

Table S1- Description of breeds sampled

Breed	Breed history	Characteristics/Aptitudes	Major faults	Country of origin	Sample size
Large White	Origin in England late 1700s from a cross between white pigs from Yorkshire and Chinese pig from Canton	<ul style="list-style-type: none"> • Large litter sizes • Large milk production • Good maternal instincts • Good feet and legs 	<ul style="list-style-type: none"> • Poor ham development 	Denmark, USA, The Netherlands	36
Landrace	Origin in Denmark from a cross between local wild boars and imported Large White pigs	<ul style="list-style-type: none"> • Large size • Large eye muscle • Good carcass quality • Rapid growth • Higher weight on weaning 	<ul style="list-style-type: none"> • Leg weakness • Splay legs • Nervous disorders (porcine stress syndrome) 	Denmark, USA, The Netherlands	29
Pietrain	Originated from Pietrain in Belgium, exact origin is unknown	<ul style="list-style-type: none"> • Legs with extreme muscular development • High proportion of lean to fat • Desired for fresh meat production • Used as sire lines 	<ul style="list-style-type: none"> • High mortality due to high frequency of a mutation in the Hal gene • Poorer meat quality 	The Netherlands, USA	23
Duroc	Unknown origin. By ~1800 several red breeds were developed in USA, including the Duroc of New York	<ul style="list-style-type: none"> • Large size • Heavy carcass production • Use as terminal sire line when crossed with Large White×Landrace sows for bacon production 	<ul style="list-style-type: none"> • Bad maternal instincts • Lower litter size • Late maturing type 	Denmark, USA, The Netherlands	34