

# Hoof Trait Evaluation of Breeding Pigs

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- ❖ Introduction
- ❖ Hoof trait evaluation
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## Introduction



台灣區種豬產業協會會員場分佈圖

Locations of swine stock farmer from Formosan Farmers Association for Swine Improvement (FFASI)

## 最佳生長性能記錄

Top records of growth performance

Year of Birth	Breed	No. of Boar	ADG, kg		FE (Feed/Gain)		BF Thickness, cm	
			Great -est	ADG Mean	Best	FE Mean	Thinn -est	BF Mean
2018	<u>D</u>	<u>334</u>	119	150.7	1.36	1.082	1.16	1.351
2017	<u>D</u>	<u>381</u>	125	147.6	1.49	1.131	1.2	1.383
2018	<u>L</u>	<u>155</u>	127	147	1.37	1.123	1.18	1.356
2017	<u>L</u>	<u>145</u>	127	144.7	1.43	1.152	1.21	1.387
2018	<u>Y</u>	<u>51</u>	123	146.5	1.41	1.136	1.25	1.366
2017	<u>Y</u>	<u>66</u>	133	147.2	1.44	1.145	1.26	1.402

The Central Performance Test Station of National Animal Industry Foundation (CPTS)

## 最佳生長性能記錄

### Top records of growth performance

Year of Birth	Breed	No. of Boar	Age at 110 kg BW.		FE (Feed/Gain)		BF Thickness, cm	
			Great -est	ADG Mean	Best	FE Mean	Thinn -est	BF Mean
2018	<u>D</u>	<u>334</u>	1.36	1.082	1.856	2.076	1.16	1.351
2017	<u>D</u>	<u>381</u>	1.49	1.131	1.933	2.075	1.2	1.383
2018	<u>L</u>	<u>155</u>	1.37	1.123	1.933	2.081	1.18	1.356
2017	<u>L</u>	<u>145</u>	1.43	1.152	1.955	2.068	1.21	1.387
2018	<u>Y</u>	<u>51</u>	1.41	1.136	1.986	2.095	1.25	1.366
2017	<u>Y</u>	<u>66</u>	1.44	1.145	1.915	2.061	1.26	1.402

The Central Performance Test Station of National Animal Industry Foundation (CPTS)

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Livestock Research Institute has referenced the discretion of hoof structure scoring method of Europe and America to set up a scoring method for pig selection system of Taiwan.



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## 臺灣公豬淘汰原因

### The reasons for boar culling in Taiwan

	Head 頭數	Percentage 百分比
Poor semen 精液不良	25	29.5
Disease 疾病	19	22.6
No libido 無性慾	13	15.5
Feet and leg problems 腳弱	27	32.1
Total 總計	84	100.0

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### scoring method

- ❖ Swine stock's feet & leg evaluation form as table 1, total score was 100 points
- ❖ overall views before scoring.

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## ❖ Hoof trait evaluation

Table 1. Swine stock's feet & leg evaluation form

Breed	Ear No.				Sex	Recording No.			
Item (points)	Fore leg (40 points)				Item (points)	Rear leg (60 points)			
	Code	Feature	Points	Code		Feature	Points		
Angle at the knee joint (10)	1	Extremely buckled			1	Extremely buckled			
	2	Buckled			2	Buckled			
	3	Straight			3	Straight			
	4	Normal			4	Normal			
	5	Sickled			5	Sickled			
Legs turning (10)	1	O shaped			1	O shaped			
	2	Standing inwards			2	Standing inwards			
	3	normal			3	normal			
	4	Standing outwards			4	Standing outwards			
	5	X shaped			5	X shaped			
Condition of the pasterns (10)	1	Extremely bucked			1	Extremely bucked			
	2	Straight			2	Straight			
	3	normal			3	normal			
	4	Weak			4	Weak			
	5	Extremely Weak			5	Extremely weak			
Size and uniformity of claws (10)	1	small			1	small			
	3	normal			3	normal			
	5	uneven			5	uneven			
Signature of evaluation				Date of evaluation				Score	

## Overall views



Four legs are moderate length, wide between two legs, standing upright, walk more fluidly, pasterns are short and strong.

## Fore Leg ( 40 points) (40%)

Table 1. Swine stock's feet & leg evaluation

Breed	Ear No.		
Fore leg ( 40 points)			
Item (points)	Code	Feature	
Angle at the knee joint (10)	1	Extremely buckled	
	2	Buckled	
	3	Straight	
	4	Normal	
	5	Sickled	

## Fore Leg ( 40 points) (40%)

Legs turning (10)		1	O shaped	
		2	Standing inwards	
		3	normal	
		4	Standing outwards	
		5	X shaped	

## Fore Leg ( 40 points) (40%)

Condition of the pasterns (10)		1	Extremely bucked	
		2	Straight	
		3	normal	
		4	Weak	
		5	Extremely Weak	

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A pig who exhibits correct structure will stand down on even toes with equal wear on both toes proportionately.



蹄 ( )			
	1 小蹄	3 正常	5 不均



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Sex	Recording No.			
Rear leg ( 60 points)				
Item (points)		Code	Feature	Points
Angle at the hock joint (15)		1	Extremely buckled	
		2	Buckled	
		3	Straight	
		4	Normal	
		5	Sickled	
Legs turning (15)		1	O shaped	
		2	Standing inwards	
		3	normal	
		4	Standing outwards	
		5	X shaped	
Condition of the pasterns (15)		1	Extremely bucked	
		2	Straight	
		3	normal	
		4	Weak	
		5	Extremely weak	

Hind leg  
( 60 points)  
後肢  
(60%)

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## Working team

1. There were 9 members from FFASI, TLRI(4), CPTS (3) and hog industry representatives
2. Each time three representative team members will score for feet and legs of boars and girls
3. Mr. Liu Kuei Chu (The Secretary-General of FFASI) and Mr. Lin Ko Yu (Hog industry representatives) served as chief umpire and vice umpire respectively.

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## R & D results

福昌	227	大豪興	18
王文曲	44	順安	13
暉煌	41	冠儒	13
仙佳	39	願景金來	10
水波	37	台糖新厝	4
祝興	28	福冠	4
金龍	21	冠妮	1

合計538

## Awards



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## Paternal parent of breeding pigs with the top grade of hooves

2019年腳蹄第一名種豬頭數統計  
(查詢日: 2019/12/7)

種豬場	第一面 得獎日期	最近 得獎日期	總頭數				序 號
			D	L	Y	F	
福昌	2019/1/15	2019/11/27	10	11	1	<u>22</u>	1
金龍	2019/1/15	2019/6/6		7		<u>7</u>	2
冠儒	2019/1/15	2019/11/15		4		<u>4</u>	3
順安	2019/1/23	2019/5/22	2			<u>2</u>	4
台糖新厝	2019/1/23	2019/1/23			1	<u>1</u>	5
祝興	2019/3/3	2019/11/27	1	1		<u>2</u>	6
仙佳	2019/3/27	2019/4/24	1		1	<u>2</u>	7
水波	2019/5/15	2019/10/23	1	2	1	<u>4</u>	8
冠妮	2019/9/9	2019/9/9			1	<u>1</u>	9
暉煌	2019/10/23	2019/10/23	1			<u>1</u>	10
2019年腳蹄第一名種豬總計			16	25	5	<u>46</u>	

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## Paternal parent of breeding pigs with the top grade of hooves

2018年腳蹄第一名種豬頭數統計

種豬場	第一面 得獎日期	最近 得獎日期	總頭數				序 號
			D	L	Y	F	
大豪興	2018/1/15	2018/8/15	3			<u>3</u>	1
水波	2018/4/25	2018/11/28		2	3	<u>5</u>	2
仙佳	2018/3/28	2018/7/25	2			<u>2</u>	3
台糖新厝	2018/1/24	2018/1/24			1	<u>1</u>	4
金龍	2018/3/3	2018/12/12	11			<u>11</u>	5
冠儒	2018/1/15	2018/12/12	6			<u>6</u>	6
祝興	2018/3/3	2018/10/24	4			<u>4</u>	7
順安	2018/1/24	2018/1/24	1			<u>1</u>	8
暉煌	2018/4/25	2018/6/6	1	2		<u>3</u>	9
福昌	2018/1/15	2018/12/12	12	3	4	<u>19</u>	10
福冠	2018/7/11	2018/7/11	1			<u>1</u>	11

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## Conclusion

❖ In summary, the scoring of feet and legs data has become one of the auction information in swine purebreds, and may offer the reference data for improving the structure of pig's feet and legs of various swine stock farms.

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*Thank you for your attention*

謝謝聆聽！



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