Gut microbiome and feed efficiency of pigs

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Abstract

Feed efficiency is an important economic and environmental parameter in raising swine. It captures how effectively livestock feed is turned into food products for humans. Increasing a pig's feed efficiency can reduce a farm's costs and energy use. A new study shows that one factor that could affect pigs' feed efficiency is their gut microbiome. Feed intake and body weight measurements showed significant differences in feed efficiency among three pig breeds: Duroc, Landrace, and Large White, while genetic analyses of their gut microbiomes revealed differences in their microbial makeup. Association analyses between these datasets indicated a positive association between 4 types of bacteria and feed efficiency. This link could help both scientists and farmers understand how intestinal microbes influence animal traits crucial to production. such as those related to fatness. And it could offer a valuable new way to influence the feed efficiency of pigs.