

Timing the Purchase of Your Project Pig

Author: Tom Guthrie, Michigan State University, Statewide Extension Educator
Editors: Dr. Susan Kerr, DVM, Washington State University
Northwest Regional Livestock and Dairy Extension Specialist;
Matt Kennedy, Oregon State University, Animal Science Instructor

Plan of Action

Before purchasing your project pig, it is wise to have a plan of action to help you achieve the goals you have set for your project. Your goals may include finishing your market pig to the correct weight for its frame size, being in a competitive weight class and/or getting the best market price. To complete this plan and help attain the desired outcome, you will need the following information to develop your plan of action:

1. Number of days from date of purchase to date of show weigh-in
2. Expected Average Daily Gain of the pig you plan to purchase
3. Minimum and maximum weight ranges allowed at the show where you plan to exhibit.

Obtaining Your Project Pig

You may choose to produce your show animal from your own herd if you have breeding stock. This would allow you to possess the animals throughout its entire growing period, from birth to market. This method is not ideal for all people, so some choose to purchase exhibition animals via private treaty (direct purchase) from a farm, auction, special sale, or other setting.

Show pigs are typically purchased when they are 2 to 3 months old and shown and marketed when they are 5 ½ to 7 months old. Generally speaking, exhibitors have possession of project animals for 90 to 120 days prior to the market hog show where they plan to exhibit. While a pig is in the growing phase, you may elect to exhibit it at a prospect show, but your end goal should keep a market show in mind.

Average Daily Gain (ADG)

Average Daily Gain (ADG) is the average amount of an animal's live weight increase on a daily basis. It is measured throughout the entire growing period. Understanding ADG is key to understanding a pig's growth rate and its ability to reach market weight by a certain date (show time).

Most pigs will have an ADG between 1.5 and 2.0 pounds per day. Younger pigs have a higher ADG than they do as they approach their final market weight. Monitoring your pig's growth rate throughout its entire growing period will help you determine how long it will take your pig to reach market weight and how to manage its feeding and care. However, ADG is also dependent on a pig's breed, sex, nutrition, disease, and housing.

If you purchase your pig, ask the breeder what ADG you can expect for this animal. You can also ask other helpful people such as your 4-H leader, Extension educator, veterinarian, feed representative, or other adult with pig-raising experience for advice.

How to Calculate Average Daily Gain

When calculating ADG at the beginning of your project, you should use an estimated (target) final market weight.

$$\text{ADG} = \frac{\text{ending weight} - \text{beginning weight}}{\text{number of days fed}}$$

Market Weight

Market weight may be defined as the final weight that best suits the frame size of your pig, along with consideration of marketplace requirements. This means making sure your animal is not too fat or too thin and that body condition is appropriate for the animal. Market weight depends heavily on a pig's genetic potential. The average current market weight for commercial hogs in the U.S. is between 270 and 280 pounds. Some shows or markets may have minimum and maximum weights that are unique to that show, so always read a show's rulebook before you enter as an exhibitor.

After determining the desired finishing weight for your pig, you can calculate how many pounds the pig will need to gain to reach that specific market weight.

How to Calculate Pounds of Gain

Example: The breeder from whom you purchased your pig informs you the pig will yield and market the best at 260 pounds. When purchased, this pig weighed 45 pounds.

How many pounds of gain are needed to reach a market weight of 260 pounds for this pig?

$$\begin{array}{rcl} \text{Market weight} - \text{beginning weight} & = & \text{pounds of gain needed} \\ 260 & - & 45 & = & 215 \text{ pounds of gain needed} \end{array}$$

Overweight vs. Underweight

Minimum and maximum weights for market hog shows are implemented for good reason. All producers should strive to deliver a quality pork product to consumers. This is done by maximizing meat value with a properly finished hog. If your pig doesn't reach its full potential and is underweight according to market standards, there is a good possibility you will not get the best price for your pig. This also applies to hogs that are "over finished" or too fat.

Processing plants may reduce payment for animals that do not fall within the desired range of market weight. This will result in a decreased price per pound for such pigs and affect producers' profitability. Swine exhibitions often have specialty markets where animals are sold individually and price per pound is not affected by market weight parameters. However, this is good information for all pork producers to keep in mind when raising and selling hogs: select, feed and manage pigs so they finish within acceptable market weights.

Developing a Plan

After you have gathered all the essential information about your pig (beginning weight, desired market weight and expected ADG), you can develop a plan to properly feed and raise your animal. Don't forget to ask the breeder for your pig's treatment record (any vaccinations, dewormers, antibiotics, or other medications given) so you can include this information in your pig's quality assurance documentation.

Examples are provided below to give you some guidance when making decisions on how to manage your project pig to best reach your specific goals. To be successful and avoid exhibiting a lightweight or overweight hog at a market show, keep a specific market weight in mind throughout the project.

Example #1: You are ready to purchase your project pig for a show that is 125 days away. You plan on buying your pig from a reputable breeder whose pigs are healthy and grow very efficiently. These pigs are expected to have an ADG of 2 pounds. The pig you plan to buy has a starting weight of 60 pounds.

Questions:

- What will this pig weigh by show time?
- Will this pig be overweight at the show if there is a 300 lb. maximum weight limit?

Step 1. 125 growing days x 2.0 ADG = 250 pounds of gain expected

Step 2. 250 pounds of gain + 60 pound starting weight = 310 pounds expected weight at the show

Will this pig be overweight at the show if there is a 300 lb. maximum weight limit? **YES.**

Example #2: The date by which you are required to purchase your pig is approaching quickly. You have the opportunity to purchase a 45 pound pig from a local breeder. However, there are only 97 days left until weigh-in at the show and this pig is expected to have an ADG of 1.7 pounds.

Questions:

- What is the expected finishing weight of this pig?
- Will this pig make the weight range (220 – 300 pounds) required for pigs at this show?

Step 1. 97 days x 1.7 ADG = 165 expected pounds of gain.

Step 2. 165 pounds of gain + 45 pound beginning weight = 210 market or finishing weight

Will this pig make the weight range (220 – 300 pounds) at the pig show? **No.**

Estimated Weight at the Show

Example #3: You purchased a Duroc barrow that has a beginning weight of 55 pounds. There are 105 days until your county fair. The breeder told you that with proper nutrition and management, you could expect the barrow to have an ADG of 1.9 pounds. What will be the approximate market weight of this barrow at the show?

Step 1. Number of days on feed x expected ADG = 105 days x 1.9 ADG = 199.5 pounds of gain

Step 2. 199.5 pounds of gain + 55 pound beginning weight = **254.5 estimated market weight.**

Example #4: You purchased a Hampshire gilt in April. She weighed 50 pounds at the time of purchase and 222 pounds at the show 114 days later. What was the ADG of this Hampshire gilt?

Step 1. Ending weight – beginning weight = pounds of gain

222 pounds – 50 pounds = 172 pounds of gain

Step 2. Pounds of gain/number of days fed = ADG

172 pounds of gain/114 days fed = **1.5 ADG**

Example #5: Your crossbred barrow weighed 50 pounds on April 15 and 210 pounds on July 15. After getting input from the breeder, the market weight you set for him is 250 pounds on the day of the show, August 7.

Question 1: What is this barrow's ADG to this point?

Step 1. On July 15 he weighed 210 pounds – 50 pounds beginning weight = 160 pounds of gain

Step 2. Number of days fed = April 15 to July 15 = 92 days

Step 3. 160 pounds of gain/92 days fed = **1.74 ADG**

Question 2: How many pounds of gain are needed to reach the target weight?

Step 1. Target weight – current weight = pounds of gain needed

250 pounds – 210 pounds = **40 pounds of gain needed**

Question 3: How many days are left until the show?

Step 1. July 15 to August 7 = **23 days**

Question 4: What will this barrow's ADG have to be to make the 250 pound target weight?

Step 1. 40 pounds of gain needed/23 days = **1.74 ADG**

Question 5: If this barrow has an ADG of 1.5 pounds for the remaining 23 days, what will be his approximate market weight at the show?

Step 1. ADG x # of days fed = pounds gained

$$1.5 \text{ ADG} \times 23 \text{ days} = \mathbf{34.5 \text{ pounds}}$$

Step 2. Pounds gained + current weight = expected market weight at show

$$34.5 \text{ pounds} + 210 \text{ pounds} = \mathbf{244.5 \text{ expected market weight at show}}$$

Final Thoughts

The overall growth of your animal is influenced by many factors including adequate housing, good health, proper nutrition, clean water, internal and external parasite control and good biosecurity. Implementing good management practices will help keep your pig healthy and allow it to grow efficiently. Other management practices such as recordkeeping and continuous improvement of your skills are also important to reach your goals for your swine project and for you as a pork producer.

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