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Pen Gestation Experience

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This presentation is based on my personal experience as a veterinarian and swine producer. Back in Mexico, I had to experiment the transition from gestation pens to gestation stalls. Back then; we decided to make the change. We wanted to grow having more sows in less space. Surprisingly, when we compared the production records in both systems there was no difference. In my opinion, both gestation stalls and gestation pens can be managed to obtain good results in the swine industry. Obviously, both systems have advantages and disadvantages. But, we would be able to obtain great results, if we adapt a good management to either system.

One of the most important considerations in swine production is the number of pounds of pork market for sow per year. With adequate nutritional and environmental regimes, to achieve the maximum productivity is limited by the sow's reproductive potential. Our goal must be to maintain the sow's gestation in order to reach the farrowing target.

Next I would like to point out some crucial factors for you to consider when designing gestation pens (group gestation). It is also a key factor understanding the term ***Embryonic survival*** perfectly.

Embryonic survival

The union of the sperm and the ovula (fertilization) takes place in the infundibulum. The embryo (fertilized egg) will descend to the uterus and will begin the implantation process – 72 hours approximately -. Understanding this, we will notice that we have only 72 hrs to form a group of bred sows in a pen. This group of sows will not be more than 2 days apart of their breeding date. If we miss this gap of time, it would be better to move the sows until they have 30 – 35 days of gestation.

Our design of grouping sows in gestation pens depends of the number of service during the week and the feed system. If we use our record system, we can plan our grouping system. We will know how many services per day we have so we will fill our gestation pens with sows with almost the same date of breeding before the implantation process begins.

In the following examples you will see some data of different farms that wean once, twice, or four times a week. You will also see the number of services per day per week. Looking at these reports we can calculate the size of the pen to group the sows closely of their breeding date. The first column is the day of the week: 1=Sunday, 2=Monday, 3=Tuesday and so on.

Farm # 1 weans Monday and Thursday. The second part of the reports is the No of service by day

PigCHAMP DATABASE APPLICATIONS FARM: [redacted]

2	2414	46.2
3	224	4.3
4	52	1.0
5	2430	46.5
6	105	2.0

TOTAL 5225 100.0

SERVICEDAY	COUNT	REL FREQ
1	264	5.3
2	1646	33.1
3	560	11.2
4	267	5.4
5	305	6.1
6	1373	27.6
7	563	11.3

TOTAL 4978 100.0

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Farm #2 weans Monday, Tuesday, Thursday and Friday

PigCHAMP DATABASE APPLICATIONS FARM: [redacted]

2	1464	30.9
3	839	17.7
4	26	0.5
5	1412	29.8
6	996	21.0

TOTAL 4737 100.0

SERVICEDAY	COUNT	REL FREQ
1	340	8.1
2	992	23.7
3	821	19.6
4	356	8.5
5	296	7.1
6	725	17.3
7	657	15.7

TOTAL 4187 100.0

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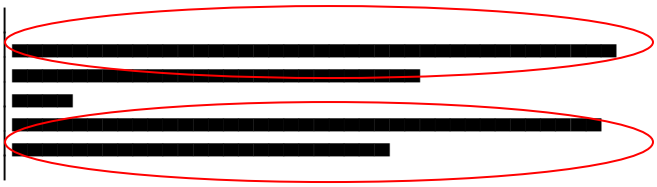
Farm # 3 weans Monday, Tuesday, Thursday and Friday

PigCHAMP DATABASE APPLICATIONS FARM

1	3	0.0
2	6092	29.5
3	4046	19.6
4	670	3.2
5	5957	28.9
6	3874	18.8
7	1	0.0



TOTAL 20643 100.0

SERVICEDAY	COUNT	REL FREQ
1	2104	10.0
2	4757	22.7
3	3565	17.0
4	1694	8.1
5	1583	7.6
6	3783	18.1
7	3472	16.6

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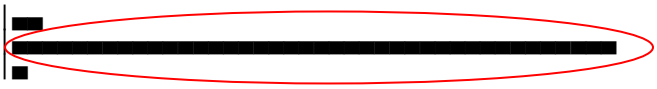
Farm # 4 weans only on Wednesday

PigCHAMP DATABASE APPLICATIONS FARM: T

WEANDAY	COUNT	REL FREQ
3	223	5.3
4	3944	93.0
5	73	1.7



TOTAL 4240 100.0

SERVICEDAY	COUNT	REL FREQ
1	1420	36.3
2	575	14.7
3	224	5.7
4	174	4.4
5	217	5.5
6	287	7.3
7	1019	26.0

TOTAL 3916 100.0

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Feeding and flooring

Designing pens will depend on the feeding system. We can use electronic feeding, dropping on the floor, trickle system, hand feeding etc. When designing, keep in mind to avoid aggression as much as you can. In regards of flooring, the design will depend of type of flooring such as slats, solid concrete, bedding etc. It is recommended to give 30 sq ft/ sow in order to have a good heat checking in returns; a minimum of 22 sq ft./adult sows, and 20 sq ft for young sows.

Generally, the longitude must be no longer than 2 –2.5 times the width of the pen. When we use electronic feeders we must place them on the correct location for the animals to have an easy access and avoid fighting.

Management considerations

We must design our farm to have an easy way to perform the following tasks:

- Heat checking for returns - This is important to detect sows in heat easily (through boar contact).
- Vaccination and treatments
- Pregnancy checks
- Adjustment of feeding
- Easy access for both animals and staff
- Treatments -We should designate some stalls for sick and recovering sows in poor condition