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The relationship between birth weight of piglets,
duration of farrowing and age of sows of German
Landrace



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Background

Basis for an efficient piglet production is the use of the genetic potential to a great extent

requirements:

adequate health status and housing conditions

biggest potential →

Optimising the number of vital weaned piglets with a balanced birth weight

„topic of economic and animal welfare relevance“

Perinatal Mortality – Methods of Investigation

- ❖ Data of two farms
- ❖ November 2003 – March 2005

Recorded parameters:

- birth weight
- time of birth
- condition of umbilical cord
- sex
- condition of piglet (alive, stillborn, mummified)

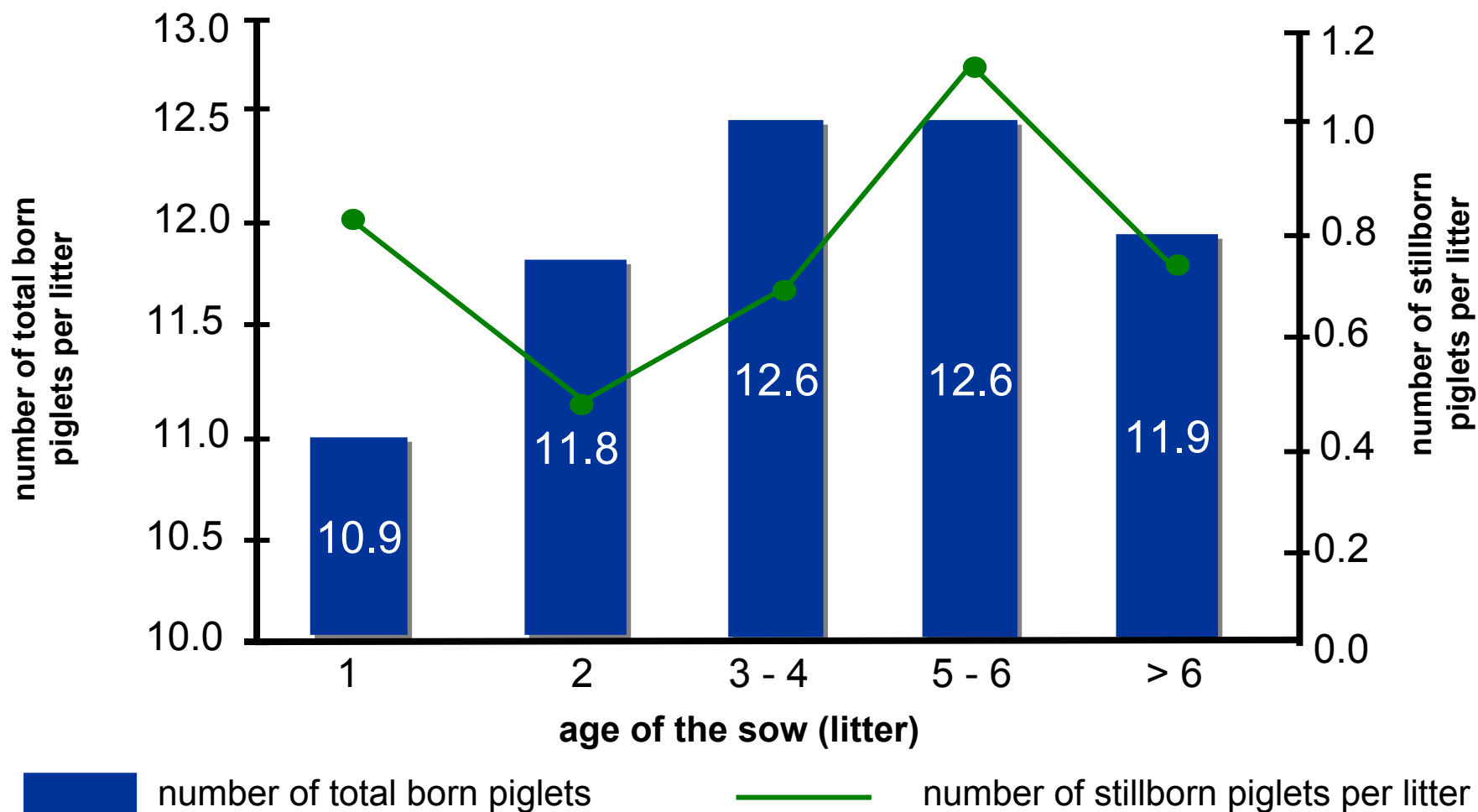
Results of Farm A and B

Parameter	Farm A	Farm B
no. litter	280	40
total born piglets / litter	11,71 (n=3.278)	11,10 (n=444)
live born piglets / litter	10,97 (n=3.072)	10,70 (n=428)
stillborn piglets / litter	0,74 (n=206)	0,40 (n=16)
mummified piglets / litter	0,31 (n=88)	0,20 (n=8)
birth weight	1,44 kg ♀ 1,49 kg ♂	1,51 kg ♀ 1,51 kg ♂

Number of total born piglets in relation to birth weight and stillborn piglets / litter

total born piglets / litter	≤ 9	10 – 11	12 – 13	14 – 15	≥ 16
number of litters	61	73	72	46	27
average age of sow	3.3	3,5	3,4	4,0	3,7
birth weight of piglets	1.6	1.5	1.4	1.4	1.3
percentage of piglets < 1.0 kg	9.5	7.4	12.2	13.2	19.4
percentage of litters with stillborn piglets	21.3	41.9	51.4	56.5	74.1

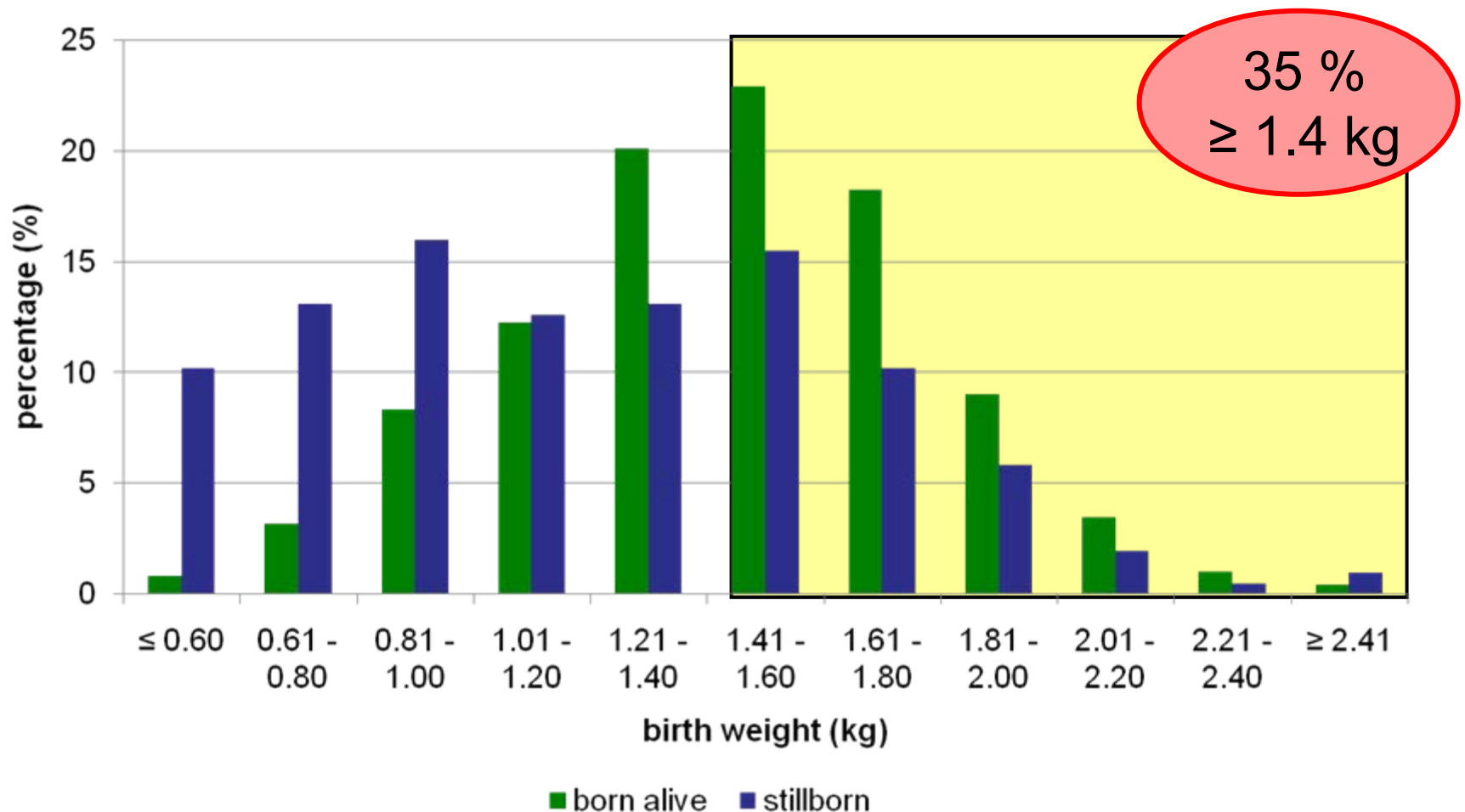
Correlation between age of the sow and number of total born and stillborn piglets / litter



Relation between birth weight, umbilical cord and interval between two piglets

parameter	born alive	stillborn
birth weight	1.5 ± 0.4 kg	1.3 ± 0.5 kg
umbilical cord	32.7 % broken	61.3 % broken
interval between two piglets	21.1 ± 30.8 min	32.6 ± 48.5 min

Proportion of birth weights of live born and stillborn piglets



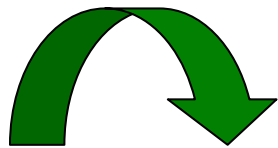
Relevance of these Results

High degree of individuality of sows and piglets.

The risk of stillborn piglets rises with increasing litter size and duration of farrowing.

The age of the sow has an influence on litter size and on the amount of stillborn piglets.

In 35 % of all cases stillborn piglets are of an appropriate birth weight with more than 1.4kg.



With respect to the amount of broken umbilical cords at birth there is a high potential to reduce the number of stillborn piglets with an adequate supervision of farrowing.

**Thanks for your
attention!**

