

AUTOMATIC SORTERS

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Over the past two or three years there has been an increased interest in using automatic sorters to weigh and sort market hogs. Companies selling sorters are plentiful and options are endless. Many producers are making use of this technology. The main goals of implementing sorters are to reduce the labour involved in getting pigs to market, narrow carcass weight ranges to meet packer requirements and manage larger group housing systems.

There are two main ways of designing an automatic sorter system. For lack of a better analogy, they can be referred to as positive and negative flow systems. Each can work equally well, under appropriate conditions. A negative flow system is not a derogatory reference; it is basically a system that requires the pigs to go through the sorter to get to, or leave, a feeding/watering area. A positive flow system simply means the pigs always have access to feed and water, while being physically routed through a sorter to be weighed and sorted. Both systems have a list of pros and cons. When choosing a system to implement, it comes down to producer preference, or existing facility constraints. Most negative flow systems have groups of about 400-700 pigs on one sorter. Many positive flow systems are accommodating up to 2000 or more pigs on one sorter. If multiple groups of pigs are spaced evenly and the sorter can be moved easily, one sorter can reasonably handle three groups of pigs. This is the biggest pro for a positive flow system. A properly managed sorter that can accommodate 6000 pigs is very easy to justify. One good manager could, theoretically, weigh and sort 18000 pigs per year and ship them in a fairly narrow carcass weight window.

If labour reduction were the first goal of automatic sorters, consistently hitting specific weights in a narrow grid would be the second. Many packers are paying premiums to be in a certain weight range, or issuing penalties for being out of a certain weight range. As producers recognize the carcass weight of their genetics that gives the highest index or premium, they set their sorters to optimize the number of pigs that hit that carcass weight, to increase profitability. Positive flow systems are at a slight disadvantage, depending on the number of pigs on one sorter. Under most positive flow conditions, 2000 pigs do not go through one sorter in one day. This means that estimated average daily gains need to be used to adjust sorted weights on a daily basis. If pigs need to be booked for market a week in advance and it takes five days to put all the pigs through the sorter (maintaining a low stress level), there are twelve days of estimated average daily gain to consider. This variable can cause an increase in expected weight range at marketing. The negative flow system with less pigs, will have a shorter weigh period and increased accuracy.

The ability to manage larger group sizes has many benefits. Large group housing is generally less expensive to build. Large groups give the ability to pre-sort pigs, without fighting and

subsequent weight loss. Large groups also offer the ability to implement sorters, to reduce weighing, sorting and shipping labour. Almost any barn can be converted to large group housing. Large groups are generally referred to, in this application, as 250 or more pigs. Old and new barns, with smaller pens can be converted to either positive, or negative flow systems. If the barn is fairly new and it isn't feasible to remove and rearrange the penning and equipment, the producer could simply open up a portion of the penning to set up a positive flow system. If the barns are older, or equipment is already in need of repairs, the best option might be to gut the whole thing and set up large groups in a negative flow system. It comes down to cost, manageability and suitability to individual barn designs.

The bottom line on implementing sorters into an existing or new facility, is that you can make almost any sorter work well in almost any barn, with either sorting system, but success will vary from one producer to the next. Producers need to determine what will work best for them, in their barns, to attain their goals.