

## Pro-rata grassland



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## The Bergamo Conference

2010 proposal

[http://mars.jrc.ec.europa.eu/mars/content/download/1977/10526/file/S1\\_D\\_evos\\_prorata.pdf](http://mars.jrc.ec.europa.eu/mars/content/download/1977/10526/file/S1_D_evos_prorata.pdf)

1. A proportional approach to eligible hectares
2. Why: to address area measurement issues
3. Challenge for LPIS: what to delineate?
  1. In a systematic (nationwide) manner
  2. Exclusive from all “purely” eligible and ineligible areas
  3. Exhaustive for all areas of that “type” (no choice from the farmer)
  4. How to motivate why it cannot be precisely mapped, e.g.
    1. spatially interwoven mix of land covers within the MMU
    2. temporal fluctuation of the internal boundaries
4. Goal: remove the “fuzziness” or arbitrary outcome

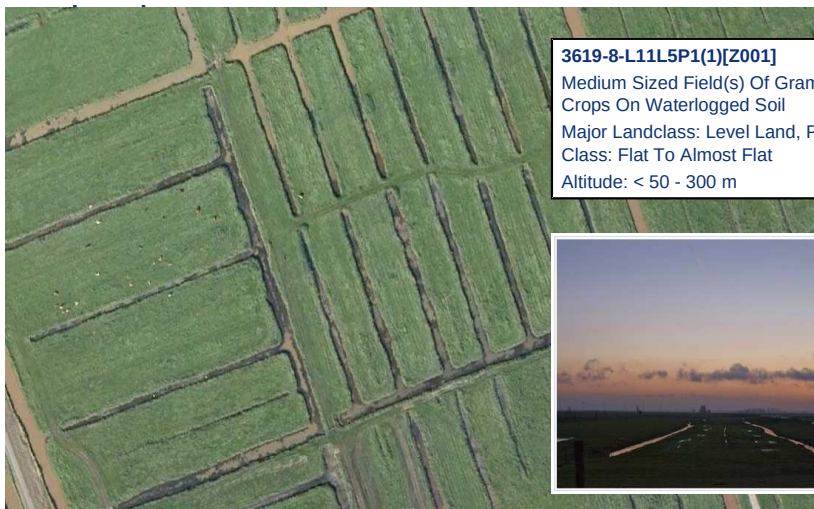
For LPIS, map land cover not land use

1. A pro-rata class is by definition a mixture of eligible and ineligible components.  
 Not merely a mix of the default area types but typically a well described land form/habitat with an intrinsic land cover mix.
  1. Defined and (typically) named
  2. Easily identifiable and distinguishable
    1. By its characteristic (physiognomic-structural) components
    2. In a specific local context
  3. Well known and stable proportions of the mixture components
  4. Often the result of a typical agricultural practice
 E.g. “dehesas” preferable to “pasture with trees” (ES: “pasta con arbulado” or “pasta arbustivo”),
2. Appropriate mapping instructions needed, separating:
  1. (delineable) patches >0.1 ha of homogenous components
  2. Any non mixture components (e.g. roads)

3. Demonstrate how you arrived to the rate applied for the pro-rata class. e.g.
  - Results of past OTSC checks
  - Analysis of historic images
  - Specific studies
  - ...
4. Adapt your OTSC procedures appropriately:
  - 1.LPIS update feedback
    - 1.Parcel (internal) boundary level
    - 2.Evaluate and re-confirm the rate applied
  - 2.NOTE: exclude non-mix features larger than 0.01 ha!

EXAMPLES on following pages are theoretical cases ONLY

- Mixture of grass and water – within a polder
- Possible motive: seasonal fluctuation of water



**3619-8-L11L5P1(1)[Z001]**  
Medium Sized Field(s) Of Graminoid  
Crops On Waterlogged Soil  
Major Landclass: Level Land, Plain, Slope  
Class: Flat To Almost Flat  
Altitude: < 50 - 300 m



- Mixture of grass and water – on intertidal flats
- Possible motive: daily fluctuation of water level
- complication: “grass” is in fact a mixture
  - + *Spartina anglica*, *Puccinellia*, *Festuca rubra*, ....
  - *Salicornia europaea*, *Limonium vulgare*, *Juncus gerardii*, *Chenopodium*



**30008-L11L5P5(1)[Z002]**  
Graminoid Crops Water level With Daily Variations  
Major Landclass: Level Land, Plain, Slope  
Class: Flat To Almost Flat



## Implementation to date

Several MS, only for permanent grassland

Nationally defined pro-rata classes in the eligibility profile

Eligibility profile acts as

Mapping legend based on

LCCS land cover code  $\approx$  photo-interpretation key

With a value of eligibility rate of the mix

To be used during ETS

Reflecting the LPIS situation that is tested.

## What has changed?

Only applicable on permanent grassland

Regulation eligibility exclusions such as the tree density rule  
Not a workaround to partially “recover” ineligible land

Minimum mapping unit applies to the pro-rata polygon (geometric representation, not the resulting pro-rata area)

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## An example

General rule:

i.e. when upgrading for differentiating or entering new grasslands

1. Map the eligible and pro-rata land cover classes according to EP
2. Intersect the land cover classes with existing (or newly created) Reference parcels
3. Sum up the weighted intersection areas per reference parcel  
weight factor is
  - One [1] for arable/permanent grassland/permanent crop
  - the appropriate coefficient [0.1-0.9] for the pro-rata grasslands
  - Zero [0] for any/combined non-agricultural land

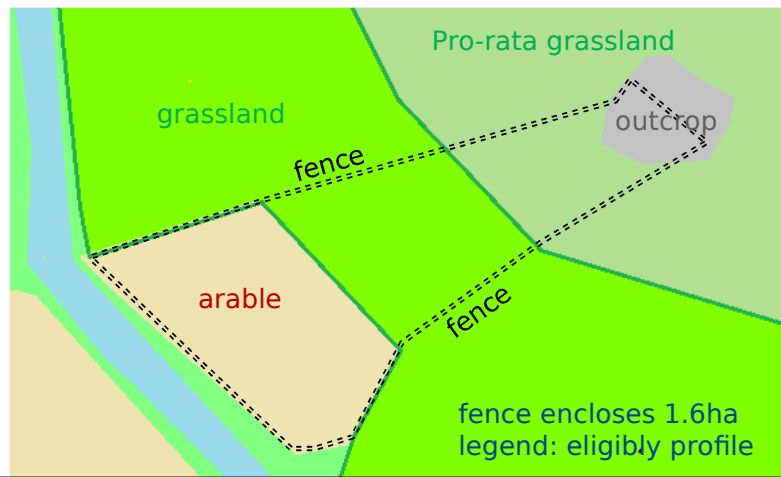
Note:

map agriculture first, excluding non-agricultural inclusions  
production blocks: MMU-exclusion doesn't count outside the block

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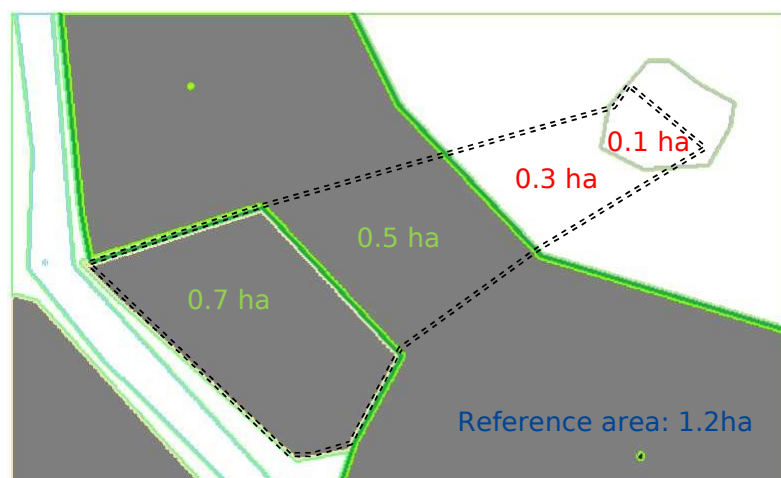
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## In practice



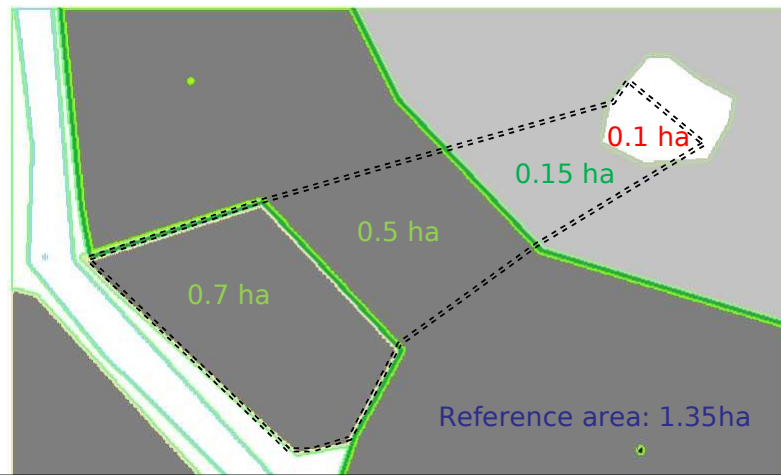
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## without pro-rata



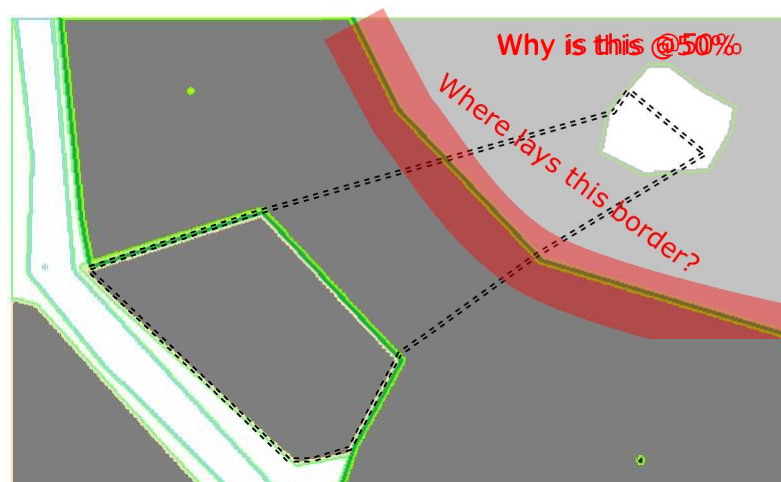
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with pro-rata (@50%)



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Challenges for prorata-classes



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## Conclusion

1. What is required by Regulation does not trigger a major overhaul to the proposed pro-rata framework
2. The new permanent grassland definition is expected to make the number of applicable classes increase
3. The need to document and guarantee consistent application of the pro-rata classes is paramount  
share procedures and “field cases” among Member States?

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**Thank you for your attention!**

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