



CDQAP – RB2 Conditional Waiver Reference Binder  
 Tab 7.1 March, 2016  
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## Estimating daily manure generated

This worksheet and its lookup charts are provided for those producers estimating daily manure excreted to complete calculations needed for the San Francisco Bay Regional Water Quality Control Board’s Waste Management Plan (WMP) associated with the Conditional Waiver of Waste Discharge Requirements for Existing Cow Dairies

([http://www.waterboards.ca.gov/sanfranciscobay/water\\_issues/programs/TMDLs/agriculture/CAF/Resolution%20R2-2015-0031.pdf](http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/agriculture/CAF/Resolution%20R2-2015-0031.pdf)).

Category	Number of animals	Manure excretion (lbs/hd/day)	Total manure excretion (lbs/day)
Heifers	_____ x _____	_____ = _____	_____
Dry cows	_____ x _____	_____ = _____	_____
Lactating cows	_____ x _____	_____ = _____	_____
		<b>Total manure produced (lbs/day)</b>	_____

### Lookup charts

#### Heifers

----- Replacement Heifer Average Body Weight (lbs/hd) -----											
250	300	350	400	450	500	600	700	800	900	1000	1100
----- Manure production (lbs/hd/day) -----											
44	45	45	46	47	48	50	52	54	55	57	59
----- Annual tons of manure produced PER REPLACEMENT HEIFER based on body weight -----											
8.0	8.1	8.3	8.5	8.6	8.8	9.1	9.5	9.8	10.1	10.4	10.8

**Lookup charts (continued)**

**Dry cows**

-----Dry Cow Average Body Weight (lbs/hd)-----											
900	950	1000	1050	1100	1200	1300	1400	1450	1500	1550	1600
-----Manure production (lbs/hd/day)-----											
68	69	70	71	72	74	77	79	80	81	82	83
-----Annual tons of manure produced PER DRY COW based on body weight-----											
12.4	12.6	12.8	13.0	13.2	13.6	14.0	14.4	14.6	14.8	15.0	15.2

**Lactating cows**

-----Milk production (lbs/hd/day)-----											
25	30	35	40	45	50	55	60	65	70	75	80
-----Manure production (lbs/hd/day)-----											
111	114	118	121	124	127	131	134	137	140	144	147
-----Annual tons of manure produced PER LACTATING COW based on milk production-----											
20.3	20.9	21.5	22.1	22.7	23.3	23.8	24.4	25.0	25.6	26.2	26.8