

## **Is Science Bringing Home the Bacon?**

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Since the 1960s the number of pigs weaned per sow per year has increased by about 50% and lean percentage and the yield of lean meat per tonne of feed have increased impressively (the latter has doubled). Genetic improvement has been a significant component of these gains. The great majority of this has been achieved using Henderson's equations for finding the best weighted combination of all the data available, building on the earlier work of Fisher and Lush. His contribution, made in the 1950s, still forms the basis for much of what goes on today. This paper will look at some of the science and technology that has or has not added to this base rate of improvement, some of the characteristics that are required for success and a view on the potential for gene based technologies. Will changing quantitative genetics from "genetics without genes" to "genetics with genes" through the availability of the swine genome sequence transform the impact of DNA markers on genetic improvement? The jury is still out, but the tumbling cost of genotyping means that we will soon find out the answer.

