



Title: Productive performance of York x Landrace sows in a semi-technified farm

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INTRODUCTION

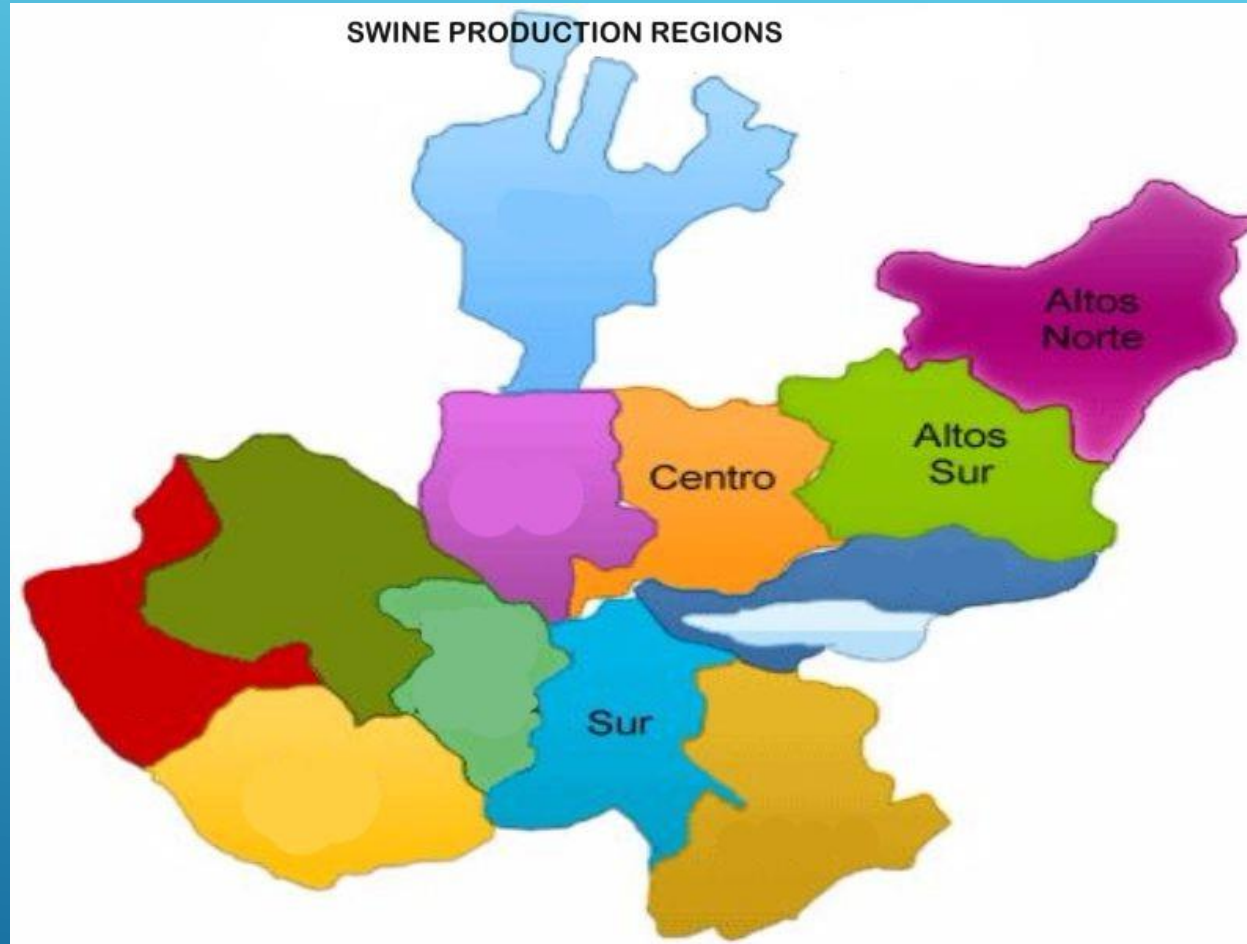
Pork consumption in Mexico (SAGARPA-SIAP, 2019) increased from 1.4 million tons in 2006 to 2.1 million tons in 2018.

Pork is a less expensive option for the consumer.

Pork production in Jalisco in 2018 was 321,735 tons



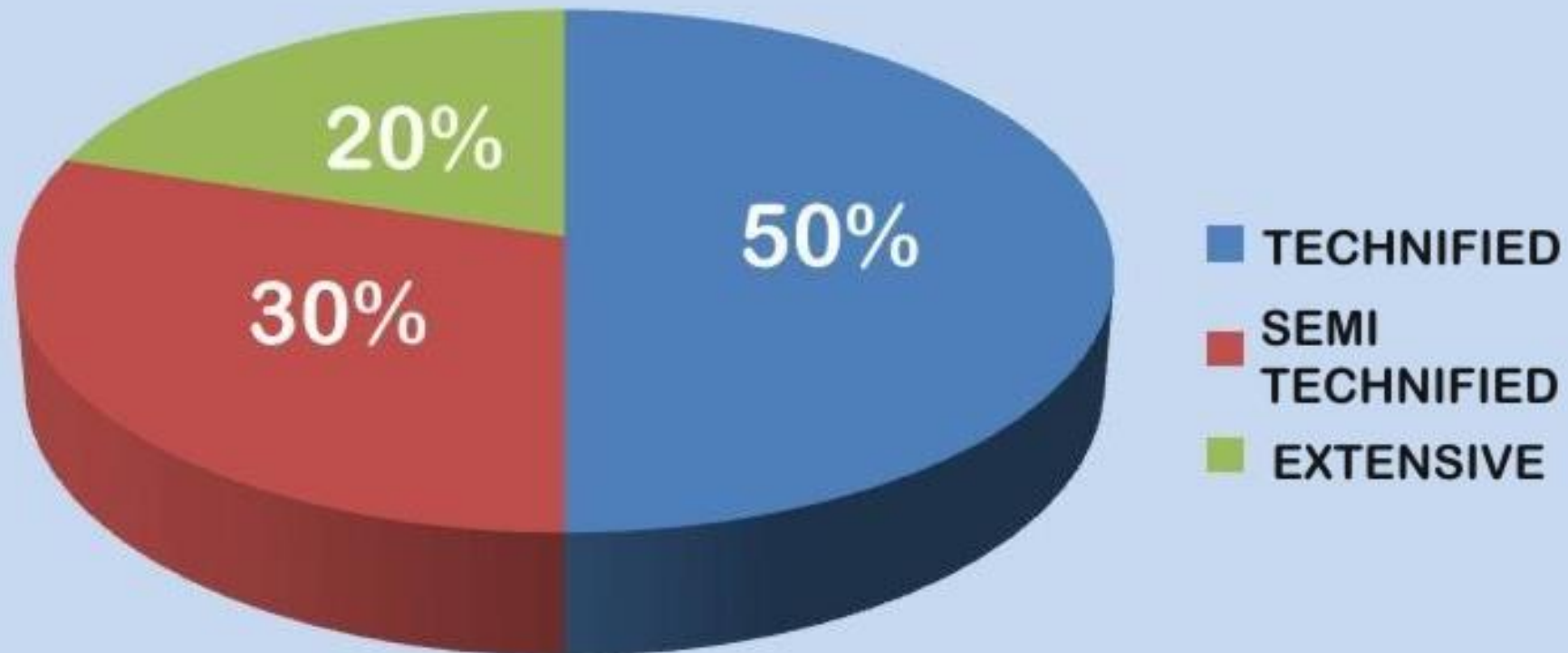
Production regions: Altos Norte (Lagos de Moreno); Altos Sur (Tepatitlán); Sur (Ciudad Guzmán) and Centro (Zapopan).



Altos Norte and Sur comprise 85.6% of the total population with 3,413,513 pigs (INEGI 2016).

SWINE FARM TYPES IN JALISCO

SWINE PRODUCTION FARM TYPES



ISSUE DESCRIPTION

Reproductive characters have low heritability.

Achieving the goals of genetic improvement requires reinforcing good management practices.

Suitable facilities and better climatic conditions should improve the productive performance of sows.

OBJECTIVES

Evaluate weaned piglets productive traits.

Identify correlation between the number of piglets in the litter at birth and at weaning, the number of births per female and the number of weaned piglets.

Identify the cross's response under these conditions.

METHODOLOGY

The study was conducted in a semi-technified farm in Zacualco de Torres, Jalisco, from December 2017 to January 2018.

There were considered 13 litters F1 cross (York x Landrace) x Pietrain.

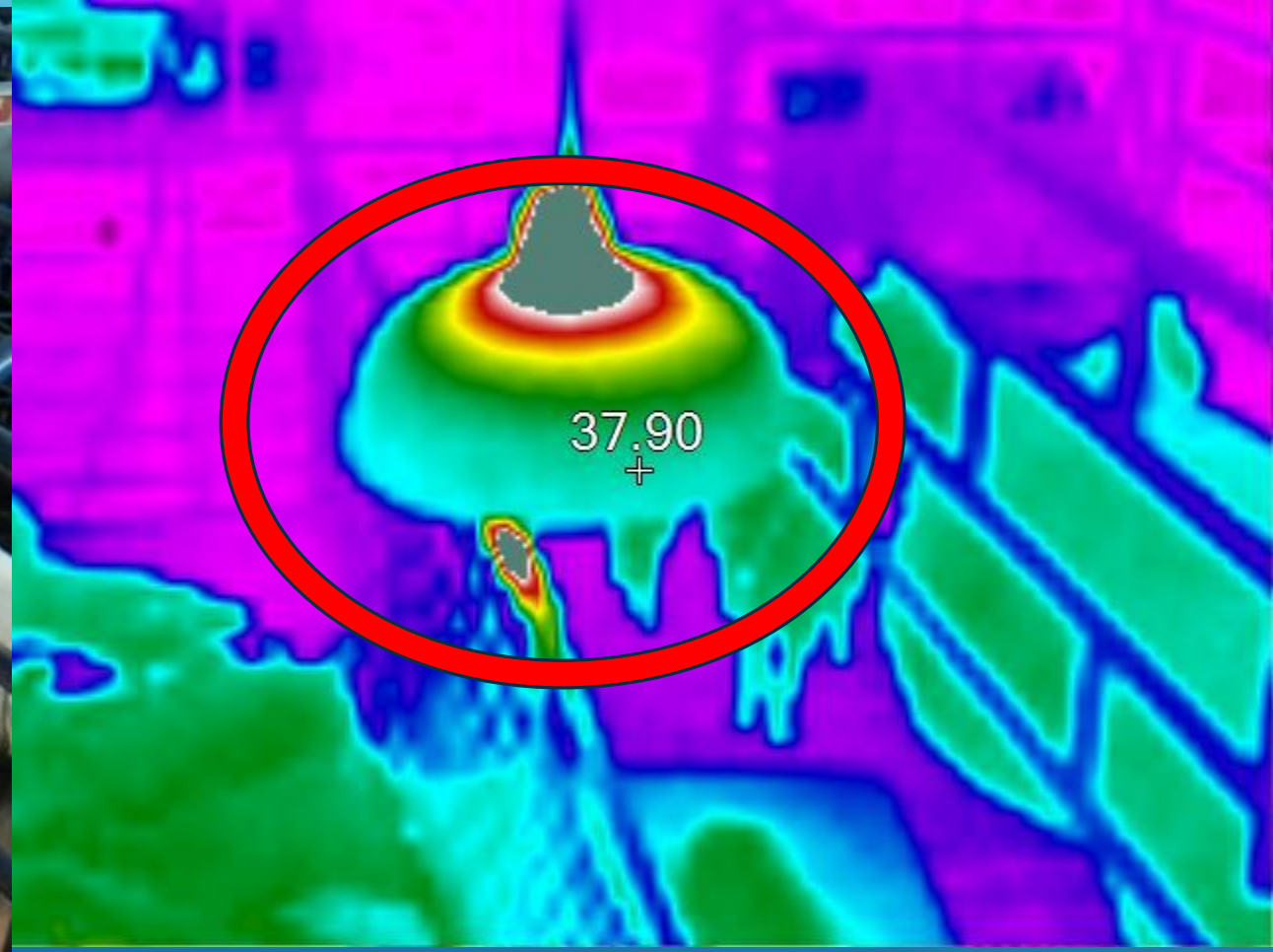
The variables studied were mortality, weaned piglets, litter weight at weaning and lactating days.

Data were recorded on the number of piglets per litter at birth, mortality, litter weight at birth and at weaning, weaned piglets and breast feeding days with the Pigchamp program.

Temperatures were obtained with a Fluke® thermograph.

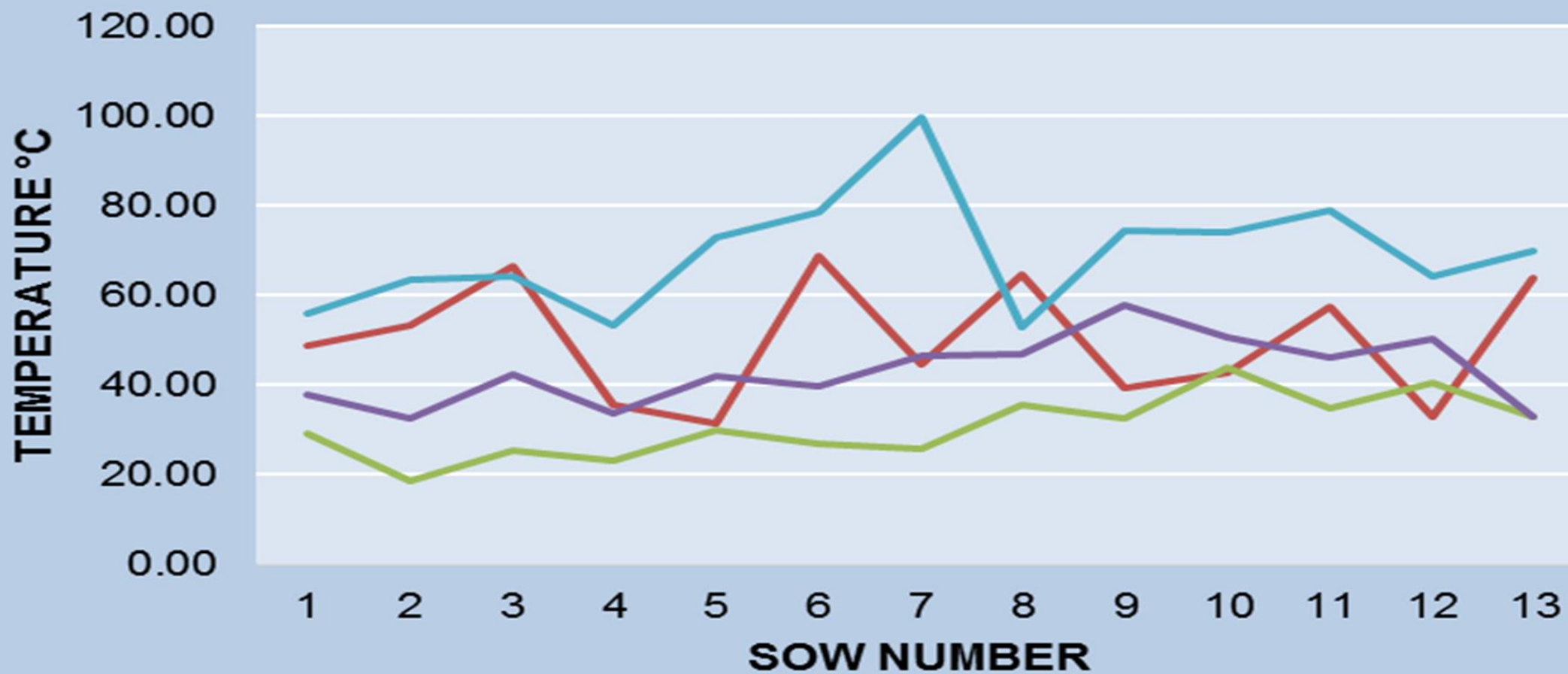
Regressions were made between the productive parameters to identify the relationship between them.

HEAT SOURCE THERMOGRAPHIC IMAGE



RESULTS

HEAT SOURCE TEMPERATURES



— Average temperature

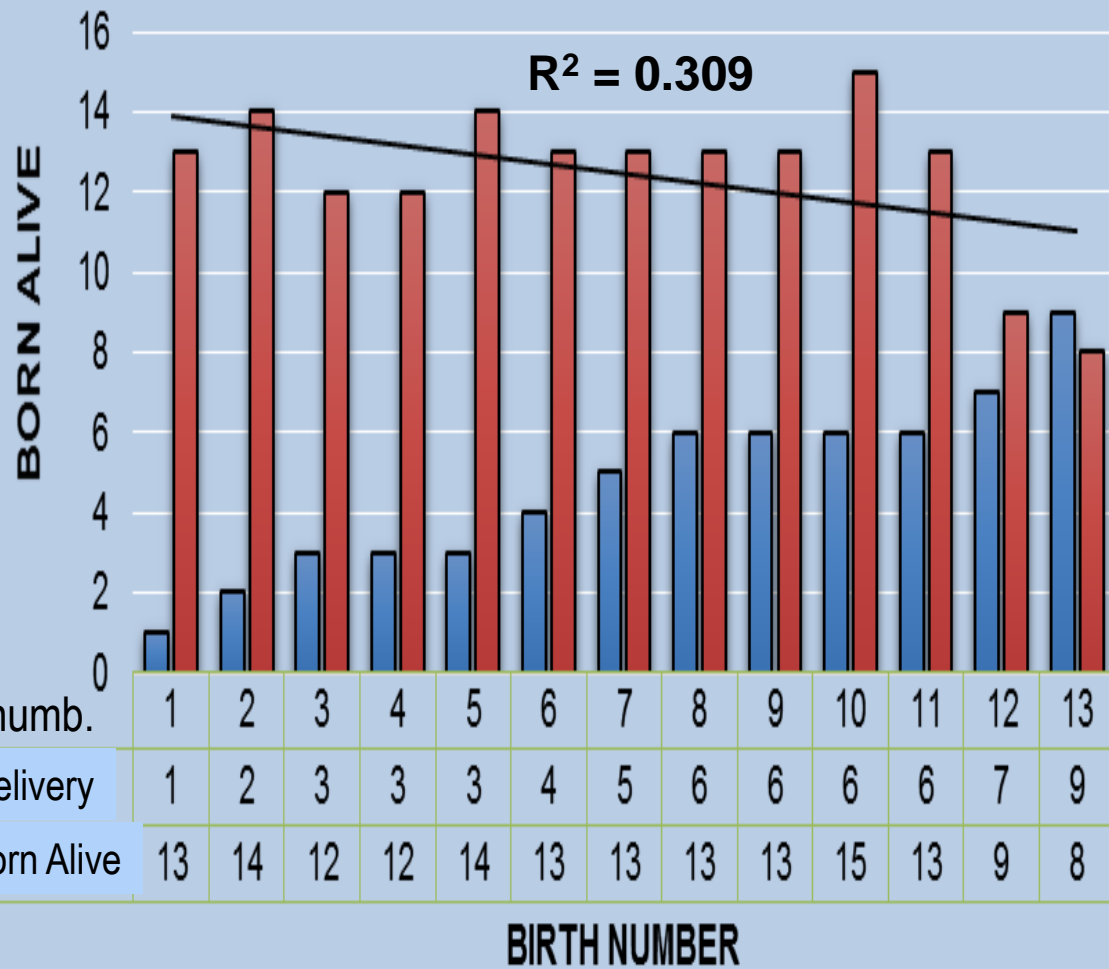
— Minimum temperature

— Mid point temperature

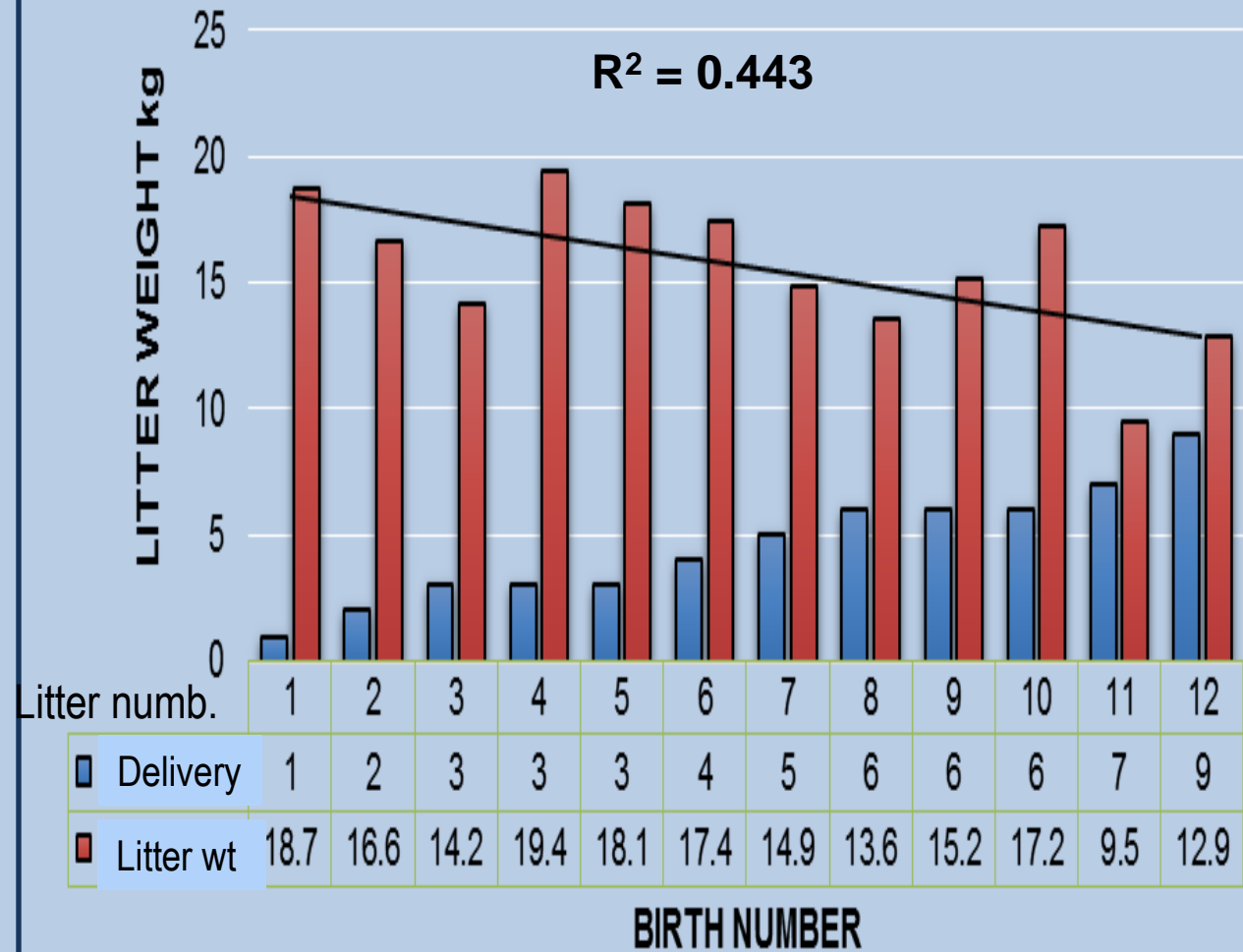
— Maximum temperature

BORN ALIVE	BORN DEAD	LITTER WEIGHT kg	INDIV. WEIGHT kg	DONA-TIONS	MORTALI-TY	WEANED	LACTATING DAYS	WEIGHT WEANED
15	1	17.2	1.15	3	0	12	30	93.0
13	2	16.8	1.29	1	0	12	30	85.2
12	1	15.0	1.25	0	2	10	30	71.0
13	0	13.6	1.05	0	2	11	34	42.4
12	3	16.2	1.35	0	3	9	29	78.6
8	0	12.1	1.51	0	1	11	30	53.8
13	1	17.4	1.34	1	3	9	34	52.4
12	1	14.2	1.18	1	3	8	34	54.8
12	1	19.4	1.62	0	5	7	31	83.8
14	0	18.1	1.29	0	1	11	31	63.8
3	0	5.8	1.93	0	0	11	30	89.8
14	1	16.6	1.19	1	0	13	36	91.2

PIGLETS BORN ALIVE

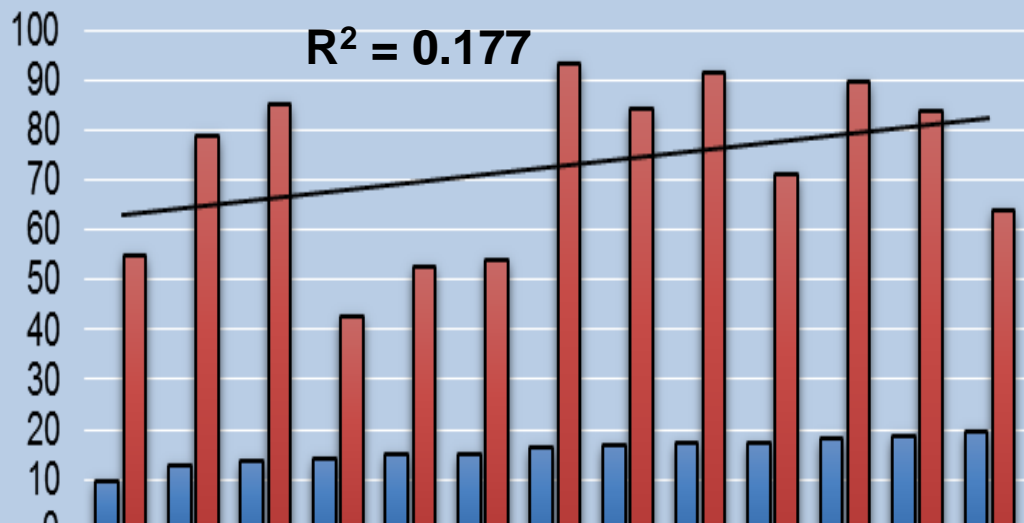


LITTER WEIGHT



LITTER WEIGHT AT WEANING

WEIGHT AT WEANING kg

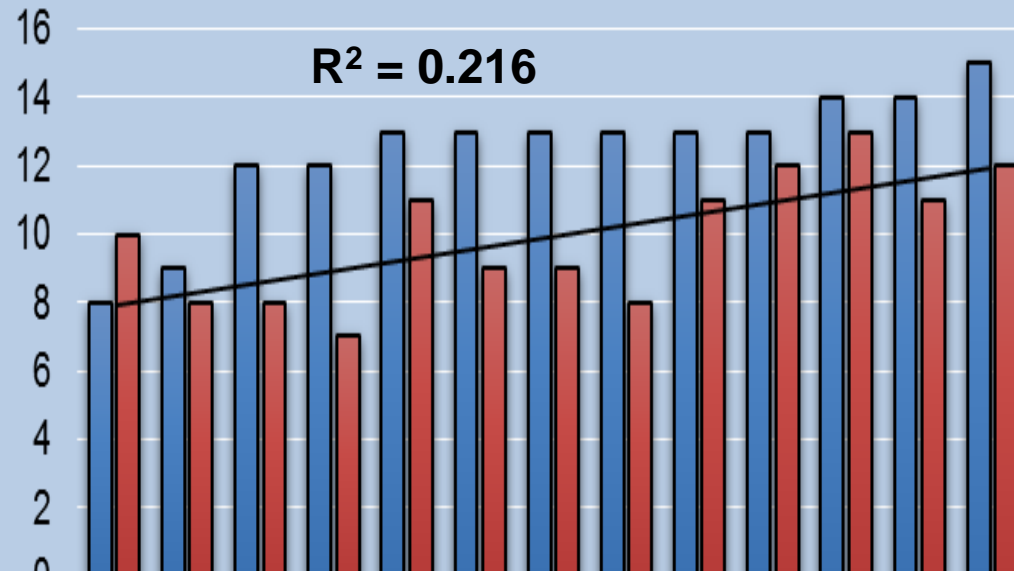


Litter numb.	1	2	3	4	5	6	7	8	9	10	11	12	13
Wt. born kg	9.5	12.9	13.6	14.2	14.9	15.2	16.6	16.8	17.2	17.4	18.1	18.7	19.4
Wt weaning	54.8	78.6	85.2	42.4	52.4	53.8	93	84.2	91.2	71	89.8	83.8	63.8

LITTER WEIGHT AT BORN kg

PIGLETS WEANED

WEANED NUMBER



Litter numb.	1	2	3	4	5	6	7	8	9	10	11	12	13
Born alive	8	9	12	12	13	13	13	13	13	13	14	14	15
Weaned	10	8	8	7	11	9	9	8	11	12	13	11	12

PIGLETS BORN ALIVE

CORRELATION BETWEEN PRODUCTIVE PARAMETERS AND TEMPERATURES OF HEAT SOURCES

	Average temperature	Minimum temperature	Central point temperature	Maximum temperature
Mortality	-0.15	-0.04	0.40	0.20
Weight at weaning	0.05	-0.23	-0.08	0.35
Weaned piglets	0.31	-0.25	-0.08	0.40
Individual weight at weaning	-0.52	0.04	0.30	0.45
Lactating days	-0.40	0.23	0.30	-0.10

CONCLUSIONS

The greater the number of births, the smaller the litter size, due to the uterine capacity, ovulation rate and embryo survival.

With weaning at the same age, the weight of the litter depended on the number of weaned piglets.

Lactation of more than 29 days did not show an increased litter weight at weaning.

CONCLUSIONS

Temperatures in the medium and maximum point heat sources showed the greatest correlation with the productive parameters.

Thermography used to measure temperatures allowed to see the condition for given female.

The sows genetics in the study had a positive result.

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