Innovative grazing system with sheep for sustainable management of the alpine cultural landscape

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Background

- Number of grazing animals on alpine pasture decrease
- Multifunctionality of alpine pasture
- Preserve the cultural landscape
- Produce lambs in high quality
- Seek best grasses and herbs
- Traditionally sheep move freely on alpine pasture
- Conflicts
Aim of project - partner

- Project partners
  - Freeholder
  - Sheepfarmer
  - Sheep breeding association
  - Tourism
  - Community
  - Operator of the cableway
  - Hunting society
  - Local agricultural authority
  - AREC Raumberg-Gumpenstein
  - LEADER
Aim of project – scientific support

- Effect on plant population
- Effect on forage yield
- Animal performance
- Animal health
The innovative management system

- A large flock
- Shepherd with dogs
- Fenced during night
- Herding during day
  - on the ski slopes
  - alpine madows
- No selection of plants
Some results - management

- Sheep – dog, new situation
- Large flock – lambs missed their mother
- Sheep was insider
- Difficult herding in the alpine area
- Difficult weather situations
- Lambing sheep
Some results - plants

• Dwarf shrubs were pushed back 30% → 5% (zero variant surface 30% → 70%)
• Grasses and herbs increased 40% → 65%
• Forage yield increased 880 → 1500 kgDM
Some results – animal performance

- Grazing period 104 d
- 4914 sheep in six years
- Total consumption approx. 4 million kg biomass
- Average daily gains of lambs 90 – 210 g
Some results – meat quality

• Carcass not so fleshy - E U R O P
• Low proportion of fat
• Higher proportion of valuable faddy acis
• No difference in tenderness
Some results – animal health

- Problems with hoof
- Problems with parasites
- Poisonous plants
- 4 – 8.4 % lambs and 1 – 2.6 % ewes died
Summary

- Sheep are very useful for sustainable use of alpine cultural landscape
- Sheep herding in alpine areas is difficult
- Don’t herd them too close
- Animal performance is low
- Meat quality is high - PUFA
- More stakeholder benefit from a large flock of sheep