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Developing Berkshire Market Pig Growth Curves

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Abstract

Several factors have stimulated interest in an old, rather minor swine breed, Berkshire pigs. Berkshires produce pork that is darker, with more intramuscular fat than most swine breeds and lines currently. As the majority of modern pigs were genetically selected to be leaner, the Berkshire breed has continued to produce more flavorful pork. Asian consumers, especially Japanese, prefer and will pay a premium for Berkshire pork. American chefs and discriminating consumers request Berkshire pork, a strong market demand that has caused a flourish in the pork niche market largely centered around pork from Berkshirebred pigs. Some Iowa pork producers are raising Berkshire or Berkshire-cross pigs exclusively for export and niche markets. Several Berkshire niche markets and marketers are currently active in Iowa. Many of these markets require that the pigs must be reared in bedded or outdoor settings. A popular housing system used in Iowa is the bedded hoop barn.

Keywords

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Disciplines

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Developing Berkshire Market Pig Growth Curves

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Introduction

Several factors have stimulated interest in an old, rather minor swine breed, Berkshire pigs. Berkshires produce pork that is darker, with more intramuscular fat than most swine breeds and lines currently. As the majority of modern pigs were genetically selected to be leaner, the Berkshire breed has continued to produce more flavorful pork. Asian consumers, especially Japanese, prefer and will pay a premium for Berkshire pork. American chefs and discriminating consumers request Berkshire pork, a strong market demand that has caused a flourish in the pork niche market largely centered around pork from Berkshire-bred pigs. Some Iowa pork producers are raising Berkshire or Berkshire-cross pigs exclusively for export and niche markets. Several Berkshire niche markets and marketers are currently active in Iowa. Many of these markets require that the pigs must be reared in bedded or outdoor settings. A popular housing system used in Iowa is the bedded hoop barn.

With growing demand for Berkshire pork and increasing numbers of Berkshire pigs in bedded hoop barns, there is a need for information on the growth patterns of Berkshire pigs. Most current swine growth information has been generated in confinement settings with crossbred pigs. Better characterizing how purebred Berkshire pigs grow in bedded hoop barns will enable

more accurate feed formulation for this type of pig raised in bedded systems. The purpose of this project is to characterize typical growth of purebred Berkshire pigs in bedded hoop barns in Iowa.

Materials and Methods

In each trial, purebred Berkshire pigs (barrows and gilts) will be housed and fed in bedded hoop barns. They will be fed standard corn-soybean meal diets in phase from 30–50 lb beginning weight until they reach market weight (260 to 290 lb). Pigs will be weighed every 21 days to determine growth rates. Once the pigs reach approximately 120 lb, pigs will be scanned every 21 days using real-time ultrasound to establish loin depth and backfat thickness. These measures will be used to calculate lean muscle and adipose tissue (fat) deposition rates. Based on producer experience with purebred Berkshires, we expect to weigh each pig approximately nine times and ultrasound scan each pig six times. After completion of the trial, the pigs will be marketed. Trials will be conducted during summer and winter to consider the environmental extremes of Iowa's climate.

Lean muscle growth, fat deposition, and feed efficiency of live weight and lean gain for developing market purebred Berkshire pigs housed in bedded hoop barns will be determined by:

1. Recording feed disappearance and weight gain for pens of Berkshire pigs housed in bedded hoop barns.
2. Performing serial, ultrasound scanning of growing Berkshire pigs housed in bedded hoop barns.

The experimental endpoint will be when pigs reach an average market weight of

approximately 280 lb. At this weight, the pigs will be weighed, scanned, and transported to SIG International, Boyden, Iowa for processing. Growth rate (ADG), feed intake (ADFI), feed efficiency (G:F), efficiency of lean gain, backfat deposition, and loin area will be the criteria for the studies. The first trial began during the winter of 2011–2012. Results are not available at the time of this report.

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