



# FIELD TRIALS AND ANALYSIS

AgroTech works with a broad range of field trials and analysis. We have more than 30 years of experience with performance of all kinds of field trials and respective data interpretation within agricultural research.

Varying from variety and pesticide testing to complex field trials investigating, soil preparation, growing strategies, organic fertilization and organic farming systems, all studies are carried out with accuracy and precision. Today 1,100 field trials are conducted each year in cooperation with Danish Agricultural Advisory Service.

## **Main strengths**

- Project management
- Strong knowledge of biological interactions
- High level of practical experience conducting field trials
- Broad statistical knowledge
- Software development
- Quick results reporting.

## **Quality has a high priority**

Field trial work has to be carried out with precision and punctuality in order to give reliable results. That is why all our field trials are quality assured throughout the process from experimental plan to result. All staff from trial supervisor to technician are specialized in experimental work. Equipment is always functioning and calibrated.

## **Facilities**

- Trial site Koldkaergaard with a total area of 110 ha comprising 4.9 ha field trial and demonstration area.
- Bigger trials are established in the farmers' fields to ensure that trial conditions are close to practical farming.
- Strong co-operation with 17 trial sites covering each area in Denmark.



## Which services can AgroTech offer?

### **Performance of a wide range of field trials**

- Cereals, maize, oilseed, legumes and grass
- Small plots, plot in plot procedures, double plots, big plots, single row sowing, variable plot widths, etc.
- GEP
- GMO
- Specialized strategy trials.

### **Professional co-ordination of field studies - all steps from idea to result**

- Experimental planning and setup
- Data collection and data management (NFTS trial database, ARM7/8, SAS, R)
- Sowing, spraying and fertilizing
- Assessment of diseases and weed (scores can be viewed on the internet immediately)
- Screening of new pesticides
- Harvest and yield determination
- Sampling
- Analysis of dry matter and quality analysis in grain, maize, rape seed, grass, seed grass and potatoes
- Statistical analysis and data presentation.

### **Development of field trial equipment**

- Machinery for highly advanced methods of fertilizer strategies for artificial and organic fertilizer.

### **Statistical analysis**

- Planning and design
- Power calculation
- Data management and analysis
- Mixed models, non-linear models, generalized linear models, multivariate analysis.





## NFTS - Nordic Field Trial System

Nordic Field Trial System (NFTS) is an intelligent data system designed to manage a large number of field trials in an efficient way. The system is suited to carry out several trials in the same series and to collect data from different locations while reporting results immediately.

NFTS is a common Nordic system developed 2005/2006 by Danish Agricultural Advisory Service. It is implemented successfully in Denmark and Norway, and presently it is being tested in Sweden. NFTS supports four languages: English, Danish, Norwegian and Swedish. Today the system hosts more than 25,000 trials.

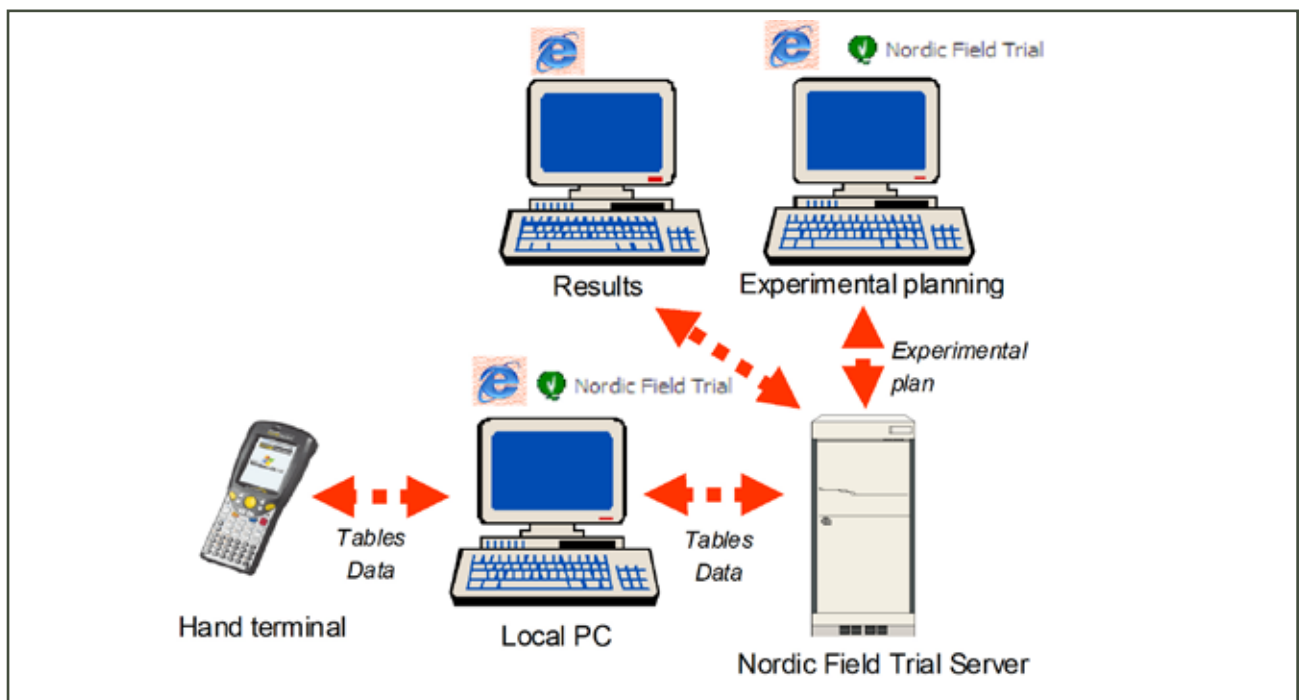
NFTS has the potential to become Europe's most advanced field data management system.

### Nordic Field Trials System comprises

- Microsoft SQL 2000 database
- SAS AF application managing all statistics, calculations and administration
- Internet applications (.Net) providing results and information at any time
- PC program comprising a user-friendly data system:
  - Experimental Planning to make protocols and design trials
  - PC Field Trial to enter data and view results
- SMART-Trial a handterminal program. The most secure and efficient way to register data in the field. Data is sent directly to the database while still in the field.

### Advantages of the system

- Data are compiled in a unique form
- Safe data storage through central storage with secure backup
- Possibility for entering data as close to the field as possible using hand terminals or PC program
- Fast data processing and quick reporting.





## Staff

20 highly educated people are employed at AgroTech's department 'Field trials and Statistics' covering all fields of trial management.

AgroTech A/S is a Danish Government Authorised Technology Service Institute working with knowledge transfer in the field between biology based natural science and technology.

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