

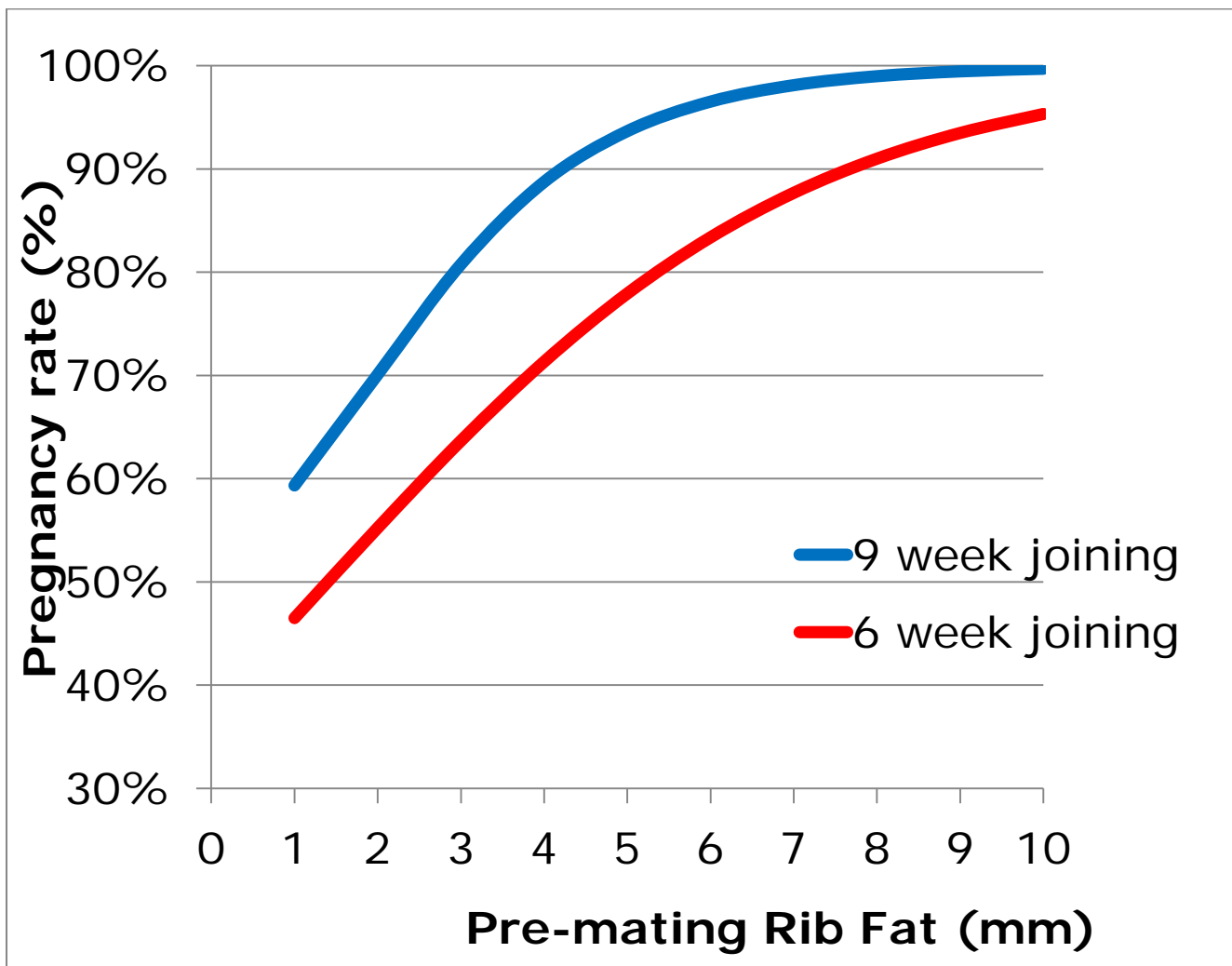
BUYING BEEF BULLS ... BEWARE OF EXTREMES.

Copy write Neil Sanderson June 2017

THE BULL SELLING SEASON IS UPON US AND THE RHETORIC STEPS UP AND THE SMOKE AND MIRRORS AND FLYING PIGS APPEAR OVER THE HORIZON. "BIG IS BEST, MORE MARBLING WILL MAKE YOU MORE MONEY AND LOTS OF FAT COVER MAKES GOOD COWS", WE HEAR IT EVERY YEAR BUT IN MOST CASES BIG OR MORE ISNT UNIVERSALLY BETTER.

RESEARCH IN THE LARGE BEEF CRC MATERNAL PROJECT IN AUSTRALIA HAS SHOWN UNEQUIVOCALLY THAT HEIFERS WITH LOW BODY FAT COVER ARE GENETICALLY LIKELY TO HAVE LOWER FERTILITY. (SEE FIGURE 1: Courtesy Dr Wayne Pitchford, University of Adelaide)

Pregnancy and Rib fat depth in Heifers



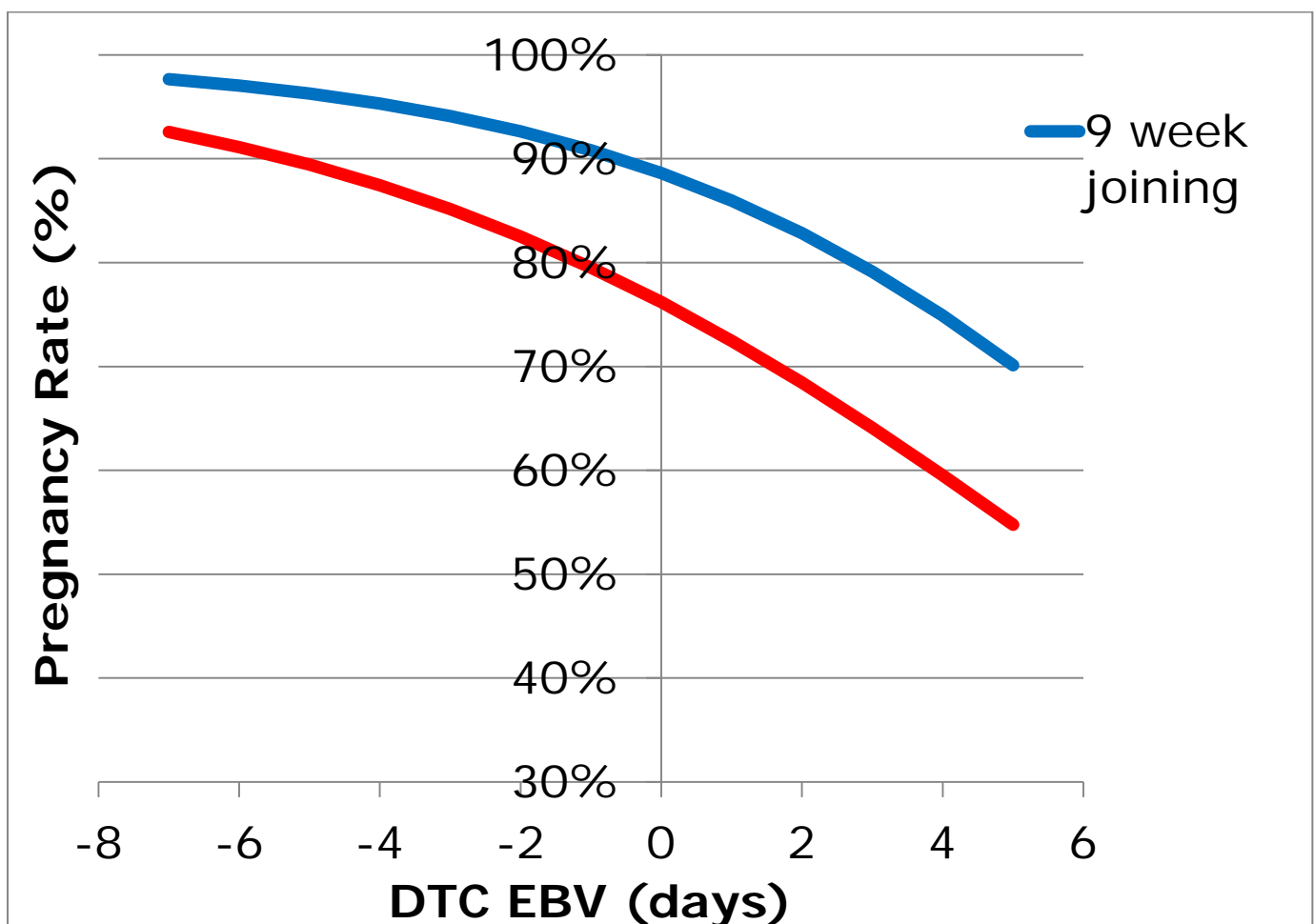
THERE IS NO SUCH CORRELATION WHERE VERY HIGH FAT HEIFERS HAVE VERY HIGH FERTILITY AS SHOWN BY THE SLOPES OF THE RED AND ESPECIALLY BLUE LINES IN THE ACCOMPANYING GRAPH.. NOR DID THE CORRELATION BETWEEN FATS AND FERTILITY EXTEND TO MATURE COWS.

BUT WE DO KNOW FROM RESEARCH DONE IN NEW ZEALAND THAT BODY CONDITION SCORE IN MATURE BEEF COWS IS DIRECTLY CORRELATED TO FERTILITY OUTCOMES. AGAIN THIS RELATIONSHIP IS FOCUSED ON THE LOWER BCS COWS HAVING LOWER IN CALF RATES, AND IS A MANAGEMENT ISSUE RATHER THAN A GENETIC ISSUE. ONCE YOU REACH A CERTAIN BCS THERE IS VERY LITTLE GAIN IN FERTILITY AFTER THAT.

WE ALSO KNOW THAT MALE SCROTAL CIRCUMFERENCE IS ASSOCIATED TO ONSET OF PUBERTY IN RELATED HEIFERS. BULLS WITH VERY LOW SCROTAL CIRCUMFERENCE MAY SIRE DAUGHTERS WITH DELAYED PUBERTY AND/OR POSSIBLY FAIL TO GET IN CALF IN A CONDENSED MATING PERIOD.

IN A SIMILAR WAY, IGNORING THE DAYS TO CALVING EBV MAY ALSO IMPACT ON OVERALL HERD FERTILITY. THE GRAPH RELATING TO THIS EBV, AGAIN COURTESY OF THE AUSTRALIAN BEEF CRC PROJECT, CLEARLY DEMONSTRATES THAT BY IGNORING EXTREMES IN THIS TRAIT (SELECTING FOR LONGER DAYS TO CALVING) COULD WELL IMPACT VERY BADLY ON FERTILITY OUTCOMES.

Relationship with Days to Calving EBV and pregnancy



A SEARCH ON THE ANGUS NZ BREEDPLAN DATABASE OF ALL ANGUS BULLS BORN IN 2015 (THIS YEARS SALE BULLS) REVEALS SOME STARTLING STATISTICS FOR COMMERCIAL BEEF FARMERS TO BE WARY OF.

THERE ARE 1500 BULLS IN THE TOP 10% FOR RIB FAT EBV (EXTREME AND ABOVE +1.4). 614 OF THESE BULLS ARE IN THE BOTTOM 10% IN AUSTRALASIA FOR CARCASE WEIGHT EBV AND CLOSE TO 300 IN THE BOTTOM 10% FOR SCROTAL EBV. THERE ARE NEARLY 400 OF THESE BULLS IN THE BOTTOM 20% FOR BOTH CARCASE WEIGHT AND SCROTAL CIRCUMFERENCE SIMULTANEOUSLY. IT CERTAINLY LOOKS AS IF SELECTING FOR EXTREMES IN BODY FATS IS LIKELY TO NOT ONLY COMPROMISE PROFIT FROM MEAT SALES OF STEER OFFSPRING BUT FERTILITY OF HEIFERS MAY BE SIGNIFICANTLY REDUCED AS WELL.

AROUND 900 OF THESE BULLS HAVE WEANING OR YEARLING OR 600 DAY WEIGHT EBVS IN THE BOTTOM 20% FOR THE BREED. A STAGGERING 774 HAVE ALL 3 GROWTH EBVS IN THE BOTTOM 20% FOR THE ANGUS BREED.

THE COMMERCIAL BREEDER SHOULD LEARN TO USE EITHER THE PERCENTILE BAND TABLES WHICH ARE MANDATORY IN ALL SALE CATALOGUES IN ORDER TO ASCERTAIN A BULL'S RANKING IN THE BREED FOR TRAITS OF INTEREST. REMEMBER IT IS THE RANKING OF A BULL RATHER THAN THE ACTUAL EBV WHICH MAY BE MORE IMPORTANT. THESE RANKINGS ARE ALSO PORTRAYED GRAPHICALLY ON THE ANGUS NZ OR OTHER BREEDS WEBSITES. THESE GRAPHS COULD BE THE COMMERCIAL BREEDERS *BEST FRIEND* AND PROGRESSIVE BEEF BREEDERS SHOULD FAMILIARISE THEMSELVES WITH HOW TO ACCESS THEM. THE TECHNOLOGY IS PUBLIC AND FREE!!

AS CAN BE SEEN FROM A SIMPLE SORT OF DATA AVAILABLE TO THE PUBLIC, SELECTING FOR EXTREMES MAY INADVERTENTLY AFFECT PROFITABILITY IN OTHER AREAS. WHEN ONE ASSIGNS VALUES TO PAYMENT FOR CARCASE WEIGHT, LOSS OF PRODUCTION FROM POOR FERTILITY, PENALTIES FOR EXCESS FAT ON CARCASES AND POOR GROWTH POTENTIAL THE SIMPLE ACT OF EXTREME SINGLE TRAIT SELECTION FOR BODY FATS MAY HAVE HUGE ECONOMIC IMPACT THROUGHOUT THE BEEF VALUE CHAIN.

THESE BAFFLING NUMBERS MAY GIVE RISE TO SCEPTICISM. BUT A TRUE CASE HISTORY IN THE ACCOMPANYING STORY MAY ADD CREDIBILITY TO THESE ASSERTIONS.

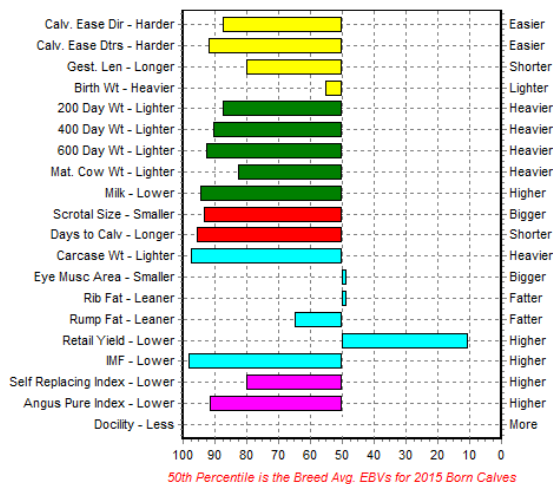
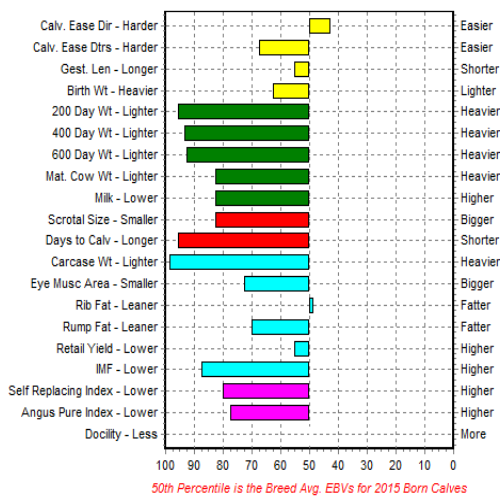
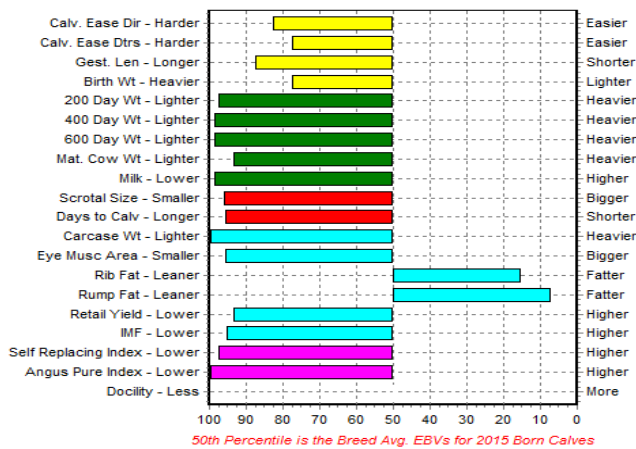
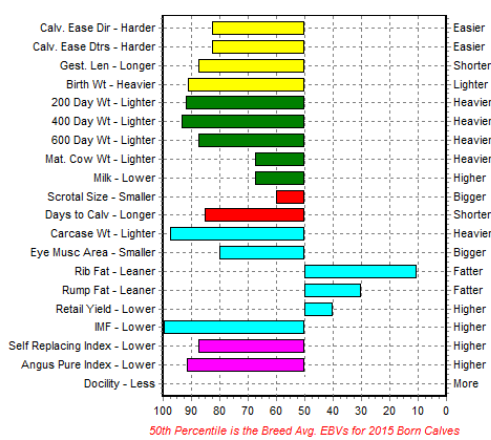
CASE HISTORY COMMERCIAL BEEF FARM ,SOUTH ISLAND, 100 BREEDING COWS, 30 HEIFER REPLACEMENTS BUT STRUGGLING TO ATTAIN MUCH OVER 60% IN CALF FROM THESE HEIFERS IN 2 CYCLES.

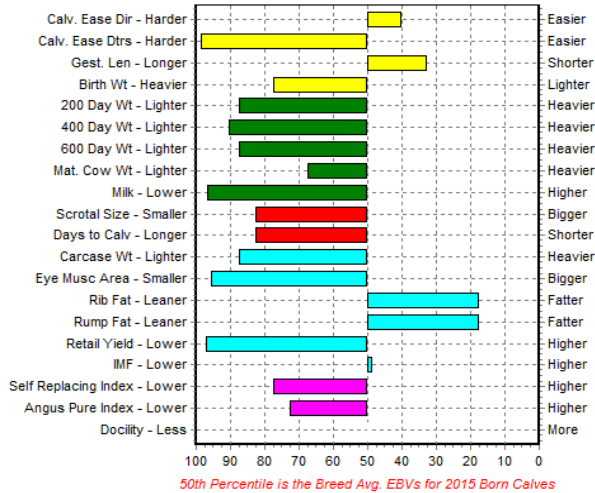
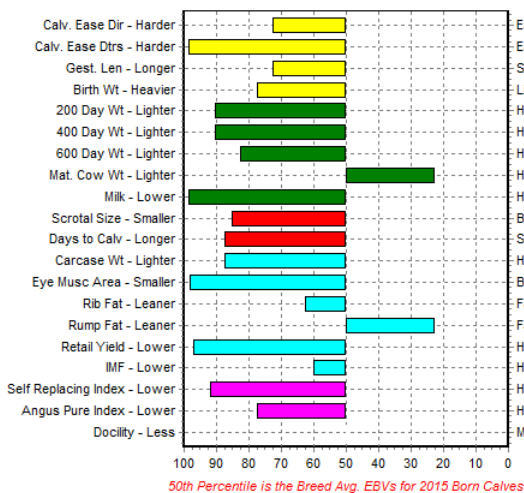
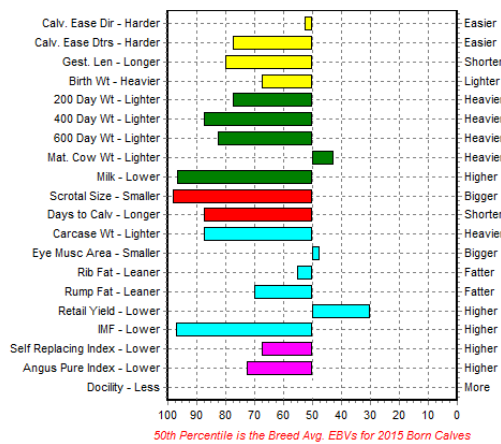
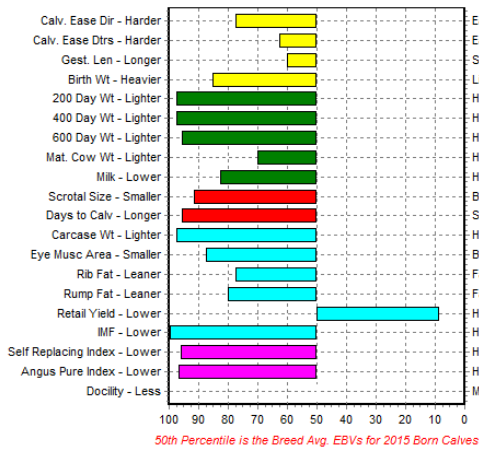
MATING YEARLING HEIFERS FOR MANY YEARS WITH VERY GOOD TARGET WEIGHTS AT MATING. VETERINARIAN INVOLVED AND DISEASE AND TRACE ELEMENTS AND NUTRITION DEEMED TO BE VERY GOOD. VETERINARIAN SUGGESTED THERE MIGHT BE A GENETIC ROOT CAUSE??

BUYING BULLS FROM 2 STUDS FOR MANY YEARS BUT NO PERCENTILE BANDS PROVIDED TO BENCHMARK BULLS AGAINST. SELECTING STRONGLY ON PHENOTYPE AND ACTUAL WEIGHTS AND MEASUREMENTS.

THE LAST 8 BULLS TO BE USED ON THIS FARM ARE SHOWN IN THE ACCOMPANYING TABLE. IT IS VERY OBVIOUS THAT WHEN RANKED IN THE BREED AND SHOWN GRAPHICALLY THE 2 FERTILITY TRAITS OF SCROTAL CIRCUMFERENCE AND DAYS TO CALVING (RED BANDS ON THE GRAPH) HAVE SUFFERED BADLY IN THE SELECTION PROCESS.

EFFECTIVELY, THE PROSPECT OF BAD FERTILITY AND DELAYED PUBERTY IN THIS BREEDERS HEIFERS HAS BEEN GENETICALLY LOCKED IN BY THE BREEDING PROGRAMME. IT WILL LIKELY TAKE MANY GENERATIONS OF ASTUTE SELECTION AND CAREFUL ATTENTION TO BULL RANKINGS FOR FERTILITY TRAITS TO REVERSE THIS TREND.





SO WHAT DO I DO?? IN THE BEEF INDUSTRY THE MONEY IS IN GROWTH AND FERTILITY. NOT FAT!! BY ALL MEANS SELECT FOR POSITIVE FATS, BUT DON'T TAKE YOUR EYE OFF THE CRITICAL TRAITS THAT MAKE YOU MONEY. CHOOSE BULLS WITH GROWTH AND CARCASS WEIGHT EBVS AROUND OR ABOVE BREED AVERAGE. USE THE GRAPHS OR TABLES TO HELP YOU. SIMILARLY TRY AND STICK AROUND BREED AVERAGE AT LEAST FOR THE 2 FERTILITY TRAITS.

THE BEEF INDUSTRY IS TREATING YOU VERY WELL AT THE MOMENT SO TAKE A LITTLE TIME TO FAMILIARISE YOURSELF WITH THE MYRIAD OF TOOLS AVAILABLE TO MAKE SENSIBLE DECISIONS TO IMPROVE YOUR BOTTOM LINE. BAD CHOICES CAN LOSE A COMMERCIAL BEEF BREEDER A LOT OF MONEY BUT IT MAY NOT ALWAYS BE OBVIOUS.