

Sheet1

MILK YIELDS LBS:

Ave Leaf-period lbs milk was 88% (92.7% when leave out 1st L-per) (97% when adjusted to 24-hr days) of ave Hay-period lbs.

Trial period	Date	Time	Hrs	Kanga	Gemsen	Graycilla	Tilia	Mulberry	Total
T1A L	12/16/23	4 PM	29	1.5	2	0.75	0.5	0.5	5.25
T2A L	12/17/23	10:35 AM	18.5	1.125	1.125	0.625	0.25	0.25	3.375
T3A L	12/18/23	1 PM	26.5	1.5	1.875	0.875	0.5	0.5	5.25
T4A L	12/19/23	1:50 PM	24.75	1.75	1.75	0.625	0.5	0.5	5.125
Average/day			24.67	1.47	1.69	0.72	0.44	0.44	4.75
1A L	12/20/23	11:45 AM	22	1.5	1.75	0.5	0.375	0.625	4.75
2A L	12/21/23	11:35 AM	23.75	1.75	1.75	0.5	0.25	0.5	4.75
3A L	12/22/23	1:15 PM	25.75	1.75	1.75	0.75	0.375	0.375	5
4A L	12/23/23	1:15 PM	24	1.75	1.75	0.625	0.5	0.5	5.125
5A L	12/24/23	1 PM	23.75	1.75	1.75	0.75	0.5	0.5	5.25
6A L	12/25/23	1:10 PM	24.25	1.75	2	0.625	0.5	0.625	5.5
7A L	12/26/23	2:35 PM	25.25	1.75	2	0.75	0.375	0.5	5.375
Wandering day	12/27/23	2:35 PM	(24)	1.75	1.625	0.625	0.375	0.625	(5)
Average/day (meas only)			24.11	1.71	1.8	0.64	0.41	0.52	5.11

Rotation A Hay only	Date	Time	Hrs	Kanga	Gemsen	Graycilla	Tilia	Mulberry	Total
T1A H	12/28/23	1:10 PM	22.75	1.5	1.5	0.625	0.375	0.5	4.5
T2A H	12/29/23	1:30 PM	24.25	2	2	0.5	0.25	0.5	5.25
T3A H	12/30/23	2:05 PM	24.5	2.25	2.125	0.75	0.25	0.625	6
T4A H	12/31/23	1 PM	23	2.25	2	0.875	0.375	0.5	6
Average/day			23.625	2	1.91	0.69	0.31	0.5	5.41
1A H	01/01/24	1 PM	24	2.25	2	1	0.5	0.75	6.5
2A H	01/02/24	1:20 PM	24.25	2.25	1.875	0.75	0.25	0.625	5.75
3A H	01/03/24	12:55 PM	23.75	2.25	2	0.75	0.25	0.625	5.875
4A H	01/04/24	1:50 PM	25	2	2.375	1	0.375	0.75	6.5
5A H	01/05/24	1:25 PM	23.5	1.75	2.125	0.75	0.25	0.5	5.375
6A H	01/06/24	1:30 PM	24	1.875	2	0.625	0.5	0.5	5.5
7A H	01/07/24	1:10 PM	23.75	1.75	2	1	0.125	0.375	5.25
Average/day			24.03	2.02	2.05	0.84	0.32	0.59	5.82

Rotation B Leaf-silage	Date	Time	Hrs	Kanga	Gemsen	Graycilla	Tilia	Mulberry	Total
T1B L	01/08/24	3 PM	25.75	2	2.5	0.875	0.25	0.75	6.375
T2B L	01/09/24	2:45 PM	23.75	1.75	1.75	0.75	0.25	0.625	5.125
T3B L	01/10/24	2:50 PM	24	1.75	2	0.75	0.25	0.625	5.375
T4B L	01/11/24	4:30 PM	25.75	1.625	2.25	0.75	0.25	0.625	5.5
Average/day			24.81	1.78	2.125	0.78	0.25	0.66	5.59
1B L	01/12/24	3 PM	22.5	1.5	2	0.875	0.25	0.5	5.125
2B L	01/13/24	3:45 PM	24.75	1.5	2	0.875	0.25	0.75	5.375
3B L	01/14/24	2:40 PM	23	1.625	2	0.875	0.25	0.625	5.375
4B L	01/15/24	1:20 PM	22.5	1.5	2	0.75	0.5	0.5	5.25
5B L	01/16/24	1:30 PM	24.25	1.5	2	1	0.5	0.5	5.5
6B L	01/17/24	2:45 PM	25.25	1.75	2	1	0.5	0.5	5.75
7B L	01/18/24	2 PM	23.25	1.75	2.125	0.875	0.5	0.5	5.75
Average/day			23.64	1.59	2.02	0.89	0.39	0.55	5.45

Sheet1

Rotation B Hay only		Hrs	Kanga	Gemsen	Graycilla	Tilia	Mulberry	Total
T1B H	01/19/24 5:45 PM	27.75	2	2.25	1	0.25	0.625	6.125
T2B H	01/20/24 3:30 PM	21.75	1.75	1.875	0.5	0.375	0.5	5
T3B H	01/21/24 3:30 PM	24	1.75	2.125	0.875	0.25	0.75	5.75
T4B H	01/22/24 2:45 PM	23.25	2	2	0.75	0.375	0.75	5.875
Average/day		24.19	1.875	2.06	0.78	0.31	0.66	5.69
1B H	01/23/24 2:45 PM	24	2.25	2.375	1	0.25	0.625	6.5
2B H	01/24/24 3:25 PM	24.75	2.5	2.25	0.75	0.5	1	7
3B H	01/25/24 3:55 PM	24.5	2.375	2.375	1	0.25	1	7
4B H	01/26/24 2:30 PM	22.5	2.125	1.875	1	0.25	1	6.25
5B H	01/27/24 2:25 PM	24	2.5	2.25	1	0.25	1.125	7.125
6B H	01/28/24 3:05 PM	24.5	2.25	2.375	1.25	0.25	1.25	7.375
7B H	01/29/24 2:30 PM	23.5	2.25	2.125	1	0.25	1	6.625
Average/day		23.96	2.32	2.23	1	0.29	1	6.84

Rotation C Leaf-silage		Hrs	Kanga	Gemsen	Graycilla	Tilia	Mulberry	Total
T1C L	01/30/24 2:25 PM	24	2.25	2	1	0.25	1	6.5
T2C L	01/31/24 2:55 PM	24.5	2	2	0.875	0.25	1	6.125
T3C L	02/01/24 12 noon	21	1.875	1.75	0.75	0.25	0.875	5.5
T4C L	02/02/24 12:30 PM	24.5	2.25	2.125	1	0.125	1	6.5
Average/day		23.5	2.09	1.97	0.91	0.22	0.97	6.16

Rotation C Leaf-silage continued		Hrs	Kanga	Gemsen	Graycilla	Tilia	Mulberry	Total
1C L	02/03/24 11:20 AM	22.75	2	2	1	0.25	1	6.25
2C L	02/04/24 12:15 PM	25	1.5	2.125	1	0.375	1	6
3C L	02/05/24 12:15 PM	24	1.75	2.125	1	0.625	1.125	6.625
4C L	02/06/24 1:05 PM	24.75	1.75	2.375	1	0.625	1	6.75
5C L	02/07/24 1:20 PM	24.25	2	2	1.125	0.625	0.875	6.625
6C L	02/08/24 1:35 PM	24.25	2	2.125	0.875	0.625	0.875	6.5
7C L	02/09/24 1 PM	23.5	2	2	0.75	0.625	1.125	6.5
Average/day			1.86	2.11	0.96	0.54	1	6.46

Rotation C Hay only		Hrs	Kanga	Gemsen	Graycilla	Tilia	Mulberry	Total
T1C H	02/10/24 2:30 PM	25.5	2.125	2	1	0.375	1	6.5
T2C H	02/11/24 1 PM	22.5	2	1.875	0.75	0.25	0.875	5.75
T3C H	02/12/24 1:15 PM	24.25	2.25	2	1	0.25	1	6.5
T4C H	02/13/24 1:15 PM	24	2.25	2.25	1	0.25	1.25	7
Average/day		24.06	2.16	2.03	0.94	0.28	1.03	6.44
1C H	02/14/24 1:15 PM	24	2.125	2.25	1	0.25	0.75	6.375
2C H	02/15/24 9 AM	19.75	1.75	1.5	1	0.25	0.875	5.375
3C H	02/16/24 9:30 AM	24.5	2.375	1.625	1.25	0.375	1.25	6.875
4C H	02/17/24 6:35 AM	21	2.375	1.5	1	0.25	1	6.125
5C H	02/18/24 9:55 AM	27.5	3	1.75	1.25	0.25	1.25	7.5
6C H	02/19/24 9:10 AM	23.25	1.875	2.125	1.125	0.25	1.25	6.625
7C H	02/20/24 10:30 AM	25.25	2.625	1.625	1.125	0.375	1.625	7.375
Average/day		23.61	2.3	1.77	1.11	0.29	1.14	6.61

Sheet1

WIDE VARIANCE, so no difference found (see to R)							
Per	Name	Date	Bfats %	lbs Milk adj 24 hrs	lbs Bfats	oz Bfats	adj
AL	Mulberry	12/26/23	2.9	0.475	0.014	0.221	day-L
BL	Mulberry	01/17/24	3.64	0.475	0.017	0.277	0.277 oz Bf
CL	Mulberry	02/09/24	3.02	1.149	0.035	0.555	0.555 Varian
	ave		3.19	0.700	0.022	0.351	0.416 0.278
AH	Mulberry	01/06/24	3.39	0.5	0.017	0.271	0.271
BH	Mulberry	01/27/24	2.58	1.125	0.029	0.464	0.464
CH	Mulberry	02/20/24	2.57	1.545	0.040	0.635	0.635
	ave	ave	2.85	1.057	0.029	0.457	0.457 0.364
AL	Kanga	12/26/23	4.38	1.663	0.073	1.166	
BL	Kanga	01/17/24	3.51	1.663	0.058	0.934	0.934
CL	Kanga	02/09/24	3.67	2.043	0.075	1.199	1.199
	ave	ave	3.85	1.790	0.069	1.100	1.067 0.265
AH	Kanga	01/06/24	3.44	1.875	0.065	1.032	1.032
BH	Kanga	01/27/24	2.73	2.5	0.068	1.092	1.092
CH	Kanga	02/20/24	2.64	2.495	0.066	1.054	1.054
	ave	ave	2.99	2.290	0.066	1.059	1.059 0.06
AL	Tilia	12/26/23	3.61	0.356	0.013	0.206	
BL	Tilia	01/17/24	3.96	0.475	0.019	0.301	0.301
CL	Tilia	02/09/24	3.1	0.638	0.020	0.317	0.317
	ave	ave	3.56	0.490	0.017	0.275	0.309 0.015
AH	Tilia	01/06/24	2.11	0.5	0.011	0.169	0.169
BH	Tilia	01/27/24	1.81	0.25	0.005	0.072	0.072
CH	Tilia	02/20/24	1.62	0.356	0.006	0.092	0.092
	ave	ave	1.85	0.369	0.007	0.111	0.111 0.096
AL	Graycilla	12/26/23	6.18	0.713	0.044	0.705	
BL	Graycilla	01/17/24	5.13	0.950	0.049	0.780	0.780
CL	Graycilla	02/09/24	4.47	0.766	0.034	0.548	0.548
	ave	ave	5.26	0.810	0.042	0.678	0.664 0.232
AH	Graycilla	01/06/24	7.64	0.625	0.048	0.764	0.764
BH	Graycilla	01/27/24	2.51	1	0.025	0.402	0.402
CH	Graycilla	02/20/24	3.87	1.069	0.041	0.662	0.662
	ave	ave	4.67	0.898	0.038	0.609	0.609 0.362
AL	Gemsen	12/26/23	2.46	1.901	0.047	0.748	
BL	Gemsen	01/17/24	2.13	1.901	0.040	0.648	0.648
CL	Gemsen	02/09/24	3.19	2.043	0.065	1.043	1.043
	ave		2.59	1.948	0.051	0.813	0.845 0.395
AH	Gemsen	01/07/24	2.77	2	0.055	0.886	0.886
BH	Gemsen	01/27/24	4.43	2.25	0.100	1.595	1.595
CH	Gemsen	02/20/24	3.63	1.545	0.056	0.897	0.897
	ave		3.61	1.932	0.070	1.126	1.126 0.708

Average variance/goat: 0.277724 0.017
oz var lbs var

Sheet1

FIGURING BFAT YIELD ACCURATELY using Dates Milk-Sampled:

Date	Hrs	Kanga	Gemsen	Graycilla	Tilia	Mulberry
12/26/23	25.25	1.75	2	0.75	0.375	0.5
Lbs milk Adj 24		1.663	1.901	0.713	0.356	0.475
01/17/24	25.25	1.75	2	1	0.5	0.5
Lbs milk Adj 24		1.663	1.901	0.950	0.475	0.475
02/09/24	23.5	2	2	0.75	0.625	1.125
Lbs milk Adj 24		2.043	2.043	0.766	0.638	1.149
1/6-7/24	24	1.875	2	0.625	0.5	0.5
Lbs milk Adj 24		1.875	2	0.625	0.5	0.5
01/27/24	24	2.5	2.25	1	0.25	1.125
Lbs milk Adj 24		2.5	2.25	1	0.25	1.125
02/20/24	25.25	2.625	1.625	1.125	0.375	1.625
Lbs milk Adj 24		2.495	1.545	1.069	0.356	1.545

No Difference Found in Butter-Fat Yield (See wide variance below.)
 using goat- & date-specific milk yields (adj to 24 hrs) x %Bfats

(*deleting 1st L period, to equalize ave Leaf-s & Hay day-length)

Ave oz Bfats	Leaf-s*	Hay
Mulberry	0.416	0.457
Kanga	1.067	1.059
Tilia	0.309	0.111
Graycilla	0.664	0.609
Gemsen	0.845	1.126
Ave oz Bfats	0.6602	0.67255 per goat per 24 hr day
Ave lbs Bfats	0.0413	0.04203 per goat per 24 hr day
Ave lbs Bfats	0.2063	0.21017 per 5 goats per 24 hr day
Ave variance per goat:		
	0.2777	0.01736
	oz var	lbs variance

(NOT adjusting for Day-L; Using AL-CL)

Ave oz Bfats*	Leaf-s	Hay
Mulb	0.351	0.457
Kang	1.100	1.059
Tilia	0.275	0.111
Grayc	0.678	0.609
Gems	0.813	1.126
Ave oz Bfats	0.6431	0.6725 per goat per 24 hr day
Ave lbs Bfats	0.0402	0.042 per goat per 24 hr day
Ave lbs Bfats	0.201	0.2102 Per 5 goats per 24 hr day
Ave variance per goat:		
	0.2777	0.0174
	oz var	lbs variance