The agricultural census: a database to analyze the horse industry actors? Example of France

Veslot J., Perret E., Scozzari E., D. Vollet, Bigot G.
The agricultural census (AC) is an exhaustive survey, imposed by the European commission to each member country.

Census data are collected to characterize: farms and agricultural productions, and to follow their evolutions.

But, the horse sector rarely analyzed.

Some explanations:
– a partial insertion in the agricultural sector,
– a relatively small livestock in regards to other herbivorous,
– an atomization of structures with horses,
– the diversity of productions for racing, riding, driving ...

So, current issues are:
– is the horse industry in the agricultural sector?
– Is there a need to collect data on equine livestock in future AC?
1- Difficulties to know precisely the equine livestock:

- Total number of horses and its evolution,
- Number of horses used for leisure.

To overcome these difficulties:

an important synthesis of different sources: national databases and surveys

The French equine livestock = **900,000 heads**

**per breed types**

- saddle horses: 373,000
- ponies: 175,000
- race horses: 200,000
- donkey, mule: 62,000
- draught horses: 90,000

**per actors**

- breeding farms: 37,500
- equestrian centers: 200,000
- riders, trainers: 190,000
- private owners: 460,000

this work difficult to renew regularly
and available in French
1- Difficulties to follow the evolution of the horse industry.

+ 2 points about the horse position in regards to the agricultural sector:

2- Since 2005, the agricultural status accessible for each actor of the horse industry whatever the activity: breeding, riding or racing, ...

3- 1/2 of the equine livestock in farms

(Analysis on herbivorous in the agricultural census 2010; Perrot et al, 2013)

= 3 reasons to analyze the horse sector in the last AC
**Available Data in the French AC**

- **Individual data on farms:**
  - **Structural features:**
    - agricultural area, land use and livestock, buildings, equipment, workforce, ...
  - **For equine productions:** 5 types of animals:

<table>
<thead>
<tr>
<th>breed types</th>
<th>w : warmblood horses (ponies, saddle and race h)</th>
<th>h : Heavy (Draught) horses</th>
<th>d : donkeys</th>
</tr>
</thead>
<tbody>
<tr>
<td>horse types</td>
<td>wb : broodmares</td>
<td>wo : other horses</td>
<td>hb : broodmares</td>
</tr>
</tbody>
</table>

**1- Elaboration of a Farm Typology**

- Based on the 5 types of animals in each farm,

  **9 groups of farms** according to 3 criteria:

1- **breed type:** warmblood horses, heavy horses, donkeys

2- Relative importance of the **major horse type**:

   \[ \begin{align*}
   B &= O : BO ; \\
   B &> O : B ; \\
   O &> B : O \quad \text{and} \quad O^+ : O >> B ; \\
   O^{++} &: O >>> B
   \end{align*} \]

3- **herd size** per farm:

   \[ \begin{align*}
   \text{Small:} & \leq 5 , \quad \text{Medium:} 5 - 10 , \quad \text{Large:} 10 - 25 , \quad \text{Very Large:} > 25
   \end{align*} \]
1- GROUPS STAND OUT FROM 54 643 FARMS WITH EQUIDAE

<table>
<thead>
<tr>
<th>Breed type</th>
<th>ponies, saddle and race horses</th>
<th>heavy horses</th>
<th>donkeys</th>
<th>all breeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major horse type</td>
<td>B</td>
<td>O</td>
<td>O+</td>
<td>O++</td>
</tr>
<tr>
<td>Herd size</td>
<td>B L</td>
<td>O M</td>
<td>O+ VL</td>
<td>O++ L</td>
</tr>
<tr>
<td>number of farms</td>
<td>1,240</td>
<td>6,675</td>
<td>335</td>
<td>973</td>
</tr>
<tr>
<td>Share on all farms</td>
<td>17%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share on total herd</td>
<td>59%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2- FOCUS ON FARMS SPECIALIZED WITH EQUIDAE

• Equine activities often associated with other agricultural productions.

<table>
<thead>
<tr>
<th>main productions</th>
<th>beef cattle</th>
<th>dairy cattle</th>
<th>mixed productions</th>
<th>crops</th>
</tr>
</thead>
<tbody>
<tr>
<td>part of farms with equidae</td>
<td>11%</td>
<td>8%</td>
<td>11%</td>
<td>8%</td>
</tr>
</tbody>
</table>

• Specialized farms selected on 2 criteria:
  – No other animal production
  – No crops production (grassland area = total agricultural area)
2- FOCUS ON FARMS SPECIALIZED WITH EQUINES

<table>
<thead>
<tr>
<th>Farm groups</th>
<th>ponies, saddle and race horses</th>
<th>heavy horses</th>
<th>donkeys</th>
<th>all breeds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B L</td>
<td>O M</td>
<td>O+ VL</td>
<td>O++ L</td>
</tr>
<tr>
<td>Selection rate</td>
<td>52%</td>
<td>51%</td>
<td>50%</td>
<td>62%</td>
</tr>
</tbody>
</table>

Share on all farms: 9%
Share on total herd: 32%

0.43%
1.23%

2- AVERAGE FEATURES ON SPECIALIZED FARMS
2- AVERAGE FEATURES ON EQUINE SPECIALIZED FARMS

Number of horses / agricultural area (ha)

Equine Livestock Unit / Workforce Unit
CONCLUSION

IN FRANCE,
- Data from AC 2010 seem consistent with the results of specific investigations on the horse industry at the same period.
- AC Data supplement references on the horse industry with agricultural criteria, (in particular, when equidae are few and associated with other productions).

Therefore, it seems important:
– to maintain data collection on equidae in next AC.
– to identify separately: saddle horses, ponies, and racehorses to be able to follow the main productions.

WHAT ABOUT OTHER EUROPEAN COUNTRIES?  That is the question!

THANKS A LOT FOR YOUR ATTENTION