Stable release – September 2016

The FARMDYN team managed in September 2016 the first so-called stable release with the aim to provide a properly tested and documented version of the model. Generally, all model features described in the model documentation and available in runner mode had been subject to testing. These tests covered both rather extensive compilation tests of manifold combinations and a longer list of run-time tests with plausibility checks for major results. The exercise also included checks of the model code for adherence to coding guidelines and partly a restructuring of code to increase readability. It also updated extensively the model documentation.

However, some features covered by the documentation and code were mostly excluded from the exercise. These features have not been used in the recent past and are not considered to be used soon (flagged as deprecated) or have been introduced rather recently and are still in a prototype face (flagged as prototype). Such features with no or limited testing are only available via the Graphical User Interface in debugger or developer mode and otherwise hidden from the interface. These excluded features should be intensively checked before they are used in any serious application:

1. The stochastic programming extension and risk behavior (see section 4), prototype
2. The soil-pool approach for nutrient accounting, deprecated
3. The different GHG emission indicators and the step-wise calculation of marginal abatement costs, deprecated

There are also features pending to be implemented which can be assumed to become available before the next stable release:

1. The different so-called “greening measures” from the latest CAP reform
2. The integration of crop residues into fertilizing and nutrient accounting
3. The coverage of a fully tested stochastic programming approach with different types of risk behavior.
4. More detailed representation of feeding requirements and feeding for cattle processes.
5. Including of manure imports.
6. Complete implementation of N/P reduced feeding.
7. Differentiation of crops for animal feed and market.

Further extensions, not listed here, are implemented in the framework of the ongoing projects with FARMDYN. Please check project pages for further information.