



# Comparing physical to economical efficiency between commercial vs self produced feedstuffs, in farrow to market pig farms

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# INTRODUCTION

In order to optimize benefits, farmers have to adopt decisions that are not always simple, one of them has to do with self-producing or buying commercial feed depending on their physical (market price/Kg. of food) and economical (cost per kg. live weigh gained) efficiency. Therefore it is important to shed light into this subject, since it represents 65-75% of total cost. <sup>1</sup>



# MATERIALS AND METHODS

The information used for this research has been obtained from the 2012 SICEC pig poll.

A sample of **174** farms from 8 states of Mexico were interviewed in the 2012 SICEC pig poll and selected from the “Padrón Nacional Ganadero” (the largest cattle registry).

View of the  
web page  
SICEC



<http://www.sicec.unam.mx>

# MATERIALS AND METHODS

The selection was randomly made in each of the following four stratum:

- 50 to 100 sows,
  - 101 to 200,
  - 201 to 500 and
  - 501 or more sows.
- Finally, after applying information filters, a group of 92 farms from four states where analyzed



# MATERIALS AND METHODS

Farms were divided into two groups according to the feed origin: **self-produced** (milling and mixing) or **commercial**.

The variables compared were:

- **Average cost/kg of feed** throughout the entire production cycle (Fc) (market prices)
- **Feed cost per kg live pig sold** (Fc/kg)
- **Daily weight gain** (DWG).

Costs are in Mexican pesos of 2012 (\$13 pesos to \$1 US Dol. aprox). Comparison of means was performed using ANOVA. All the analyses were carried out by using R statistical software.

# RESULTS

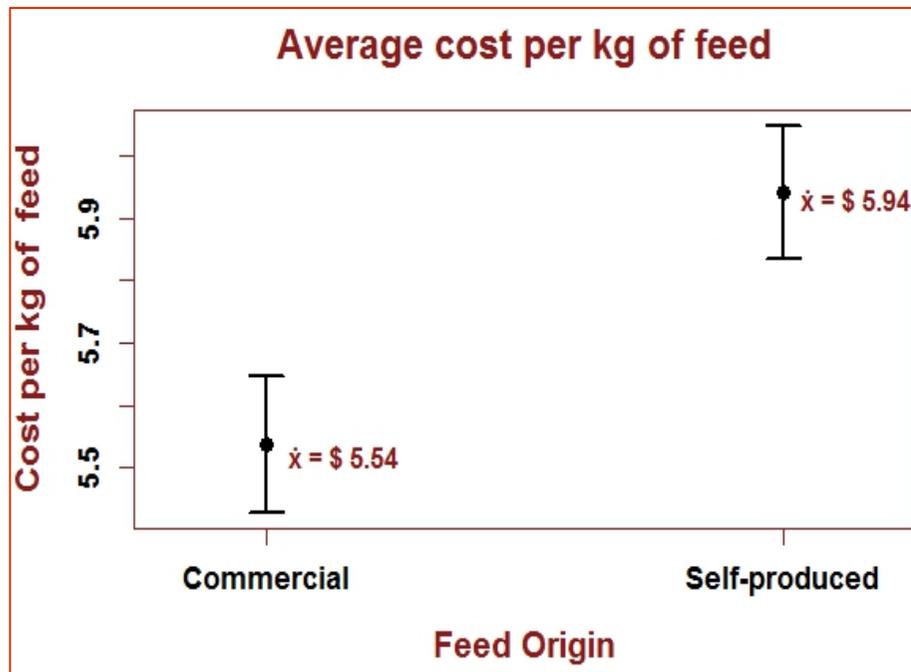
## Average cost of kg of feed

In farms using commercial feed, the Fc is cheaper ( $p=0.017$ ) than the cost of self-produce feed.

**Table 1.** Average cost per kg of feed (Fc)<sup>1</sup>

Feed	N	Mean	Std Error
Commercial	33	5.54	0.13
Self-produced	59	5.94	0.10
Total	92	5.80	0.08

1. Groups are different ( $p<0.05$ )



**Fig.** Line plot of the mean and standard error of average cost of kg of feed throughout the entire production cycle (Fc). This cost is cheaper in farms using commercial feed.

# RESULTS

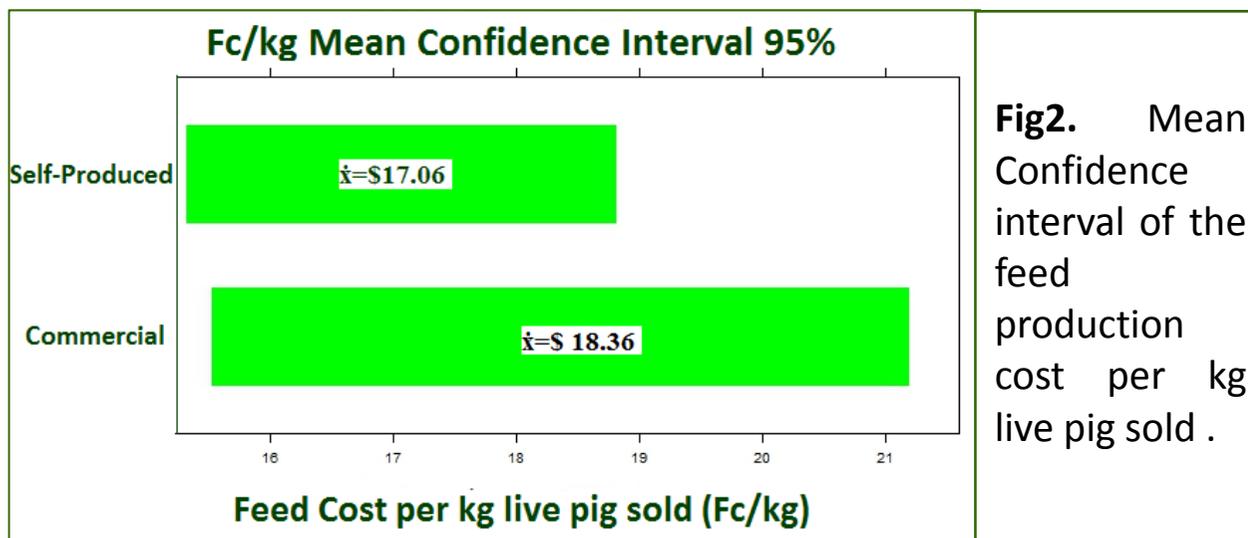
## Production Cost per kg

The **Fc/kg** in farms consuming self-produced feed is \$17.06, cheaper by \$1.3/kg. to farms using commercial feed (Table 2). However no statistical difference was found ( $p > 0.05$ ) between the groups (Figure 2).

**Table 2.** Feed Cost per kg live pig sold (Fc/kg)

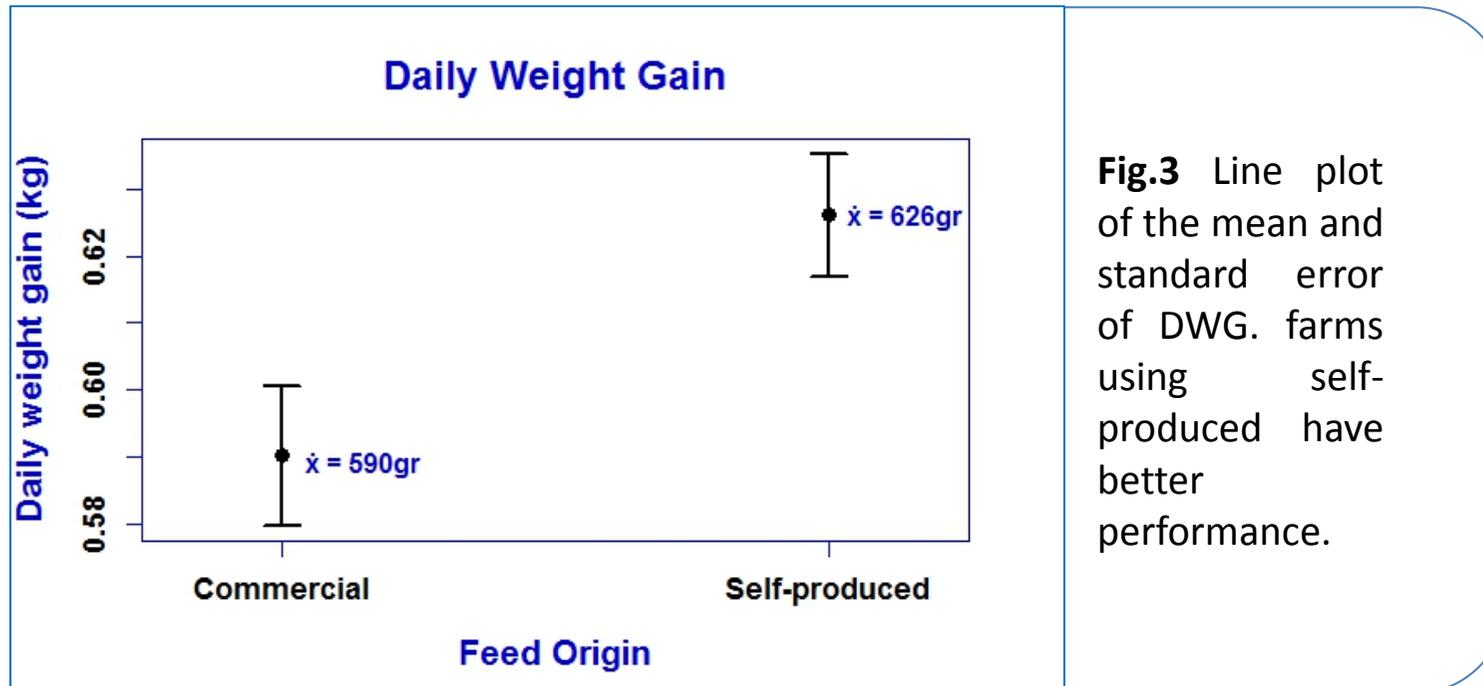
Feed	Mean	Sd*	CI lower <sup>1</sup>	CI upper
Commercial	18.4	7.0	15.5	21.2
Self-produced	17.1	6.3	15.3	18.8
Total	17.5	6.5	16.0	19.0

\*Standard deviation <sup>1</sup>Mean Confidence Interval 95%



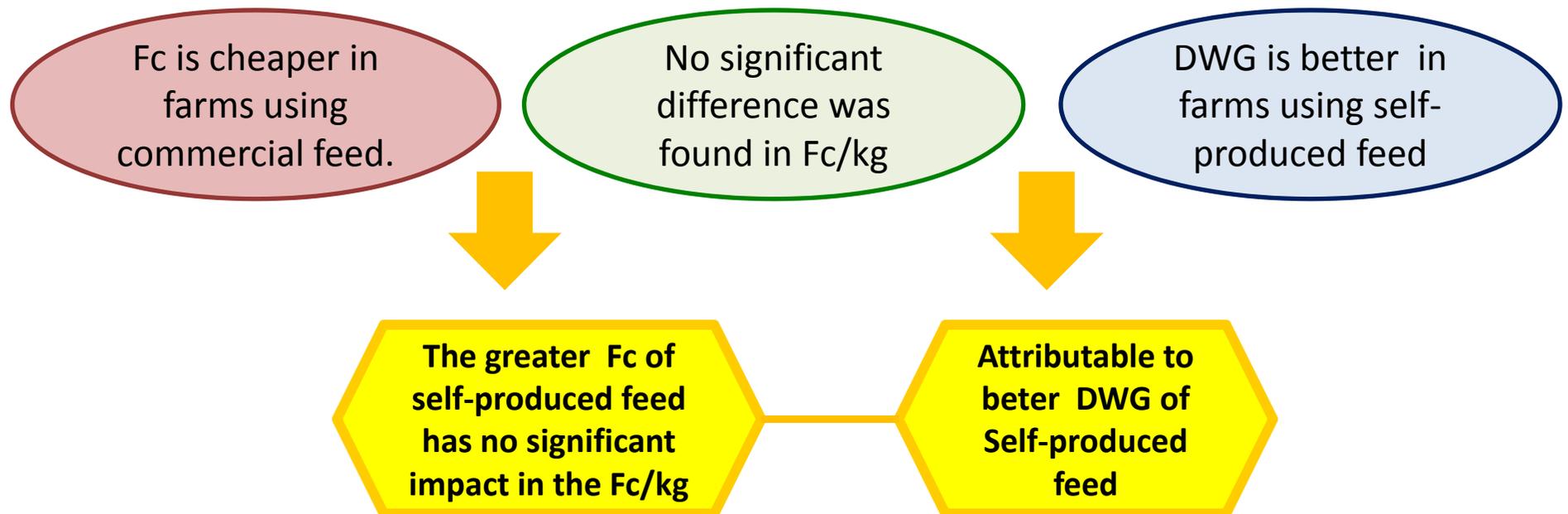
## RESULTS Daily weight gain

There is statistical evidence ( $p=0.018$ ) that farms consuming self-produced feed have better DWG 0.626/kg than those consuming commercial feed , 0.590/kg (figure 3).



## CONCLUSIONS AND DISCUSSION

The results show that the Fc of self-produced feed is significantly more expensive. However, their Fc/kg is cheaper, although there is no significant difference for the two groups. The difference in favor of commercial feed is compensated by its poor performance.



## CONCLUSIONS AND DISCUSSION

The better food efficiency of self-produced feed is attributable to formulations based on the specific requirements of each farm.<sup>3,4</sup>

A factor contributing to the cheaper Fc, is the ability of some farms to buy large volumes of grain enabling them to obtain better prices.<sup>5</sup>

## CONCLUSIONS AND DISCUSSION

The above results are an example of how SICEC provides valuable evidence for decision making both at the farm level and for public policy contributing to the achievement of competitiveness of pig production in Mexico.<sup>6</sup>

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