



CRC

for

Premium

Quality

Wool

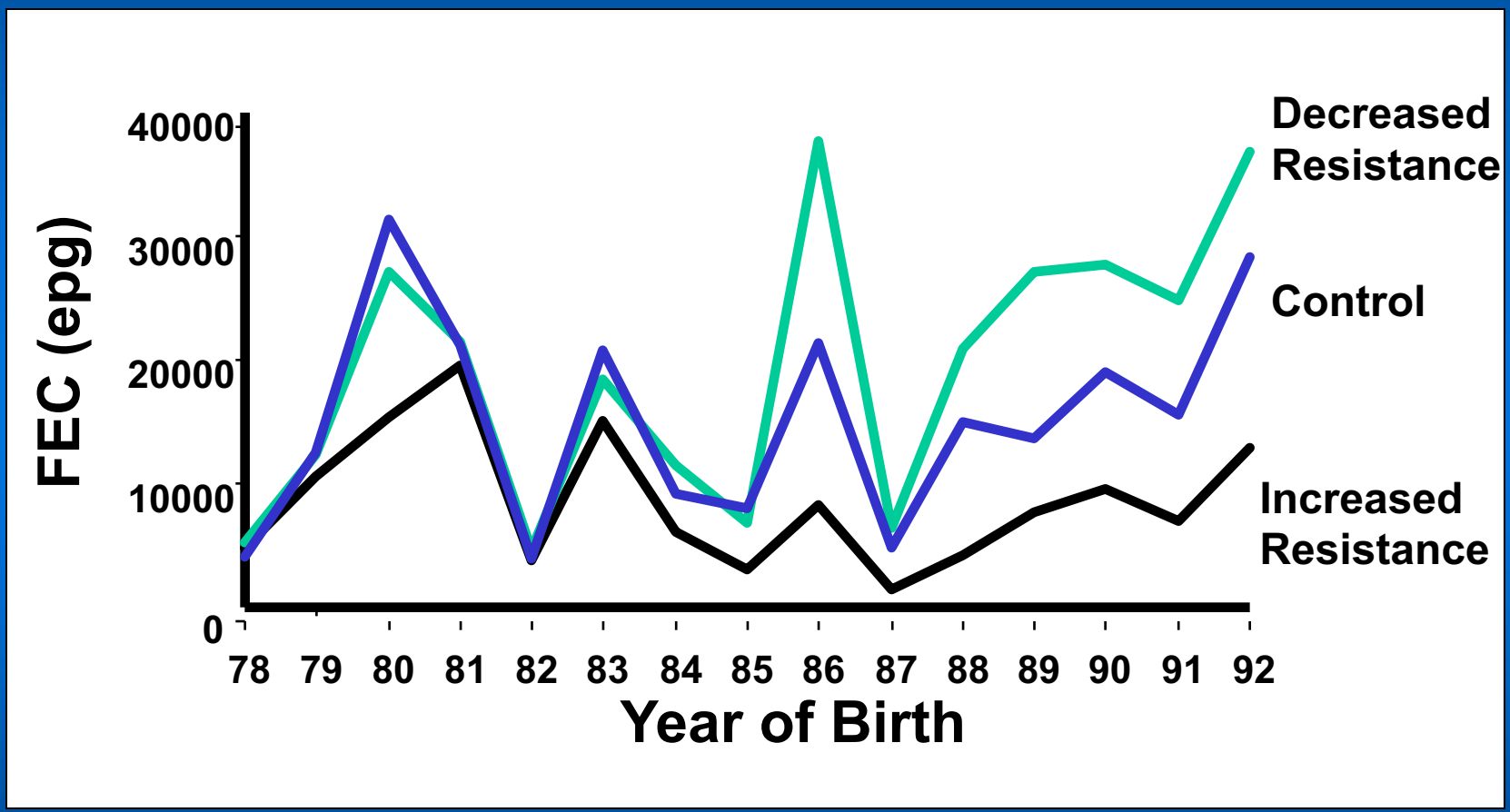
Breeding for Resistance to Worms

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



CSIRO *Haemonchus* selection lines

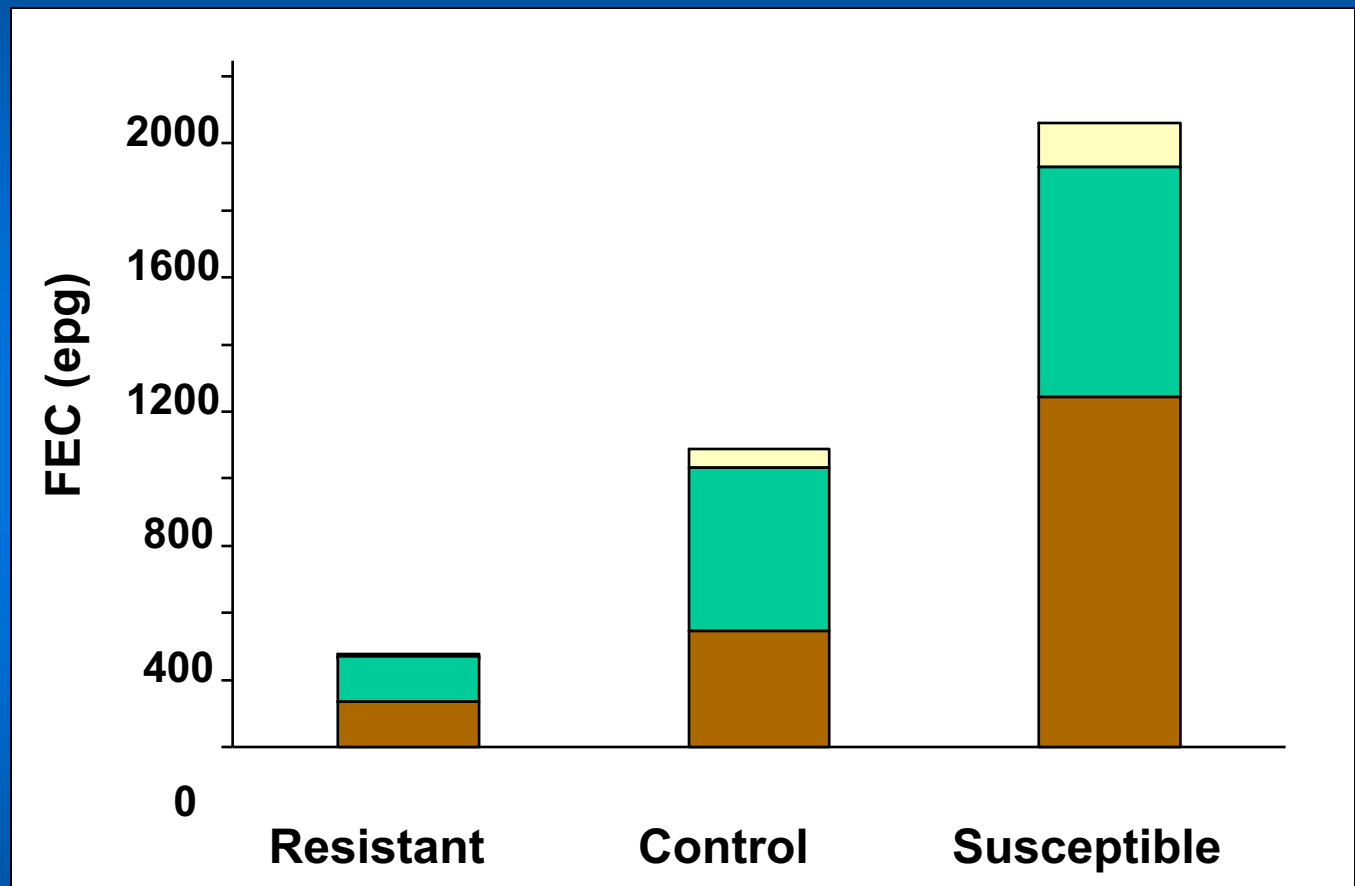
CRC
for
Premium
Quality
Wool





Worm resistance at weaning in CSIRO *Haemonchus* lines

CRC
for
Premium
Quality
Wool

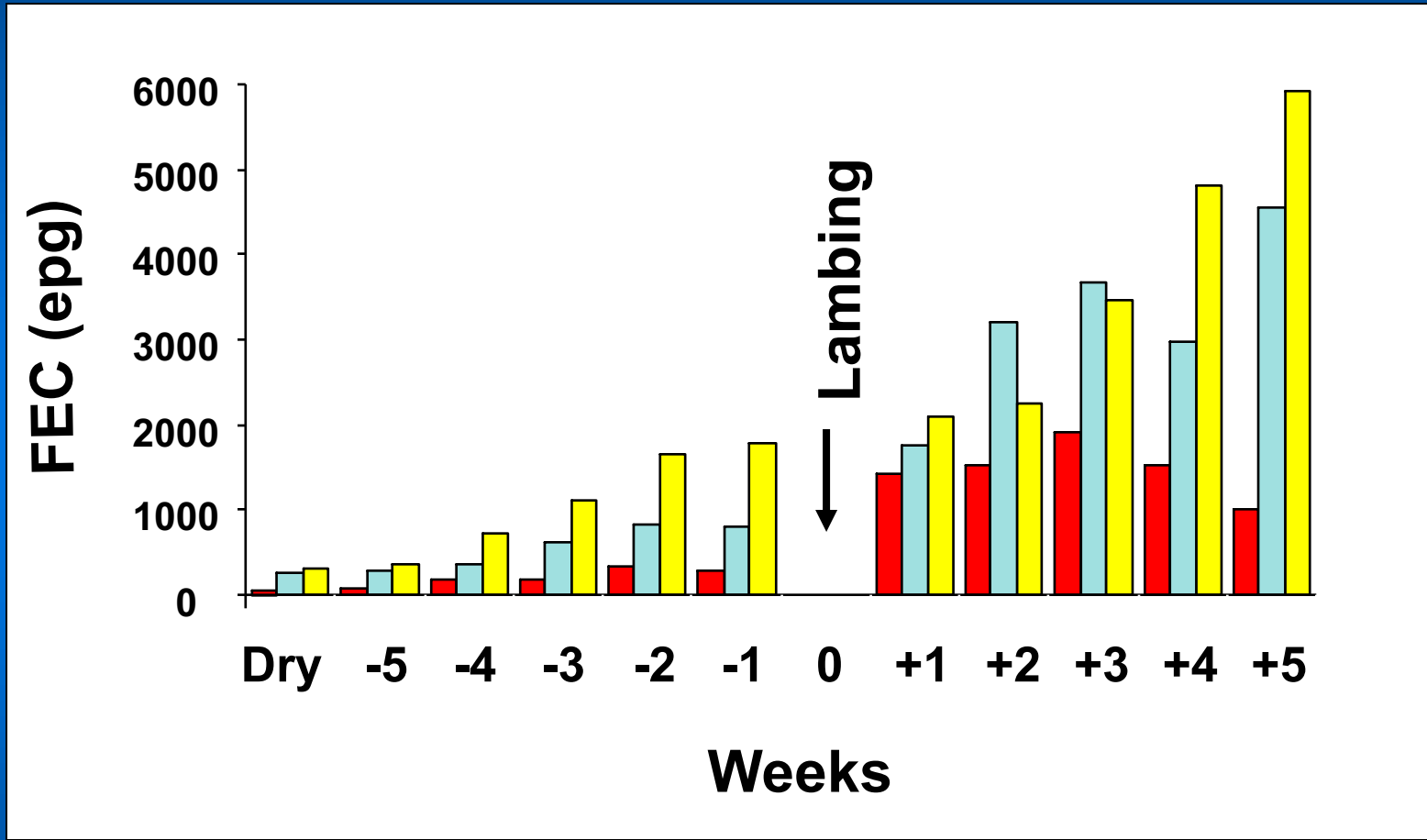


■ Large Bowel Worm ■ Black Scour Worm ■ Small Brown Stomach Worm



Periparturient FECs

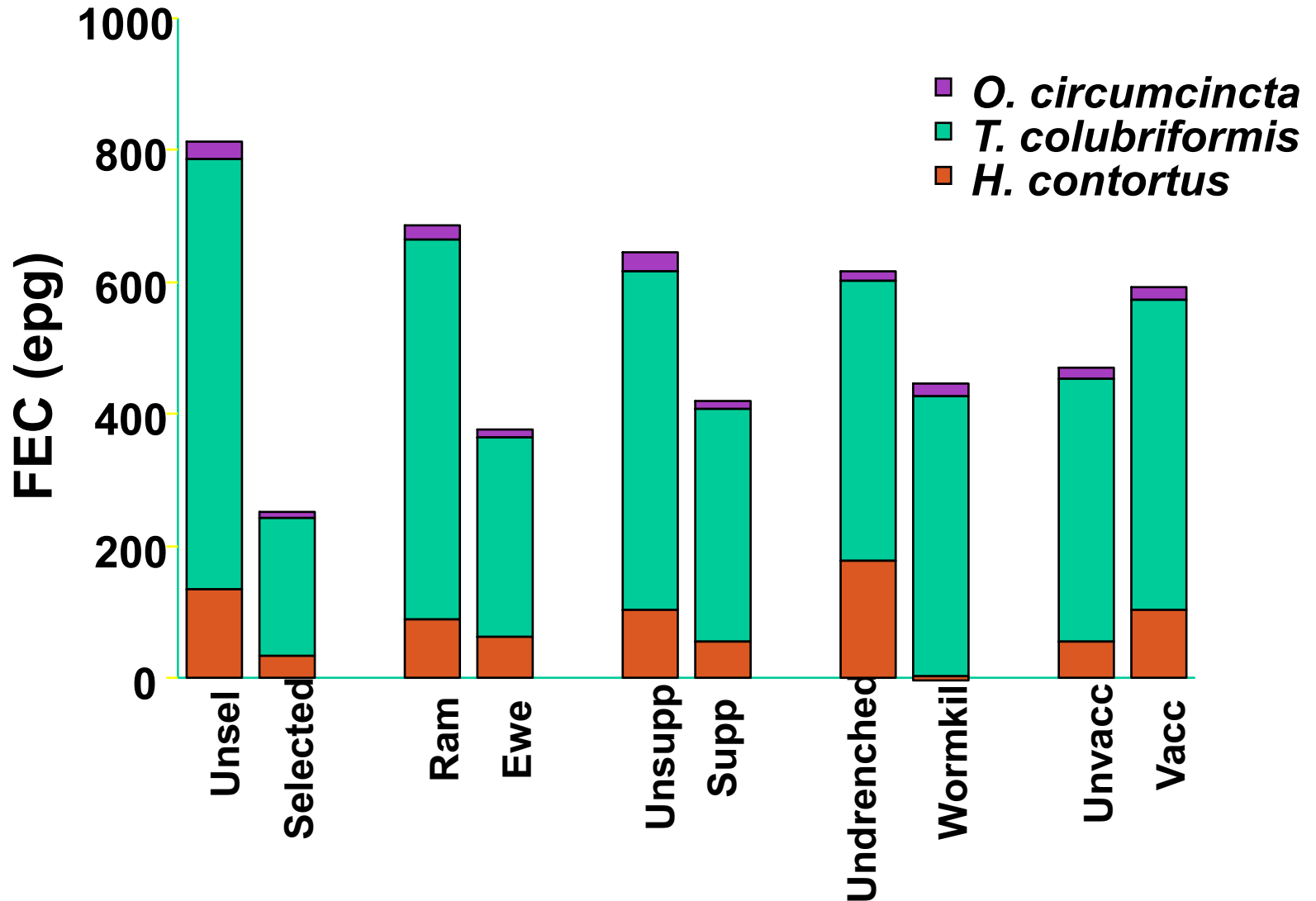
CRC
for
Premium
Quality
Wool



■ Resistant ■ Control ■ Susceptible



Average FEC



CRC

for

Premium

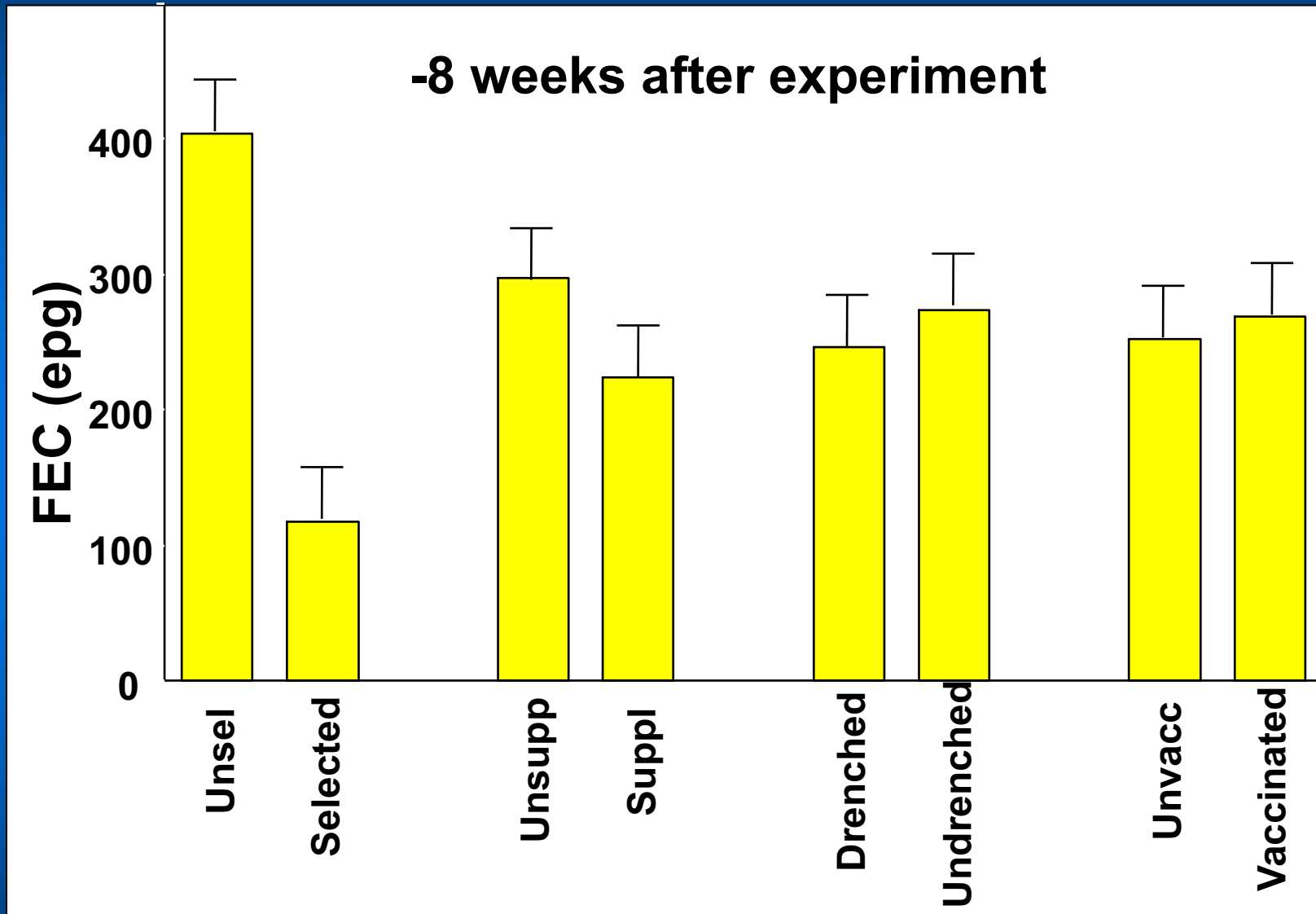
Quality

Wool



Residual treatment effects

-8 weeks after experiment



CRC

for

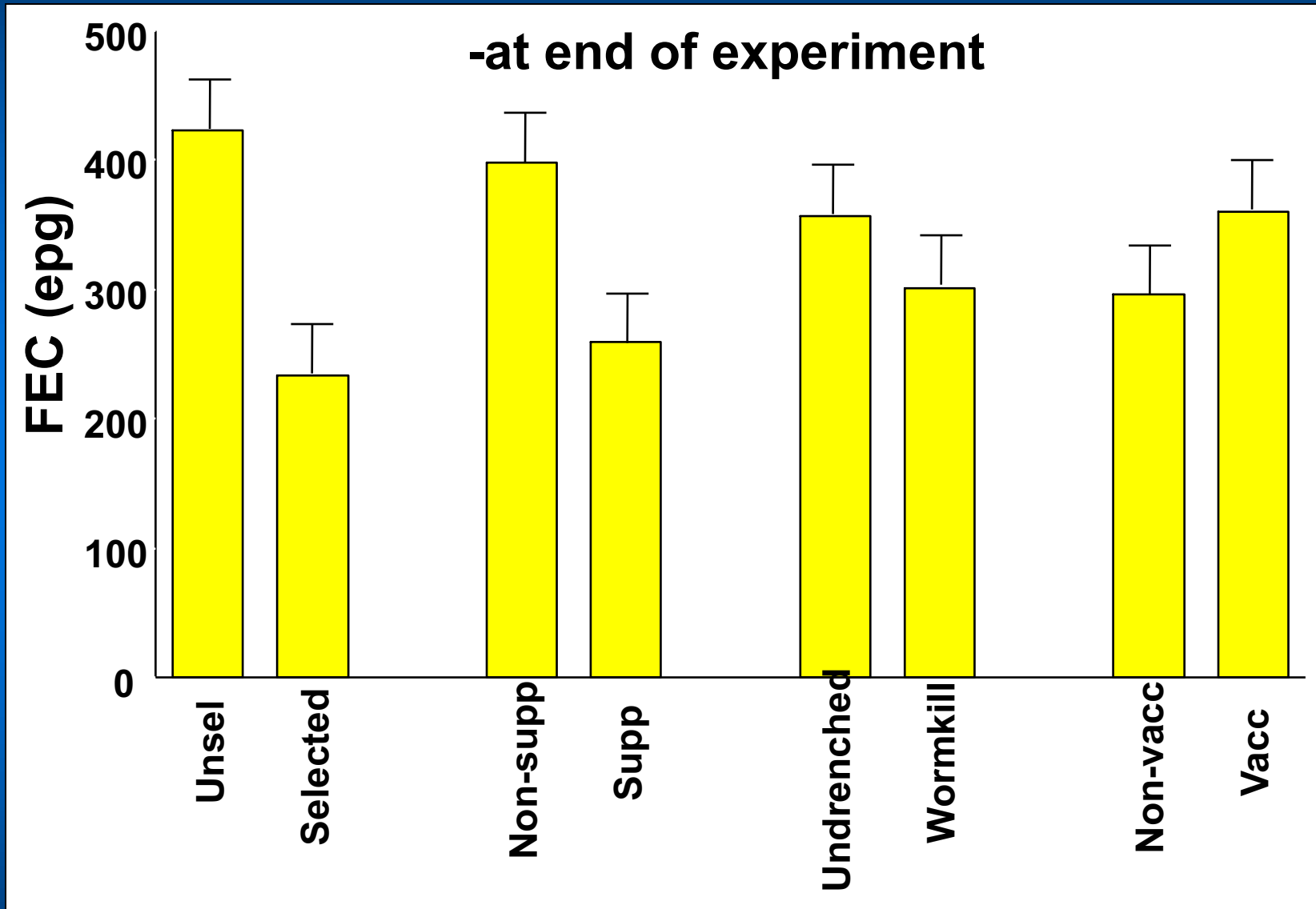
Premium

Quality

Wool



Residual pasture contamination



CRC

for

Premium

Quality

Wool



Breeding to reduce anthelmintic treatments

No. of drenches required per year

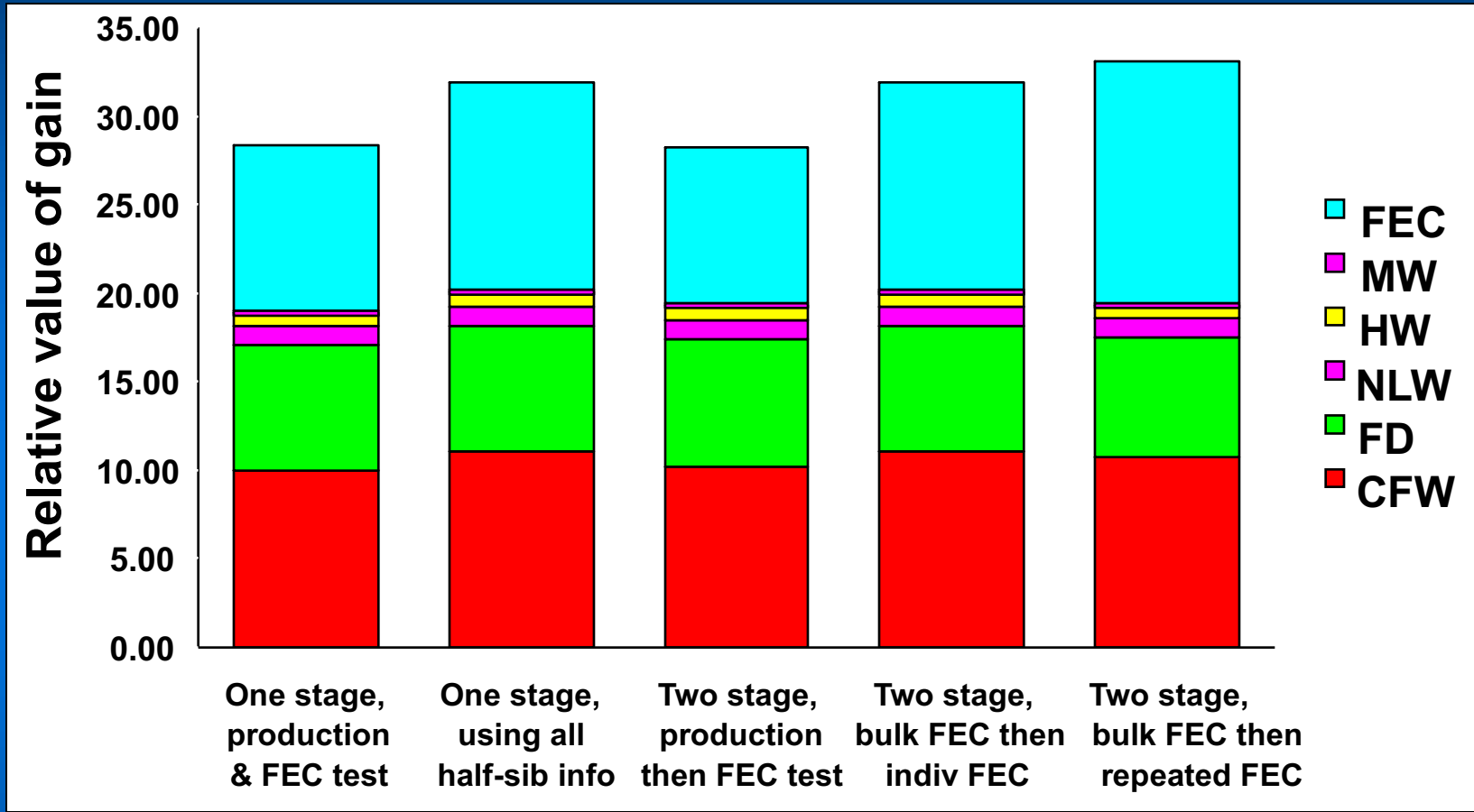
Year	Replicate									
1	3	3	3	3	3	3	3	3	3	3
2	3	3	3	3	3	3	3	3	3	3
3	3	3	3	3	3	3	3	3	3	3
4	3	3	3	3	3	3	3	3	3	3
5	3	3	3	3	3	3	3	3	3	3
6	3	3	3	3	3	3	3	3	3	3
7	3	3	3	3	3	3	3	3	3	3
8	3	3	3	3	3	3	3	3	3	3
9	3	3	3	3	3	3	3	3	3	2
10	2	3	3	3	2	3	3	3	3	2
11	2	2	2	3	1	3	2	3	2	2
12	1	2	1	1	1	3	1	2	0	2
13	1	2	0	1	0	3	1	1	0	1
14	1	1	0	1	0	2	1	0	0	1
15	0	1	0	0	0	2	1	0	0	1
16	0	0	0	0	0	2	0	0	0	0
17	0	0	0	0	0	1	0	0	0	0
18	0	0	0	0	0	1	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0

CRC
for
Premium
Quality
Wool



Selection strategies

CRC
for
Premium
Quality
Wool



Relative no. of FEC measures

Individual	100	100	30	30	60
Bulk	0	0	0	5	5

Rob Woolaston & Sandra Eady
Source: Woolaston (unpubl.)