

# New GE Systems

LRS

OCT 19, 2015

# Changes to Growth System

- Three Dams
  - Genetic dam
  - Birth dam
  - Raise dam
- No direct-maternal correlations
- Regression on 100-d wt for US traits
- New estimated parameters (with new models)

## Factors in Models

Factors	Fixed or Random	Survival	Birth Weight	Adjusted 50-d Wt.	Gain 50-100d	Loin Thick.	Fat Thick.
YM	F	✓	✓	✓	✓	✓	✓
Age 'birth'	F	✓	✓				
Age 'raise'	F			✓	✓	✓	✓
WT at US	F					✓	✓
FYMan	R	✓	✓	✓	✓	✓	✓
Lit 'birth'	R	✓	✓				
Lit 'raise'	R			✓	✓	✓	✓
MPE 'birth'	R	✓	✓				
MPE 'raise'	R			✓	✓	✓	✓
MatG 'birth'	R	✓	✓				
MatG 'raise'	R			✓	✓	✓	✓
Genetic	R	✓	✓	✓	✓	✓	✓

## Heritabilities

Trait	RES	ANM	MAT	MPE	FYM	LIT	Total
SV	1.160	.063	.017	.015	.798	.423	2.476
%	.468	.025	.007	.006	.322	.171	
BW	.183	.200	.139	.030	.182	.335	1.069
%	.171	.187	.130	.028	.170	.313	
50d	6.952	3.262	3.295	1.505	7.478	2.703	25.195
%	.276	.129	.131	.060	.297	.107	
Gain	6.454	6.585	.495	.544	11.342	.189	25.609
%	.252	.257	.019	.021	.442	.007	
USL	3.432	8.308	.082	.110	1.159	.583	13.674
%	.251	.608	.006	.008	.085	.043	
USF	.152	.864	.230	.093	.558	.222	2.119
%	.072	.408	.108	.044	.263	.105	

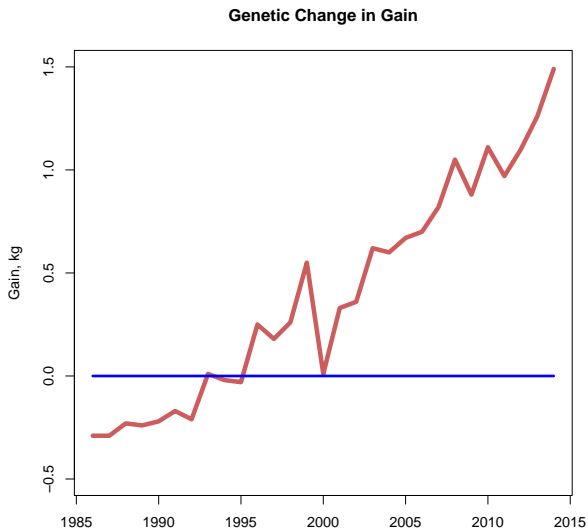
## Correlations by Flocks

Flock	Sv	BW	50-d	Gain	USL	USF
250	.18	.79	.78	.87	.66	.63
1388	-.27	.76	.75	.73	.48	.68
1584	.75	.06	.87	.71	.74	.62
1613	.18	.22	.84	.92	.77	.69
43224	.33	.82	.77	.85	.77	.81
43261	.42	.86	.86	.84	.68	.66
43332	.23	.71	.85	.90	.85	.72
43404	.44	.66	.75	.81	.68	.51

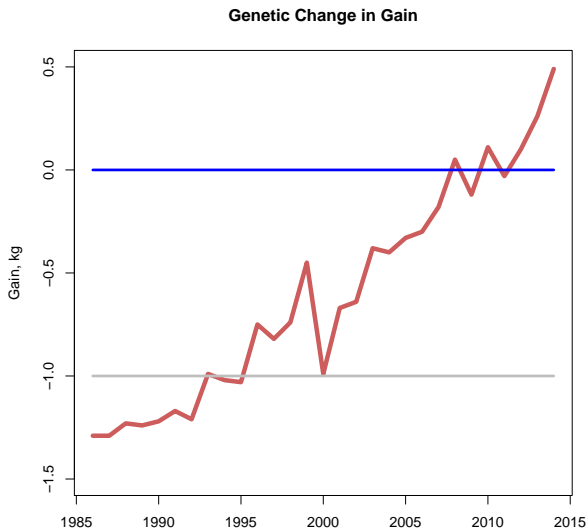
## Correlations by Flocks

Flock	SvM	BWM	50-dM
250	-.01	.14	.61
1388	-.34	.08	.70
1584	.25	.41	.63
1613	.24	.14	.57
43224	.20	.12	.55
43261	.15	-.01	.55
43332	.31	.29	.63
43404	.16	.14	.56

# Genetic Base - 2000



# Genetic Base - 2010





## Changes to Repro System

- Three dams (proper assignment of lambs to ewes)
- Proper credit to ewes for lambs born/weaned.
- Nwean to TWW (total weaning weight, kg)
- Previously all credit/debit given to genetic dam

## Reproductive Traits

Trait	RES	ANM	APE	FYS	Total
Age	122.674	11.780	.000	202.774	337.228
%	.364	.035	.000	.601	
NB1	.198	.023	.000	.029	.250
%	.792	.092	.000	.116	
TWW1	44.603	3.150	.000	33.328	81.081
%	.550	.039	.000	.411	
INT	296.637	8.077	2.341	259.194	566.249
%	.524	.014	.004	.458	
NB2	.347	.034	.013	.037	.431
%	.805	.079	.030	.086	
TWW2	92.638	5.185	2.771	43.249	143.843
%	.644	.036	.019	.301	

## Correlations by Flocks

Flock	AgeF	Nb1	TWW1	INT	Nb2	TWW2
250	-.42	.69	.29	-.17	.79	.49
1388	.14	.60	.31	-.29	.79	.56
1584	-.12	.67	.44	.09	.78	.54
1613	-.37	.75	.11	.22	.87	.34
43224	.17	.67	-.05	.25	.71	.18
43261	.22	.79	.76	.49	.84	.77
43332	.26	.72	.24	.25	.79	.59
43404	.07	.17	.24	.42	.37	.46

## Correlations by Flocks

Flock	Indexes
250	.69 to .85
1388	.42 to .85
1584	.53 to .90
1613	.53 to .91
43224	.52 to .81
43261	.42 to .83
43332	.53 to .89
43404	.56 to .85

# Connectedness

P	P	P	P	P	28	29	48	P	7	P	P	P	72	56
P	P	P	86	81	P	P	P	P	79	P	P	P	P	24
P	P	P	P	40	P	P	P	P	46	P	P	P	P	5
P	86	P	P	24	61	8	57	P	3	P	39	78	15	0
P	81	40	24	P	6	4	19	P	5	P	P	P	7	2
28	P	P	61	6	P	29	86	P	18	P	P	48	P	0
29	P	P	8	4	29	P	6	P	28	P	P	39	53	7
48	P	P	57	19	86	6	P	P	54	P	63	P	55	0
P	P	P	P	P	P	P	P	P	P	P	P	P	P	93
7	79	46	3	5	18	28	54	P	P	P	48	21	19	0
P	P	P	P	P	P	P	P	P	P	P	P	P	P	80
P	P	P	39	P	P	P	63	P	48	P	P	P	P	12
P	P	P	78	P	48	39	P	P	21	P	P	P	79	19
72	P	P	15	7	P	53	55	P	19	P	P	79	P	58
56	24	5	0	2	0	7	0	93	0	80	12	19	58	P

# At Last

- Major Change: Three dams
- Affects flocks differently
- New EPDs are great!!!