



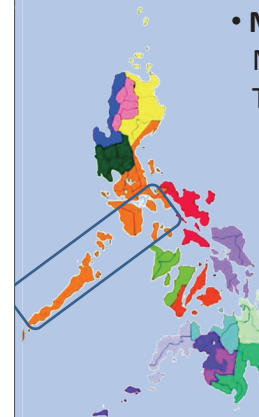
# REPRODUCTIVE VIABILITY OF MARINDUKE PIG

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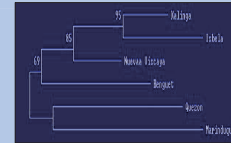
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2<sup>nd</sup> Pig Genetic Networking Conference – Philippines & Taiwan  
Taiwan Livestock Research Institute, Tainan City, Taiwan  
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## INTRODUCTION



Note: Map taken from google.com



- **Marinduke pig** is a “trade name” of native pig of Marinduque, an island province in the Southern Tagalog Region of the Philippines
- **Marinduke pig** is locally recognized as having black coat, a discriminant phenotype to the non-native pig, and possesses unique and distinct phenotype exclusive to its population



## INTRODUCTION



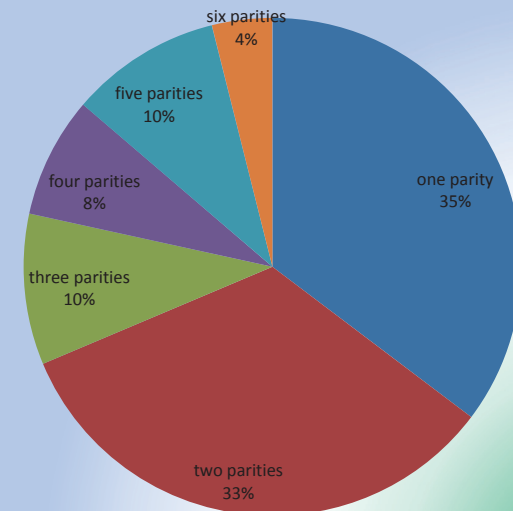
- **Marinduke pig** and its hybrids (locally called as “hap-hap”) are sought for the lechon (roast whole pork) with about 45,368 heads yearly sales (3,781 hd/mo) within the period 2012 to 2016 ([http://marinduquevet.ph/?page\\_id=438](http://marinduquevet.ph/?page_id=438))



## REPRODUCTIVE VIABILITY OF SOW

Percent distribution of sow-housed (n sow = 51) based on parity at different seasons.

Parity	Percent
one parity	35.29
two parities	33.33
three parities	9.80
four parities	7.84
five parities	9.80
six parities	3.92

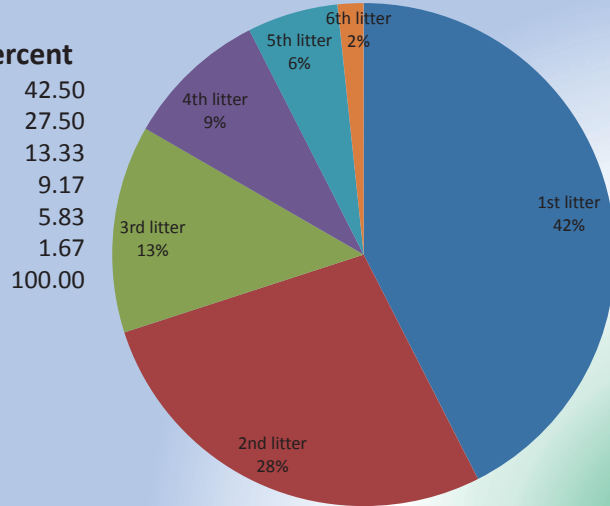


## REPRODUCTIVE VIABILITY OF SOW

Percent distribution of sow-housed based on litter production (n litter = 120) at different seasons.

### Litter order Percent

1st litter	42.50
2nd litter	27.50
3rd litter	13.33
4th litter	9.17
5th litter	5.83
6th litter	1.67
	100.00

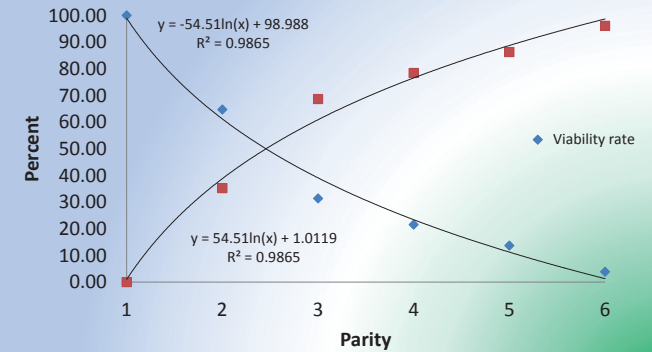


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## REPRODUCTIVE VIABILITY OF SOW

Viability rate and accumulated culling rate based on sow-housed (n = 51) at different seasons.

Parity	Viability rate	Accum. culling rate
1-par	100.00	0.00
2-par	64.71	35.29
3-par	31.37	68.63
4-par	21.57	78.43
5-par	13.73	86.27
6-par	3.92	96.08
Ave.	39.22	60.78

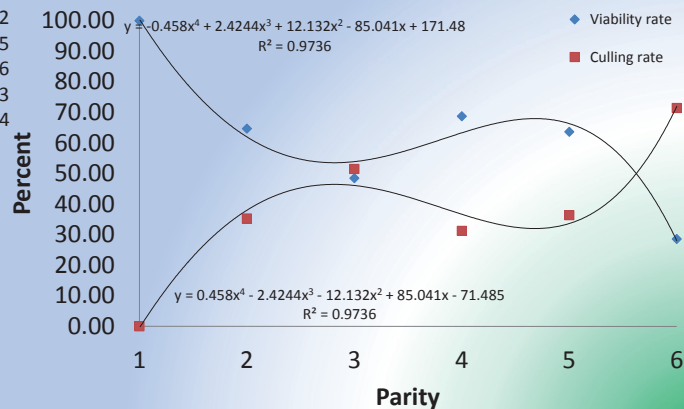


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## REPRODUCTIVE VIABILITY OF SOW

Viability rate and culling rate based on sow-retention at different seasons.

Parity	Viability rate	Culling rate
one par	100.00	0.00
two par	64.71	35.29
three par	48.48	51.52
four par	68.75	31.25
five par	63.64	36.36
six par	28.57	71.43
Average	62.36	37.64



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## REPRODUCTIVE VIABILITY OF SOW

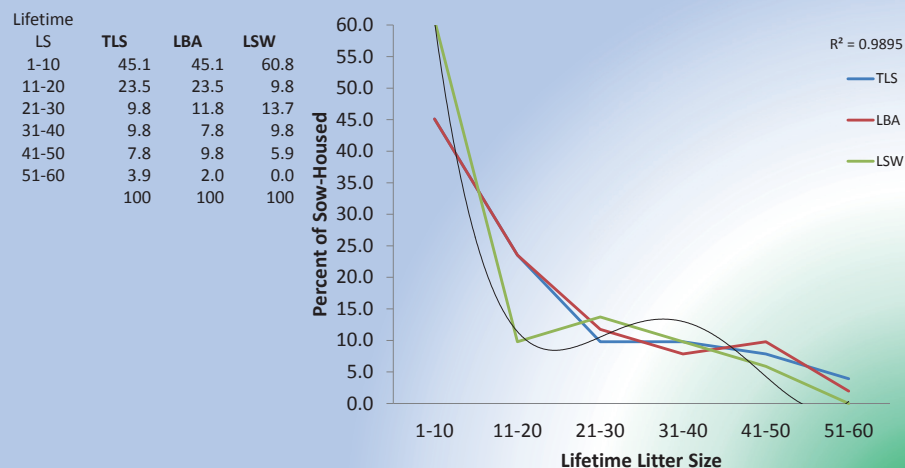
### Reasons for culling of sow

Reason	Count	Percent
Low litter size	44	89.80
Wild behaviour	3	6.12
Post-farrowing trauma	2	4.08
<b>Overall</b>	<b>49</b>	<b>100</b>

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## REPRODUCTIVE VIABILITY OF SOW

Percent distribution of sow-housed (n sow = 51) based on lifetime litter size (TLS, LBA, and LSW).



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## REPRODUCTIVE VIABILITY OF SOW

Litter size in six successive parities of Marinduke pig.

Parity Order	n sow	n litter	Ave. Total Litter Size	Ave. Litter Size Born Alive	Ave. Litter Size Weaned
1 <sup>st</sup> Parity	51	51	5.98	5.73	4.16
2 <sup>nd</sup> Parity	33	33	8.52	8.33	6.97
3 <sup>rd</sup> Parity	16	16	9.38	8.56	7.56
4 <sup>th</sup> Parity	11	11	9.46	8.73	7.45
5 <sup>th</sup> Parity	7	7	9.29	8.86	7.29
6 <sup>th</sup> Parity	2	2	8.00	7.50	3.00
<b>Overall</b>		120	7.68±2.9	7.31±2.8	5.85±3.2

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## REPRODUCTIVE VIABILITY OF SOW

Distribution of sexes in parity

Parity	Male born	Female Born	% Male	% Female
1	3.1	2.7	53.45	46.55
2	4.1	4.3	48.81	51.19
3	4.0	4.6	45.98	52.87
4	4.6	4.3	51.69	48.31
5	5.0	3.4	59.52	40.48
6	3.0	4.5	40.00	60.00
	4.0	4.0	50.63	50.63

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## REPRODUCTIVE VIABILITY OF SOW

Litter size from 2014 to 2017

Year	n litter	TLS	LBA	LSW
2014	8	8.50	8.25	7.75
2015	46	6.74	6.30	5.30
2016	42	8.05	7.67	5.50
2017	24	<b>8.54</b>	<b>8.29</b>	<b>6.88</b>
Ave.	120	7.96	7.63	6.36

El Niño

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## REPRODUCTIVE VIABILITY OF SOW

### Reproductive aberration in sow

Parity	Stillborn	Mummy	% Stillborn	% Mummy
1	0.3	0.0	4.92	0.00
2	0.2	0.0	2.33	0.00
3	0.8	0.0	8.42	0.00
4	0.7	0.1	7.22	1.03
5	0.9	0.4	9.38	4.17
6	0.5	0.0	6.25	0.00
Ave.	0.6	0.1	6.98	1.16

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## REPRODUCTIVE VIABILITY OF SOW

### Most prolific sow



4 parities  
53 TLS (13.25)  
52 LSBA (13)  
max. 15  
48 LSW (12)

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## REPRODUCTIVE VIABILITY OF BOAR

### Litter size in selected boar (n boar = 21)

Boar ID	n litter	TLS	LBA	LSW	Boar ID	n litter	TLS	LBA	LSW
<b>1-7</b>	<b>14</b>	<b>113</b>	<b>111</b>	<b>100</b>	<b>14-4</b>	<b>3</b>	<b>12.0</b>	<b>11.7</b>	<b>10.7</b>
23	14	105	104	85	10-3	7	9.9	9.0	6.7
5	14	90	81	62	29-2	2	9.0	9.0	8.0
8-7	11	85	83	72	16-2	2	9.0	8.5	4.5
10-3	7	69	63	47	27-4	3	9.0	8.3	2.3
15-5	9	65	57	45	10-10	6	8.7	8.0	7.2
8	9	63	61	62	10-6	5	8.2	7.4	5.8
10-10	6	52	48	43	<b>1-7</b>	<b>14</b>	<b>8.1</b>	<b>7.9</b>	<b>7.1</b>
9-7	6	48	48	42	9-7	6	8.0	8.0	7.0
10-6	5	41	37	29	9-3	1	8.0	8.0	2.0
<b>14-4</b>	<b>3</b>	<b>36</b>	<b>35</b>	<b>32</b>	8-7	11	7.7	7.5	6.5
27-4	3	27	25	7	34-6	3	7.7	7.7	5.3
34-6	3	23	23	16	23	14	7.5	7.4	6.1
29-2	2	18	18	16	15-5	9	7.2	6.3	5.0
16-2	2	18	17	9	8	9	7.0	6.8	6.9
29-1	3	17	17	8	FS	2	7.0	6.5	5.5
FS	2	14	13	11	5	14	6.4	5.8	4.4
20-5	2	12	12	3	20-5	2	6.0	6.0	1.5
15-2	2	9	9	4	29-1	3	5.7	5.7	2.7
9-3	1	8	8	2	15-2	2	4.5	4.5	2.0
14-9	2	8	7	7	14-9	2	4.0	3.5	3.5

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## REPRODUCTIVE VIABILITY OF BOAR

### Reproductive aberration in boar

Boar ID	Stillborn	Mummy	% Stillborn	% Mummy
<b>14-9</b>	0.5	0.0	<b>12.50</b>	0.00
15-5	0.8	0.0	10.80	0.00
10-6	0.8	0.0	9.76	0.00
10-3	0.9	0.0	8.72	0.00
<b>5</b>	<b>0.5</b>	<b>0.1</b>	<b>7.78</b>	<b>2.18</b>
10-10	0.7	0.0	7.73	0.00
27-4	0.7	0.0	7.44	0.00
FS	0.5	0.0	7.14	0.00
16-2	0.5	0.0	5.56	0.00
8	0.2	0.0	3.14	0.00
14-4	0.3	0.0	2.75	0.00
1-7	0.1	0.0	1.73	0.00
8-7	0.1	0.1	1.16	1.16
23	0.1	0.0	0.93	0.00
9-3	0.0	0.0	0.00	0.00
9-7	0.0	0.0	0.00	0.00
15-2	0.0	0.0	0.00	0.00
20-5	0.0	0.0	0.00	0.00
29-1	0.0	0.0	0.00	0.00
29-2	0.0	0.0	0.00	0.00
34-6	0.0	0.0	0.00	0.00

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## ACKNOWLEDGMENT

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