 | 8 | MP | AFP | Propionate |
| Rockwell and Allen (2016) | 12 | 18.8 | 2.32 | 12 | 18.6 | 2.32 | 8.00 | 780 | 8 | MP | AFP | Propionate |
| Pantelić et al. (2018) | 10 | 12.1 | 0.98 | 10 | 10.9 | 1.11 | 10.00 |  | 8 | MP | BFP | Yeast |
| Pantelić et al. (2018) | 10 | 15.9 | 4.24 | 10 | 16.7 | 2.75 | 10.00 |  | 8 | MP | AFP | Yeast |
| Pantelić et al. (2018) | 10 | 19.9 | 2.97 | 10 | 19 | 3.54 | 10.00 |  | 8 | MP | AFP | Yeast |
| Shan et al. (2020) | 6 | 18.1 | 0.71 | 6 | 17.2 | 0.71 | 3.25 |  | 10 | MP | AFP | Yeast |
| Shan et al. (2020) | 6 | 18.6 | 0.71 | 6 | 17.2 | 0.71 | 6.69 |  | 10 | MP | AFP | Yeast |
| Shan et al. (2020) | 6 | 18.1 | 0.71 | 6 | 17.2 | 0.71 | 9.77 |  | 10 | MP | AFP | Yeast |
| Wu et al. (2021) | 16 | 25.7 | 1.12 | 16 | 26.1 | 1.12 | 4.00 | 726 | 12 | MP | AFP | Methionine |
| Wu et al. (2021) | 16 | 26.3 | 1.12 | 16 | 26.1 | 1.12 | 8.00 | 726 | 12 | MP | AFP | Methionine |
| Wu et al. (2021) | 16 | 25.6 | 1.12 | 16 | 26.1 | 1.12 | 16.00 | 726 | 12 | MP | AFP | Methionine |

1Cr supp = chromium supplementation, N = the number of cows, M = mean, SD = standard deviation; 2Control, N = the number of cows, M = mean, SD = standard deviation; 3Cr dose = chromium supplementation/day/cow (mg); 4BW = body weight of the cows selected for meta-analysis; 5Exp. duration, wk. = experiment duration/duration of supplementation of chromium; 6Parity = parity of the cows (PP = primiparous, MP = multiparous, MP+PP = both primiparous and multiparous); 7Parturition stage, AFP = after parturition, BFP = before parturition; 8Cr-complex = complexes of chromium with other molecules like methionine, picolinate, and propionate.

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