For decades, market pig weights have been steadily rising around the world. In the United States, market weights have increased by about one pound (~450 gram) every year over the last 30 years.

Why is the pork industry actively moving towards heavier market weights? The short answer is more profit.

Within integrated production systems or simply at the processing plant, operational costs are the same no matter the weight of the pigs. Heavier carcass weights mean more saleable product is produced, with operational costs staying the same – and therefore more profit is achieved.
Heavier weights are achievable due to improved genetics (traits such as growth rate and feed efficiency) and improved production practices. Today, it is very profitable to increase the weight of the pig, while still maintaining the lean content and carcass attributes required in the present market.

Is pork quality the same for heavy weight pigs?
What production considerations are involved?

Read on for answers to these questions and more, in this new issue of PIC Pig Improver.

Is pork quality compromised by heavy weight pigs?
No. Pork quality is minimally impacted by carcass weight.
“Our own research studies and other recent work by researchers such as Wu, et. al. (2016) indicates that increasing market weight has no adverse effects on pork or sensory quality of pork loins,” notes PIC Applied Meat Scientist Brandon Fields. The PIC team also found that after 10 ten days of aging, tenderness was slightly improved in comparison to pigs of a lower weight. “Therefore, the pork industry should feel confident,” says Fields, “that continuing to increase market weights will not impact final product quality.”

What production considerations are involved with heavy weight pigs?
Even though some production changes are required to produce heavier pigs, these costs are soon recovered. Overall, it is significantly more profitable to produce heavy weight pigs as more saleable product is achieved at the same production and processing costs.
Typical plant processing changes include:

- Enlargement of alley width, lairage space, shackle spacing, restrainers, etc.

**Bigger pigs simply require more space to move**
- Rail weight capacity and rail heights may need to be increased
- Employee ergonomics may need to be considered
- Pig movement will be somewhat slower

**Heavier pigs are structurally sound, but are not as nimble as smaller pigs**
- Stunning conditions may need to be modified
- Chilling capacity must be increased

Chilling rates are paramount to good pork quality. As weights increase, chilling capacity is taxed. Systems designed to chill 500 carcasses weighing 180 pounds (80 kg) will not be able to efficiently chill the same number of carcasses weighing 220 pounds (100 kg). “Beyond just the standard capacity of the condensers, there is also reduced space and air flow,” Fields explains. “Companies wishing to capitalize on the increased efficiencies of heavier pigs must take these factors into consideration and invest for the future.”

Read about no-cost system reviews for slaughter and processing facilities delivered for PIC customers in [this previous Pig Improver](#).

**Final Thoughts to Ponder**
The biology of the pig enables us to alter skeletal muscle growth efficiency and body/carcass composition **without compromising the animals’ biological viability or pork quality at heavy weights.**

The industry should feel confident that **increasing weights will not affect pork quality.**

Recent studies by PIC and others clearly indicate that with modern genetics, **economical commercial production of heavier weight pigs is easily achievable.**

Genetic improvement of PIC pigs is accelerating faster than ever before ([see Pig Improver on genetics here](#)). **Our future – and yours – has never looked so bright, as we continue to deliver on our promise to Never Stop Improving.**

*In the next Pig Improver: Why Pork Tenderness is So Important*