

Pathogen-free Boar Semen Application in Pork Production

Green Nice Animal Technology Co., Ltd, Taiwan

Chào
mừng

蕭君倪 Jenny Hsiao, DVM, MS

蕭錦堂 Chin-Ton Hsiao

Shui-Po Breeding Swine Farm

Shui-Po International Certification AI Station



The advantages of using boar semen from SPF AI station



- **Reduced virus and disease transmission.**
- **Good semen quality can provide stable production.**
- Improving efficiency of the breeding herd.
- Easier genetic gain and rapid improvement.
- Saving time and money for farmers and the government.
- Better and safe working environment.

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The possible pathogen in the semen

Bacteria Found in Boar Semen*	
Common	Infrequent
Staphylococcus spp.	Corynebacterium spp.
Pseudomonas spp.	Streptococcus spp.
Escherichia spp.	Proteus spp.
Klebsiella spp.	Bacillus spp.
Citrobacter spp.	Enterobacter spp.
Micrococcus spp.	Aerobacter spp.
Eubacterium spp.	Bordetella spp.
	Mycoplasma spp.

Viruses Found in Boar Semen*	
Common	Infrequent
Adenovirus	Pseudorabies virus**
African swine fever**	Porcine parvovirus**
Classical swine fever virus**	Porcine reproductive respiratory syndrome virus**
Cytomegalovirus	Reovirus
Enterovirus	Swine vesicular disease virus
Foot-and-mouth disease virus	Transmissible genital papilloma virus
Japanese encephalitis virus	

Note

<https://www.extension.org/pages/27260/biosecurity-and-health-assurance-at-a-boar-stud#:VAPqWSSyOc>

The advantages of using boar semen from Certificated AI station

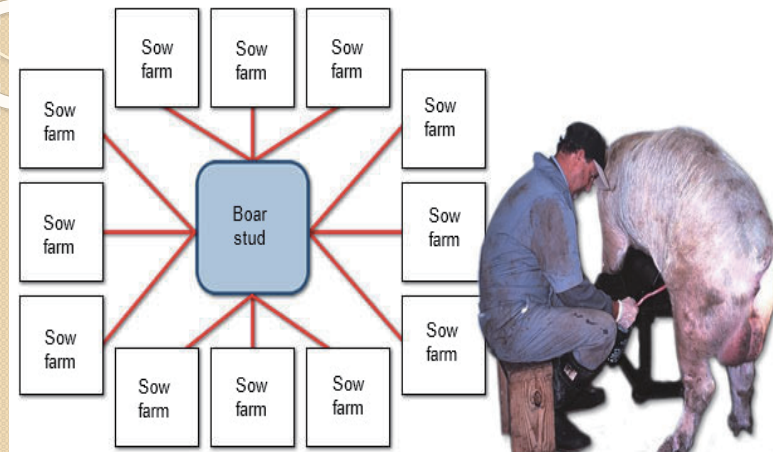


Figure 1: An example of the spread of PCV2 from a boar stud to commercial sow farms. 100-head Boar Stud \Rightarrow 20 AI doses/boar/week \Rightarrow 2,000 total AI doses/week \Rightarrow 1,500-sow farm \Rightarrow 3 week weaning \Rightarrow 75 females mated/week \Rightarrow 2.2 AI doses/mating \Rightarrow 165 AI doses needed/week

Mark J. Estienne, http://www.pig333.com/circovirus/pcv2-possible-transmission-to-sows-through-artificial-insemination_6879/, 2013.



Farm Overview



- ◆ Shui-Po Breeding Swine Farm was established in 1978, additionally founded our AI center in 1998.
- ◆ We operate on approximately 4.6 Hectares (11.36 Acres), with surrounding land of approx. 8.0 Hectares (19.76 Acres) intended for landscaping, recreation and leisure.
- ◆ Currently we own 550 pure breed sows (275 Landrace, 175 Yorkshire and 110 Duroc) and 150 boars.
- ◆ Our pure bred swine breeding/ production management and AI station received ISO9001:2008/CNS12681 International Quality Management Standard Certificate 〈14QMA50968〉 〈2001~2017〉.

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Award and Honor



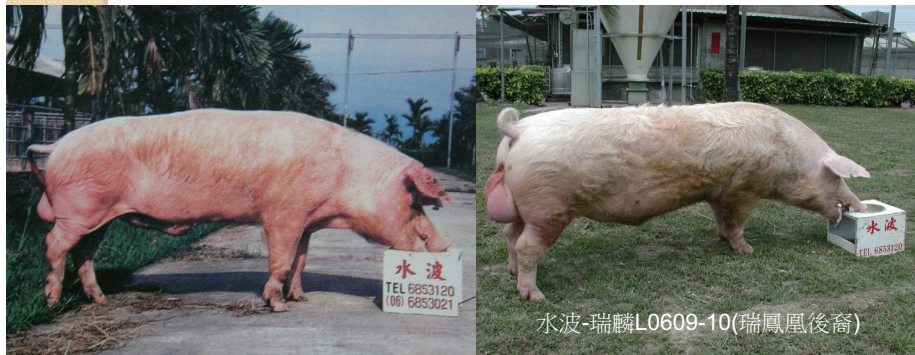
- National Animal Industry Foundation evaluated our L, Y, D as nucleus purebred farm, 2017, and consecutively received the honor.
- Our farm has been evaluated as Landrace nucleus purebred farm for 19 years with excellence of Breeding Award.
- **Our AI station has been evaluated as nucleus artificial insemination semen supplier for a consecutive of 12 years by the National Animal Industry Foundation.**
- Received “Excellent Swine Farm Certificate” from Council of Agriculture Executive Yuan.



Award and Honor



- ◆ 瑞鳳凰, L137-09 (R16720) bred by our farm has been awarded the first Golden plum blossom prize in 1985.

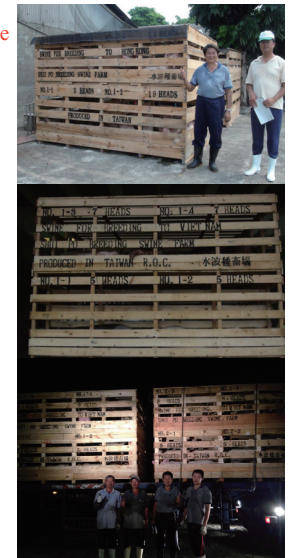


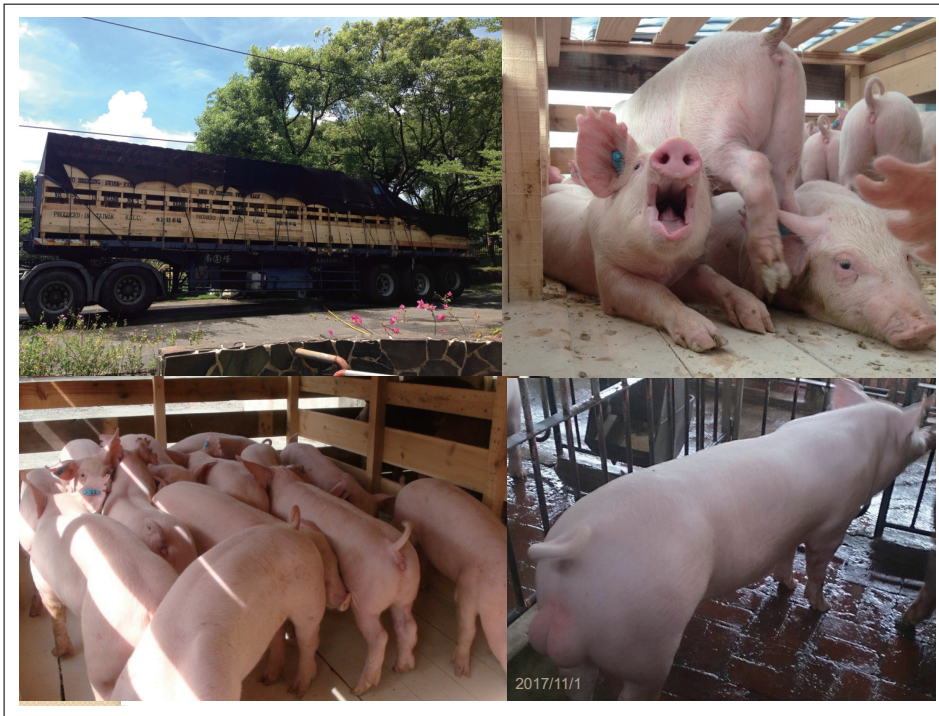
Export Records



- From 1991 to 1997, we exported 2,015 purebred pigs to southeast Asia including **Vietnam**, Philippines, Hong Kong, and Malaysia.
- Note that especially during October, 1996, 524 purebred pigs were exported through a Boeing 747 air cargo to **Vietnam**. After 30+ hours of transportation, all shipment arrived safety without lost.
- CHIA HSIN COMPANY LIMITED VIETNAM
- From 2013, we exported pigs to abroad again!
- 20130630, we exported 116 breed pigs to Hong Kong.
- 20140215, we exported breed pigs to **Vietnam**.
- 20140819, we exported 55 breed pigs to **Vietnam**.
- 20150412, 138 breed pigs to Hong Kong.
- 20150614, 122 breed pigs to Hong Kong.
- 20150717, 73 breed pigs to **Vietnam**.
- 20151029, 140 breed pigs to Hong Kong.
- 20160120, 36 breed pigs to Vietnam (DABACO).
- 20160525, we exported breed pigs to HCM, **Vietnam**.
- 20161202, we exported breed pigs to HCM, **Vietnam**.
- 20170615, 140 breed pigs to Hong Kong.

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Breed pigs and semen Quality Management



- ◆ A stable immunization plan and examination at whole farm basis.
- ◆ **2017 Pseudorabies (-) Farm in Taiwan**
- ◆ Boar semen undergo regular molecular biology examination of microorganism.
 - ◆ PR, PRRS, PCV2 and bacteria: negative.
- ◆ Monthly selection and genotyping of replacement boar and gilts.
 - ◆ 100% Stress gene Free(PSS gene free)!!
 - ◆ High growth and production performance
 - ◆ Good meat quality (HH6) for Duroc and ESR gene (MM, MN) selected for Yorkshire and Landrace.
- ◆ Regular On farm test and complete pedigree registration.
- ◆ Uniformity vs. Improved Performance



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Management of Boar semen collection and Quality control



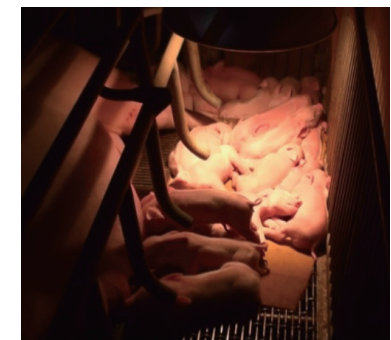
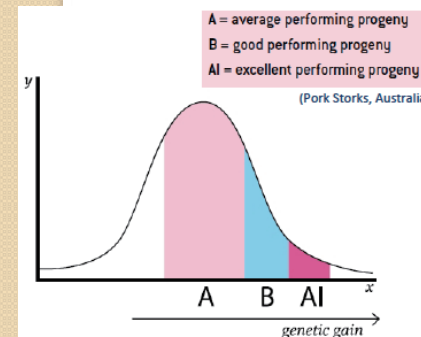
- Housing environment: Evaporative cooling system
- Concentration and morphology test after every collection
- Duribility test under 18°C
 - Every diluted boar semen are to have above 75% vitality at 24、48 & 72 hours
- Open source boar performance data
 - http://www.angrin.tlri.gov.tw/pig/bsn_PP.htm
- Complete semen sample collection and sales records
- Tracing offspring from customers
- Training Courses of new techniques with the customers
- Cooperation with College and in the field
 - TLRI/ NPU/ NTU/ NCYU/ NCHU/ Industry



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Improving reproduction performance and Stable growing performance of the slaughter pigs



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Products

- ◆ Breeding pigs
 - ◆ L, Y, D ♀/♂ Pure-bred
 - ◆ L×Y (F1) ♀ gilts



- ◆ Boar semen
 - ◆ L, Y, D Pure breed boar semen
 - ◆ Commercial Duroc boar semen

水波種畜場國際認證AI站 值得您信賴的合作夥伴
通過ISO 9001:2008國際品質認證 中央畜產會評鑑為核心AI站(計一級)

水波種畜場國際認證AI站
電話: (06)8551190 • (06)8554021
傳真: (06)8554471
E-mail: 878201@shui-po.com.tw
地址: 台南市白河區廣興路77-118號

Maternal Line

L0973-13(R203394) AAHL4MN

Y1123-09 (R204587) AAL10MM SHUI-PO



L0100-12(R195493) AAHL4NN

Y1069-16(R202271) AAHL3MN



Terminal Line

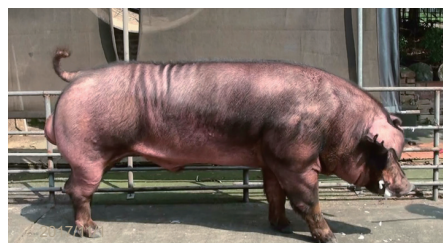
D0769-12(R218753) AAHH6NN

D0796-07(R217775) AAHH6NN



D0861-14(R218772) AAHH6NN

D0092-04(R207195) AAHH6NN

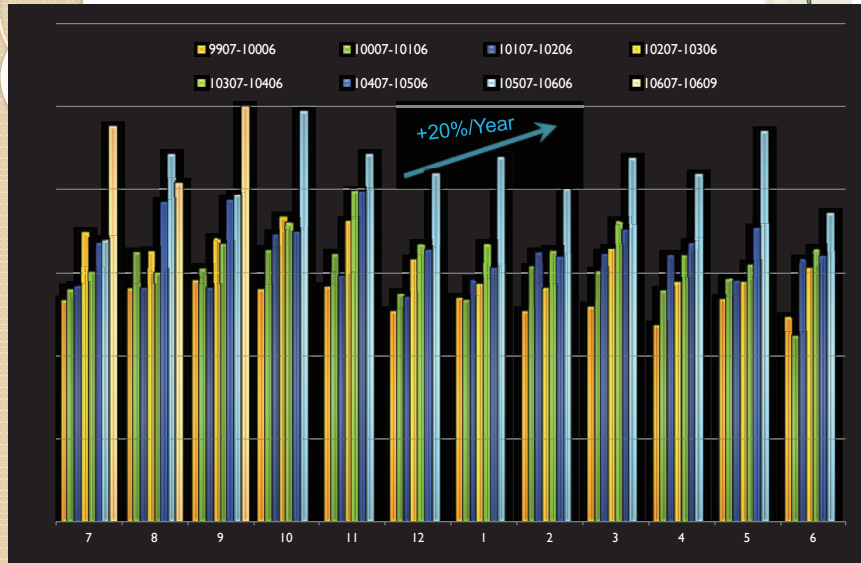


Customers' Feedback

◆ Before and After of piglet born using Shui-Po Sows and Semen



Doses Sold



Customers' Feedback



◆ Carcass evaluation data (Taiwan Style; with the head)

Farm	Breed	Live Weight	Carcass Weight	Avg. Carcass %	Avg. Loin-eye areas (in ²)	Lean %
a	L.Y.D	110.9	96.9	87.4%	7.5in ²	55.3%
b	L.Y.D	104.0	90.7	87.3%		55.5%
c	LD	102.4	89	86.9%		
d	LYD	110.4	95.9	86.8%		

The advantage to work with SP farm!



- (1) Increased sow farrowing rate
- (2) More piglet born
- (3) Higher growth rate
- (4) Higher raising rate
- (5) Great FCR
- (6) High market value
- (7) Higher PROFIT!

Join Us



Shui-PO CAN help you improve the efficiency!!



Thanks for listening



Shui-Po Breeding Swine Farm and International Certification AI Station

Address: No. 71-115, Xincuzi, Baihe Dist., Tainan 73242, Taiwan, R.O.C

Tel : +886-6-6853120 · 6853021

Fax : +886-6-6854671

Mobile : +886-932-718-851

E-mail : p73201@yahoo.com.tw