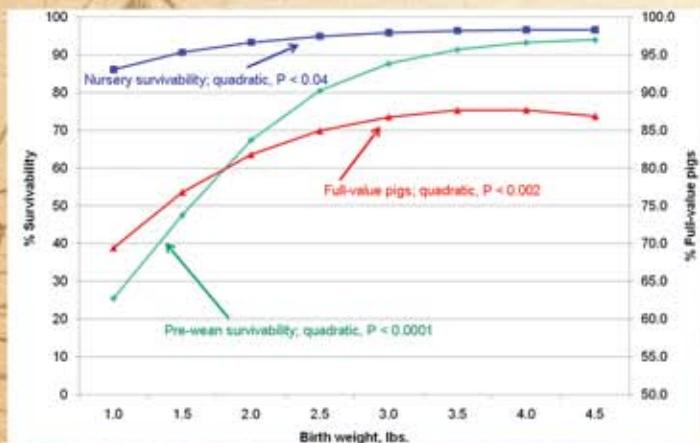


EFFECT OF BIRTH WEIGHT ON SUBSEQUENT PIG PERFORMANCE

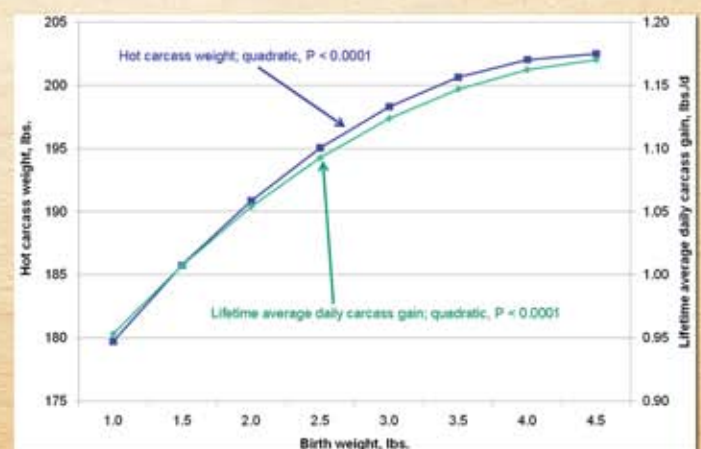
PIC research shows there is a direct relationship between piglet birth weight and subsequent performance to market, including carcass quality and meat quality. Data from 5,186 pigs, representing 464 litters, which were sired by 43 PIC380 boars were used in the analyses. Each piglet was weighed at birth and its performance was monitored from birth to the time the pigs were harvested. At the farm where the trial was conducted, very aggressive cross-fostering occurred after the piglets were weighed. Lifetime average daily carcass gain was calculated for each pig by dividing the weight of the carcass by the age of the pig when it was harvested and was the measure of growth in the trial. Carcass backfat thickness, loin depth, and lean percentage were adjusted to 175 days of age at harvest.

RESULTS

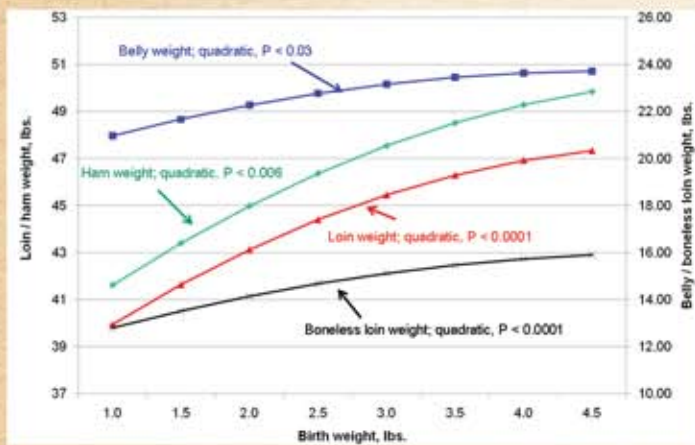
- Pre-weaning survivability, nursery survivability and full-value pigs marketed percentages increased as birth weight increased. Most of this improvement occurred in piglets weighing less than 3 lbs.
- Lifetime average daily carcass gain and hot carcass weight increased as birth weight increased.
- Ham, belly, loin, and boneless loin weights all increased as birth weight increased when adjusted to a constant age at harvest.
- When adjusted to 175 days of age, backfat thickness decreased and loin depth increased as birth weight increased resulting in higher lean percentage.
- Objective loin color measurements of Minolta L* (darker) and b* (less yellow) improved as birth weight increased, but Minolta a* (redness) was not affected by birth weight.
- Subjective loin color (Japanese color score), loin pH, loin drip loss, and loin firmness were not affected by birth weight.
- Loin marbling decreased as birth weight increased.



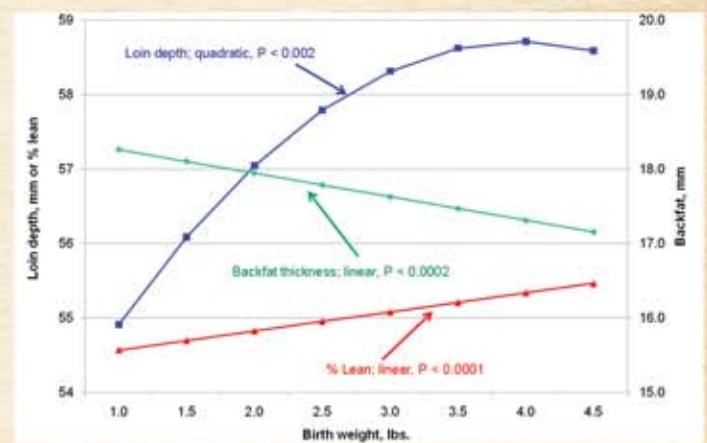
EFFECT OF BIRTH WEIGHT ON ROBUSTNESS



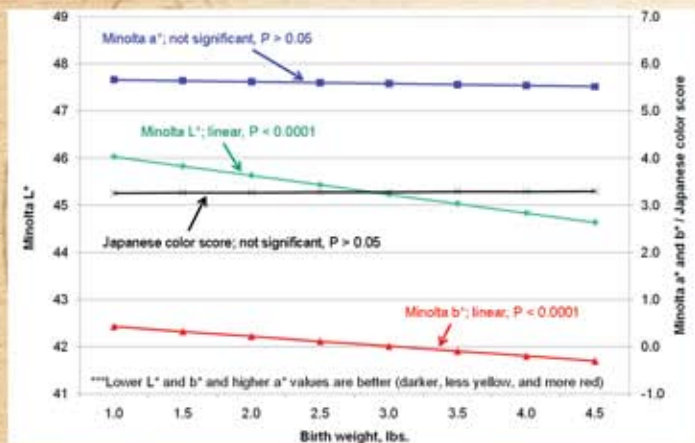
EFFECT OF BIRTH WEIGHT ON CARCASS WEIGHT



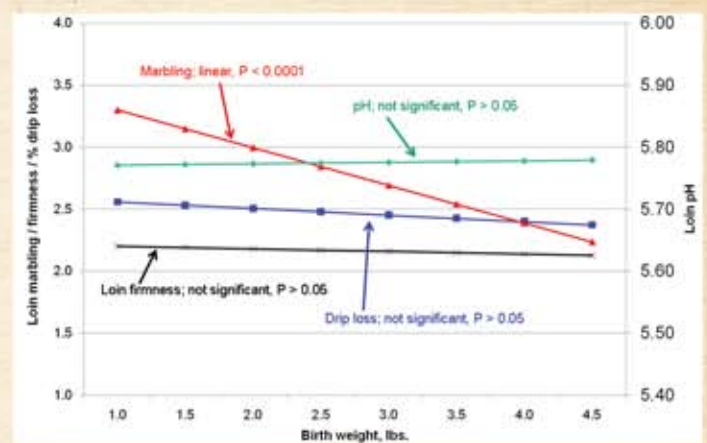
EFFECT OF BIRTH WEIGHT ON PRIMAL WEIGHTS



EFFECT OF BIRTH WEIGHT ON CARCASS LEAN



EFFECT OF BIRTH WEIGHT ON PORK QUALITY - COLOR



EFFECT OF BIRTH WEIGHT ON PORK QUALITY - OTHER

Results from these data clearly show that lower piglet birth weights have a detrimental effect on the survivability of the piglet from birth to market, lifetime growth rate, carcass composition, and to some extent, meat quality. As number of piglets born alive increases due to selection for litter sizes, the pig industry must find new management strategies to decrease the incidence of piglets weighing less than 2 lbs.

NEVER STOP IMPROVING