

Vision of Pedigree Registration of Pig Breeds

Dr. Yung-Yi SUNG

Emeritus Professor of National Taiwan University

I. Bakewell's Selective Breeding

The first task for improvement of our farm animals is to selective breeding.

Robert Bakewell (1725-1795) English agriculturalist is particularly notable as the first systematic selective breeding of livestock. His advancements not only led to specific improved in breeding an efficiency breeds but contributed to general knowledge of artificial selection. After artificial selection farm animals increased dramatically in size and quality.

II. Stockbreeding Method History

There are three agendum of selection with within stockbreeding method history : **(1)1660s** the Royal Society of London for Improving Natural Knowledge initiate the farm animal exhibition as Royal Show continuously from that day. Good quality pig exterior in it type and conformation are improved popularity. (Fig. I.)

After ten decade, **(2)1770s** that belong to Bakewell conducted with farm animal pedigree as human's registration of a birth notable as



Fig. I. British Old Breed "Oxford Sandy & Black"

beginning of the modern animal breeding ; a farm animal having a family of pedigree.

Bakewell speak to purebred breeders going to associated a breed registration club for preservation the breed purity. 1797, Thoroughbred

herd book, Shorthorn (1882) and Hereford (1846) herd book was published one after another. 1884 British Pig Association was found and is the official breed society that maintain the Herd Books for the Old Sports, Hampshire, Large Black, Large White, Mangalitza, Middle White. Oxford Sandv & Black(Fig. I.) . Pietrain.

Tamworth and Welsh. The animal breeds registry system spread through the world. Before long, these implement systemic improve farm animals led to Britain became a big breeding stocks supplying nation.

After other ten decade, **(3)1886** a live pig import ban was enacted by the German Diet. Other than the U.K. English Channel away so supplying the carcass or part meat for German needs, other adjacent nation Denmark particular blow by this ban. But fortunately Denmark covertly and quickly established a performance

testing station in Fyn Island to research in compare the growing ability and its carcass traits. Be often it too in 17 years study, age of market weight(90Kg) was decrease a 17 days, feed conversion ratio was 4.5Kg tremendous reduction to 3.3Kg, in 1905 Dane announce publicly first successful boar testing station in the world.

This last agenda of stockbreeding method also rapidly spread out the advance countries to established performance testing facility strengthen the foundations of the nation systematic improvement method of farm animals.

III. Pig Improvement System in Taiwan

From evaluation pig exterior, pedigree registry and performance testing its time series in advance nations and Taiwan as follows Fig. II. & Fig. III respectively.

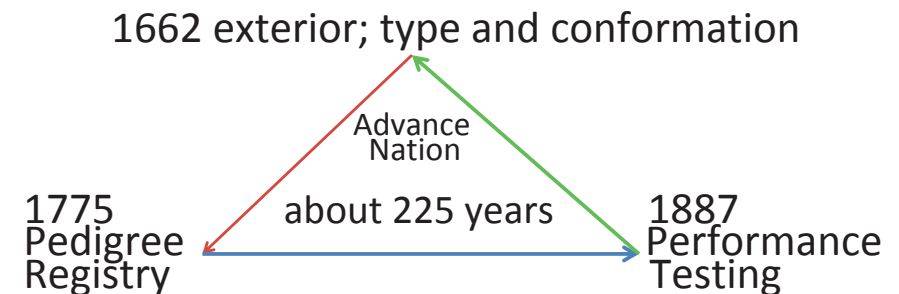


Fig. II. Time series of Advance Nations.

1908 Exterior; type and conformation

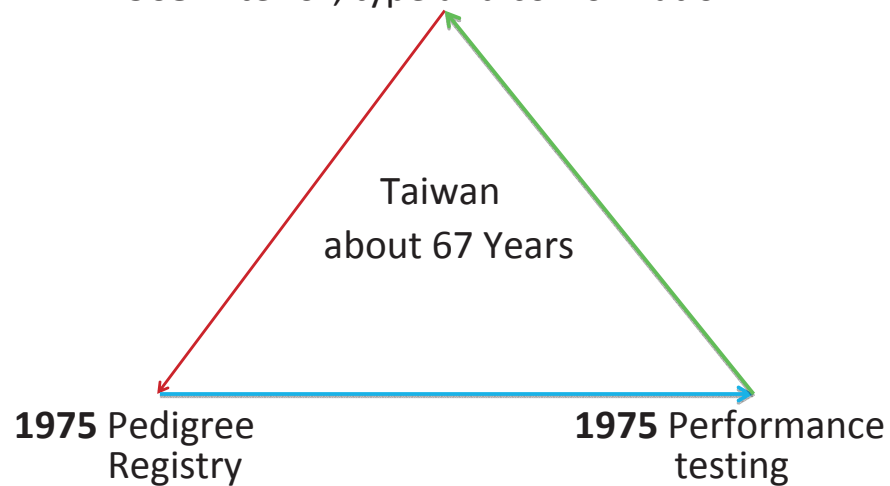
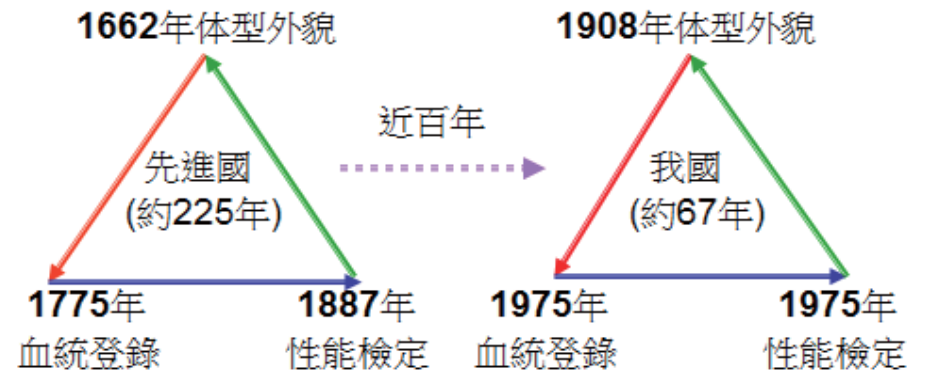


Fig.III. Time series of Taiwan.

(三) 我國的演變:

比較先進國與我國的種豬改良，自評鑑其体型外貌，至進行種豬的血統系譜之種豬登錄，到重視種豬的性能檢定之年代進程如下圖。



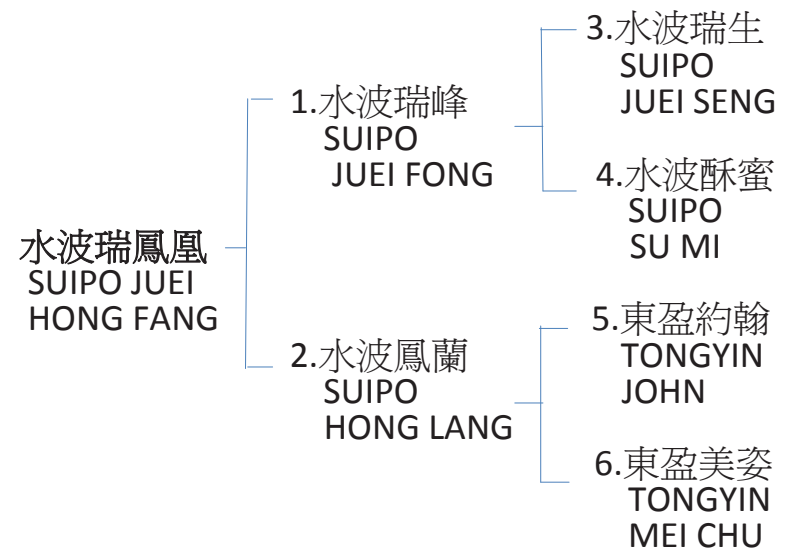
~ 74 ~

IV. Pedigree for Vision

(I) Landrace boar with a Plum Blossom Award.

SUIPO JUEI HONG FANG,

<i>Sire</i> SUIPO JUEI FONG	<i>Sire</i> SUIPO JUEI SENG
	<i>Dam</i> SUIPO SU MI
<i>Dam</i> SUIPO HONG LANG	<i>Sire</i> TONGYIN JOHN
	<i>Dam</i> TONGYIN MEI CHU

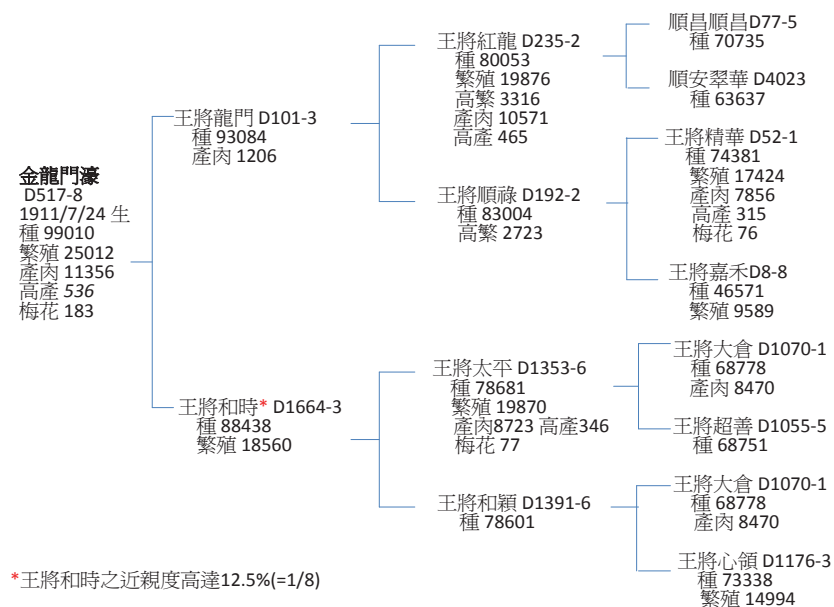


第1號梅花獎金牌豬水波瑞鳳凰之血統系譜圖

(II) Duroc boar with double Plum Blossom Award.

KIHLUNG MEN HOU,

Sire WANG CHIAN LUNG MEN	Sire WANG CHIAN HONG LUNG	Sire SUN AN SUN CHAN Dam SUN AN CHUI HUA
	Dam WANG CHIAN SUN LU	Sire WANG CHIAN CHIN Hua Dam WANG CHIAN CHIA Ho
Dam WANG CHIAN HO SH	Sire WANG CHIAN TAI PING	Sire WANG CHIAN TA CHAn Dam WANG CHIAN CHAU San
	Dam WANG CHIAN HO IN	Sire WANG CHIAN TA CHAn Dam WANG CHIAN SHIN Lin



兩顆梅花獎金牌豬金龍門濠之頂交(bottom cross)系譜圖

~ 75 ~

(V) Benefits of Pedigree Registration

You can bequeath a better pedigree.

Genetic ability of parents can reach planned capacity of livestock will inherit this kid absolutely. Improve the genetic potential is often present in the early stages. By successor of pigs with an excellent pedigree, and also affect the profitability of direct. 能保存優良血統基因 (DNA): 親代的遺傳性能會確實的傳給子代, 可有計畫的改進家畜的生長能力。優秀種豬後代肉豬生長好直接增加養豬收益。

Registration certificates issued.

Various registration certificates are issued upon registration. 發行各種登錄登記證明: 好豬能獲得公眾的各種證錄登記證明。

You can prevent the intensity of inbreeding.

These days fall into the intensity of inbreeding, selective breeding of livestock cases more. You can avoid such intensity of inbreeding that livestock registered in. 防止過度的近親: 近年因明星種豬的出現近親度增加, 必依據登錄資料調整自己的適度配種。

■ Can prevent defective genetic traits.

Can see individuals with bad genetic traits over several generations, so you can avoid already high risk of hybridize. 能預防不良的DNA: 具不良遺傳基因會經數代出現或經基因檢測能避免有危險性之配種，滿足飼豬業者的安全感。

■ Safety and high quality improves profitability.

Proof of excellent pedigree, so would naturally favorable to sale of livestock. The registry as a traceability system though have a more robust livestock supply and distribution at stable prices can be expected.

安心安全的高品質增加收益：具優秀血統證明有利種豬買賣交流。血統登錄如同履歷可追蹤增加種豬信賴性而穩定較高交易價格。

■ Additional information has appealing to consumer.

Livestock safety and security is questioned, more consumers prefer to have a appeal as an added value, excellent pedigree certificate.

附加資訊對消費者負責：消費者重視種豬的安心與安全，血統登記登錄證明增加種豬的附加價值。