



EXCELLENCE FOR SUSTAINABILITY

Research Institute of Organic Agriculture
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Policy Handbook

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Result-oriented Measures for Biodiversity in Mountain Farming

A Policy Handbook



The MERIT Policy Handbook

- › is based on results from MERIT
- › has been developed for policy-makers from
 - › governmental bodies and public authorities,
 - › farmers' associations,
 - › private or public organizations
- › is valuable for all who are interested in agri-environmental policies



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MERIT - The 8 Golden Rules

- › **GOLDEN RULE 1: Make biodiversity an issue**
- › **GOLDEN RULE 2: Design your programme at the regional level**
- › **GOLDEN RULE 3: Choose indicators which are reliable and appropriate**
- › **GOLDEN RULE 4: Pay attention to the implementation at the administrative level**
- › **GOLDEN RULE 5: Payments are a main incentive**
- › **GOLDEN RULE 6: Farmers' knowledge about biodiversity is essential**
- › **GOLDEN RULE 7: Make farmers' efforts visible to consumers and society**
- › **GOLDEN RULE 8: Evaluate the success of your programme**

Golden Rule 1: Make biodiversity an issue

„It is not possible to do ever more for ecology.

There is a conflict with food production.“

Farmer from Entlebuch, Switzerland

- › **Address and involve farmers and their advisors: biodiversity = important for society and own farm**
- › **Make biodiversity tangible and concrete**
 - › **Education and training**
 - › **Role for pollination, soil fertility, pest management**
 - › **Let the farmer's experience biodiversity**
- › **Explain the potential of result-oriented approach for farmers**
- › **Use existing and develop new communication channels**

Golden Rule 2: Design your programme at the regional level

„After a certain time, the hay becomes straw. In this case, I have to buy additional fodder which makes supporting the environmental cause contradictory.”

Farmer from Vercors, France

- › **Choose a participatory design process and involve relevant stakeholders**
- › **Adapt your programme to regional circumstances and objectives**
- › **Ensure integration and flexibility in farm management**
- › **Encourage the connection of habitats through collaboration**

Golden Rule 3: Choose indicators which are reliable and appropriate

„I'm sceptical about result-oriented measures because I don't know if the indicator flower will actually be blooming on the day when monitoring takes place.“

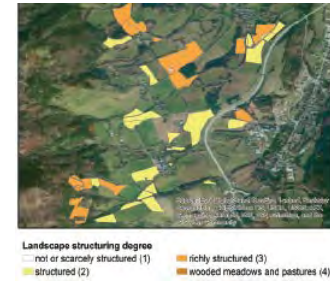
Farmer from Entlebuch, Switzerland

- › **Set clear biodiversity objectives**
- › **Make sure that your indicators provide reliable information about the enhancement of biodiversity**
- › **Make sure that your indicators enable continuous improvement**

MERIT Indicator set

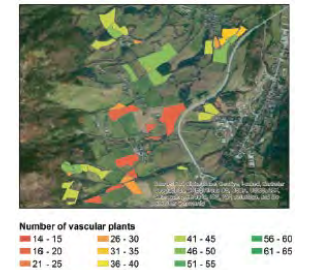
› Structuring degree

Trees, hedges, slopes, etc. break up monotony and act as refuges for small animals and enrich the landscape.



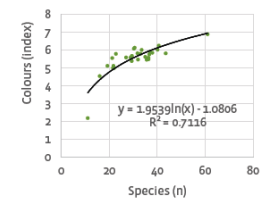
› Characteristic species

The number of vascular plants in a meadow is significantly influenced by land use and site conditions.



› Flower colours

Meadows with a high index score are more colourful and richer in species.



› Butterfly numbers and diversity

Meadows with a high number and diversity of butterflies have a higher ecological value than those with lower numbers.



Golden Rule 4: Pay attention to the implementation at the administrative level

“The obligation to meet a certain result, rather than constraints on methods that we as farmers can use changes a lot. They don’t lecture us on how we do things, and that is a very good thing.”

Farmer from Vercors, France

- › **Assess whether your programme should be purely or partly result-oriented**
- › **Keep transaction costs at a reasonable level**
- › **Result-oriented measures can be both publicly or privately organized**
- › **Involve farmers in monitoring**
 - › **Self-inspection supports farmer in taking responsibility**
 - › **Farmers become experts in farm biodiversity themselves**
 - › **Government’s trust in farmers can motivate farmers**
 - › **But monitoring mechanisms need to be reliable, clear and simple**

Example for Measurement Protocol

Form for annual monitoring

General information

Name of participant:	Farm number:	Year:
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Monitoring plot

Name:	Number:	Area (in ha):
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Structuring degree

Mention the number of structures visible on the plot:

Structure elements	Number of structure elements			
	< 2	2 - 9	10 - 20	> 20
Single trees				
Hedgerows				
Cairns/drystone wall				
Trickles/small streams				
Others				

Characteristic species

Fill in the indicator species based on the MERIT indicator list for mountain grassland according to its frequency (single, several, common, very common):

Tall oat-grass <i>(Arrhenatherum elatius)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Heath false brome <i>(Brachypodium pinnatum)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Meadow brome <i>(Bromus erectus)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Purple moor-grass <i>(Molinia caerulea)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Davall's Sedge <i>(Carex davalliana)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common
English ryegrass <i>(Lolium perenne)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Meadow foxtail <i>(Alopecurus pratensis)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Golden oat grass <i>(Triticum flavescens)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Common dandelion <i>(Taraxacum officinale)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Red clover <i>(Trifolium pratense)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common
Cow parsley <i>(Anthriscus silvestris)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Common hogweed <i>(Heracleotum sphondylium)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Common sorrel <i>(Rumex acetosa)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Nard grass <i>(Nardus stricta)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Common Bent <i>(Agrostis capillaris)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common
Balkans moor grass <i>(Sesleria albicans)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Evergreen sedge <i>(Carex sempervirens)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Wood cranesbill <i>(Geranium sylvaticum)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	Alpine avens <i>(Geum montanum)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common	golden hawk's-beard <i>(Crepis aurea)</i>  <input type="checkbox"/> single <input type="checkbox"/> several <input type="checkbox"/> common <input type="checkbox"/> very common

Golden Rule 5: Payments are a main incentive

„Payments in result-orientated measures have to be approximately 15% higher compared to action-oriented measures because of the additional work for observing and documenting and for the higher responsibility.“

Farmer from Carinthia, Austria

- › **Compensation for income foregone & additional costs**
- › **Other issues for calculating the payments**
 - › **Different levels of biodiversity achievement**
 - › **Income from other support schemes**
 - › **Labour costs, transaction costs**
 - › **Risk categories**
- › **Long-term contracts acknowledge the temporal factor of enhancing biodiversity quality and motivate farmers due to higher planning reliability**
- › **Sanctioning approach should not discourage farmers**

Golden Rule 6: Farmers' knowledge about biodiversity is essential

„I have been mowing my meadows for 30 years, but I do not know much about the plant species growing in them – I hope that an advisor will help me to identify the flowers and grasses growing in my meadows.“

Farmer from Upper Allgäu, Germany

- › **Design and adapt knowledge exchange according to farmers' existing level of knowledge**
- › **Awareness about the different values of biodiversity**
- › **Give overview of result-oriented measures**
- › **Training in appropriate management options to reach specific biodiversity objectives**
- › **Develop skills for self-monitoring of result indicators**
- › **Ensure on-farm support by biodiversity advisors to complement basic education and advanced training**

Golden Rule 7: Make farmers' efforts visible to consumers and society

„Flowering meadows nowadays provide an additional value when marketing agricultural products.“

Employee at the administration responsible for marketing activities in Carinthia, Austria

- › **Increase transparency on public spending**
 - › **Communication of success to public**
 - › **Flowering meadows competition**
- › **Strengthen farmers' capacity to market 'biodiversity-friendly products'**



Golden Rule 8: Evaluate the success of your programme

- › **Ensure comprehensive biodiversity monitoring as basis for an evaluation**
 - › **Monitoring on farm level and on programme level**
- › **Use different information sources and tools. Possible indicators for evaluation are:**
 - › **Data on species and habitats**
 - › **Farmers' feedback (e.g. collected through advisors)**
 - › **Adoption (Number of farmers, area under the measures)**
 - › **Problematic effects on grassland (e.g. appearance of weeds)**
 - › **Budget situation of the programme (how much money was used and will be available)**

Take home messages

„Result-oriented measures have the potential to make participating farmers more engaged with their grassland and its species composition.“

Agricultural expert from Upper Allgäu, Germany

- 1. Result-oriented measures are an alternative to be considered.**
- 2. However result-oriented measures are no one-size-fits-all solution.**
- 3. Result-oriented measures bear the potential to increase both farmers' motivation and acceptance for biodiversity measures.**
- 4. But farmers need to be enabled to adopt result-oriented measures: knowledge, training, advice**

Thank you very much

