3.5.1 Data compilation process

After the collection of the questionnaires, data were checked for completeness, accuracy and consistency of the correlating variables. Checks were carried out before and after the data entry, in order to identify and dully correct any errors. Limited unit imputation was applied to address specific non-response errors.
Subsequently, the data of the sample were extrapolated for the total number of holdings.

Extrapolation factor

The extrapolation factor of the agricultural holdings of order i belonging to the stratum h is defined as:

$w_{hi} = 1/$ (inclusion probability of the selected unit i in stratum h) * r_h^{-1} = $\frac{N_h}{n_h} * \frac{n_h}{m_h} = \frac{N_h}{m_h}$

where,

N_h: the population size in the stratum h

n_h : the sample size in the stratum h

m_h : the number of responding units in the stratum h

r_h : the response rate at the stratum h ($r_h = \frac{m_h}{n_h}$)

Additionally, for the census classes the $w_{hi} = 1$ for all the agricultural holdings ($\forall i$)

Estimation process

If index *i* is the selection order of an agricultural holding from the sampling frame in the stratum *h* (stratum=crossing of stratification criteria) and if *y* is one of the survey characteristics, the following can be defined:

y_{hi} : the value of the characteristic *y* of the holding in the order *i and* in the stratum h ,

Y_h : the sum of the values of the characteristic *y* of all holdings covered by the survey and belonging to stratum h ,

Y : the sum of the values of the characteristic *y* of all holdings covered by the survey. That is: $Y = \sum_h Y_{hi}$

The estimations of the magnitudes Y_h and Y come from the following relations:

$$\hat{Y}_h = \sum_{i=1}^{n_h} w_{hi} \cdot y_{hi}$$

$$\hat{Y} = \sum_h \hat{Y}_h = \sum_h \sum_i w_{hi} \cdot y_{hi}$$