

# RINGNECK-X PROJECT

(OUR MACFARLANE RINGNECK PEDIGREE PROGRAM)

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MacFarlane Pheasants International Pheasant Seminar

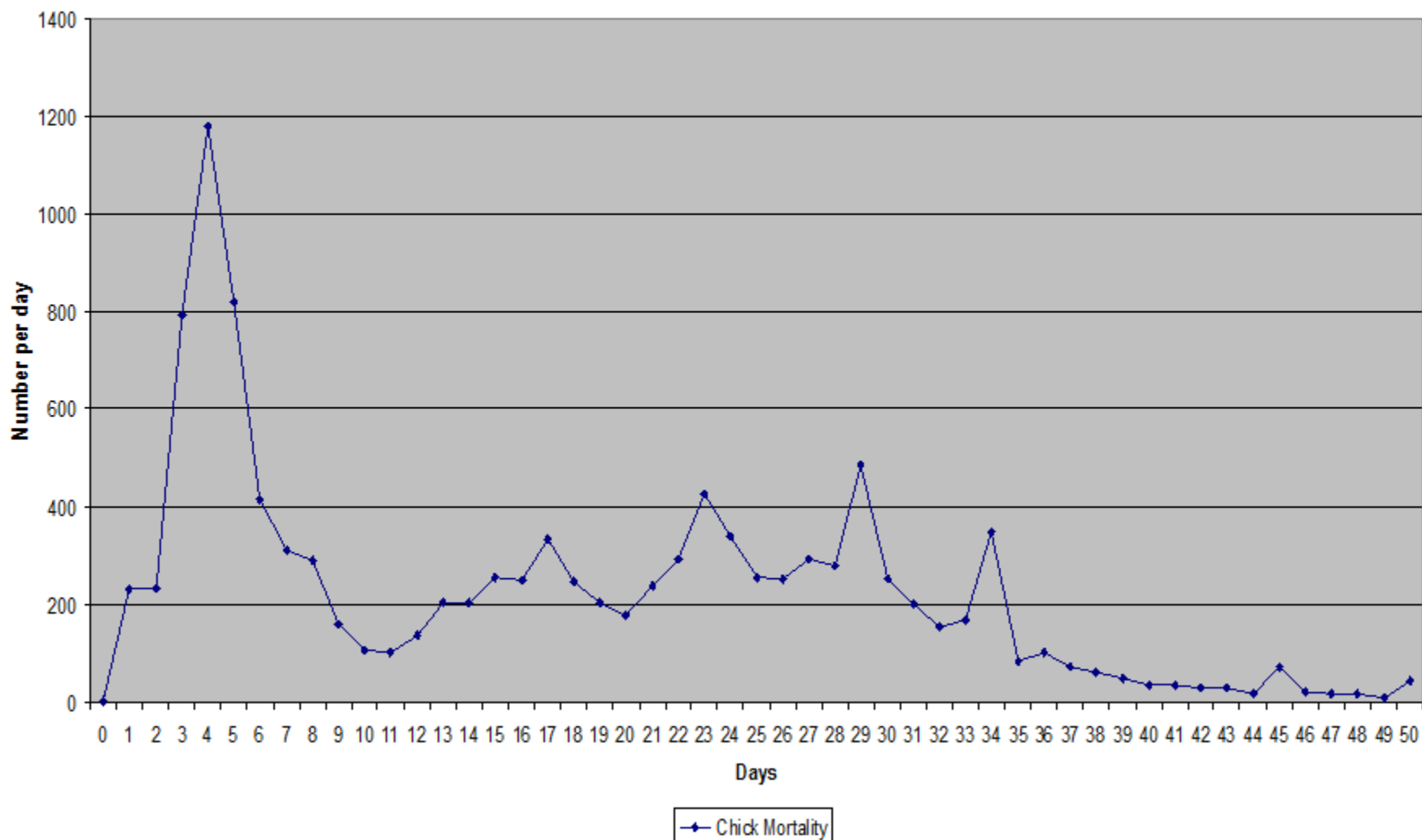
March 5<sup>th</sup> 2014

# Goals of the project – late 2009

- ▣ Assess our current breeder stocks
- ▣ Assess other available breeder stocks
- ▣ Identify targeted traits
- ▣ Develop a selection program
- ▣ Assess improvement
- ▣ Identify pitfalls

Develop a more structured and detailed approach  
to breeder selection

Chick Mortality at MacFarlane Pheasants Bams 1-3 2004-2009  
(136,063 total pheasant chicks starter - 6800 average group size)



# Chick Mortality Stats – Benchmarks 2005 – 2009

Starve out period

Day 1-7

2.93%

Thru Move out

50 days

8.32%

Critical points.....

# White Genetics Program

- ▣ In late 2006 the focus for bodyweight improvement shifted toward 6 – 7 week weights
- ▣ Almost immediately we observed lower chick mortality

# Wolff Bellefontaine Results

2005 – Pre change

2009 – Post change

84,125 chicks placed

74,564 chicks placed

74,712 returned

68,418 returned

88.8%

91.8%

Overall Mortality 11.2%

Overall Mortality 8.2%

# Wolff Bellefontaine Results

- ▣ Most of the improvement would be in the first 6 weeks – average mortality reported between 4-5%
- ▣ Results are validated by somewhat controlled rearing process

# Integrating the white pheasant breeding strategy to Chinese Ringneck

## Opportunities

Improved livability  
Hardier chicks  
Improved early uniformity  
Easier rearing  
More tolerant  
Competitive advantage

## Potential Pitfalls

Increase in adult body size  
Reduction of wildness characteristics  
Feather quality  
Other potential unknown issues, i.e. disease



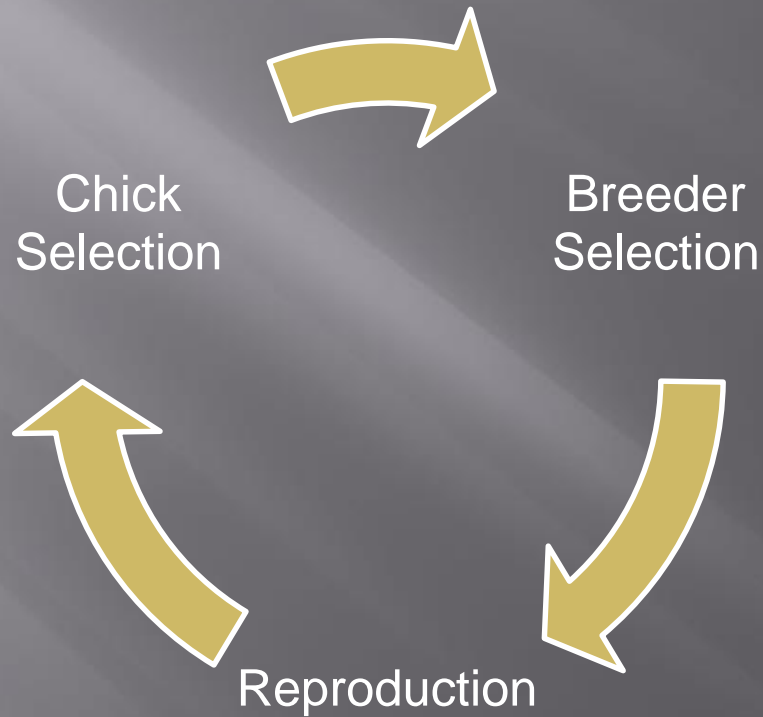
# Defined Goal of the Project

- ▣ Improve chick quality & livability without impacting desirable traits

Chick Thriftiness – Definition - Growing vigorously; thriving

**\*\*While maintain flight pheasant qualities\*\***

# Strategy Proposal



# Chick Selection

- ▣ Rate of gain

Evaluation of weight gain between hatch day to 21 days of age.

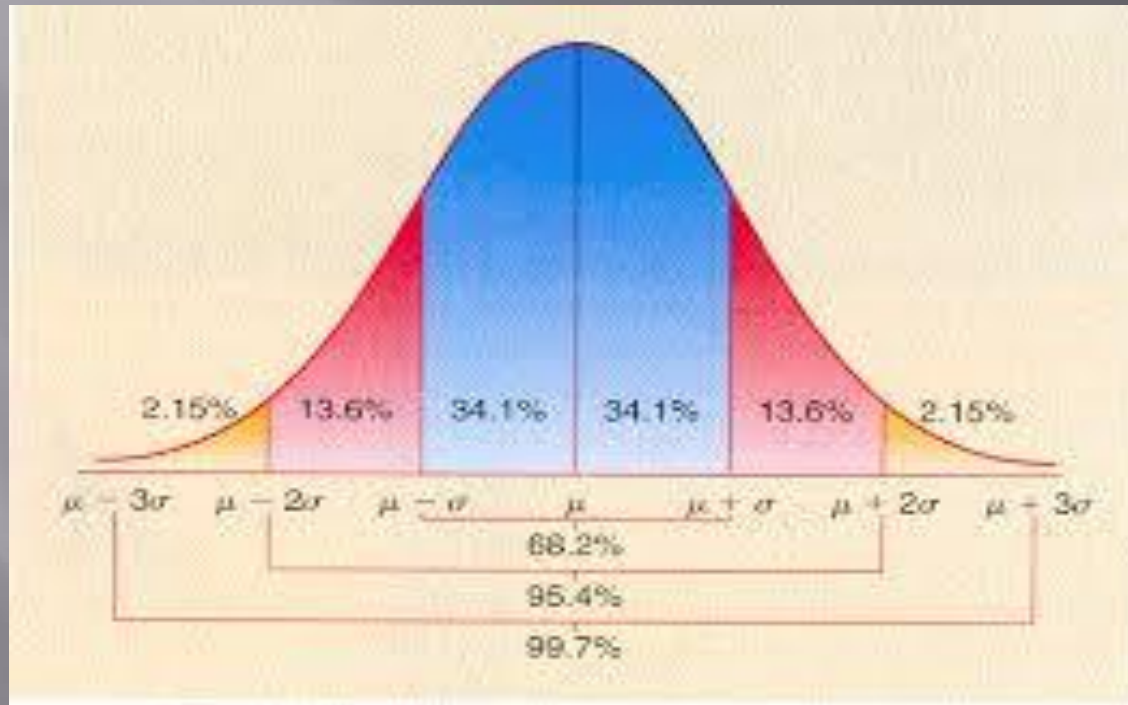
Require wingbanding chicks, initial weight at hatchery and weighing at 21 days

- ▣ 5 week bodyweight

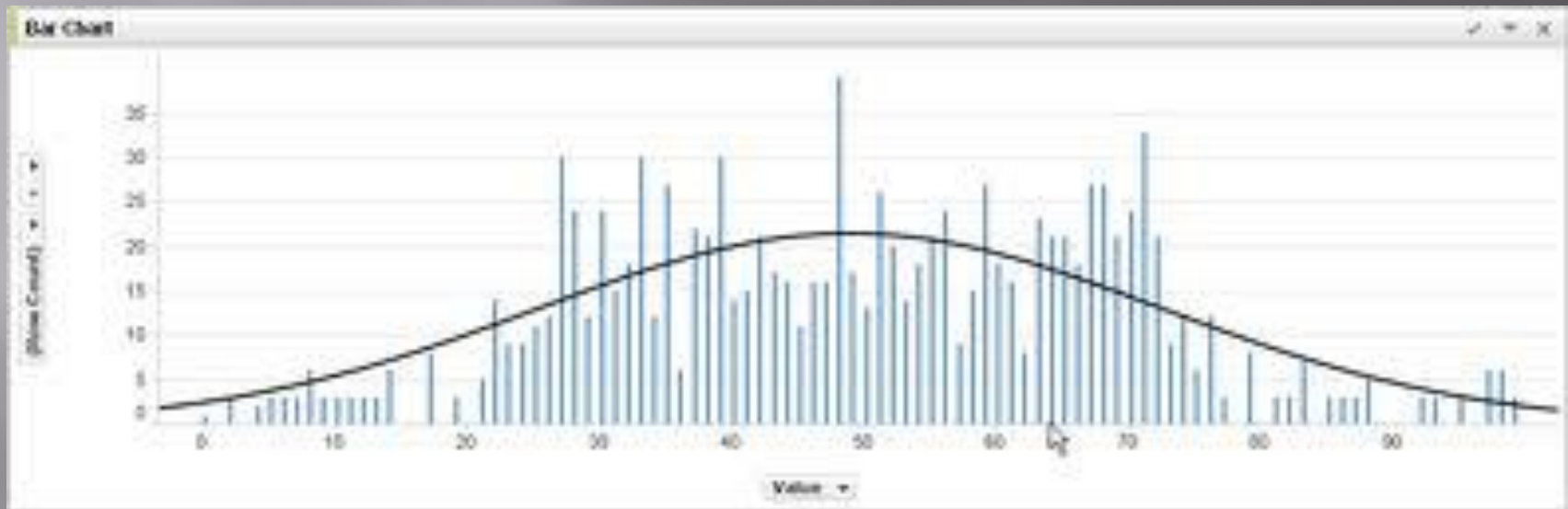
Bodyweight evaluation at 5 weeks of age

Require individual weighting of birds at 5 weeks (peeping) and selecting top birds at 6 weeks

# The Normal Curve



# Un-Normal Curve



# Another Critical Point Move out

- ▣ We experienced a significant reduction in move out losses



# Male Selection Criteria

- ▣ Bodyweight – Individual weight
- ▣ Proper coloration – Acceptable/Not
- ▣ Proper Body conformation– Acceptable/Not
- ▣ Tail Length – Total Length Measured
- ▣ Tail Quality – Acceptable/Not
- ▣ No Physical Defects
- ▣ No abnormalities

# Female Selection

- ▣ Bodyweight – Individual Weight
- ▣ Proper body conformation-Acceptable/Not
- ▣ No physical defects
- ▣ No abnormalities



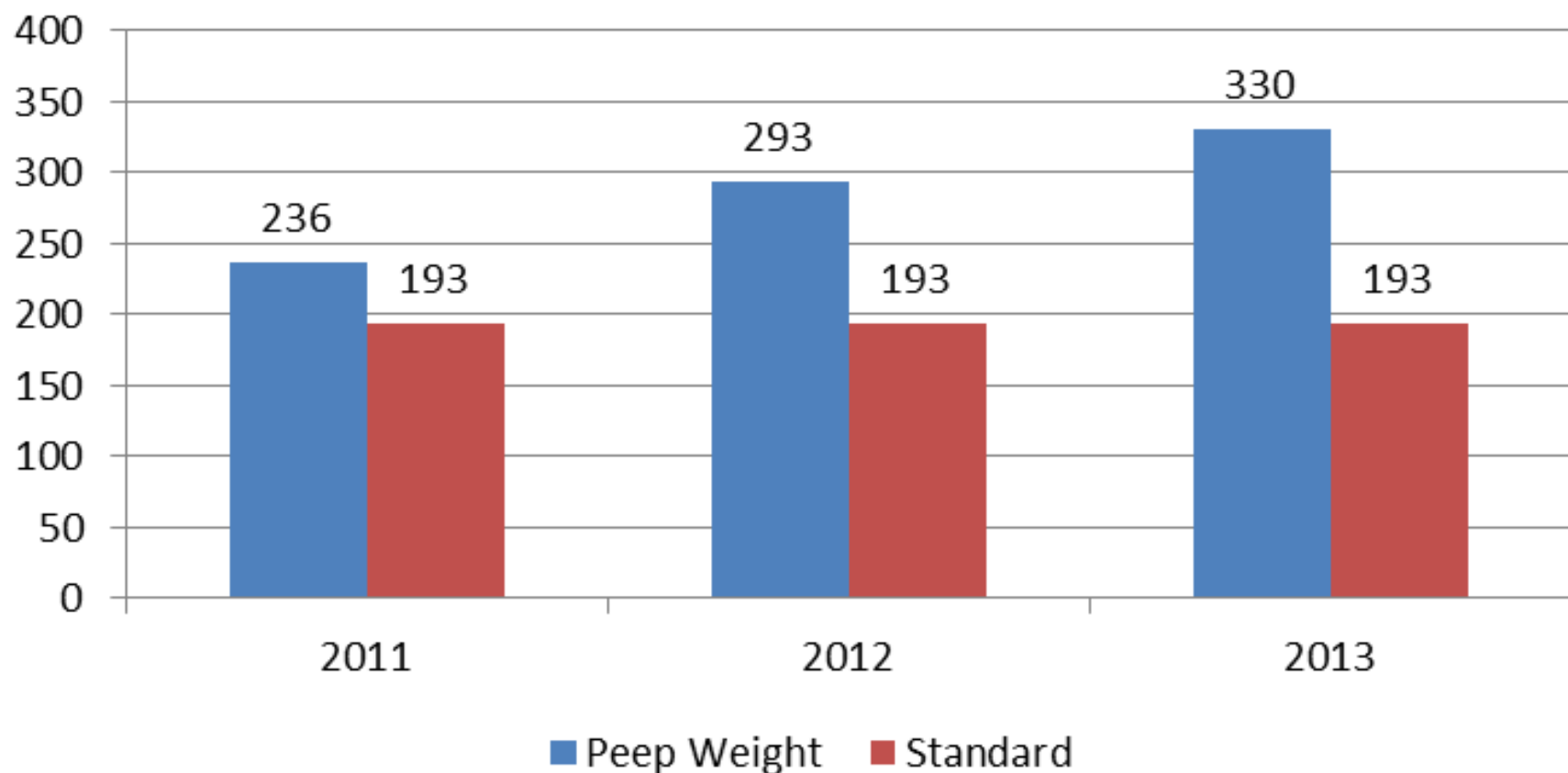
# Ringneck Pedigree 2011



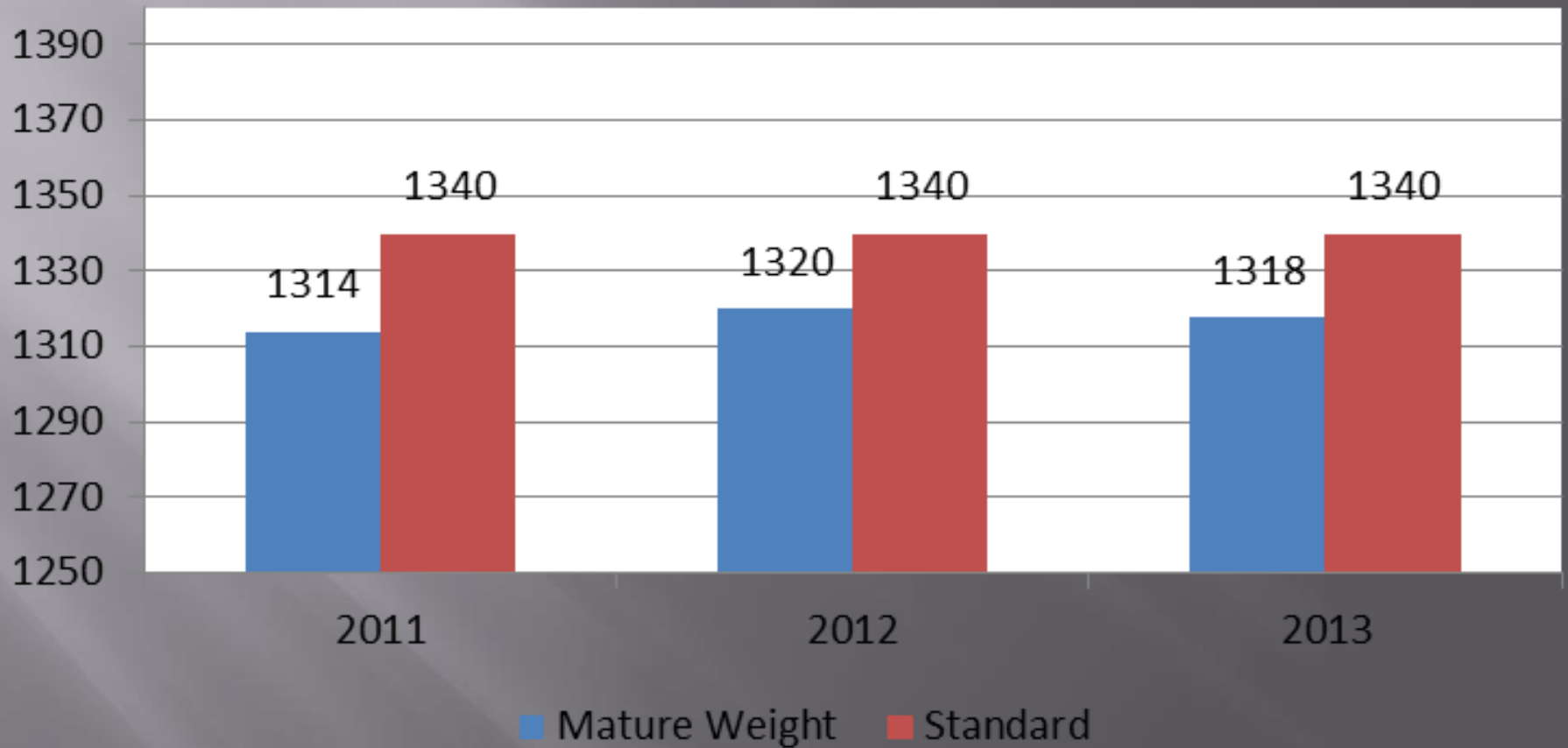
# Evaluation of Pedigree Offspring – 2011-2013

- ▣ Breeder Farm – Individual production records/security of flock
- ▣ Hatchery – per standard procedures
- ▣ Chick Crew – per standard procedures
- ▣ Pen Crew – security of the flock and specific mortality records for individual groups.

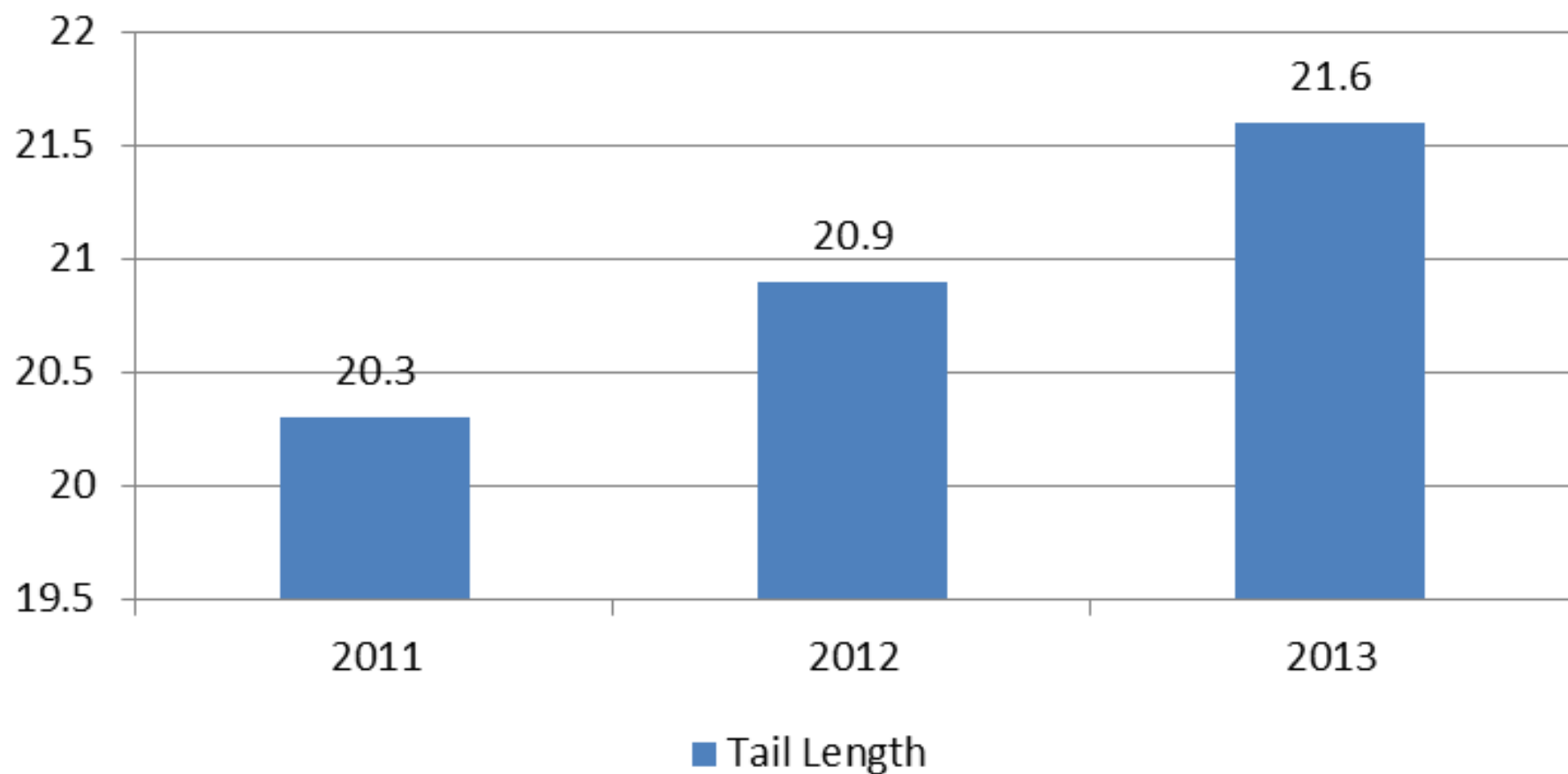
# Peep Weight



# Mature Weight

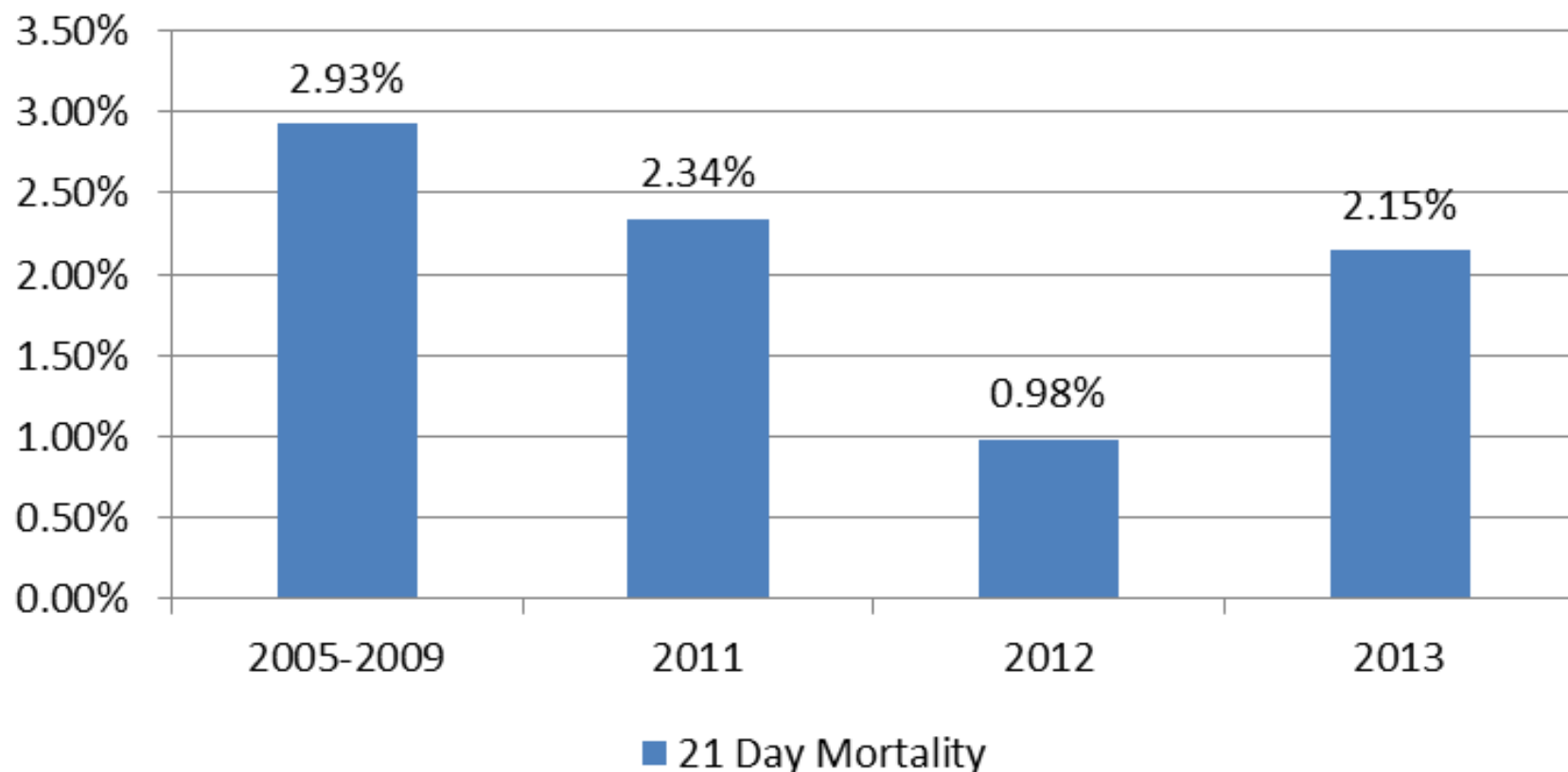


## Tail Length

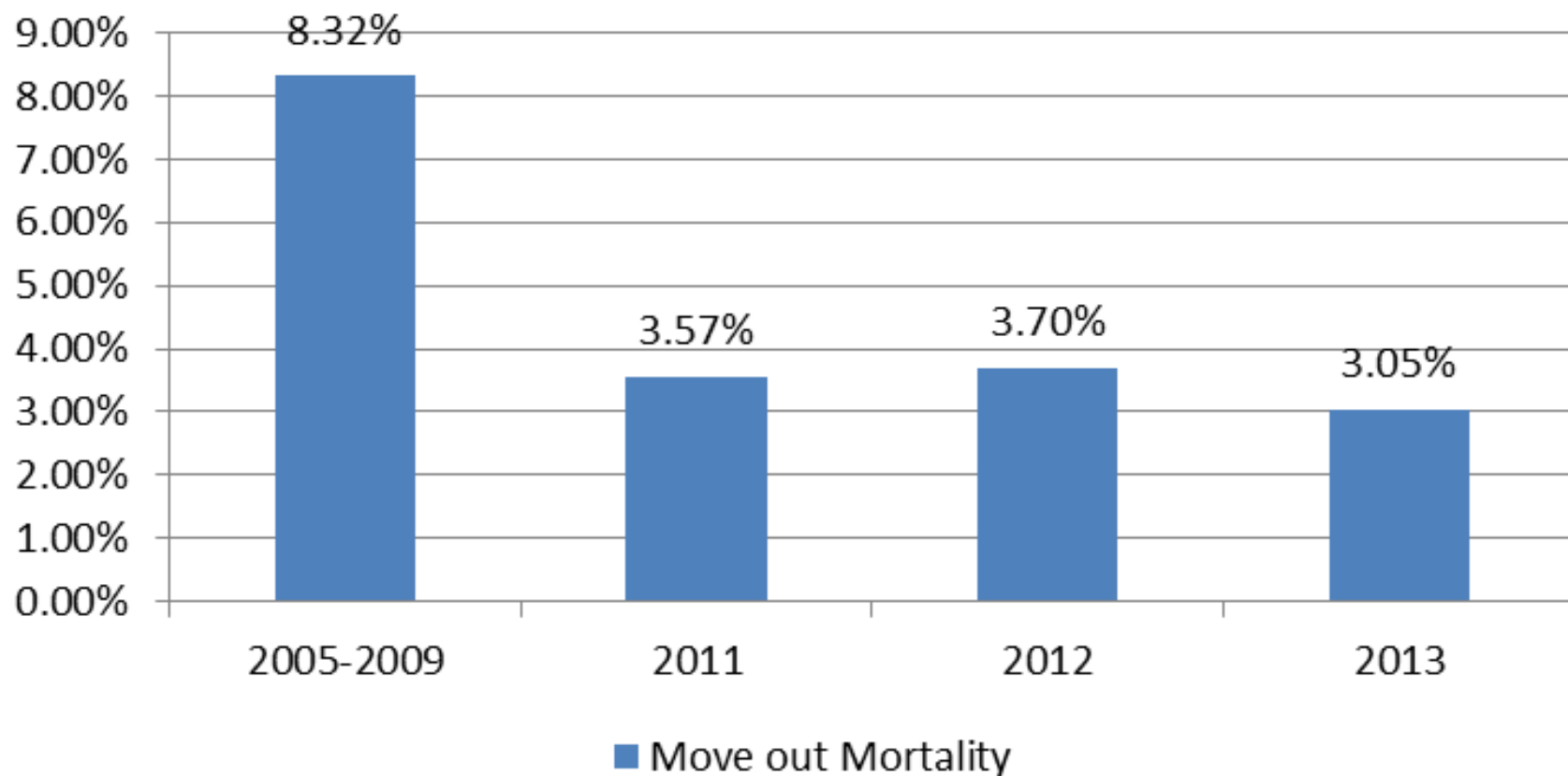




## 21 Day Mortality



## Move out Mortality



# Other Observations

- ▣ Egg Production – similar to possibly better\*
- ▣ Improved hatchability
- ▣ Age to maturity (ship-ability) improved
- ▣ Uniformity



# 2013 RNX production begins

Commercial Strain

RN Pedigree x Standard Chinese RN

- ▣ Used mainly as live production at Mac Farm



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# 2014 and beyond

