Evaluation of horse farmers’ knowledge and attitude towards grassland management

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Equine sector increasingly contributes to utilization of (less productive) grasslands:

~ 5.5 Mio. horses (FAO, 2016)

~ 1.3 Mio horses (FN, 2018)

~ 15-20 % share of grasslands (Ger) (Schmitz & Isselstein, 2018)

Potential to enhance or preserve high-value natural environments?
Background

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Horse farmers’ knowledge and attitude
Background

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Horse farmers’ knowledge and attitude

special and distinct grazing impact

improve pastoral knowledge of the horse owners

unfavourable grazing practices (i.e. overstocking)

Jouven et al. 2016
Background

Horse farmers – who are they?

... different „product“,  
... different „performance“,  
... different aims and needs,  
... different education,

... different way and status of grassland management?

Diverse farming system...
1. How is grassland used by horse farmers?
2. What is their attitude towards grassland management?
3. How do they get grassland-specific education?
4. Do they request a better knowledge transfer?
• small farm size
• potential: landscape mosaic
• relatively extensive land-use
• variability !!

Tab. 1: Descriptive statistics of farm structure data

<table>
<thead>
<tr>
<th></th>
<th>professional (N = 207)</th>
<th>hobby (N= 487)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean</td>
<td>min.</td>
</tr>
<tr>
<td>Number of horses</td>
<td>17,2</td>
<td>2</td>
</tr>
<tr>
<td>Grassland for horses (ha)</td>
<td>10,8</td>
<td>0</td>
</tr>
<tr>
<td>LU ha⁻¹</td>
<td>2,2</td>
<td>0,2</td>
</tr>
</tbody>
</table>
Grassland utilization

< 90% implement grazing

„Why do you implement grazing in your farm?“ *

<table>
<thead>
<tr>
<th>Reason</th>
<th>Professional</th>
<th>Hobby</th>
</tr>
</thead>
<tbody>
<tr>
<td>mainly to provide forage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>locomotion, little forage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>social interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>environmental stimuli</td>
<td></td>
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</tr>
</tbody>
</table>

Importance of grazing: Importance of animal welfare!

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Horse farmers’ knowledge and attitude
“A ‘sophisticated’ grassland management is important because grasslands ... “

<table>
<thead>
<tr>
<th></th>
<th>Absolutely Right</th>
<th>Right</th>
<th>Partly</th>
<th>Wrong</th>
<th>Absolutely Wrong</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hobby</td>
<td>50%</td>
<td>23%</td>
<td>18%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td>54%</td>
<td>26%</td>
<td>13%</td>
<td>6%</td>
<td></td>
</tr>
</tbody>
</table>

"... provide forage."

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<th>Absolutely Wrong</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hobby</td>
<td>24%</td>
<td>28%</td>
<td>23%</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td>39%</td>
<td>36%</td>
<td>15%</td>
<td>5%</td>
<td></td>
</tr>
</tbody>
</table>

"... support a good farm image."

"Horse farmers are playing an important role for grassland and its biodiversity.“

<table>
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<th>Right</th>
<th>Partly</th>
<th>Wrong</th>
<th>Absolutely Wrong</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hobby</td>
<td>34%</td>
<td>37%</td>
<td>25%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Professional</td>
<td>33%</td>
<td>32%</td>
<td>27%</td>
<td>7%</td>
<td></td>
</tr>
</tbody>
</table>
Education and knowledge

Importance of consulting and valuable information

**Further education:**
76% professional, 64% hobby

**Professional education:**

- 80%
- 70%
- 60%
- 50%
- 40%
- 30%
- 20%
- 10%
- 0%

- agriculture
- horse specific
- none

- professional
- hobby

**Information resources:**

- magazines
- other farmers
- internet/social media
- workshops
- spec. books
- chambers of agriculture
- priv. consulting

00% 20% 40% 60% 80% 100%

* Multiple answers possible

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Knowledge transfer is requested! Horse farmers are inquisitive!!

“In general, horse farmers’ education and knowledge in grassland management should be improved”

Would you personally like to learn more on sustainable grassland management?

Professional: 90.3%
Hobby: 92.4%

Important issues …*

- Pasture management
- Forage quality
- Horses and fructanes
- Seed mixtures for horses
- Nutrition
- Biodiversity and nature...

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Conclusion

1. Grassland utilization
   • Average: Relatively extensive, small farm size
   • Variability! Farm-specific grassland management!
   • Aim: healthy horse, not maximising yield/xP/profit

2. Education
   • Little grassland-specific education
   • Importance of further education, extension

3. Attitude
   • Importance of grazing!
   • Focus more on animal welfare than forage
   • Aware of their ecological potential
Conclusion

4. Improved knowledge transfer is the key to improve ecological value.

Task: Better and specific consulting for horse farms based on horse-specific research.

„One‘s eyes are opened in the presence of knowledge – You only see what you know“

J.W. von Goethe
Thanks for your attention.

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Grassland management

Fertilization:

70% of farmers fertilize their grasslands

„How do you determine amount of fertilizer?“

"role of thumb"

analysis of plant available nutrients

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Grazing system

* Multiple answers possible
Grassland management

Measures *

- none
- control for poisonous plants
- herbicides
- reseeding
- remove excreta
- topping
- mulch
- drag

Intensity of grassland improvement measures

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Back-Up: Education

- sport
- leisure
- breed

Options:
- agriculture
- horse specific
- none (agr. or horse)
How would you estimate your own state of knowledge?

- very good
- good
- average
- low
- very low

Professional and hobby categories are indicated by different colors in the bar graph.