

Methane Emissions from Animal Agriculture in Yakima County

(Copied from EPA Formulas)

CH ₄ from Manure Management		2017		<input checked="" type="checkbox"/> Default Animal Data?							
	Number of Animals ('000 head)	Typical Animal Mass (TAM) (kg)	Volatile Solids (VS) [kg VS/head/gear]	Total VS (kg/yr)	Max Pot. Emissions (m ³ CH ₄ / kg VS)	Weighted MCF	Emissions (m ³ CH ₄)	Emissions (Metric Tons CH ₄)	Emissions (MMTCH ₄)	Emissions (MMTCE)	Emissions (MMTCO ₂ E)
Dairy Cattle											
Dairy Cows	275.0	x	2,878.5	= 791,584,687	x 0.24	x 0.335	= 63,864,019	= 43,041	= 0.043	= 0.293	= 1.076
Dairy Replacement Heifers	120.0	x	1,251.8	= 150,216,951	x 0.17	x 0.012	= 310,762	= 210	= 0.000	= 0.001	= 0.005
Beef Cattle											
Feedlot Heifers	52.1	x	691.1	= 36,025,919	x 0.33	x 0.013	= 154,385	= 104	= 0.000	= 0.001	= 0.003
Feedlot Steer	97.6	x	663.7	= 65,346,366	x 0.33	x 0.013	= 280,035	= 189	= 0.000	= 0.001	= 0.005
Bulls	18.0	x	1,955.7	= 35,202,332	x 0.17	x 0.010	= 59,844	= 40	= 0.000	= 0.000	= 0.001
Calves	147.0	x 123	7.7	= 50,623,205	x 0.17	x 0.010	= 86,059	= 58	= 0.000	= 0.000	= 0.001
Beef Cows	225.0	x	1,891.4	= 425,558,061	x 0.17	x 0.010	= 723,449	= 489	= 0.000	= 0.003	= 0.012
Beef Replacement Heifers	58.0	x	1,215.6	= 70,504,723	x 0.17	x 0.010	= 119,858	= 81	= 0.000	= 0.001	= 0.002
Steer Stockers	190.0	x	1,120.3	= 212,866,008	x 0.17	x 0.010	= 361,872	= 245	= 0.000	= 0.002	= 0.006
Heifer Stockers	117.0	x	1,215.6	= 142,225,045	x 0.17	x 0.010	= 241,783	= 163	= 0.000	= 0.001	= 0.004

Enteric Fermentation		2017		<input checked="" type="checkbox"/> Default Animal Data?		
	Number of Animals ('000 head)	Emission Factor (kg CH ₄ /head)	Emissions (kg CH ₄)	Emissions (MMTCH ₄)	Emissions (MMTCE)	Emissions (MMTCO ₂ E)
Dairy Cattle						
Dairy Cows	275.0	x	150.9	= 41,488,017	= 0.0415	= 1.037
Dairy Replacement Heifers	120.0	x	62.4	= 7,482,408	= 0.0075	= 0.187
Replacements 0-12 mos.	0.0	x	45.6	= -	= 0.0000	= 0.000
Replacements 12-24 mos.	0.0	x	68.7	= -	= 0.0000	= 0.000
Beef Cattle						
Beef Cows	225.0	x	100.5	= 22,605,440	= 0.0226	= 0.565
Beef Replacement Heifers	58.0	x	66.5	= 3,856,689	= 0.0039	= 0.096
Replacements 0-12 mos.	0.0	x	64.5	= -	= 0.0000	= 0.000
Replacements 12-24 mos.	0.0	x	74.3	= -	= 0.0000	= 0.000
Heifer Stockers	117.0	x	64.8	= 7,582,282	= 0.0076	= 0.190
Steer Stockers	190.0	x	62.3	= 11,844,552	= 0.0118	= 0.296
Feedlot Heifers	52.1	x	43.2	= 2,249,389	= 0.0022	= 0.056
Feedlot Steer	97.6	x	42.0	= 4,096,508	= 0.0041	= 0.102
Bulls	18.0	x	103.9	= 1,869,931	= 0.0019	= 0.047
Other						
Sheep	48.0	x	8.0	= 384,000	= 0.0004	= 0.010
Goats	29.4	x	5.0	= 146,960	= 0.0001	= 0.004
Swine	17.0	x	1.5	= 25,500	= 0.0000	= 0.001
Horses	52.7	x	18.0	= 948,492	= 0.0009	= 0.024
TOTAL				104,580,167	0.1046	2.615