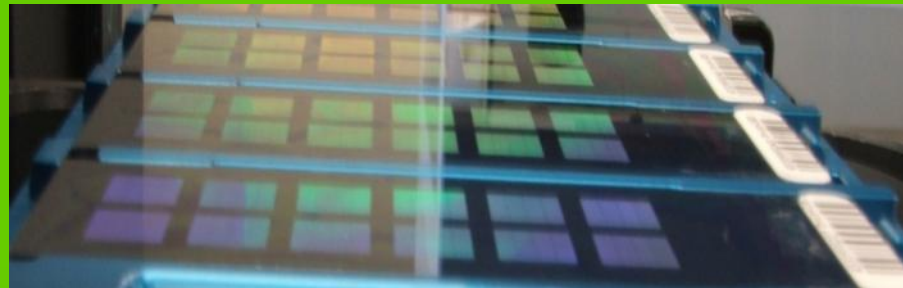


Breeding Values for Deer

Jason Archer
Wilkins Farming Stag Walk
Balfour, December 2009



Farming, Food and Health. **First**

Te Ahuwhenua, Te Kai me te Whai Ora. Tuatahi



What factors influence performance?

- Sex of calf
- Feed and management
- Age of mother
- Animal genetics
- Animal health
- Other random events in animal's life (eg. temporary lameness)



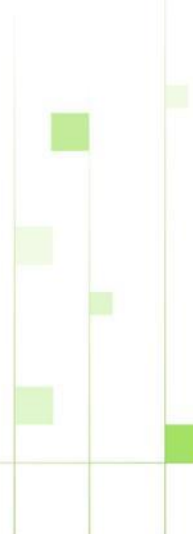
What factors influence performance?



- 
- A large herd of brown deer is gathered in a lush green field. In the background, there are rolling green hills and a few trees under a clear sky. The deer are of various ages and are looking in different directions.
- Sex of calf
 - Feed and management
 - Age of mother
 - Animal genetics = what you take home when you purchase a stag
 - Animal health
 - Other random events in animal's life (eg. temporary lameness)

Breeding values

1. Strip out the systematic differences in performance which are caused by non-genetic factors such as:
 - Herd and environment
 - Feeding and management
 - Sex
 - Age of dam
2. Use knowledge of trait properties to predict genetic merit
 - Adjust performance records for how heritable a trait is.
 - Use the performance of relatives to help predict genetic merit.
3. Compare genetics from herds around New Zealand.





DEERSelect



Stag breeder



Bureau



National database (SIL)



Genetic software (AgResearch)

Deer Industry Steering Committee



3 modules – Growth, Early conception, Velvet

Operates an across-herd analysis – red deer are compared nationally.

Reporting

- Herd reports provided to clients (on-demand, quick turn-around)
- Sire summaries publically available on DEERResearch website.

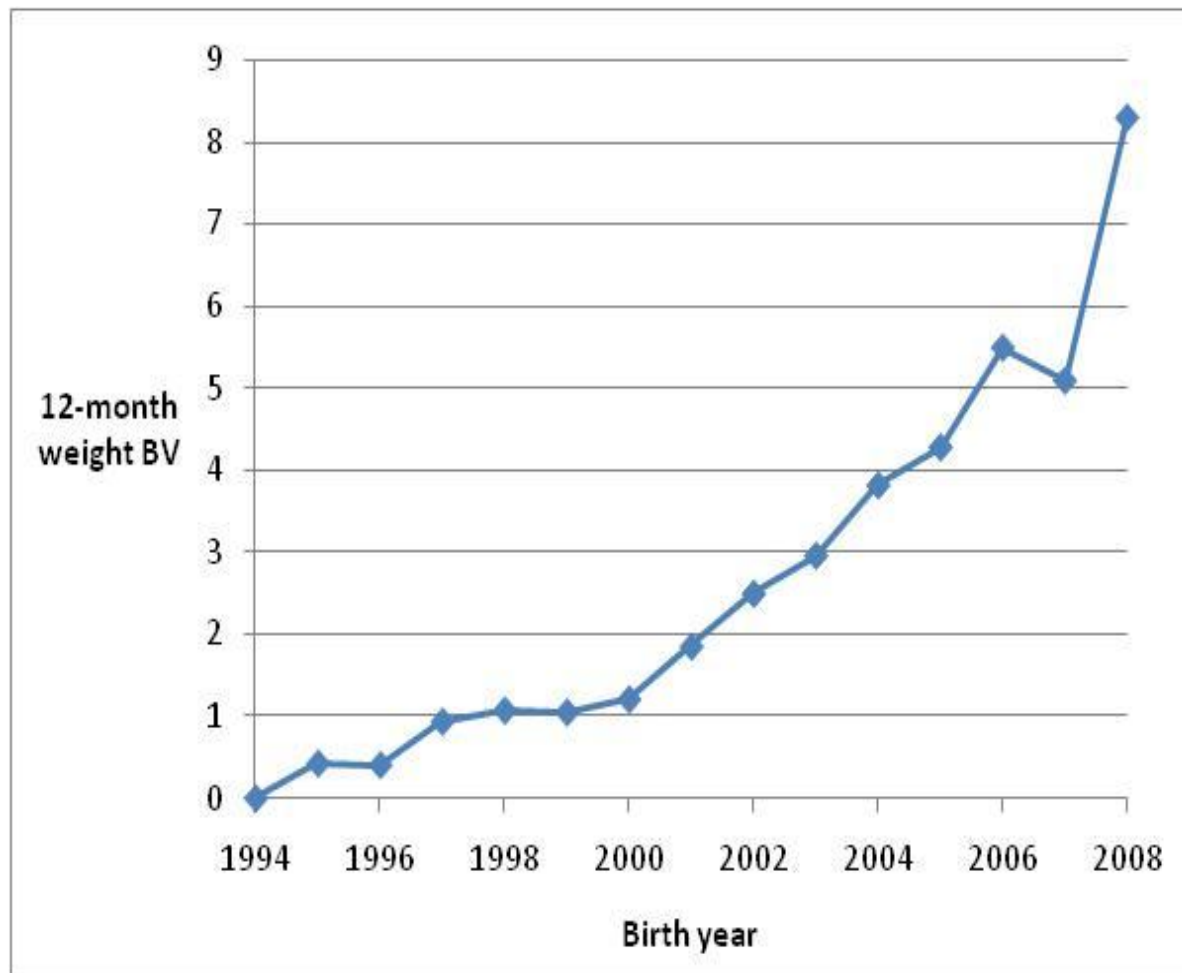


Sire Summaries



Birth Herd	Birth Tag	Current Tag	No Progeny	W12BV	W12Acc	MWTBV	MWTAcc	Current Flock Prefix
Canterbury Imp Red Deer	31/04	SONNY BILL	13	25.7	0.85	24.9	0.73	Canterbury Imp Red Deer
Stanfield Eastern	03152/03	MEGAMILIAN	252	25.5	0.97	22.2	0.82	Wilkins Farming
Peel Forest Estate	03556/03	ATLAS	60	25.4	0.94	22.1	0.79	Peel Forest Estate
Deer Improvement	06306/06	CZAR	95	25.3	0.95	18.4	0.75	Deer Improvement
Doncaster Deer Partnership	05063/05	CORLEONE	25	24.8	0.89	16.1	0.72	Deer Improvement
Deer Improvement	06259/06	BREMEN	83	24.8	0.94	15.6	0.74	Deer Improvement
Doncaster Deer Partnership	06583/06	06583	29	24.7	0.9	17.8	0.72	Deer Improvement
Doncaster Deer Partnership	06549/06	06549	26	23.6	0.89	18.3	0.71	Deer Improvement
Black Forest Park	02P162/02	KURGAN	50/98	23.3	0.95	22.1	0.85	Black Forest Park
Peel Forest Estate	04052/04	04052	7	22.4	0.83	20.8	0.71	Peel Forest Estate
Canterbury Imp Red Deer	02685/02	COSSAR	287/301	22.2	0.98	20	0.81	Deer Improvement
Stanfield Eastern	97020/97	MAXIMILIAN	82/452	22.1	0.98	25.4	0.94	Stanfield Eastern
Black Forest Park	03T649/03	DENZEL	41	21.6	0.89	18.5	0.81	Totara Hills
Deer Improvement	06260/06	06260	37	21.4	0.91	13.9	0.74	Deer Improvement
Deer Improvement	06305/06	COMMODORE	64	21.2	0.93	13.3	0.75	Deer Improvement
Peel Forest Estate	00264/00	ADMIRAL	425/475	20.8	0.98	12.5	0.85	Deer Improvement
Doncaster Deer Partnership	041943/04	WAIPAHI	34	20.6	0.9	15.4	0.72	Deer Improvement
Fairlight	063179/06	063179	51	20.6	0.93	15.4	0.73	Deer Improvement
Black Forest Park	99P043/99	KABUL	5/294	20.5	0.98	19.9	0.93	Black Forest Park
Black Forest Park	04Y068/04	04Y068	19	20.5	0.85	18.9	0.73	Black Forest Park

Genetic trends

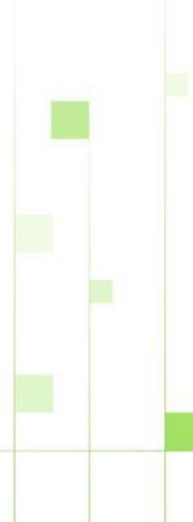


Selecting Sires



1. Identify your requirements

- venison, velvet, trophy
- Growth, hind size, reproductive performance, early calving

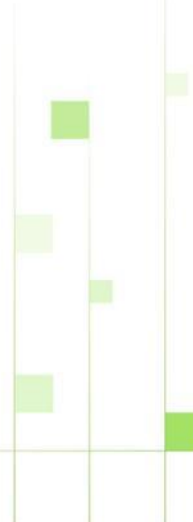


Selecting Sires



2. Identify herds moving in the direction you want to go

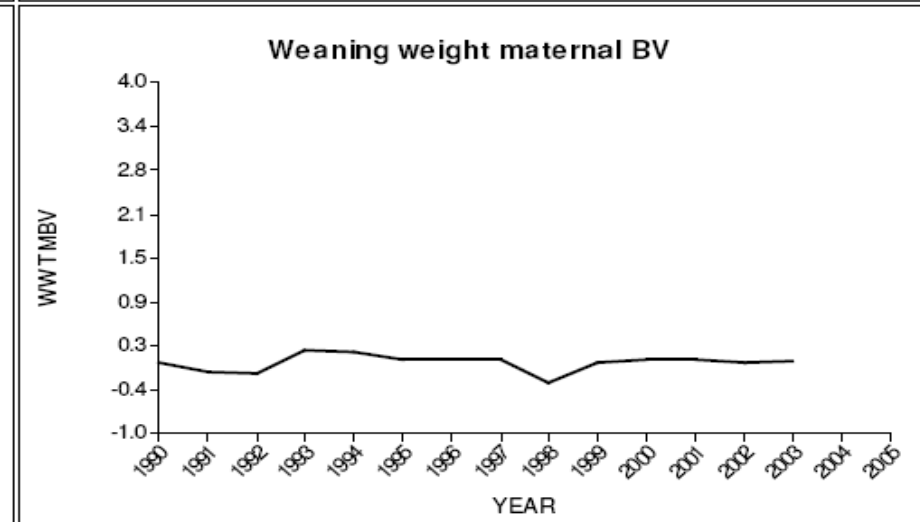
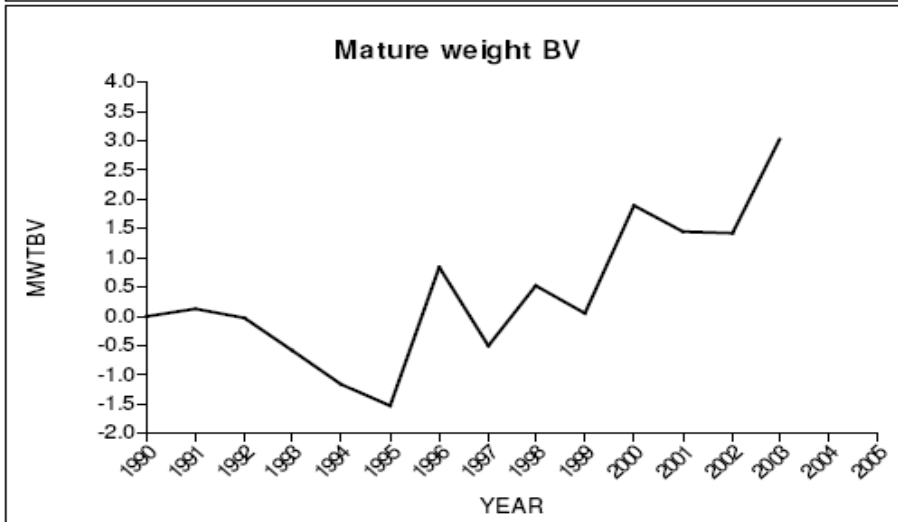
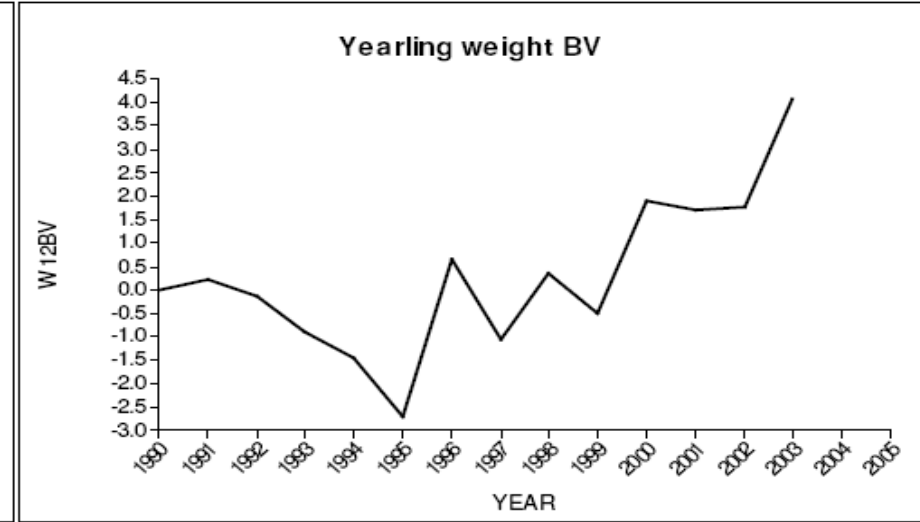
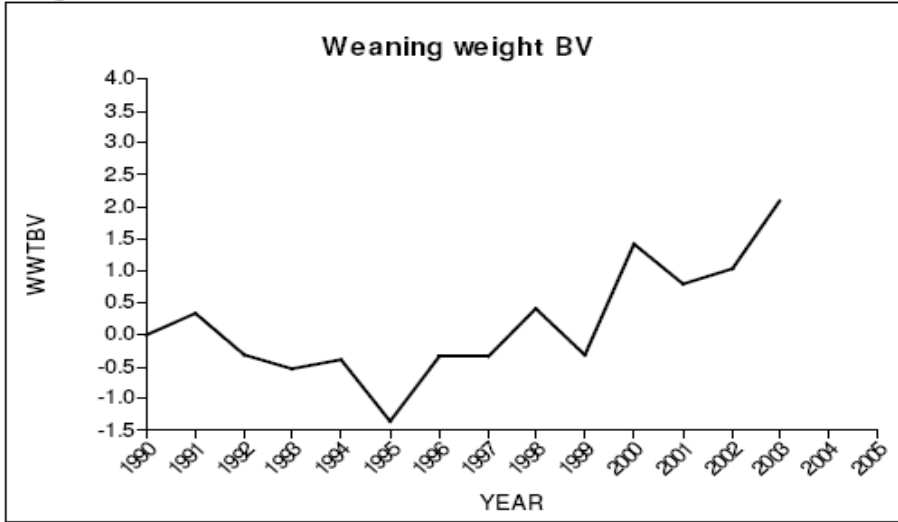
- Look for suitable sires in across-herd sire summaries
- Look at genetic trends of individual herds





SIL Genetic Trends Graphs for flock All

GE Analysis #10922 10/5/2005

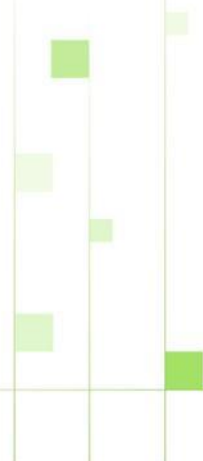


Remember



About 80% of your genetic progress is determined by the breeders selection of sires (60%) and dams (~20%).

Your selection of a stag (within a herd) adds about 20% of the genetic gain in your herd.

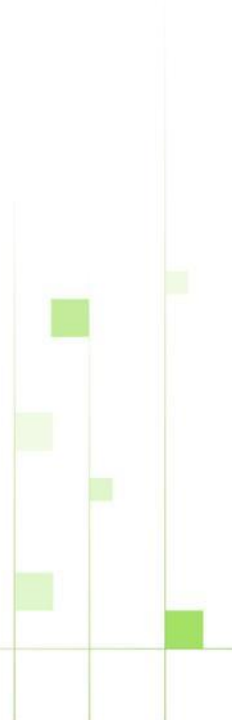


Selecting Sires



3. Select individual young stags

- Look at BVs first (for traits available) – narrow down your selection.
 - 12-month growth
 - Hind mature size?
 - Mature Velvet weight – if velvet is relevant to your business!
- Look at animals selected in first cut on BVs.
 - Traits for which BV information not available
 - Conformation, Temperament ??
- Talk to the breeder about the animals you are interested in.
 - temperament
 - reproductive performance of relatives
- Price!!



Stags available in this catalogue

