

Supplementary Table 1. Interaction of maternal diet by day of gestation by litter size for offspring BW and perirenal fat

	Treatment ^{1,2}									SEM	P-value
	CON			RES			OVER				
	Singleton	Twin	Triplet	Singleton	Twin	Triplet	Singleton	Twin	Triplet		
BW, g											0.0011
d 45	10.55 ^a	11.82 ^a	9.80 ^a	11.93 ^a	9.05 ^a	10.53 ^a	10.90 ^a	8.85 ^a	9.48 ^a	0.55	
d 90	585 ^a	608 ^a	607 ^a	530 ^a	626 ^a	603 ^a	607 ^a	611 ^a	657 ^a	23	
d 135	4,535 ^{abc}	5,267 ^{cd}	3,793 ^a	4,540 ^{abc}	4,264 ^{ab}	5,498 ^d	5,072 ^{cd}	4,497 ^b	-	213	
Birth	7,257 ^a	4,944 ^b	3,883 ^c	-	4,197 ^{cf}	2,365 ^d	5,805 ^e	4,438 ^f	4,233 ^{cf}	234	
Perirenal fat, ^{3%} BW											0.0180
d 45	nd ⁴	nd	nd	nd	nd	nd	nd	nd	nd	nd	
d 90	0.28 ^a	0.52 ^a	0.41 ^a	0.37 ^a	0.42 ^a	0.41 ^a	0.45 ^a	0.42 ^a	0.49 ^a	0.079	
d 135	0.42 ^{ab}	0.43 ^{ab}	0.41 ^{ab}	0.46 ^{ab}	0.46 ^{ab}	0.28 ^a	0.58 ^b	0.57 ^b	-	0.082	
Birth	0.44 ^a	0.36 ^a	0.42 ^a	-	0.47 ^a	1.02 ^b	0.26 ^a	0.39 ^a	0.33 ^a	0.066	

^{a-f} Denotes mean differences for the maternal diet by litter size interaction, within a day of gestation ($P \leq 0.05$).

¹ Offspring from ewes fed a control (100% NRC), restricted (60% NRC), or over-fed (140% NRC) diet are referred to as CON, RES and OVER, respectively. Ewe diet was based on the NRC TDN requirement for pregnant ewes bearing twins and began at d 30 of gestation. At d 45, 90 or 135 of gestation, ewes were euthanized a hysterectomy was performed to acquire the fetuses. Lambs were collected within 24 h of birth from ewes allowed to undergo parturition (n = 10 to 15 fetuses or lambs from 5 to 7 ewes per treatment combination).

² LSMeans are reported.

³ Perirenal fat is expressed as a percent of offspring BW and reported as the combined weight of perirenal fat collected from around both kidneys.

⁴ nd = not detectable.

Supplementary Table 2. Effect of maternal diet and day of gestation interaction on actual fetal organ weights

Fetal variable ¹	Treatment ^{2,3}			SEM	P-value Maternal diet by day of gestation
	CON	RES	OVER		
Adrenal gland wt, ⁴ g					0.6759
d 45	nd ⁵	nd	nd	nd	
d 90	0.17	0.18	0.21	0.01	
d 135	0.58	0.47	0.53	0.02	
Birth	0.96	0.93	0.97	0.04	
Heart wt, g					0.0303
d 45	0.11 ^a	0.12 ^a	0.12 ^a	0.01	
d 90	5.06 ^b	4.70 ^b	5.20 ^b	0.13	
d 135	33.38 ^{de}	25.18 ^c	30.38 ^d	1.22	
Birth	36.79 ^e	31.68 ^d	36.57 ^e	1.13	
Kidney wt, ⁶ g					0.0088

d 45	0.07 ^a	0.07 ^a	0.09 ^a	0.01	
d 90	5.84 ^b	5.73 ^b	6.19 ^b	0.14	
d 135	26.16 ^{de}	21.11 ^c	27.48 ^e	0.87	
Birth	27.95 ^e	23.13 ^{dc}	25.28 ^{de}	0.80	
Liver wt, g					
d 45	0.76 ^a	0.78 ^a	0.60 ^a	0.03	0.0030
d 90	33.55 ^b	32.75 ^b	36.87 ^b	0.84	
d 135	136.43 ^d	91.04 ^c	129.95 ^d	6.54	
Birth	105.65 ^c	92.68 ^c	103.84 ^c	3.33	
Perirenal fat wt, ⁷ g					
d 45	nd	nd	nd	nd	0.1089
d 90	2.68	2.41	2.90	0.11	
d 135	20.90	18.60	26.48	0.89	
Birth	19.14	20.22	16.10	0.94	

¹ Organ weights are expressed as actual weights.

² Offspring from ewes fed a control (100% NRC), restricted (60% NRC), or over-fed (140% NRC) diet are referred to as CON, RES and OVER, respectively. Ewe diet was based on the NRC TDN requirement for pregnant ewes bearing twins and began at d 30 of gestation. At d 45, 90 or 135 of gestation, ewes were euthanized and a hysterectomy was performed to acquire the fetus(es). Lambs were collected within 24 h of birth from ewes allowed to undergo parturition (n = 10 to 15 fetuses or lambs from five to seven ewes per diet and day of gestation combination).

³ LSM means are reported.

⁴ Adrenal gland weight is reported for the sum of the weight of pair of adrenal glands.

⁵ nd = not detectable

⁶ Kidney weight is reported for the sum of weight of pair of kidneys.

⁷ Perirenal fat weight is reported for the sum of weight of fat collected from around both kidneys.