DISCUSSING THE SCIENTIFIC METHOD AND A DOCUMENTATION SYSTEM OF BIOLOGICAL AND METEOROLOGICAL PARAMETERS

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IMPLEMENTATION OF A GENERAL DOCUMENTATION SYSTEM OF BIOLOGICAL AND METEOROLOGICAL DATA

QUALITY OF BIOLOGICAL AND METEOROLOGICAL DATA IS DEFINED IN THE FOLLOWING MANNER:

a) The connection of the data to objects of nature
b) The properties, conditions and value of the data, including completeness and representativeness
c) The identity (social system) producing the data (giving the data authority)
d) The availability of the data
e) The presentation of the data including the context of the presentation

THE SERIES OF DATA NOW BEING IMPLEMENTED IN THE DATABASE SYSTEM AT THE NORWEGIAN CROP RESEARCH INSTITUTE

- Meteorological data from an automated network of stations
- Meteorological data from meteorological prognosis
- Data from a warning system for late blight in potato
- Data from a warning system of apple scab in fruit orchards
- Data from a monitoring system for apple fruit moth
- Data from a monitoring system for cabbage root fly and turnip root fly
- Data from several years of light-trapping of lepidoptera
- Data from surveys of plant parasitic nematodes
- Data from warning systems for cereal diseases

PROPOSAL FOR A DOCUMENTATION SYSTEM CONNECTED TO CATEGORIES OF PARAMETERS

For measurements:

- Geographical context: description of the geographical context for the system for making measurements
- Physical context: description of what sort of physical measurement are made
- Biological context: description of the biological species and varieties connected to the measurements
- Environmental context: description of other categories of parameters of biological nature that are connected to this category, and other environmental factors of relevance
- Properties: the documentation system for parameters - CREX/BUFR descriptors if existing - Comments on CREX/BUFR descriptors
- Program for making measurements: short description of the system for making measurements, the documentation of the parameters also contain such description
- Identity/social context: short description of the owner of the system and the social context where the system is used
- Availability: availability of the data is described

For models:

- Physical context: description of physical objects considered in the model
- Biological context: description of biological species and varieties connected to the model
- Environmental context: description of other categories of parameters of biological nature that are connected to this category, and other environmental factors of relevance
- Properties: the documentation system for parameters - CREX/BUFR descriptors if existing - Comments on CREX/BUFR descriptors
- Program for making calculations: short description of the system for making calculations, the documentation of the parameters also contain such description
- Identity/social context: short description of the owner of the system and the social context of the functioning of the system
- Availability: availability of the data is described

COMPARING DATA FROM DIFFERENT CATEGORIES OF METEOROLOGICAL AND BIOLOGICAL PARAMETERS

- Data from automated meteorological stations
- Data from meteorological prognosis
- Data from warnings of potato late blight
- Data from monitoring of apple fruit moth
- Data from monitoring of apple scab
- Stored observations
- Stored predictions
- Stored predictions
- Stored results
- Stored results

We may look at and compare data from different sources connected to chosen sites or regions. We may also look at and compare the history of data, the development in time. When all kinds of data are stored in a similar manner this will be relatively easy.