

Barley-Based Hog Ration vs. a Corn Based Ration

Dan Wilson, Paullina, sends this description of the trial he and brother **Colin** carried out:

"This test was conducted on a group of crossbred gilts raised on pasture. The main goal was to see if barley is an economical alternative to corn for growing/finishing pigs. We wanted to find a good use for the small grain in our crop rotation. The test was set up by splitting a group of 222 gilts. The gilts were farrowed on pasture. At six weeks of age they were weaned and moved to the barn with outside concrete lots. After being vaccinated and sorted, they were weighed and returned to pasture for the test.

Swedish sow system



"The corn and barley were tested for protein, and the rations were balanced accordingly. Both rations were mixed on the farm using soybean meal and a vitamin/mineral premix. We started the group using barley on a ration of 200 lbs. barley per ton and slowly increased the barley to 700 lbs. per ton when they reached 150 lbs. This meant that 42 percent of the grain in the ration was barley, the rest was corn.

"In calculating the cost of production we used \$1.85 a bushel for corn and \$1.50 a bushel for the barley (season-average market prices for our area). All other ingredients were priced at cost. Because barley is higher in lysine, we were able to reduce the amount of soybean meal in the barley rations. This helped to reduce the cost per ton of the barley ration, and it accounts for the fact that this group consumed more pounds of feed but cost the same per pound of weight gain ([Table 9](#)).

"We were quite encouraged by the result of this trial, as it makes small grain a viable option in crop rotations. We will repeat the trial again to see if the results are consistent."

When the Wilsons repeat this trial in 1995, they will improve several procedures. They hope to have two replications in 1995; their barley crop was hailed in 1994, leaving them with only enough grain for the one rep of gilts. The barley group actually went on the ration August 17, the same day as the corn group. However, they couldn't be weighed and turned out until a week later, by which time they were heavier pigs. This could raise suspicions that the '94 test was really showing the effect of age/size, not rations. Finally, the packing house lost the records for individual pigs in one group. This means there is no way to know whether the one percent difference in percent lean or the 1.8 percent difference in carcass yield is a real difference or is probably just due to chance. But from the 1994 results, the Wilsons already have an indication that they can "afford" to grow a small grain in their crop rotation.