

# Key farm system information to collect and store to support Overseer™ modelling of nutrient losses

The following is a summary of the farm system information that should be collected and stored for each season in order to support Overseer analysis. Determining a baseline land use and the associated nutrient loss (whether individually or collectively) is greatly simplified if the following information is available. Conversely if this information is not available, then assumptions will be made which may be detrimental.

1. Inputs
  - a. Fertiliser - What, when and how applied (by block, paddock and/or crop)
  - b. Crops - What type, when sown and how cultivated
  - c. Stock – Average numbers by month, by type/class as well as average age and/or weights
  - d. Feeds imported – What type, quantity, quality, means of storage and which animals consumed it (including where and when if necessary).
2. Farm system
  - a. Infrastructure including; Feed pads, standoff pad etc.
    - i. How is it used including, by what animals, what numbers, how long per day and does feeding on infrastructure occur and how is it cleaned?
    - ii. Effluents volumes, effluent collection and management.
  - b. Grazing management, i.e. what paddocks or crops are grazed when during a season?
  - c. Irrigation
    - i. Systems type/s
    - ii. Beginning and end of season
    - iii. Management rules used for each systems
    - iv. Do management rules vary throughout the season
    - v. Average depths applied, per event (if you have it) and seasonally if possible.
  - d. Key farm system dates such as; sowing, harvest, weaning, mean calving date, dry off dates, when crops were shut up, when grazed, when fertilised, when irrigated etc.
3. A farm map is important, particularly if things are changing.
4. Effluent (both liquid and solid, all sources)
  - a. Storage (volume and system)
  - b. Area applied to, rate applied (does this vary?) and when applied
  - c. Means of application (does this vary?)
5. Outputs
  - a. Milk yields
  - b. Crop yields including straws and silages - how much if any is retained on farm also how is stubble managed
    - i. If feed is retained, where, when and to what was this fed?
  - c. Fodder crops yields, including when grazed and by what, hours on crop versus standing off, if lifted how much and when.
  - d. Grazing, by what stock, how many, how long and weights/ages out.
  - e. Stock performance; including lambing % and weights in /weights out for animals grazed
  - f. Meat and other product yields including fibre - what, when and how much;
6. Anything else likely to be relevant to nutrient import and export from property including transfers and losses within your property.