

Table 1. Heart girth vs. pig weight

Heart Girth, inches	Pig Weight, lb	
25	49	
26	59	
27	69	
28	79	
29	89	
30	99	
31	110	
32	120	
33	130	
34	140	
35	150	
36	160	
37	171	
38	181	
39	191	
40	201	
41	211	
42	221	
43	232	
44	242	
45	252	
46	262	
47	272	
48	282	



To: Ferry County 4-H Swine Project Leaders & Members
From: WSU Ferry County Extension
Re: Use of heart girth to estimate the weight of finishing pigs



*This information may be useful in estimating your 4-H pig weight.
From information provided by Crystal N. Groesbeck, Kansas State University*

Many 4-H participants and swine producers may not have access to an accurate scale for weighing their pigs. Heart girth measurement can be a tool for 4-H members and producers to estimate body weight and track the growth of pigs. Heart girth can be used to estimate weight and may be helpful if only a few pigs need weighed because it reduces scale setup and teardown time and transportation of pigs.

Kansas State University swine researchers completed a study, to develop a regression equation to determine pig weight based on heart girth, and to validate its accuracy. Heart girth and body weight measured for 100 growing-finishing pigs (50-273 lb.) at the Kansas State Swine Teaching and Research Center. Heart girth was measured in inches using a cloth measuring tape. The tape was placed directly behind the front legs, wrapped snugly around the heart girth and read directly behind the shoulders.

Heart girth was strongly correlated ($r^2=.98$) with body weight, with the regression equation: pig weight = $10.1709 \times \text{heart girth (inches)} - 205.7492$. The 95% confidence interval shows the projected weight to be ± 10 pounds of the actual weight of the pig. The table on the reverse side contains the estimated pig weight based on its heart girth measurement.

A few problems that may occur when measuring heart girth on pigs are pigs often squirm or raise and lower their heads, which can cause variations in the measurement. A confined pig is easiest to measure with cloth tape. We suggest taking three separate heart girth measurements and using the average. Misreading the heart girth measurement by 1 inch will result in a 10-pound error in weight. Averaging three measurements should more accurately represent true girth measurement.

The pigs should be on continuous feed and cool & clean water to insure good growth. Cut back on feed if they are getting too heavy. Heart girth measurements found to be inaccurate if pigs are recently transported or held off feed or water for a short period. Heart girth measuring can be useful for 4-H members and swine producers for estimating pig weight.