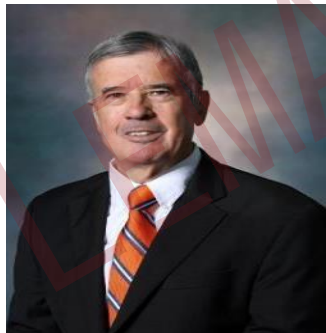


产仔断奶的关键生产驱动



Joseph F. Connor, DVM, MS
China Leman Swine Conference
Friday, October 19-21, 2-18
Zhengzhou, China

盈利能力

- 盈利能力=生产量 \times 利润
 - 生产量=每单位时间生产的千克数量
 - 利润=每单位产品的收益-单位产品成本

LEMAN CHINA

关键驱动

- 健康
- 后备猪的发展
- 母猪生产能力
- 断奶重
- 饲料转化率
- 增重
- 生产量-每年每头母猪上市的猪肉重

病原体死亡率



APP 传染性胸膜肺炎



PCV2 猪圆环病毒2型

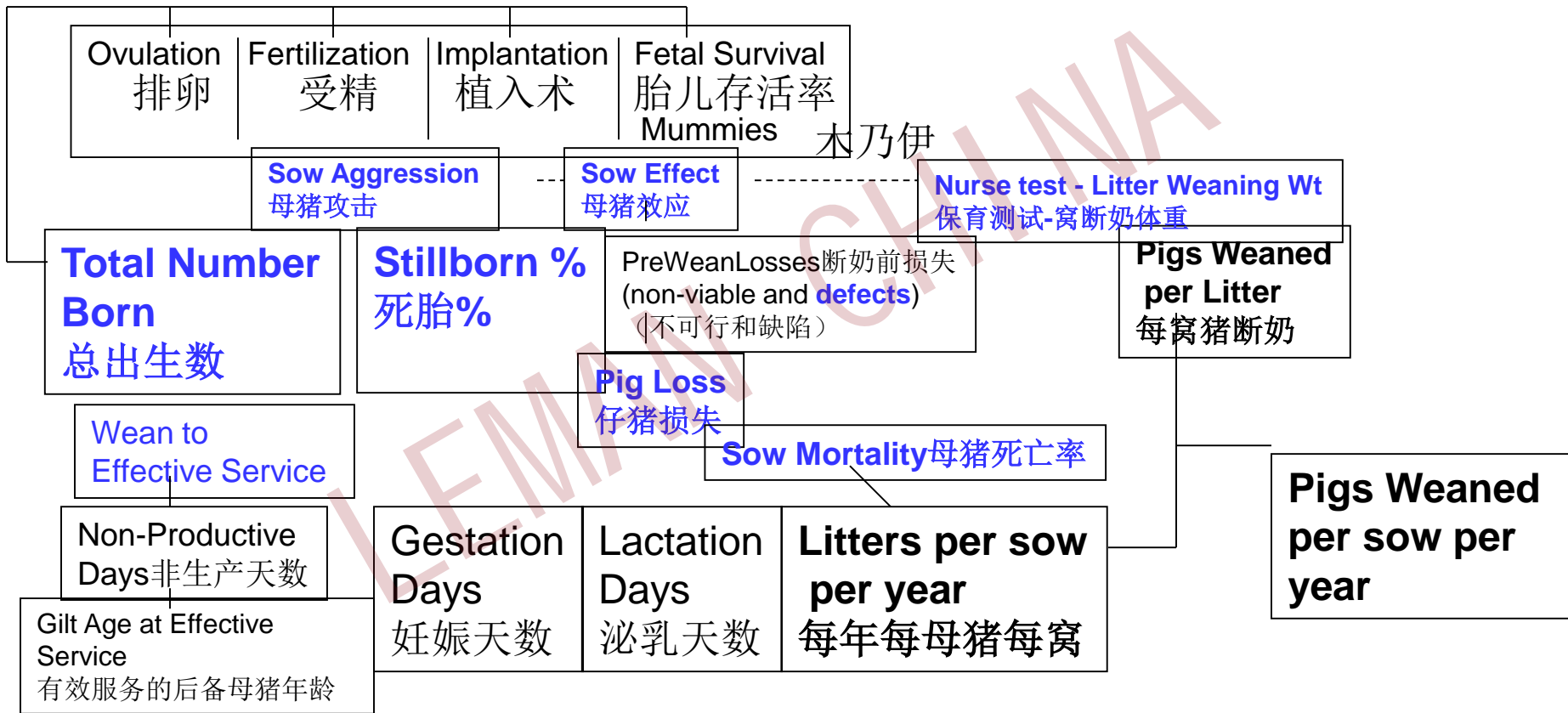


PRRS 猪繁殖与呼吸综合症

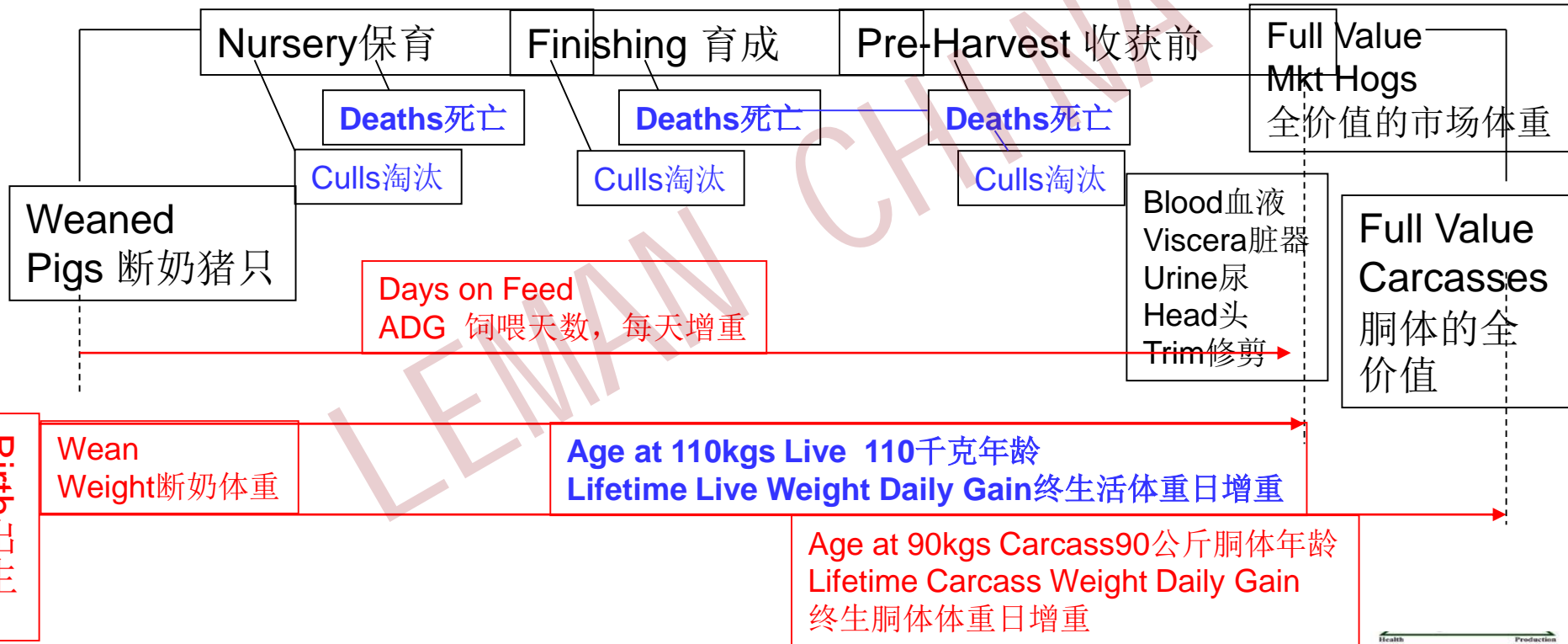


PEDv 猪流行性腹泻病毒

母猪和生产量

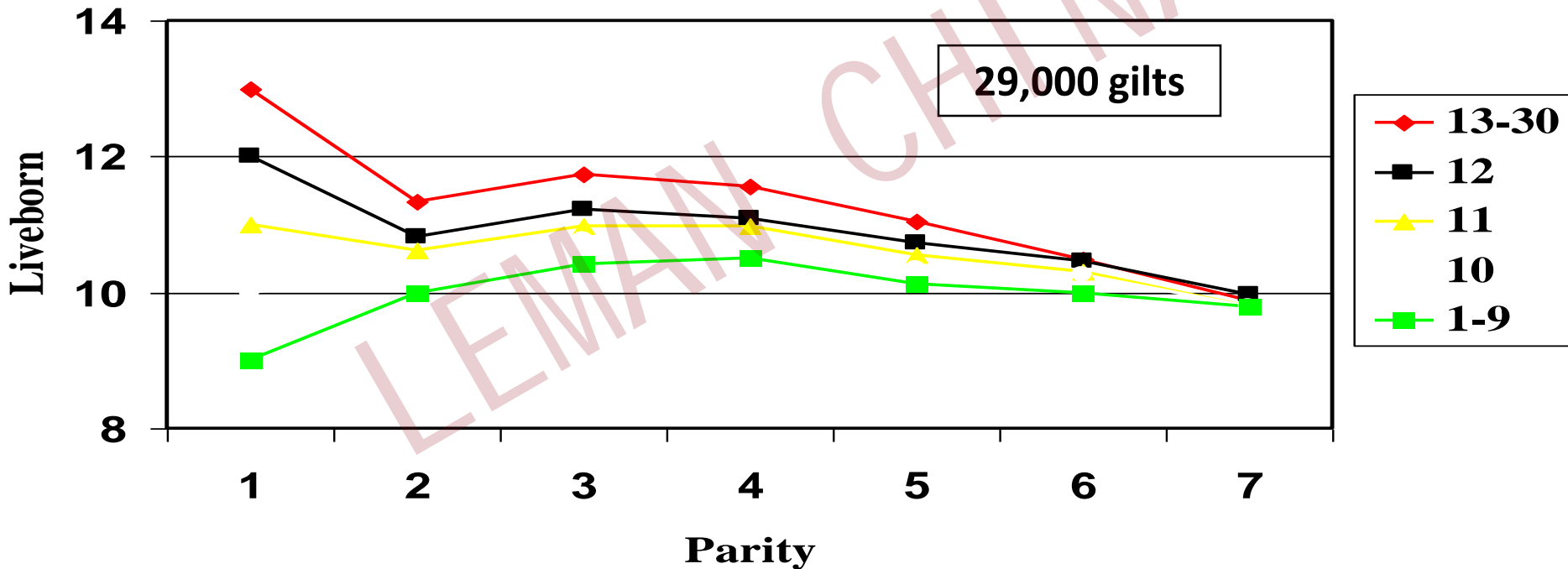


断奶到胴体的生产量





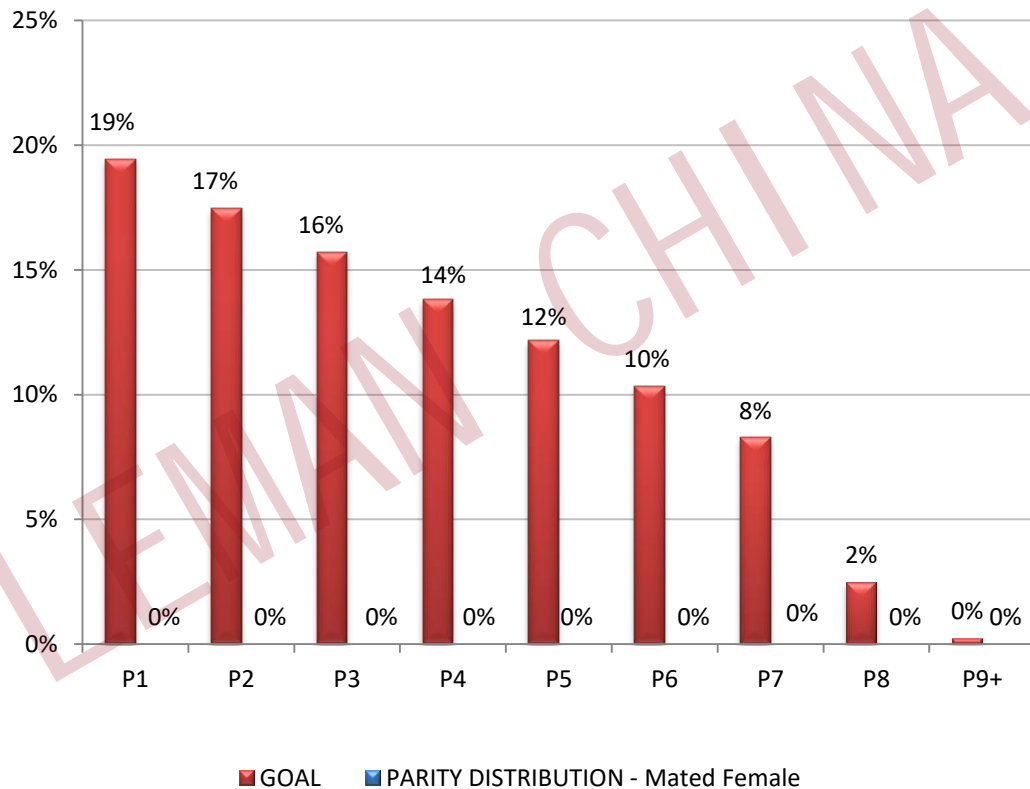
母猪生产能力 胎次1-胎次7



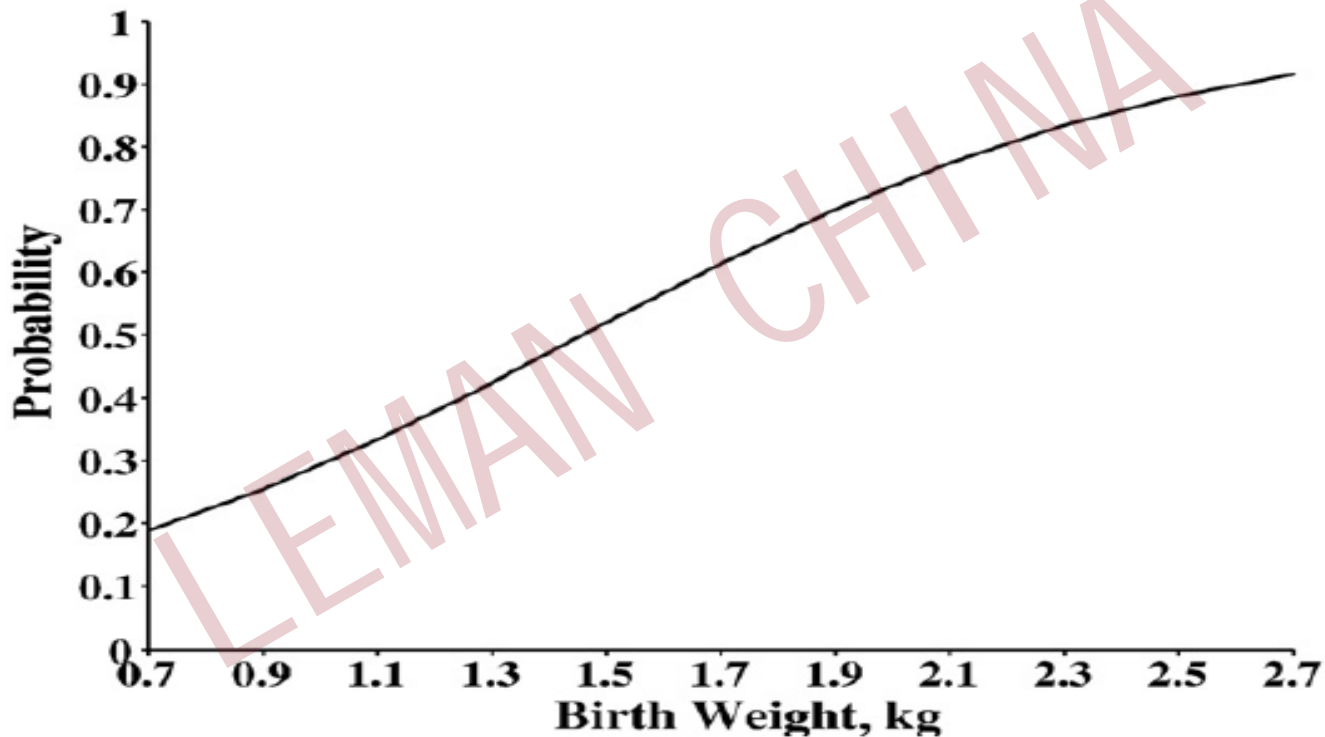
后备猪管理的总体目标

- 80%发情未配种母猪有一个28天的选择窗口
(85-90%包括机会性后备母猪)
- 100%的母猪在第二或第三发情期繁育；
- 100%只母猪在目标体重范围内（135~150公斤）繁育。

胎次分布- % 配种的母猪

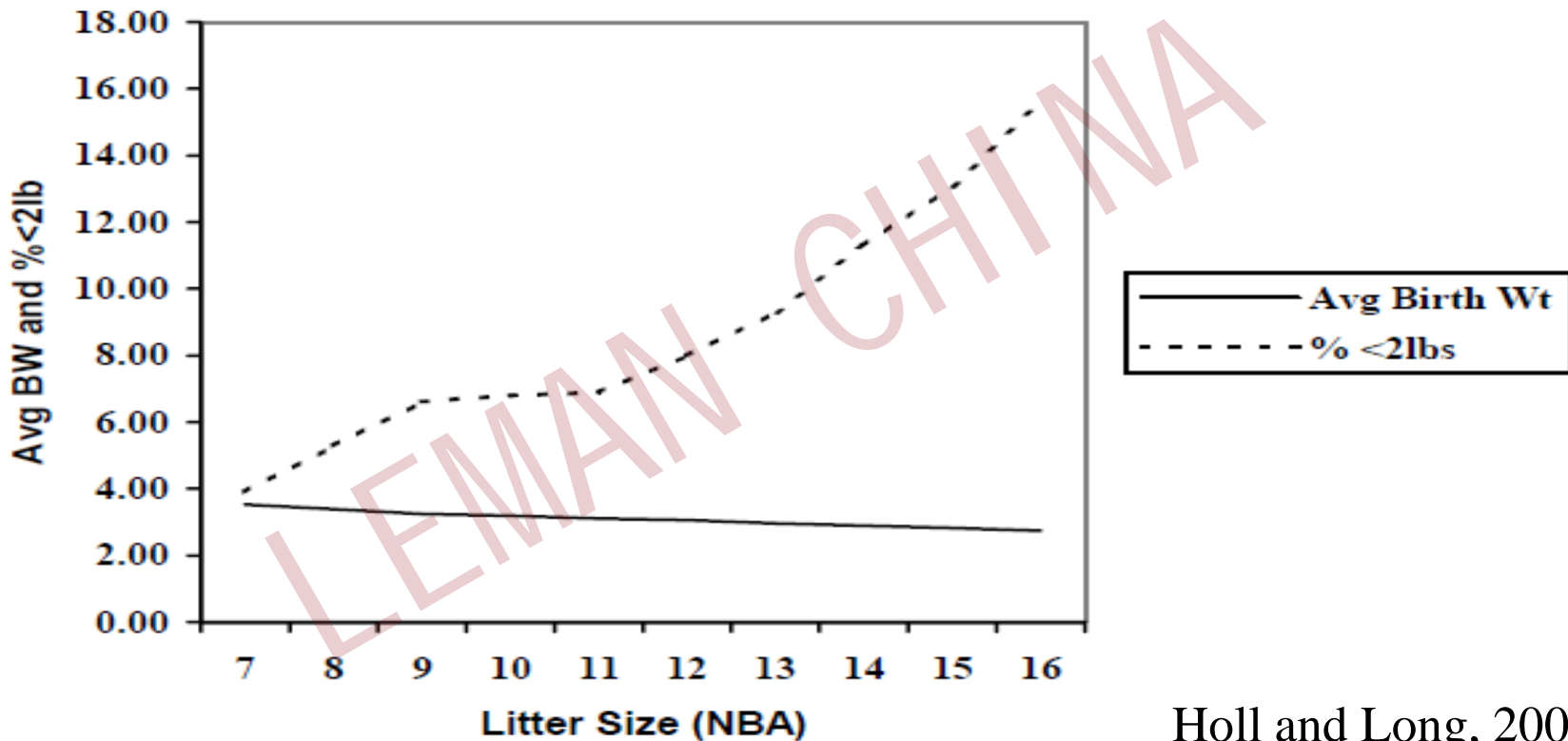


仔猪出生体重与可能市场完全价值的关系



Fix et al., 2010

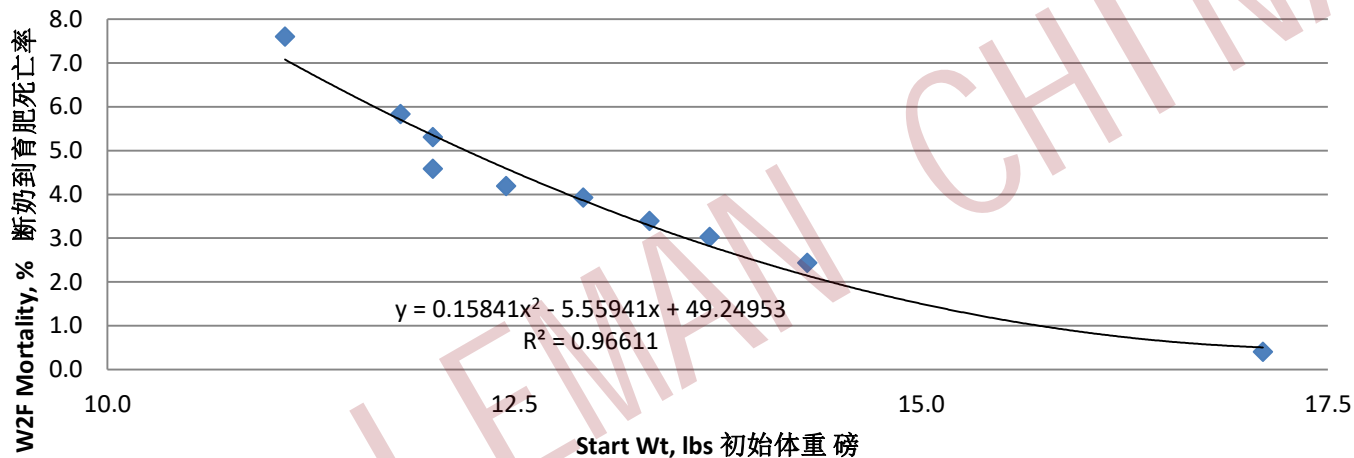
产仔数的增加与仔猪出生体重的降低有关



Holl and Long, 2006

断奶到育肥死亡率与起始体重

Start Wt vs W2F Mortality



Start Wt	Mort, %	Mort, % Diff
12.0	5.35	
12.5	4.51	0.84
13.0	3.75	0.76
13.5	3.07	0.68
14.0	2.47	0.60
	Ave	0.72
As of 11/11/2015 =		1.24
Each 0.5 lbs = \$/hd		0.89

空间利用

成长阶段包括:

- 进圈体重
- 进圈年龄
- 填充时间
- 设施
- 分配空间
- 每圈猪的数量
- 设备
- 饲喂器位置
- 饮水机位置
- 屠宰体重
- 饮食
- 膳食添加剂
- 卫生

空间利用

- 给定设施的效率
 - 每平方英尺或平方米每日增重
 - 每平方英尺或平方米每日饲料摄入量的每日增重
 - 目标是每年每平方英尺每年销售65磅（27.54公斤）。

成功的要点



良好开端

- 清洁、消毒和干燥
- 安置计划
- 畜舍环境



集约饲养

- 垫子饲喂
- 粥样饲喂



减少竞争

- 空间利用
- 饲喂空间
- 水的有效性

猪舒适度



太冷



太热

垫子饲喂




日粮和通过
料槽饲喂一
致

**饲喂量=8盎
司**、每次
饲喂频率=**每
天4次以上**
所有圈用垫
子饲喂方式

粥样饲喂

期望每天4次，连续3天
在上午开始干活的时候
在上午干完其他活的时候
中午的时候
在晚上开始干活的时候
粥样饲料应该在30分钟内消耗完



Day 1- Gruel mix 3 parts water, 1 part feed
Day 2- Gruel mix 2 parts water, 2 parts feed
Day 3- Gruel mix 1 part water, 3 parts feed

分类：饲喂3天粥样饲料后，从IC栏中移到分级栏。当猪腹部饱满时分级（分类瘦骨嶙峋的猪只当他们腹部饱满时）

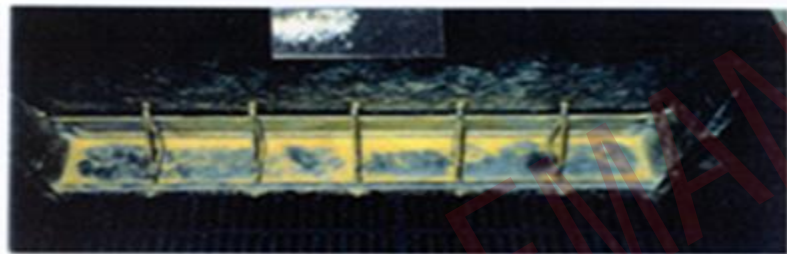
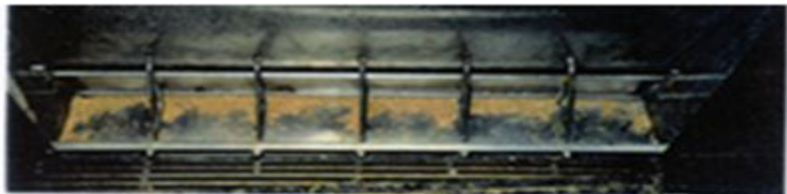
减少竞争 - 水

- 水的可供性
- 动物在任何时候都应该有充足的水供应。（32盎司/分钟）
（0.95升/分钟）
- 摆动的水应该保持在1英寸以上的最小的动物肩上。

充足的流量= 16
盎司（0.47升）
可乐瓶填充30秒。



减少竞争-饲料的联系



保育饲料 40%-
50%的食盘覆盖率

育成饲料 20%-
25%的食盘覆盖率

Percentile Distributions (Jan-Dec 2017) (Table 4)

	Percentiles								
	10	20	30	40	50	60	70	80	90
Pigs weaned / mated female / yr (PWMFY)	19.4	22.9	24.0	24.9	25.7	26.3	27.2	28.0	29.3
Pigs weaned / mated female / yr (PWMFY)-v1	20.6	23.7	24.7	25.7	26.4	27.1	27.9	28.8	30.1
Pigs weaned / mated female / yr (PWMFY)-v2	18.5	22.2	23.6	24.4	25.2	25.9	26.6	27.7	28.9
Litters / mated female / yr (LMFY)	1.91	2.20	2.25	2.32	2.35	2.38	2.41	2.45	2.51
Pigs weaned / farrowing space / yr (PWCY)	109.8	127.8	134.0	141.8	146.6	151.9	158.7	166.0	172.8
Total Productivity Index™ (mated)	37.3	44.0	46.2	47.9	49.5	50.6	52.3	53.9	56.4
Non-Productive days (w/o gilt pool)	71.5	62.1	55.1	49.2	44.3	39.7	36.6	32.2	28.8
Pigs weaned per lifetime per female	24.0	30.6	34.7	37.6	40.9	44.2	47.2	49.4	53.7
Weaned sows bred % < 7 days	77.7%	82.4%	85.6%	88.0%	89.2%	90.5%	91.7%	92.9%	94.7%
% Repeats	23.0%	17.6%	15.0%	12.3%	10.4%	8.5%	6.8%	5.5%	3.0%
% Gilts	9.4%	14.0%	16.2%	17.8%	18.6%	19.8%	21.9%	23.9%	27.2%
% Multiple matings	57.2%	84.3%	90.1%	92.9%	95.8%	97.7%	98.7%	99.5%	99.9%
Mating / service	2.29	2.16	2.03	2.01	2.00	1.98	1.94	1.88	1.69
Wean-1st service	9.6	8.0	7.3	6.9	6.5	6.2	5.9	5.7	5.3
% aborted	8.5%	5.4%	3.8%	3.0%	2.3%	1.5%	0.8%	0.3%	0.0%
% Pregnant at day 35	87.6%	89.5%	90.6%	91.7%	92.4%	93.1%	94.0%	94.9%	96.1%
% Pregnant at day 72	82.8%	85.2%	86.9%	88.0%	89.0%	90.2%	91.3%	92.1%	93.4%
% Pregnant at day 105	80.1%	82.7%	84.5%	85.9%	87.4%	88.6%	90.0%	90.9%	92.5%
Farrowing Rate %	75.5%	79.2%	81.0%	83.2%	84.3%	86.2%	87.8%	89.4%	90.7%
Average Farrowing Interval	154.9	150.3	148.5	147.2	146.0	145.2	144.6	143.7	142.5
Average total born	12.6	13.2	13.6	13.9	14.2	14.4	14.6	14.8	15.1
Average live born	11.5	12.0	12.3	12.6	12.8	13.0	13.2	13.5	13.8
Average born dead	1.82	1.58	1.47	1.36	1.28	1.21	1.11	1.00	0.87
Birth loss %	12.5%	11.0%	10.2%	9.5%	9.2%	8.7%	8.1%	7.3%	6.6%
Average Stillborn	1.41	1.16	1.07	1.02	0.96	0.88	0.79	0.72	0.61
Stillborn %	9.9%	8.1%	7.6%	7.2%	6.8%	6.3%	5.9%	5.2%	4.5%
Average Mummified	0.58	0.47	0.42	0.36	0.31	0.28	0.24	0.20	0.14
Mummified %	4.0%	3.3%	2.9%	2.5%	2.2%	2.0%	1.7%	1.4%	1.0%
Pre-wean mortality %	17.6%	15.8%	14.8%	13.8%	13.0%	12.0%	11.1%	9.9%	8.0%
Survival %	82.4%	84.2%	85.2%	86.2%	87.0%	88.0%	88.9%	90.1%	92.0%
Pigs weaned / sow	9.56	10.12	10.45	10.63	10.83	10.97	11.13	11.35	11.67
Pigs weaned / sows weaned > 0 piglets	10.12	10.62	10.92	11.10	11.26	11.43	11.60	11.82	12.16
Pigs weaned / sow farrowed	9.87	10.33	10.59	10.76	10.96	11.09	11.28	11.54	11.82
Average wean age	18.0	18.9	19.5	20.0	20.5	20.9	21.3	22.0	23.1
Average wean weight (pig)	6.4	6.8	11.9	12.4	12.8	13.0	13.5	14.0	15.1
Herd parity (w/o gilt pool)	3.4	3.2	3.1	2.9	2.8	2.6	2.4	2.2	1.9
Culling rate %	24.5%	32.6%	37.2%	40.8%	43.9%	47.6%	52.2%	57.5%	66.9%
Average cull parity	2.4	3.1	3.5	3.7	4.0	4.3	4.7	5.0	5.4
Death & euthanized rate %	15.3%	13.3%	12.3%	10.9%	10.1%	9.2%	8.2%	7.3%	5.6%
Removal rate %	36.9%	44.2%	47.7%	52.3%	55.8%	60.6%	64.1%	69.6%	81.6%
Replacement rate %	34.2%	40.4%	45.3%	49.6%	52.9%	56.2%	61.2%	66.0%	77.5%
Average gilt arrival age (days)	175	184	191	199	207	221	242	273	325
Average gilt arrival weight	185	250	268	275	282	300	301	309	346
Entry - 1st serv interval	50.5	39.5	34.3	28.3	23.4	17.3	11.7	4.1	1.0

Percentile Distributions (Jan-Dec 2017) (Table 5)

	Bottom 10%	Bottom 33%	Average	Top 33%	Top 10%
Pigs weaned / mated female / yr (PWMFY)	19.4	24.2	25.7	26.7	29.3
Pigs weaned / mated female / yr (PWMFY)-v1	20.6	24.9	26.4	27.6	30.1
Pigs weaned / mated female / yr (PWMFY)-v2	18.5	23.9	25.2	26.4	28.9
Litters / mated female / yr (LMFY)	1.91	2.27	2.35	2.40	2.51
Pigs weaned / farrowing space / yr (PWCY)	109.8	136.3	146.6	155.9	172.8
Total Productivity Index™ (mated)	37.3	46.6	49.5	51.4	56.4
Non-Productive days (w/o gilt pool)	71.5	51.8	44.3	37.6	28.8
Pigs weaned per lifetime per female	24.0	35.6	40.9	45.9	53.7
Weaned sows bred % < 7 days	77.7%	86.2%	89.2%	91.2%	94.7%
% Repeats	23.0%	13.7%	10.4%	7.1%	3.0%
% Gilts	9.4%	16.9%	18.6%	20.9%	27.2%
% Multiple matings	57.2%	91.2%	95.8%	98.3%	99.9%
Mating / service	2.29	2.01	2.00	1.96	1.69
Wean-1st service	9.6	7.1	6.5	6.0	5.3
% aborted	8.5%	3.4%	2.3%	1.0%	0.0%
% Pregnant at day 35	87.6%	91.0%	92.4%	93.7%	96.1%
% Pregnant at day 72	82.8%	87.2%	89.0%	90.8%	93.4%
% Pregnant at day 105	80.1%	85.0%	87.4%	89.2%	92.5%
Farrowing Rate %	75.5%	81.7%	84.3%	87.1%	90.7%
Average Farrowing Interval	154.9	147.9	146.0	144.7	142.5
Average total born	12.6	13.7	14.2	14.5	15.1
Average live born	11.5	12.4	12.8	13.2	13.8
Average born dead	1.82	1.42	1.28	1.15	0.87
Birth loss %	12.5%	9.9%	9.2%	8.3%	6.6%
Average Stillborn	1.41	1.05	0.96	0.82	0.61
Stillborn %	9.9%	7.4%	6.8%	6.0%	4.5%
Average Mummified	0.58	0.38	0.31	0.26	0.14
Mummified %	4.0%	2.7%	2.2%	1.8%	1.0%
Pre-wean mortality %	17.6%	14.4%	13.0%	11.3%	8.0%
Survival %	82.4%	85.5%	87.0%	88.5%	92.0%
Pigs weaned / sow	9.56	10.48	10.83	11.05	11.67
Pigs weaned / sows weaned > 0 piglets	10.12	10.96	11.26	11.51	12.16
Pigs weaned / sow farrowed	9.87	10.66	10.96	11.19	11.82
Average wean age	18.0	19.6	20.5	21.2	23.1
Average wean weight (pig)	6.4	12.0	12.8	13.2	15.1
Herd parity (w/o gilt pool)	3.4	3.0	2.8	2.5	1.9
Culling rate %	24.5%	38.4%	43.9%	49.6%	66.9%
Average cull parity	2.4	3.6	4.0	4.7	5.4
Death & euthanized rate %	15.3%	11.7%	10.1%	8.6%	5.6%
Removal rate %	36.9%	49.2%	55.8%	62.9%	81.6%
Replacement rate %	34.2%	46.7%	52.9%	59.0%	77.5%
Average gilt arrival age (days)	175	194	207	229	325
Average gilt arrival weight	185	275	282	300	346
Entry - 1st serv interval	50.5	33.0	23.4	13.9	1.0

2017 Benchmarking Nursery, Finishing, & Wean-to-Finish Closeouts

Average Closeout Performance by Closeout Type (Jan-Dec 2017)

	2017		
	NURSERY	FINISHING	W2F
No. Groups	8,428	11,273	3,130
Started	17,149,258	20,357,665	7,011,815
Start Wt	12.9	53.2	13.0
Avg Out Wt w/o Dead Wt	52.70	277.88	278.56
Sub-Stnd Sales as % Pigs Out	-	1.61%	1.41%
Market Sales as % of Pigs Out	-	92.65%	90.75%
Inv Adjust as % of Pigs Out	-	0.19%	0.25%
Lb Feed Per Hd	62.7	632.8	685.5
Mortality as % of Pigs In	3.13%	4.22%	5.98%
ADG	0.84	1.68	1.62
FCR	1.59	2.85	2.59
Adj FCR*	1.61	2.81	-
ADFI	1.34	5.36	4.20
Avg DOF	47.0	118.6	163.8
Days to First (Top-Out) Sale	-	100	146
Avg Feed Cost/Ton	\$325.90	\$176.53	\$199.49
Feed Cost per Lb Gain	\$0.2582	\$0.2484	\$0.2585
Feed Med Cost Per Pig	\$0.36	\$1.09	\$1.40
Other Med Costs Per Pig	\$2.49	\$1.03	\$3.00
Percent Corn	46.5%	58.4%	59.0%
Percent DDGS	12.8%	24.9%	19.7%
Percent SBM	24.1%	9.1%	12.3%
Avg Corn Cost/Bu	\$3.40	\$3.41	\$3.40
Avg DDGS Cost/Ton	\$109.42	\$110.63	\$112.63
Avg SBM Cost/Ton	\$302.02	\$306.14	\$309.14

*Adjusted FCR for NURSERY was 12-55 lb.

*Adjusted FCR for FINISHING was 50-270 lb.

迦太基系统



Thank You 感谢

