



CRC

for

Premium

Quality

Wool

Disease Resistance: Genetic Correlations

Produced for the CRC for Premium Quality Wool undergraduate program by;
Dr. Rob Woolaston & Dr. Sandra Eady, CSIRO Animal Production.



Genetic Correlations

	Nematode resistance	Fleece rot/flystrike	Footrot	Dags
Body weight	neutral to slightly favourable	neutral to slightly unfavourable	unknown	neutral?
Clean fleece weight	neutral to slightly unfavourable	neutral to slightly unfavourable	neutral to slightly unfavourable	neutral?
Average fibre diameter	neutral	neutral to slightly favourable	neutral	neutral?

CRC

for

Premium

Quality

Wool



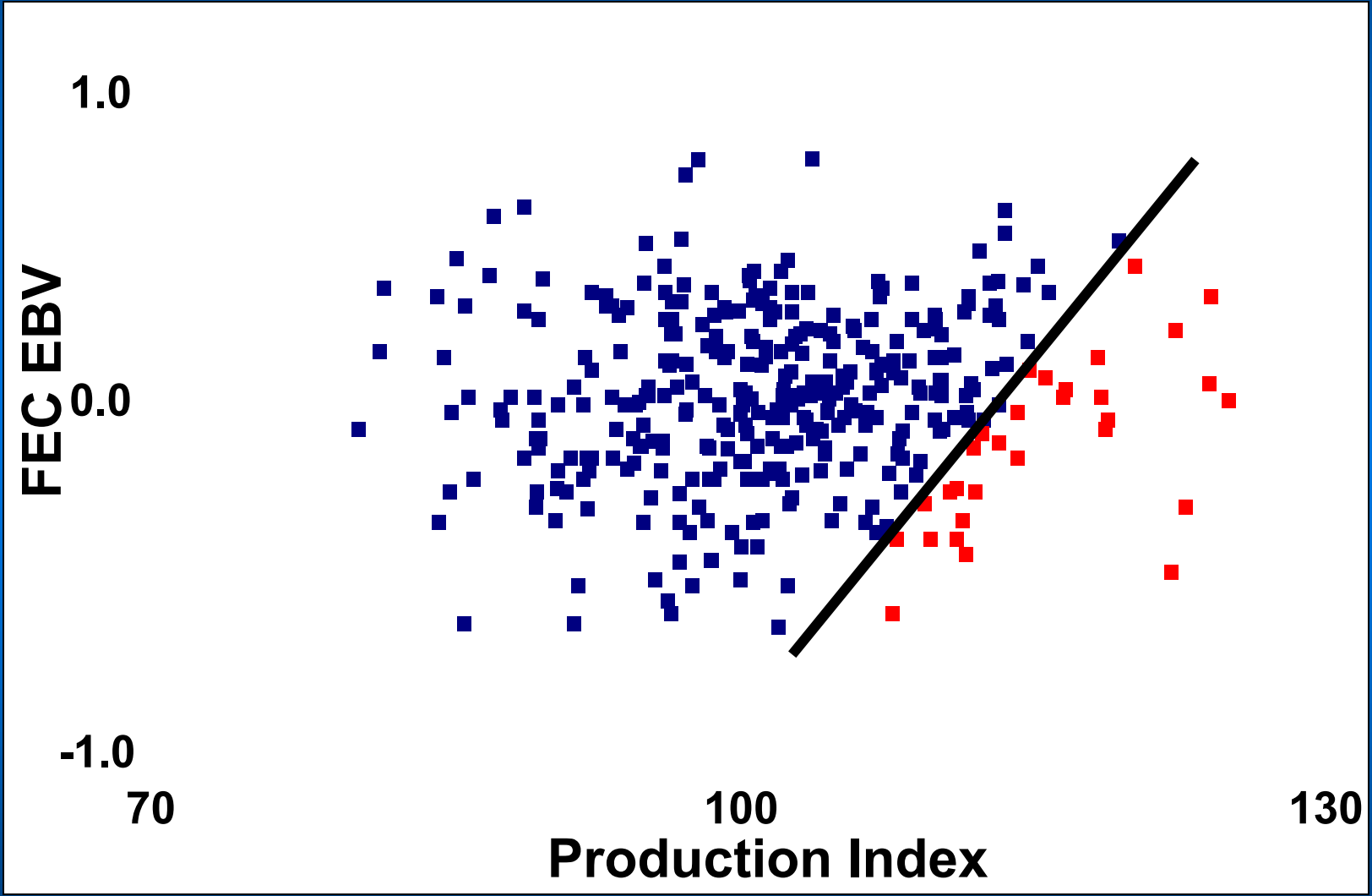
Correlated changes

Select for Resistance to:	Predicted change in resistance to			
	Worms	Footrot	Fleece rot	Dermo
Worms	-	SI increase	no change	SI increase
Footrot	SI increase	-	no change	no change
Fleece rot	no change	SI decrease	-	no change
Dermatophilosis	SI increase	no change	no change	-
Dags	SI decrease			

CRC
for
Premium
Quality
Wool



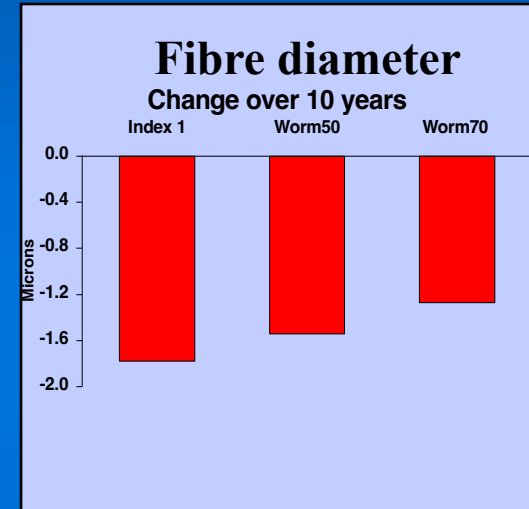
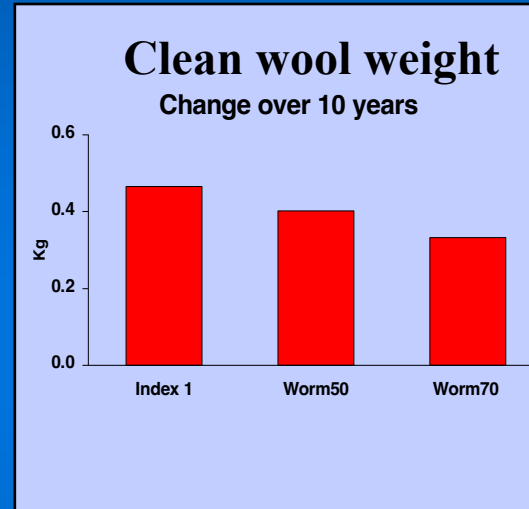
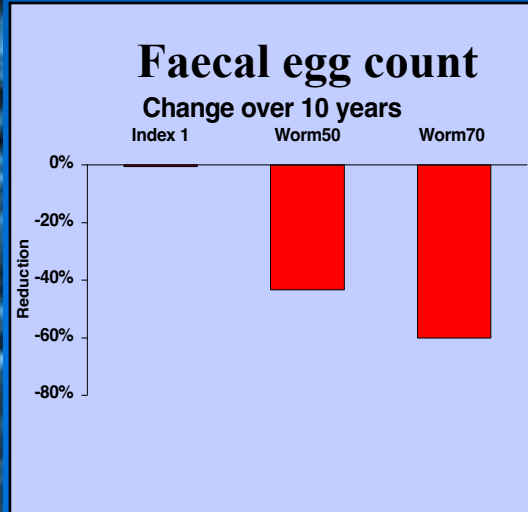
Adding Resistance to a Breeding Objective



CRC
for
Premium
Quality
Wool



Will Selection for Resistance Reduce Genetic Gains in Wool Weight & Fibre Diameter?



- The emphasis placed on worm resistance can vary
- Moderate emphasis will have little effect on production traits
- Heavy emphasis on resistance will reduce genetic progress in production - but there will be gains from having fewer worms in the system

CRC

for

Premium

Quality

Wool