

## **Herd Size Comparison Reveals Differences**

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Part of the competitive nature of pork producers is the desire to know what the “competition is doing.” The compilation of industry benchmarks does more than satisfy curiosity – it provides a frame of reference for what an operation can do.

Benchmarks are not without challenges however. After all, who is the “competition”? Is it reasonable for the 200-sow unit to compare itself to the 2,000-sow unit? What about the farrow-to-finish operation versus the unit selling weaned pigs? The goals of the units may be different – the former may have flexibility to generate older, heavier weaned pigs to flow the system while the latter may be focused on delivering the maximum number of weaned pigs meeting a specific quality criteria.

In recent years, we have observed a change in the herds participating in the annual PigCHAMP benchmark. Fewer herds represent, on average, more animals. But this pattern also leaves open the possibility that a benchmark is less applicable for an individual producer. A benchmark within a size cohort, for example, may hold more relevance for a given operation.

Below is a table containing the mean values for 2004 PigCHAMP Datashare herds when broken into size cohorts based upon average female inventory. The resultant averages yield some interesting observations:

- Average pigs weaned/mated female/year improved with increasing size cohorts
- Average parity of culled sows was greatest for herds with less than 500 sows
- Average death rate was similar for herds less than 1,500 sows and greatest among herds of 1,500 or more
- Average culling rate was lowest among small herds
- Although average percent [litters] <7 born live is least among small herds, there is no advantage in overall born live
- Both average farrowing interval and average farrowing rate improve with increasing herd size cohorts.

Since there does not appear to be a born-live advantage associated with larger herd size, the differences observed in pigs weaned/mated female/year resulted from improved farrowing rates. And while smaller herds average more non-productive days/parity record, they also average more pigs weaned/lifetime female.

It is beyond the scope of the current annual PigCHAMP benchmarks to identify what performance measures are associated with profitability. Capital investments, labor requirements and animal replacement programs may differ substantially both between herd size cohorts and herds within the greater industry. Nevertheless, the competition is still able to access the same animals and technologies.

Measurement	Cohort mean values		
	<500	500-1499	1500+
Average parity	2.7	2.8	2.6
Percent multiple matings	82.1	91.9	89.2
Percent repeat services	15.3	12.9	12.2
Ave non-productive sow days	74.5	65.8	63.7
Ave NPD/parity record	29.8	24.8	23.1
Ave parity of culled sows	4.5	4.4	4.1
Ave parity of farr. sows	3.7	3.7	3.5
Average age at weaning	19.3	17.8	18.2
Average female inventory	327.7	930.5	2628.0
Average gestation length	115.4	115.3	115.3
Average gilt pool inventory	13.9	39.0	140.8
Average mummies/litter	0.2	0.2	0.3
Average born alive/litter	10.3	10.3	10.4
Average stillborn pigs	1.0	0.9	0.9
Average total pigs/litter	11.5	11.4	11.6
Culling rate	38.2	45.5	44.8
Death rate	7.2	7.2	9.2
Entry - 1st service interval	25.8	27.5	32.8
Farrowing interval	152.4	146.2	145.8
Farrowing rate	74.0	77.9	79.6
Litters/female/yr	2.2	2.3	2.3
Litters/mated female/yr	2.3	2.4	2.4
Old lits/mated female/yr	2.2	2.3	2.4
Old pigs weand/Inv.			
Female /yr	18.8	20.0	20.2
Percent < 7 born live	11.8	12.3	12.2
Percent sows bred by 7 days	84.7	85.6	84.1
Pigs wnd/lifetime female	38.0	37.3	34.1
Pigs wnd/litter weaned	9.1	9.1	9.1
Pigs weaned per sow	8.9	9.0	9.1
Pigs wnd/female/year	19.4	20.4	20.6
Pigs wnd/mated female/yr	20.3	21.3	21.7
PWM for farr. and weaned	13.8	12.5	12.9
Replacement rate	53.7	51.9	56.7
Weaning-1st serv. interval	7.9	7.1	7.2
Number of farms	45	109	74