

Guidelines for measuring vineyard parcels in the context of Reg. 479/08 and 555/08

Agriculture Unit JRC Ispra

Outline

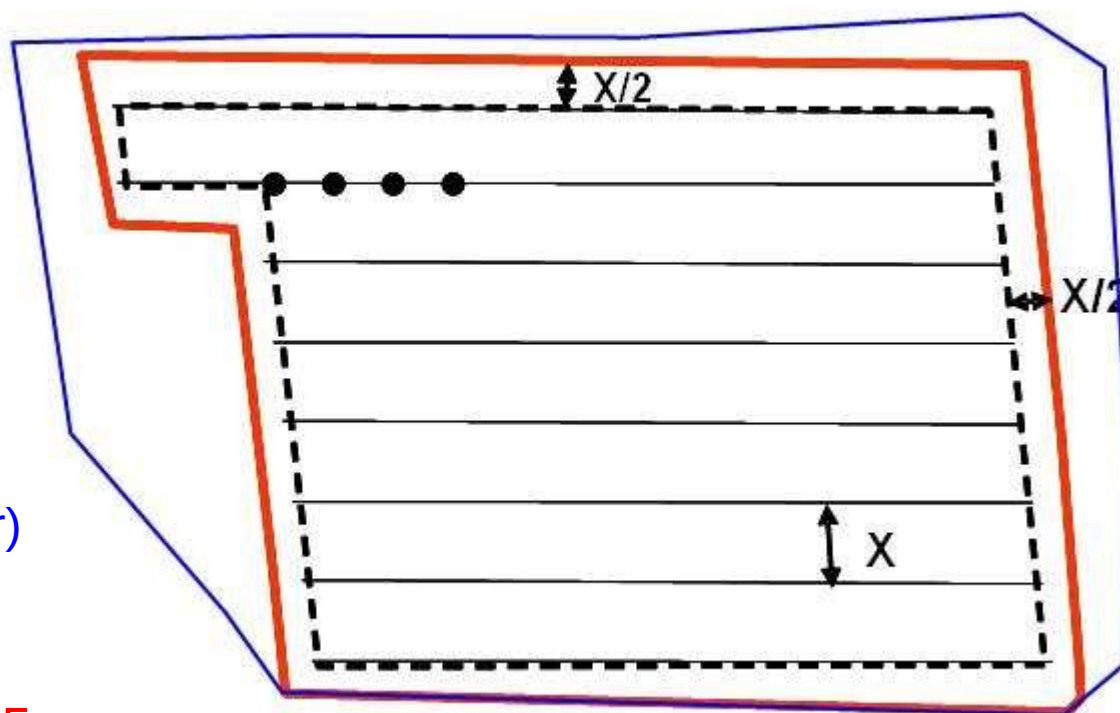
- Area based aid schemes for vineyard
- Determination of the planted area (art 75)
- Specific cases
- Measurement tools

Context

- New regulations on CMO in wine (R. 479/08 & 555/08)
- 4 aid schemes paid on area
 - **3 aid schemes**: grubbing up, restructuring and conversion, green harvesting
 - SPS
- 2 rates of On the Spot checks
 - 100% for the 3 aid schemes with determination of the **planted area** according to **art 75 of R. 555/08**; checks before and after operation for grubbing up and restructuring;
 - 5% before grubbing up if GIS tool for measuring planted area
 - SPS: at least 5% of SPS claims; area measured according to art 30 of R. 796/04 (may differ from art 75 area)

Definition of the planted area (for the 3 aid schemes)

- Introduced in R. 555/08, **art 75**: area defined by the external perimeter of the vine stocks with addition of a buffer of half the inter row distance



- Parcel physical boundary (LPIS or vineyard register)
- External perimeter of vine stocks
- Planted area as per art 75

X: inter row distance

Determination of the planted area (3 aid schemes)

- In accordance with the **1st subparag of art 30(1) of R. 796/04** i.e. “by any means proven to assure measurement of quality at least equivalent to that required by applicable technical standard, as drawn up at EC level”
 - EC technical standard = these guidelines
- No measurement tolerance defined (e.g. no maximum tolerance, either relative to parcel perimeter or absolute – cf. 2nd subparag of art 30(1) of R. 796/04)
- However, **accurate measurement recommended** (ES, FR, IT, PT already use DGPS)
 - accuracy can be expressed as measurement tolerance

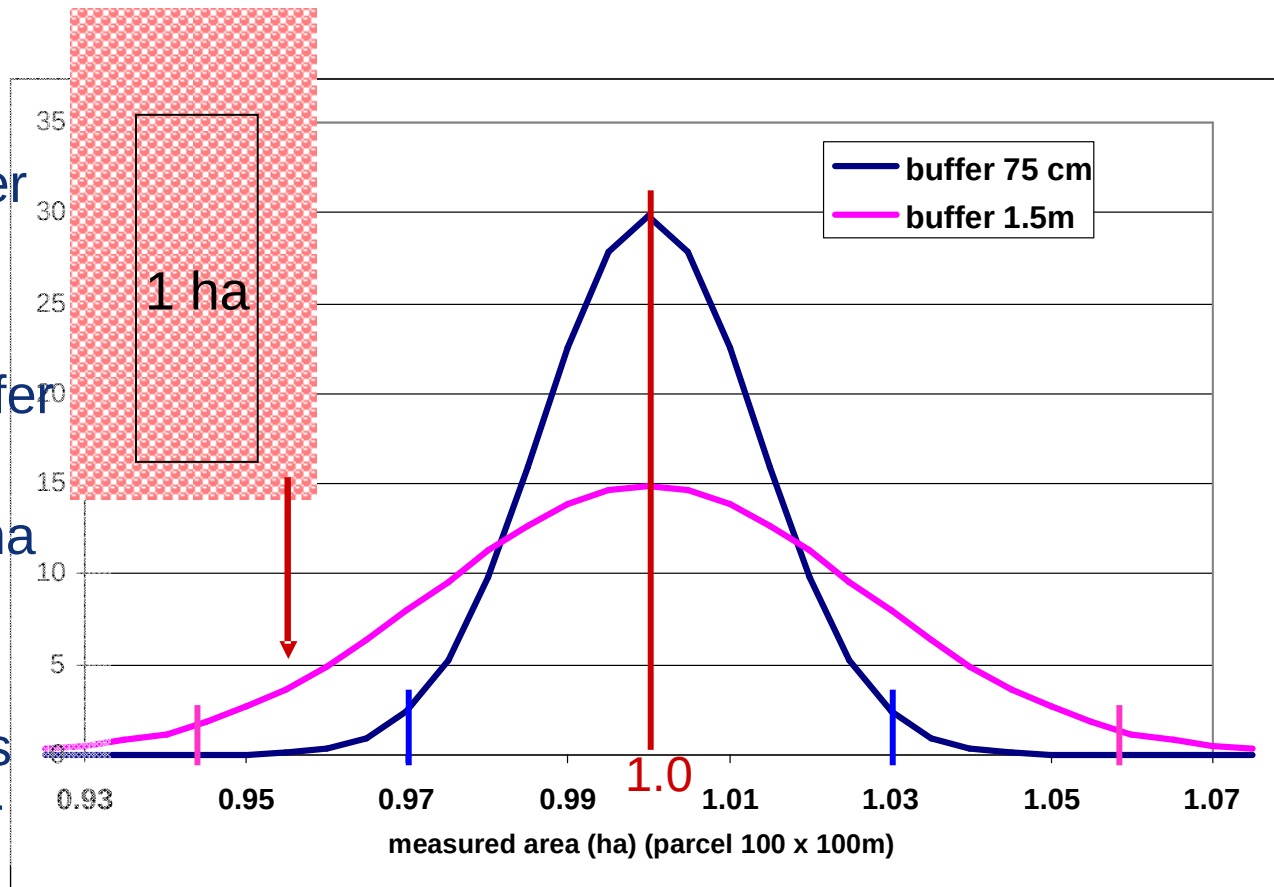
Is a tolerance needed for the 3 aid schemes ?

- **No**, MS could decide to **pay the area measured** by the inspector
 - 100% OTS check (\neq SPS)
 - No penalty in case of over claim (\neq SPS)
 - Measurement considered as service, not control
 - A tolerance could be needed in case of dispute by farmer (to check inspector's measurement)
- However, for consistency with IACS, tolerance may be used to decide if declared area is OK (where relevant)
 - recommend tool with maximum **0.75m** buffer

Stricter tolerance means **more precise** measurement (less dispersion), not necessarily less area paid to the farmer

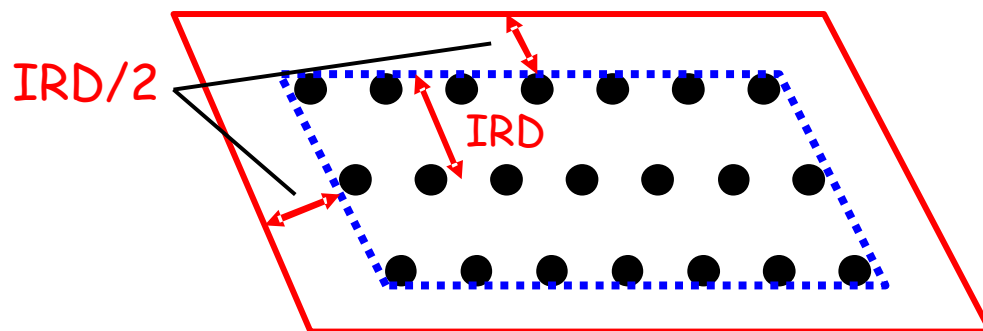
For a 50 x 200m parcel
- A tool with a 1.5m buffer may give any value between 0.94 or 1.06 ha
- A tool with a 75 cm buffer may give any value between 0.97 and 1.03 ha in 95% of the cases

This difference increases with the parcel perimeter



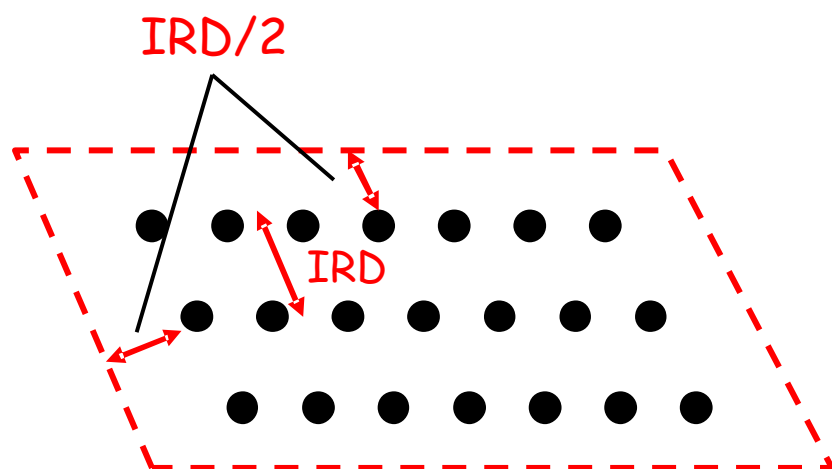
Parcel measurement (general case)

- Measure the parcel following strictly the **limit of the vine stocks**
- add a half inter-row distance around the previous limit (with GIS), while respecting any physical boundary;
- Result = “measured” **art 75 area** & perimeter



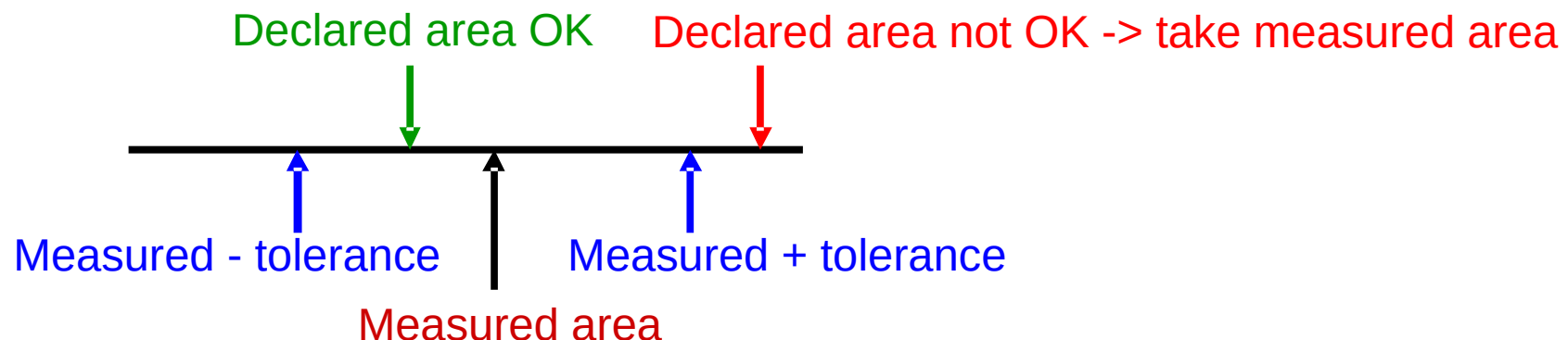
Parcel measurement: alternative

Direct measurement of “art 75 area” if more precise, i.e. if difficulty to follow the vine stocks



Tolerance

- Tolerance = buffer width corresponding to the measurement tool x “art 75” perimeter
- Establishment of the **determined** area for the 3 aid schemes:
 - **declared area** if declared area falls in “measured” art 75 area +/- tolerance;
 - “**measured**” art 75 **area** otherwise



Tolerance: example of application

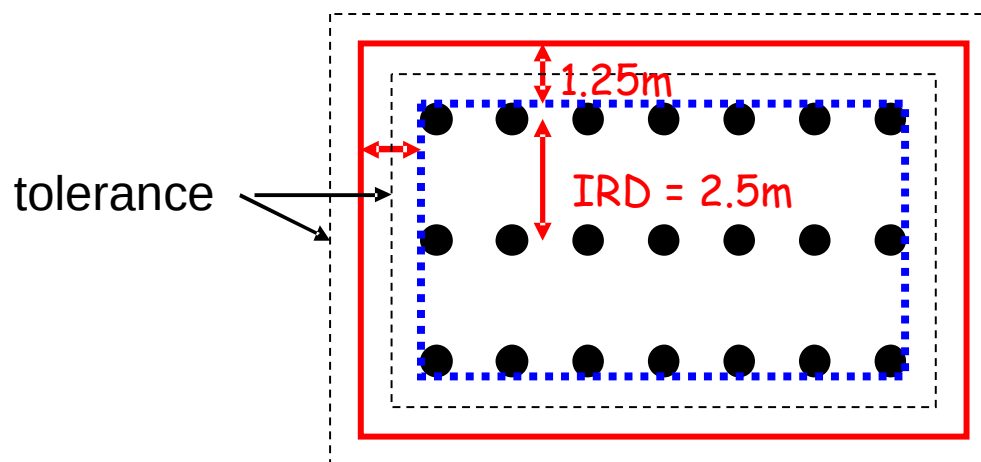
- Area measured: 1.00 ha (50 x 200 m); perimeter 500 m
- IRD = 2.50m \Rightarrow add 1.25 m round the planted area

Art 75 area and perimeter: 52.5 x 202.5 = **1.06 ha**; 510 m

Measurement tool: GPS with buffer width of 0.75 m

\Rightarrow tolerance = 510 x 0.75 m = 383 m² = 0.04 ha

Accept declared if falls inside 1.06 ha +/- 0.04 ha



Parcel measurement : specific cases (1/3)

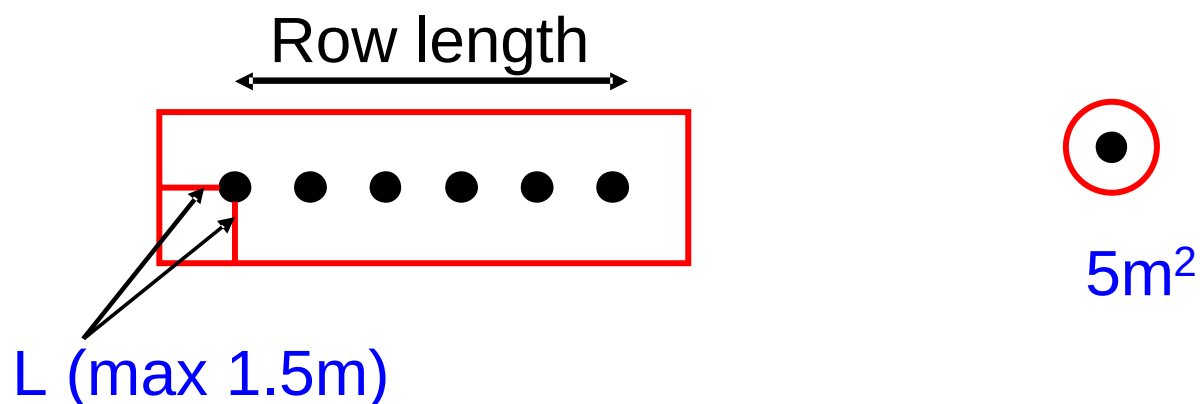
- **Single row**

- area = (row length + 2L) x 2L

- with L = 1.5m max (**exceptions** to be justified by MS)

- **Individual vine plants**

- 5m² / stock unless justified exception



Exception: case of inter row distance > 3m

- e.g. vine in pergola (IT, PT)



Inter-row distance = 7m



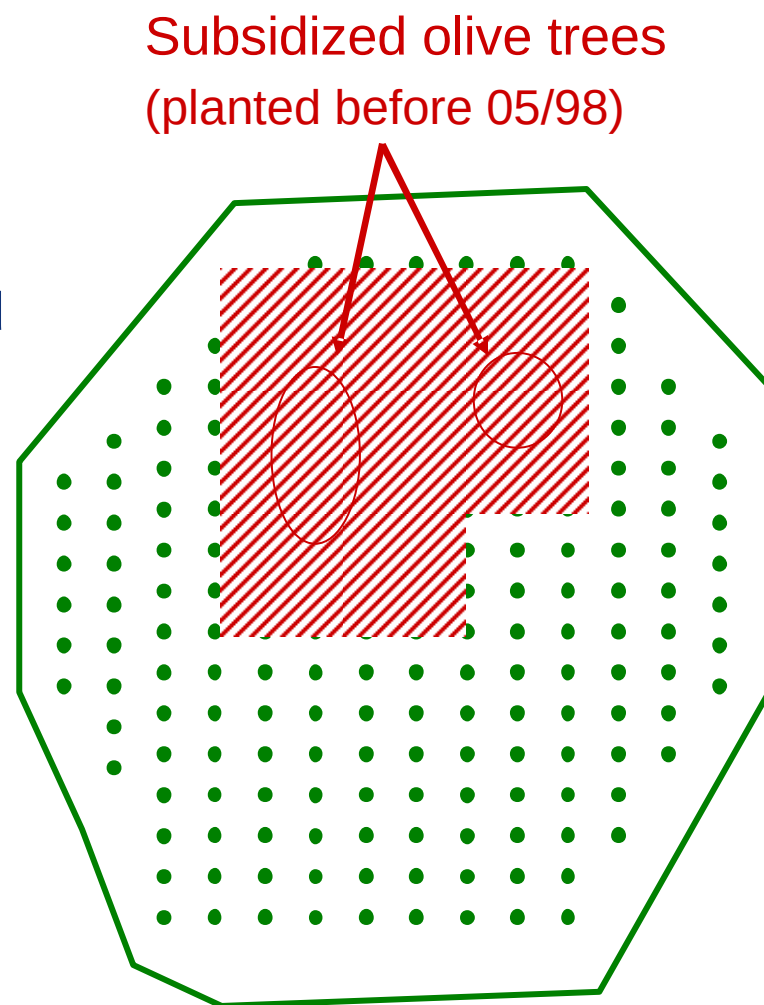
Parcel measurement : specific cases (2/3)

- **Inclusions and holes**

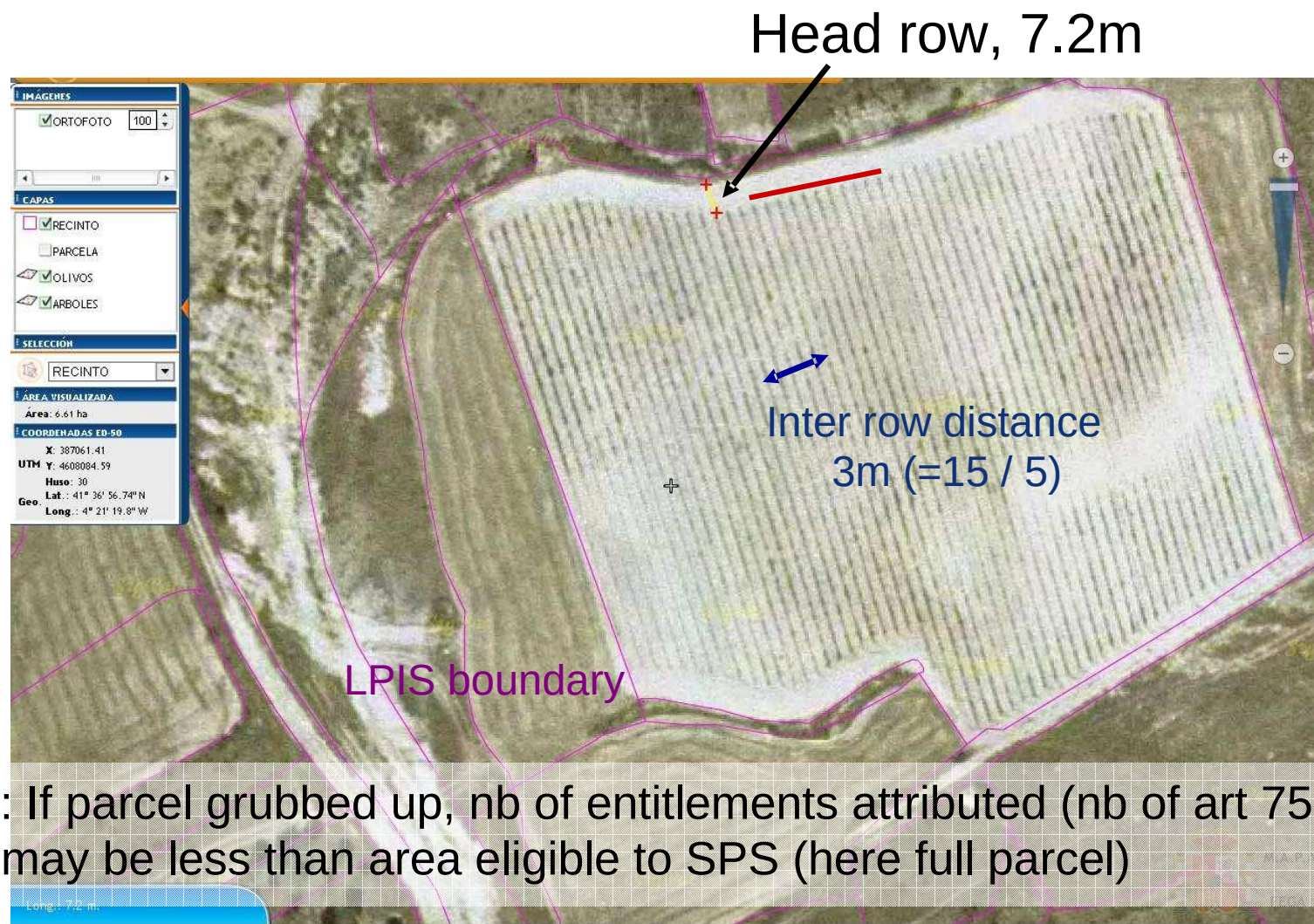
- **Exclude ineligible features** above 100m² (same rule as in IACS – see WikiCAP, category art30) such as roads, buildings, other (subsidized) crops as well as **isolated trees** if subsidized or their density exceeds **40 trees / ha**.

- possibility to subtract the **IACS GIS area** of other crops if up to date (e.g. for olive trees)

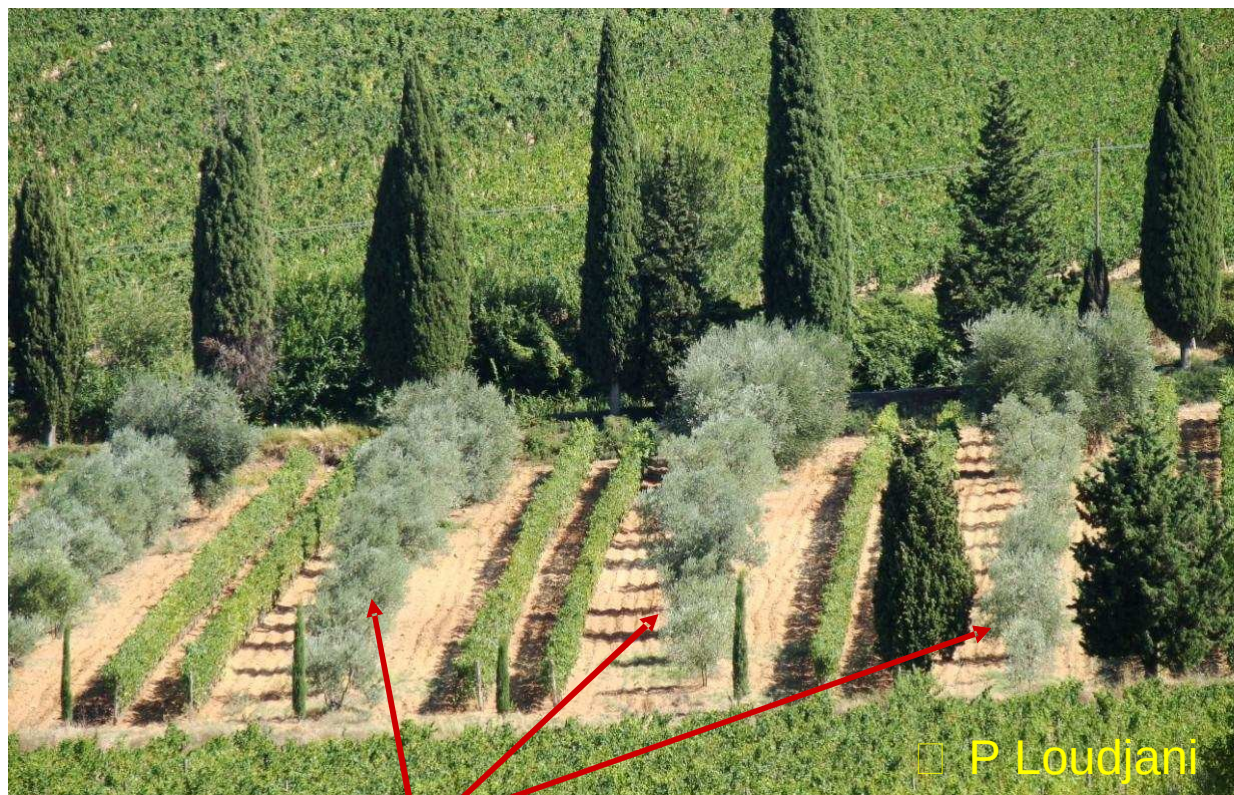
- **Exclude holes** (missing plants) if grouped or above a max density (e.g. 1 hole / 10 plants)



Example: partial exclusion of head row



Example: mixed parcels



Deduct olive trees and other (non subsidized) trees

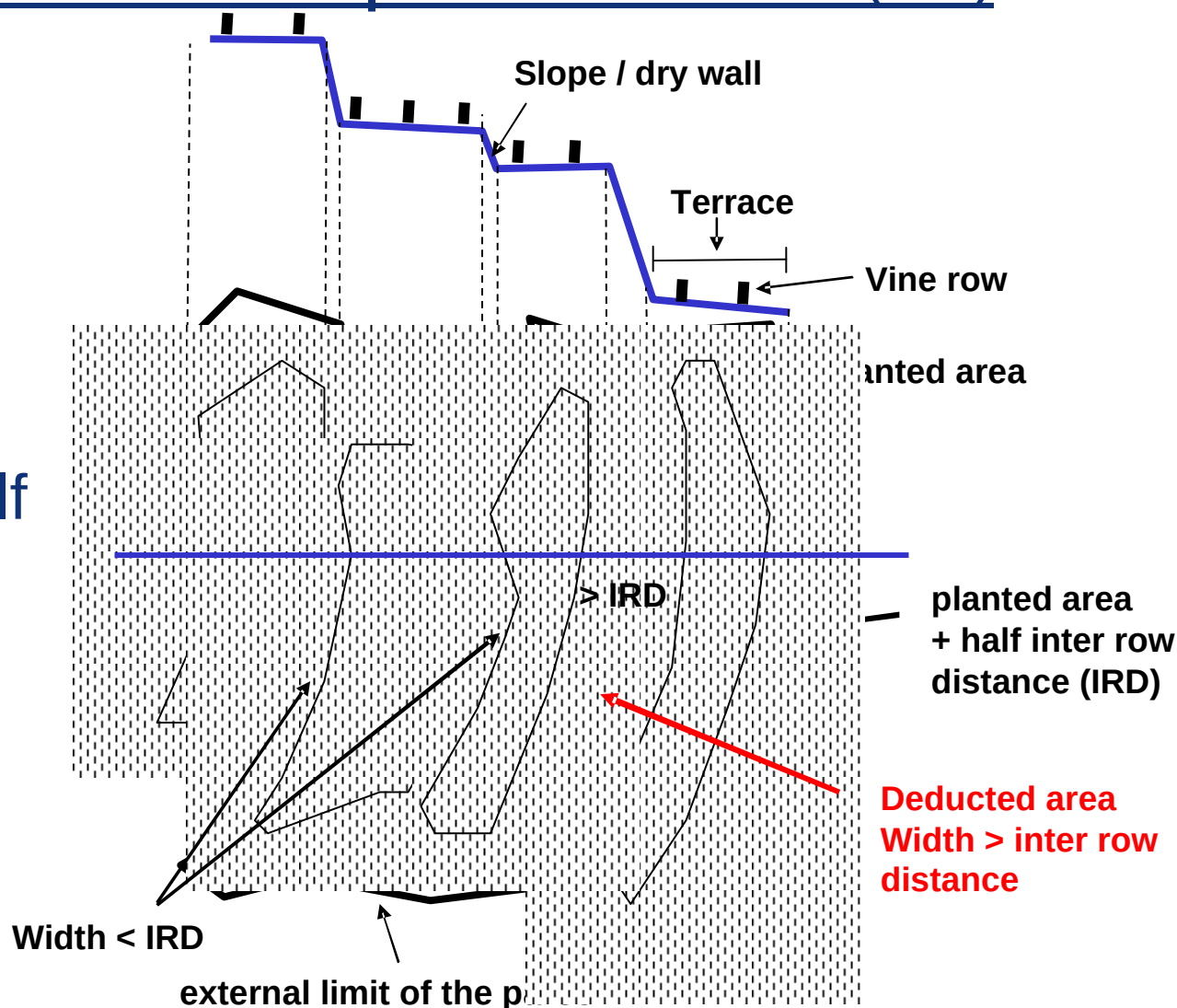
Vine + oak (not aided, well distributed) -> no deduction of trees



Parcel measurement : specific cases (3/3)

- Terraces

Same principle:
include terrace if
width < inter row
distance,
otherwise add half
inter row buffer



Terraces that can be included



Deduct
road

Particular case of terraces



Exclusion of each terrace?
Orthoimage needed

Measurement tools

- Tools with a tolerance $< 0.75\text{m}$
 - DGPS, single or dual phase frequency GPS, electronic total station
- Stand alone GPS **to be tested** (2 of the 4 certified GPS OK)
- Tools measuring lengths (tape, toposil, laser meter)
 - > for simple shapes (single rows, rectangular narrow parcels); tolerance to be determined by MS (cf. guidelines on wikiCAP)

NB: projected area (length) needed

Use of VHR ortho imagery

- For verifying the grubbed up area or measuring it in case of partial grubbing up
- Recommend resolution (ground sampling distance) $\leq 0.5\text{m}$ ($\leq 1\text{m}$ in Regulation) and late spring or summer acquisition
 - risk of confusion between vineyard and other land cover;
 - check vine plants are visible on the image
- NB: Possible use of VHR imagery for removing inclusions (roads, buildings, trees)



**We fully approve
these excellent
guidelines!**