



40 YEARS OF RESEARCH ON NITROGEN

20th
Nitrogen
WORKSHOP

**Coupling
C - N - P - S
Cycles**

Side Event

Nutrient Management & Decision-Support Systems

June 27, 2018

Agrocampus Ouest
Rennes, France

Mathilde Heurtaux (RMT F&E) & Christine Le Souder (COMIFER)

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Side-event organised with the support of



French national institute
of agronomic research

SAS Unit



Rennes' engineering school in
agronomy, food, horticulture
and landscape sciences

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Side-event organised by



The French joint technology network « Fertilisation & environment »

- A network of 34 research, training and development institutions
- Designing and implementing R&D projects, and developing together decision-support tools around fertilisation and sustainable management of biogeochemical cycles
- Since 2007



Comité Français d'Étude et de Développement
de la Fertilisation Raisonnée

The French committee for the study and development of rational fertilisation

- A non-profit organisation bringing together all actors involved in crop fertilisation (public authorities, research, professional organisations, fertilisers manufacturers...)
- Producing key agronomic references and recognised methods, organising meetings...
- Since 1980

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Objectives of the day

Scientific knowledge



Management practices

Object

Decision-support tools for inorganic and organic crop fertilisation, and diagnosis tools for nutrients management

Aim

- Provide an overview of approaches developed in various countries and discuss them
- Explore how the scientific knowledge is integrated and combined in the practical management of biogeochemical cycles and fertilisation, and in particular in the decision-support tools
- Look into the approaches and principles underlying the tools functioning

Method

- Demonstration of a variety of tools
- Posters
- Oral communications

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4 0 Y E A R S O F R E S E A R C H O N N I T R O G E N

Agenda of the day

• 9:15 - 10:30

First session of tools demonstrations

Different classrooms

• 10:30 - 11:30

Coffee break and poster sessions

• 11:30 - 12:30

Second session of tools demonstrations

Different classrooms

The workshop will consist of a demonstration of 9 decision-support tools for mineral or organic fertilisation and nutrients management. These demonstrations will take place in parallel, and participants will have the possibility to interact with authors of several tools.

- > SOL-AID (Beff, L. et al.), SYST'N (Parnaudeau, V. et al.)
Room 1
- > FARMSTAR (Kammoun, B. et al.)
Room 2
- > MANNER-NPK (Sagoo, E. et al.), COWNEX (Faverdin, P. et al.)
Room 3
- > N-PERENNES (Cahurel, J.-Y. et al.), AZOFERT® (Obriot, F. et al.)
Room 4
- > VEGSYST-DSS (Gallardo, M. et al.), FERTIWEB® (Le Souder, C. et al.)
Room 5

Morning session

Organisation of tools demonstrations :

- About 2 rounds of demos before coffee break and poster session
- About 2 rounds of demos after coffee break
- **Please note:**
 - Initial allocation of one tool to each participant (**please consult the number allocated to you**)
 - Then free visit to any tool during the morning (**see the tools abstracts on your USB flash drive**)

1st session only



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12:30 – 14:00

Lunch buffet



Due to the large number of participants, and to allow a smooth and relaxed lunch, you may...:

- Take away some bites and... then let the other participants have access to the buffet
- Enjoy the good weather and go eat outside
- The buffet will be restocked over time, and therefore it is best to come back later, especially for desserts.





4 0 Y E A R S O F R E S E A R C H O N N I T R O G E N

• 14:00 - 14:40

Invited speaker: Van Doorslaer, B. (European Community, DG Agriculture and Rural Development)

The «N» in New Common Agricultural Policy

• 14:40 - 15:00

Hutchings, N.J. (Aarhus University)

Modelling nitrogen flows and losses on dairy livestock farms

• 15:00 - 15:20

Ramos-Castillo, M. (Veolia)

Smartagri: optimization of organic amendments applications

• 15:20 - 15:40

Sagoo, E. (ADAS)

Manner-NPK nitrogen model

• 15:40 - 16:00

Genermont, S. (INRA)

Cadastre_NH₃: a new framework to estimate spatio-temporal ammonia emissions after N fertilization in France

• 16:00 - 16:20

Young, M. (WUR)

A decision-support framework for the integrated evaluation of agricultural management impacts on crop yield, soil quality and environment.

• 16:20 - 16:30

Conclusion

16:30 - 17:00: Farewell café

14:00 – 16:30

**Afternoon plenary session
Matagrín Amphitheatre**

Starting at 2 pm precisely



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Any questions?

NB: the organisers are wearing **blue-framed name tags** and they can help you if needed

First Name LAST NAME
XXXXXXXXXXXX

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Knowledge grows

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Have an interesting and enriching seminar!



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June 25-27, 2018
Rennes, France