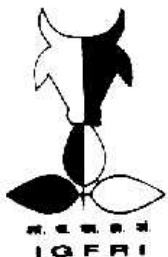




Inventory and mitigation measures for enteric methane emissions from livestock in Indian

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Livestock classification based on their body weight

Category	Body weight (kg)	Category	Body weight (kg)
Indigenous male cattle		Indigenous female cattle	
Calves <1 year (70%)	65-80	Calves <1 year (70%)	65-75
Calves 1-3 years	136-157	Calves 1-3 years	136-157
Breeding bulls	260-320	Milking cows	200-333
Working bulls	260-320	Dry cows	200-363
Breeding+ working bulls	260-320	Heifers	200-250
Others	247-285	Others	200-330
Crossbred male		Crossbred female	
Calves <1 year (70%)	70-88.5	Calves <1 year (70%)	75-88
Calves 1-3 years	154-195	Calves 1-3 years	165-194
Breeding bulls	280-354	Milking cows	300-352
Working bulls	280-354	Dry cows	300-352
Breeding+ working bulls	280-544	Heifers	165-194
Others	266-336	Others	200-330

Buffaloes male		Buffaloes female	
Calves <1 year (70%)	70-80	Calves <1 year 70%)	80-100
Calves 1-3 years	160-200	Calves 1-3 years	176-220
Breeding bulls	475-550	Milking cows	400-516
Working bulls	475-550	Dry cows	400-516
Breeding+ working bulls	475-550	Heifers	276-320
Others	450-500	Others	275-416
Goat male		Goat female	
<1-year (70%)	8.8-21.7	<1-year a (70%)	8.8-21.7
1-2 years	12-27	1-2 years	12-25.6
Sheep male		Sheep female	
<1-year age (70%)	14-22	<1-year (70%)	14-22
1-2 years	30-40	1-2 years	25-30

Energy, intake and dry matter digestibility of diets

Diets	GE	DMI	DDM
Grass :Grewia optiva	4.07 ± 0.03	1.86 ± 0.01	53.60 ± 0.52
SST: Lucerne : CM ₂	4.09 ± 0.04	1.97 ± 0.01	56.89 ± 0.25
Wheat straw: Berseem :CM ₂	4.21 ± 0.05	2.44 ± 0.03	61.98 ± 0.27
Grass : Leucaena	4.34 ± 0.05	1.77 ± 0.03	53.38 ± 0.70
Rice straw: LL: CM ₁	4.21 ± 0.09	2.28 ± 0.02	62.30 ± 0.67
Grass :LL:CM ₁	4.27 ± 0.07	2.24 ± 0.01	66.14 ± 0.27
MST: CM8	4.22 ± 0.04	1.80 ± 0.02	60.75 ± 0.24
PS: Napier : CM ₇	4.08 ± 0.02	1.78 ± 0.02	58.32 ± 0.72
MST : Napier : CM ₇	4.05 ± 0.06	1.90 ± 0.02	60.85 ± 0.38
Wheat traw: Oat	3.94 ± 0.11	1.84 ± 0.01	59.33 ± 0.18
Rice straw: Berseem	4.11 ± 0.05	1.94 ± 0.01	56.91 ± 0.50
MST : CM ₇	4.08 ± 0.05	2.04 ± 0.01	61.63 ± 0.36
Wheat straw:Berseem	4.21 ± 0.09	2.10 ± 0.01	58.86 ± 0.26
SST: Beseem: CM ₂	4.08 ± 0.05	1.97 ± 0.01	58.43 ± 0.39
Wheat sraw:berseem:CM ₃	4.20 ± 0.05	2.27 ± 0.02	63.49 ± 0.25
Masoor straw	4.50 ± 0.04	2.23 ± 0.01	58.85 ± 0.13
Gram straw: CM ₂	4.02 ± 0.05	2.20 ± 0.05	56.81 ± 0.19

Energy, intake and dry matter digestibility of diets

Diets	GE	DMI	DDM
Masoor straw: CM ₅	4.02 ± 0.05	2.65 ± 0.02	66.47 ± 0.19
Wheat traw: green sorghum	4.21 ± 0.06	1.68 ± 0.00	57.25 ± 0.31
SST/Lucerne/Berseem	4.32 ± 0.04	2.05 ± 0.02	58.56 ± 0.60
Wheat straw: Berseem: CM ₄	4.36 ± 0.03	2.19 ± 0.02	64.12 ± 0.22
Rice straw: LL	3.91 ± 0.05	2.03 ± 0.01	58.44 ± 0.38
SST:ST:CM ₇	4.03 ± 0.03	1.74 ± 0.01	54.81 ± 0.31
SST:CM ₈	4.14 ± 0.02	1.89 ± 0.01	53.46 ± 0.61
BST: LL	4.24 ± 0.06	2.20 ± 0.01	62.08 ± 0.33
BST:LL:CM ₂	4.41 ± 0.05	2.43 ± 0.01	65.52 ± 0.29
BJS:CM ₂	4.16 ± 0.02	2.23 ± 0.07	64.74 ± 0.79
Rice straw: LL	4.16 ± 0.07	2.09 ± 0.01	58.39 ± 0.70
Rice straw:LL:CM ₉	4.18 ± 0.05	2.35 ± 0.03	63.31 ± 0.65
Rice traw:LL:CM ₉	4.29 ± 0.05	2.36 ± 0.04	66.84 ± 0.64

Methane emissions from crossbred cattle

Livestock category	Population '000'	CH ₄ emission (g)	CH ₄ kg / h/y	CH ₄ g/d/h
CC (male)				
< one year	1933	14838810.78	7.67	21.07
1 - 1.5 year	1140	12346019.88	10.83	29.67
Breeding	212	7499553.53	35.37	96.91
Work	1384	56701633.68	40.97	112.2
Breeding + work	162	5855726.68	5	99.03
Other	108	2877455.01	26.64	72.99
Total	4939	100119199.6		
CC (Female)				
< one year	3909	30738513.36	7.86	21.54
1 - 2.5 year	3529	51920001.37	14.71	40.30
Milking	8179	301054615.4	36.81	100.84
Dry	3055	90583006.12	29.65	81.23
Heifer	818	14323656.89	17.51	47.97
Other	252	5055478.34	20.06	54.96
Total	19742	493675271.5		

Methane emissions from indigenous cattle

CI (male)	Population '000'	CH ₄ emission (g)	CH ₄ kg / h/y	CH ₄ g/d/h
< one year	9850	77024276.48	7.89	21.42
1 - 1.5 year	11998	137049692.6	11.42	31.29
Breeding	2032	74052075.42	36.44	99.84
Work	50379	1862576518	36.97	101.29
Breeding + work	2393	88350621.3	36.14	101.15
Other	879	22798888.02	25.93	71.06
Total	77531	2261852072		
CI (Female)				
< one year	14155	106986851.8	7.56	20.70
1 - 3 year	14934	234027189.6	15.67	42.93
Milking	26409	975031992.4	36.92	101.15
Dry	17919	523688052.1	29.22	80.06
Heifer	3711	87191755.97	23.49	64.37
Other	1149	30004606.26	26.11	71.54
Total	78277	1956930448		

Methane emissions from Buffaloes

Buffalo (male)	Population '000'	CH₄ emission (g)	CH₄kg/h/y	CH₄ g/d/h
< one year	7371	60327713.63	8.18	22.42
1 – 2 year	3835	52931371.81	13.80	37.81
Breeding	640	42320097.28	66.12	181.16
Work	5207	360374496.5	69.21	189.61
Breeding + work	629	42254637.12	67.17	184.04
Other	203	10010686.48	49.31	135.10
Total	17885	568219002.9		
Buffalo (Female)				
< one year	15265	148592891.2	9.73	26.67
1 – 3 year	13795	292673071.5	21.21	58.12
Milking	33320	2030664259	60.94	166.97
Dry	13905	644565767.5	46.35	126.99
Heifer	3055	94819176.04	31.03	85.03
Other	693	23742125.95	34.26	93.86
Total	80033	3235057291		

Methane emissions from Goats

Goat Male	Population '000'	CH₄ emission (g)	CH₄kg / h/y	CH₄ g /d /h
< one year	19214	30516846.85	1.58	4.35
> one year	17749	46858806.54	2.64	7.23
Total	36963	77375653.4		
Goat Female				
< one year	24767	39178260.97	1.58	4.33
> one year milking	34241	101395990	2.96	8.11
Dry	29535	73081640.28	2.47	6.78
Total	88543	213655891.3		

Methane emissions from Sheep

Sheep Crossbred Male	Population '000'	CH ₄ emission (g)	CH ₄ kg /h/y	CH ₄ g/d/h
< one year	688	1307883.18	1.90	5.21
> one year	1089	5490857.79	5.04	13.81
Total	1777	6798740.97		
Sheep Crossbred (F)				
< one year	942	1824224.44	1.93	5.30
> one year	3106	12377287.31	3.98	10.97
Total	4048	14201511.76		
Sheep Indigenous (M)				
< one year	5984	10486152.16	1.75	4.80
> one year	8738	36720173.62	4.20	11.51
Total	14722	47206325.78		
Sheep Indigenous (F)				
< one year	7494	13204435.49	1.76	4.83
> one year	33467	114055703.3	3.40	9.34
Total	40961	211768615.8	5.17	14.16
Grand Total	465421	9186860024		

In vitro DMD of dry, green, energy and protein feeds

Green fodder	IVDMD	Dry fodder	IVDMD	Feeds	IVDMD
Barley green	73.1	Barley straw	42.5	MSC	76.5
Oat green	74.1	Oat straw	42.0	CSC	54.8
Berseem	76.5	Sorg stover	40.3	GNC	69.1
Lucerne A	70.2	WS	46.4	WB-A	70.8
Lucerne B	70.9	Gram straw	55.2	WB-b	74.4
Napier	61.4	Masoor straw	52.6	Barley grain	69.2
Ginni	44.3	Bajra stover	40.7	Oat grain	73.6
Sugarcane tops	34.0	Maize stover	52.4	Maize grain	84.0
GN leaves	76.1	Rice straw	43.7	Wheat grain	87.3
Grewia optiva	74.4	Dry grass	37.2	Rice bran	34.8
LL	54.6			Gram chunni	31.2
Sorghum	52.3			Coconut cake	86.2

Methane production (ml/g) from 24 h incubation of dry roughages in ruminant species

Roughages	Buffalo	Sheep	Goat
Barley Straw	10.94	15.77	14.01
Oat Straw	6.45	13.69	12.80
Sorghum Stover	7.47	12.60	3.67
Wheat Straw	7.55	15.79	10.00
Gram Straw	6.58	12.14	14.37
Masoor Straw	8.63	12.89	12.26
Bajra Stover	5.38	12.27	11.01
Maize Stover	13.37	16.56	12.37
Paddy Straw	7.59	14.87	9.42
Grass	7.47	11.49	6.11

Methane production (ml/g) from 24 h incubation of green fodders in ruminant species

Green fodders	Buffalo	Sheep	Goats
Barley Green	12.71	17.30	16.49
Oat Green	12.61	17.91	12.58
Berseem	10.36	14.57	12.93
Lucerne A	8.96	13.86	16.07
Lucerne B	8.99	13.22	12.48
Napier	12.72	19.43	18.90
Ginni Grass	7.40	15.30	9.80
Sugarcane Top	9.10	9.56	8.92
Groundnut Leaf	15.47	15.22	15.11
Grewia optiva	17.48	13.60	15.09
Leucaena leucocephala	10.05	7.96	9.88
Green Sorghum	12.43	17.43	14.22

Methane production (ml/g) from 24 h incubation of energy and protein feeds in ruminant species

Feeds	Buffalo	Sheep	Goat
Maize grain	12.95	19.92	18.22
Wheat bran A	17.85	16.45	12.16
Wheat bran B	17.08	16.89	13.68
Wheat grain	21.11	20.07	19.35
Oat grain	13.06	20.26	16.42
Mustard seed cake	18.45	13.98	13.17
Groundnut cake	12.31	10.19	13.53
Barley grain	17.36	17.13	14.10
Coconut cake	14.81	11.04	12.68
Cotton seed cake	9.49	8.71	9.13
Rice bran	6.58	9.95	-
Gram chunni	10.58	8.46	9.45

Methane production g/Kg DDM of protein and energy feeds in different ruminant species

Feeds	Buffalo	Sheep	Goat
Mustard seed cake	34.27	31.25	23.4
Cotton seed cake	31.30	20.61	23.3
Groundnut cake	27.42	22.76	26.5
Wheat bran-a	35.15	34.37	27.0
Wheat bran-b	34.89	35.08	36.3
Barley grain	34.69	35.28	32.2
Oat grain	32.89	40.96	31.3
Maize grain	22.24	30.55	33.5
Wheat grain	35.44	32.94	33.3
Rice bran	29.37	40.73	-
Gram chunni	35.97	30.35	20.6
Coconut cake	25.13	18.35	24.7

Methane production g/Kg DDM of dry roughages in different ruminant species

Feeds	Buffalo	Sheep	Goat
Barley straw	29.80	28.30	37.7
Oat straw	27.43	27.71	51.4
Sorghum stover	20.50	33.68	23.1
Wheat straw	27.48	28.78	35.9
Gram straw	29.38	27.25	43.7
Massor straw	31.00	44.10	37.9
Bajra stover	22.32	31.23	34.6
Maize stover	19.69	41.12	28.0
Rice straw	21.06	31.13	26.2
Dry grass	20.59	27.97	21.0

Methane production g/Kg DDM of green fodders in different ruminant species

Feeds	Buffalo	Sheep	Goat
Barley green	21.26	27.13	40.8
Oat Green	20.36	25.47	30.4
Berseem	24.49	29.17	36.5
Lucerne A	21.32	27.19	45.8
Lucerne B	20.43	28.51	34.1
Napier	25.21	25.62	39.6
Ginni	28.33	26.75	25.6
Sugarcane tops	30.50	36.61	19.5
GN Leaves	35.21	28.90	41.4
Grewia optiva	32.82	33.90	31.5
L leucocephala	27.64	26.65	25.5
Sorghum Green	30.59	39.88	34.4

Methane % of Gross energy of feeds (Protein and energy sources) fermented in rumen inoculums of ruminants

Feeds	Buffalo	Sheep	Goat
Mustard seed cake	8.68±0.10	7.91±0.11	5.92±0.43
Cotton seed cake	7.90±0.09	5.20±0.045	5.89±0.13
Groundnut cake	6.74±0.20	5.59±0.09	6.51±0.13
Wheat bran-a	10.15±0.15	9.93±0.25	7.81±0.27
Wheat bran-b	9.79±0.01	9.86±0.75	10.19±0.12
Barley grain	9.81±0.25	9.97±0.26	9.11±0.22
Oat grain	9.80±0.13	12.21±0.36	9.34±0.24
Maize grain	5.98±0.20	8.22±0.34	9.01±0.35
Wheat grain	10.57±0.15	9.82±0.37	9.94±0.15
Rice bran	8.90±0.59	-	-
Gram chunni	12.23±0.60	12.32±0.51	7.02±0.26
Coconut cake	7.30±0.01	10.31±0.55	7.17±0.12

Methane % of Gross energy of dry fodders fermented in rumen inoculums of ruminants

Dry fodder	Buffaloe	Sheep	Goat
Barley Straw	8.57±0.21	8.14±0.20	10.83±0.14
Oat Straw	7.97±0.16	8.05±0.12	14.99±0.98
Sorghum stover	6.26±0.16	10.29±0.29	7.05±0.24
Wheat Straw	8.16±0.30	8.55±0.36	10.68±0.88
Gram Straw	6.75±0.18	7.83±0.14	12.56±0.23
Massor Straw	8.87±0.41	12.62±0.32	10.85±0.12
Bajra stover.	6.95±0.23	9.72±0.19	10.73±0.51
Maize stover	6.03±0.28	12.59±0.21	8.56±0.11
Rice straw	6.66±0.28	9.85±0.37	8.26±1.36
Dry Grass	6.46±0.31	8.75±0.46	6.59±0.39

Methane % of Gross energy of green fodders fermented in rumen inoculums of ruminants

Green fodder	Buffalo	Sheep	Goat
Barley Green	5.81±0.01	7.43±0.23	9.00±0.46
Oat Green	5.98±0.17	7.48±0.14	7.70±0.27
Berseem	7.22±0.15	8.60±0.28	8.22±0.52
Lucerne A	6.69±0.04	8.56±0.68	12.13±0.08
Lucerne B	5.76±0.22	8.04±0.13	8.37±0.11
Napier	8.16±0.33	8.30±0.30	12.46±0.56
Ginni	9.22±0.14	8.71±0.26	11.81±1.70
Sugarcane top	9.86±0.41	11.80±0.9	9.01±0.10
GN Leaves	11.26±0.32	9.23±0.09	11.69±0.23
Grewia optiva	10.37±0.17	10.72±0.20	7.79±0.21
Leuceana leucocephala	7.99±0.35	7.70±0.16	7.62±0.36
Sorghum	9.13±0.35	11.89±0.43	10.58±0.58

Proportions of ingredients in different concentrate mixtures

Ingredients	CM ₁	CM ₂	CM ₃	CM ₄	CM ₅	CM ₆	CM ₇	CM ₈	CM ₉
MSC	35	40	-	-	-	-	40	45	-
Wheat bran	25	-	25	-	25	-	-	-	-
Maize grain	40	-	-	60	-	-	20	-	40
Barley grain	-	60	-	-	40	-	-	-	-
CSC	-	-	35	40	-	-	-	-	-
Oat grain	-	-	40	-	-	60	-	-	-
GNC	-	-	-	-	35	40	-	-	-
Coconut cake	-	-	-	-	-	-	-	-	45
Rice bran							40	55	15
Gram chunni									

CM: Concentrate mixture

Methane production g/Kg DDM from diets in ruminants

Diets/Rations	Buffalo	Sheep	Goats
Grass : Grewia optiva levae	26.67	28.25	37.3
Sorghum stover: Lucerne : CM ₂	29.64	35.46	35.9
Wheat straw: Berseem :CM ₂	30.73	27.67	33.2
Grass : Leucaena leaves	21.67	25.38	22.3
Rice straw: Leucaena leaves: CM ₁	26.50	25.64	23.7
Grass :Leucaena leaves:CM ₁	23.78	27.07	30.3
Maize stover: CM ₈	34.98	25.50	29.7
Rice straw: Napier : CM ₇	28.64	28.09	34.8
Maize stover: Napier : CM ₇	26.44	29.15	36.4
Wheat straw: Oat	35.28	31.65	27.3
Rice straw: Berseem	30.20	29.65	38.8
Maize stover:: CM ₇	34.34	32.34	35.4
Wheat straw:Berseem	30.41	36.07	38.3
SST: Beseem: CM ₂	31.78	32.57	32.1
Wheat straw:berseem:CM ₃	36.89	33.58	35.6

Methane production g/Kg DDM from diets in ruminants

Diets/Rations	Buffalo	Sheep	Goats
Gram straw: CM₂	25.58	31.99	29.9
Masoor straw: CM₅	33.63	32.84	33.1
Wheat straw: green sorghum	33.65	33.06	38.0
Sorghum stover /Lucerne/Berseem	42.07	35.41	33.5
Wheat straw: Berseem: CM₄	33.94	32.97	27.2
Rice straw: Leucaena leaves	29.76	34.00	23.9
Sorghum stover:ST:CM₇	29.31	32.71	32.3
Sorghum stover:CM₈	22.28	34.62	36.0
Bajra stover : Leucaena leaves	24.05	30.26	30.3
Bajra stover: Leucaena leaves :CM₂	30.03	29.62	33.1
Bajra stover:CM₂	30.90	31.11	32.0
Rice straw: Leucaena leaves	27.58	21.58	27.7
Rice straw: Leucaena leaves:CM₉	28.77	24.28	30.0
Rice straw: Leucaena leaves :CM₉	22.78	20.50	26.7

Methane production g/Kg DM of diets in ruminant animals

Diets	Buffaloes	Sheep	Goats
Grass : Grewia optiva	11.19±0.14	12.96±0.28	14.58±1.22
SST: Lucerne : CM ₂	13.27±0.18	14.88±0.18	15.66±0.33
WS: Berseem :CM ₂	19.06±0.27	17.77±0.04	19.52±0.95
Grass : Leucaena	8.70±0.06	10.97±0.52	10.42±1.58
PS: Leucaena : CM ₁	13.14±0.19	13.88±0.27	14.18±1.71
Grass :LL:CM ₁	14.39±0.30	14.91±0.47	16.04±0.47
MST: CM ₈	16.84±0.14	14.23±0.37	16.03±1.59
PS: Napier : CM ₇	15.14±0.12	16.50±0.08	16.68±1.35
MST : Napier : CM ₇	15.80±0.33	18.32±0.45	18.34±1.11
WS: Oat	17.03±0.21	17.04±0.44	16.28±0.75
PS: Berseem	18.94±0.33	18.61±0.38	16.52±1.72
MST : CM ₇	17.92±0.30	19.06±0.61	19.06±0.29
WS:Berseem	14.32±0.65	18.03±0.23	19.76±0.15
SST: Beseem: CM ₂	14.74±0.17	17.04±0.10	15.45±1.39
WS:bers:CM ₃	19.10±0.57	19.36±0.08	21.82±0.28
Maize stover	17.03±0.33	23.18±0.32	18.95±0.07

Methane production g/Kg DM of diets in ruminant animals

Diets	Buffaloes	Sheep	Goats
GS: CM ₂	13.54 ± 0.23	16.92 ± 0.07	16.00 ± 0.23
MS: CM ₅	18.94 ± 0.23	19.95 ± 0.58	20.98 ± 0.03
WS: green sorghum	14.35 ± 0.32	16.47 ± 0.31	19.64 ± 0.53
SST/Lucerne/Berseem	17.21 ± 0.53	15.31 ± 0.41	17.26 ± 0.69
WS: Berseem: CM ₄	16.81 ± 0.36	18.28 ± 0.37	17.92 ± 0.00
PS: Leucaena	11.04 ± 0.12	14.16 ± 0.27	13.09 ± 0.00
SST:ST:CM ₇	10.87 ± 0.02	12.74 ± 0.10	14.87 ± 0.41
SST:CM ₈	8.68 ± 0.55	14.26 ± 0.10	15.71 ± 0.29
BST: Leucaena	11.26 ± 0.24	14.62 ± 0.15	16.33 ± 0.24
BST:LL:CM ₂	14.01 ± 0.04	14.60 ± 0.10	19.21 ± 0.20
BJS:CM ₂	16.44 ± 0.19	17.63 ± 0.43	17.33 ± 0.80
PS: Leucaena	10.82 ± 0.06	10.23 ± 0.14	15.27 ± 0.22
PS:LL:CM ₉	11.74 ± 0.08	10.31 ± 0.15	16.60 ± 0.01
PS:LL:CM ₉	12.12 ± 0.02	11.83 ± 0.12	19.14 ± 0.42

Methane % of Gross energy of diets in ruminant species

Diets	Buffaloes	Sheep	Goats
Grass : Grewia	8.46±0.45	8.96±0.16	11.83±1.02
SST: Lucerne : CM ₂	9.35±0.49	11.17±0.34	11.32±0.13
WS: Berseem :CM ₂	9.40±0.24	8.45±0.09	10.17±0.61
Grass : LL	6.48±0.37	7.54±0.54	6.60±0.94
Rice straw: LL : CM ₁	8.11±0.21	7.86±0.24	7.28±1.01
Grass :LL:CM ₁	7.17±0.13	8.17±0.40	9.15±0.32
MST: CM ₈	10.68±0.25	7.79±0.22	9.09±0.96
Rice straw:Napier : CM ₇	9.05±0.25	8.88±0.12	10.99±0.85
MST : Napier : CM ₇	8.43±0.41	9.27±0.23	11.59±0.74
Wheat straw: Oat	11.56±0.23	10.35±0.17	8.96±0.63
Rice straw: Berseem	9.46±0.19	9.30±0.30	12.19±1.34
MST : CM ₇	10.83±0.17	10.20±0.33	11.17±0.16
WS:Berseem	9.32±0.50	11.07±0.74	11.72±0.25
SST: Beseem: CM ₂	10.02±0.36	10.28±0.31	10.11±0.51
WS:bers:CM ₃	11.33±0.59	10.31±0.27	10.94±0.26
Maize stover	8.87±0.41	12.62±0.315	10.85±0.12

Methane % of Gross energy of diets in ruminant species

Diets	Buffaloes	Sheep	Goats
GS: CM ₂	8.21±0.17	10.26±0.15	9.58±0.15
MS: CM ₅	10.78±0.24	10.52±0.25	10.60±0.14
WS: green sorghum	10.32±0.49	10.14±0.40	11.64±0.20
SST/Lucerne/Berseem	12.56±0.33	10.58±0.32	10.00±0.40
WS: Berseem: CM ₄	10.04±0.23	9.75±0.16	8.05±0.09
PS: LL	9.79±0.21	11.20±0.38	7.86±0.09
SST:ST:CM ₇	9.37±0.30	10.46±0.19	10.34±0.06
SST:CM ₈	6.92±0.56	10.76±0.01	11.17±0.43
BST: LL	7.33±0.58	9.21±0.24	9.22±0.28
BST:LL:CM ₂	8.77±0.35	8.65±0.09	9.67±0.19
BJS:CM ₂	9.56±0.39	9.63±0.27	9.89±0.31
PS: LL	8.54±0.24	6.69±0.22	8.58±0.13
PS:LL:CM ₉	8.86±0.18	7.48±0.15	9.24±0.06
PS:LL:CM ₉	6.84±0.18	6.16±0.01	8.02±0.23

Conclusions

- A wide variability exists in the methane emission potential of dry roughages, green fodders, concentrate feeds and diets (consist of different dry fodder, green fodder and concentrates).
- Diets based on tree leaves as green fodder and coconut cake as protein sources exhibited low methane emission as well as low conversion of gross energy of these diets to methane production.
- Thus the enteric methane production inventories of Indian livestock are based on the dietary means of methane mitigation.

Thanks