

Project Pig Production Planner

Average Weights, Daily Gain, and Feed Intakes for Growing Swine by Age in Weeks

Start by Selecting the Appropriate Age/Weight Hog

Look for a project pig that is close to the weight shown in table 1 for its age. Pigs that are heavier for their age than the table shows will tend to be faster growing and more feed efficient. Weigh your pig at least twice between purchasing it and the fair, if you can. Calculate your pig's rate of gain $[(\text{weight 1} - \text{weight 2})/\text{days}]$ and compare it to the table above. This will give you an idea of how well your pig is growing. If its rate of gain is low, it could be due to poor feed, poor genetics, sickness, an environmental problem, or some combination of these factors. Ask your project leader for help in that case.

Table 1

Weeks of Age	Date	Weight (lbs)	Average Daily Gain (lbs)	Average Daily Feed Intake (lbs)
27	Aug 14	255		
26	Aug 7	239	2.2	9.4
25	July 31	225	2.0	9.0
24	July 24	211	2.0	8.7
23	July 17	197	2.0	8.5
22	July 10	183	2.0	8.2
21	July 3	170	2.0	7.8
20	June 26	157	1.9	7.4
19	June 19	145	1.9	6.9
18	June 12	132	1.8	6.3
17	June 5	120	1.8	5.9
16	May 29	109	1.7	5.4
15	May 22	98	1.7	5.1
14	May 15	87	1.6	4.8
13	May 8	76	1.6	4.5
12	May 1	66	1.5	4.2
11	April 24	56	1.5	3.9
10	April 17	47	1.4	3.5
9	April 10	39	1.3	3.1
8	April 3	31	1.2	2.6
7	March 27	24	1.1	2.1
6	March 20	17	1.0	1.8

Total Gain: 238 lbs

Total Feed: 834 lbs

Ave. Gain:

Ave. Intake:

1.6 lbs/day

5.7 lbs/day

Nutrition is Esstential to Growth

Proper nutrition is essential to the growth and proper muscle development of the project pig. Table 2 provides nutritional information for pigs at various weight ranges. These are the *optimal* nutritional levels necessary to support the rates of gain (ADG) listed in the third column of the nutrient requirements table. Feeds with greater amounts of nutrients may improve performance slightly, but they will also cost you more.

Many commercial feeds will have analyses for crude protein, crude fat, and crude fiber on the feed tags. Of those, only crude protein is important. Energy is more important, but is rarely reported on feed tags. However, a good feed dealer should be willing to give you more details on their feeds if you ask. Most brand-name commercial feeds are similar in quality, but you may find that some work better for you than others.

Table 2. Nutrient Requirements of Growing-Finishing Swine

Weight (lbs)	Est. Intake (lbs)	Est. ADG (lbs)	Mcal DE per lb	CP (%)	Lysine (%)	Ca (%)	Phos (%)	Salt (%)	Se (ppm)	Zinc (ppm)
40-80	3-4	1.20-1.50	1.5	16	0.70	0.60	0.50	0.10	0.15	62.0
80-130	4-6	1.50-1.75	1.5	14	0.61	0.55	0.45	0.10	0.15	51.0
130+	6-9	1.75-2.00	1.5	13	0.57	0.50	0.40	0.10	0.15	51.0

(Adapted from M.E. Ensminger's *Swine Science*, 5th ed.)

Est. Intake = estimate of how much the pig will eat daily
 Est. ADG = estimated Average Daily Gain (lbs per day)
 Mcal DE = Megacalories (1,000,000 calories) of Digestible Energy needed per pound of feed
 CP = Crude (Total) Protein
Lysine = lysine (an essential amino acid)

Ca = the mineral calcium
 Phos = the mineral phosphorous
 Salt = sodium chloride (NaCl)
 Se = the trace mineral selenium
 Zinc = the trace mineral zinc

Limit-Feeding

One means of controlling the fit and finish of your market hog is to limit-feed it during the last 60 days before the fair. To do this properly it is important that (1) you keep accurate records on the amount of feed your pig has eaten every day, and (2) you weigh your pig every other week once you begin limit feeding. When limit-feeding your pig, feed half the ration in the morning and the other half in the afternoon/evening. Try to feed at the same times each day. Limit feeding should never be used to stop, or reverse an animal's growth. You should never reduce your pig's rate of gain by more than 20% with limit feeding (that would be a reduction of 0.4 lbs/day gain for a pig with the potential to gain 2.0 lbs/day [2.0 lbs/day x 0.2 = 0.4 lbs/day; so 2.0 lbs/day - 0.4 lbs/day = 1.6 lbs/day actual gain]). Since a pig must eat about 3 lbs of feed to gain one pound of body weight, a gain reduction of 0.4 lbs/day means that you would feed about 1.2 lb/day less each day (0.4 lbs/day less gain X 3 lbs feed/lb gain = 1.2 lbs feed *less* per day). If your pig is eating 8.2 lbs per day at full feed, you should reduce it to 7.0 lbs per day. Should you feed 7.0 lbs/day then until the fair? No. Plan to adjust your pig's feed intake about once a week. Your pig's rate of gain and feed requirement will change as it grows (see the first table). This is why it is important to weigh your pig at least every other week and recalculate its average daily gain. You can use the ADG and feed intake estimates from the table to make weekly adjustments to your ration (for example, subtract 1.2 lbs from 7.4 lbs at week 20, from 7.8 lbs at week 21, from 8.2 lbs at week 22, and so on), but the table values will not be as accurate as measuring your pig's actual growth rate and feed intake.

Remember: Limit feeding should be used only as a last resort, and better not used at all. Market livestock, including project animals, should be fed for maximum growth. To do that, you must purchase animals of the correct weight to begin with.

To make sure you are on track, weigh your pig at least 60 days before the fair. Using that weight, calculate how much weight your pig must gain each day in order to hit your "target" weight at the fair. Let's say that on May 13 your pig weighs 150 lbs. If your target weight is 245 lbs, then your pig needs to gain 245-150 = 95 lbs. May 13 to July 15 is 63 days. Your pig needs to gain 95/63 = 1.5 lbs per day in order to weigh 245 lbs on July 28.

Is that a reasonable rate of gain? According to the table on the opposite page, 1.5 lbs per day is below the estimated rate of gain for a 150+ lb pig on full feed. So yes, this is a reasonable rate of gain.

Credits:

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