



SUSTAIN meeting - Orientation committee

26/02/2014 - Paris

Programme

9h30-11h30: Presentation concerning SUSTAIN (after each talk 5-10 minutes could be questions)

- presentation of the programme and the sites
- presentation of french results
- presentation of dutch results

Coffee Break

- presentation of transversal actions
- Life Cycle Analysis
- dissemination actions
 - actions addressed to several public
 - brochures, technical guide
 - open day for farmers

11h30-12h00 : general discussion : questions

12h00-13h30 : lunch

13h30-14H00 : what is expecting from Europe concerning reduced tillage or agroecology ? (Ciro Gardi)

14h00-14h50 : PEPITE and TILLMAN projects (Josephine Péigné)

- presentation (30 minutes)
- questions/discussion : what are complementary/common results and transfer to users ? (20 minutes)

14h50 - 15h40: Ranking of indicators and Ecosystem services (Michiel Rutgers)

- Presentation (30 minutes)
- questions/discussion : how can we apply this to SUSTAIN results (20 minutes)

Break : 20 minutes

16h00-16H30 : general discussion and synthesis : what about a common future ?

Meeting Notes

Josephine Peigner, Lyon, Organic ag. Pepite project & Tilman (Core Organic Project, Cons tillage in organic farming, coordinated by FIBL (Paul Mäder).

Project ends end of 2014. Presentation of results at GSB/Ecofinders symposium in 1st week of December.

⇒ Action: check if call for session proposals is open?

Giardi: What about crop diseases, e.g. cereals and pathogenic fungi?

Michiel: better indicator systems? How to integrate and analyse? Will there be common indicators at French and NL sites or different. Instead of trying to connect to big system than e.g. ecofinders we have a nice focused and confined data set.

Dissemination at European Level (incl lobby)? What are we doing?

PRESENTATION OF RESULTS ABOUT FKO:

No sign increase in ew abundance due to reduced tillage, except for agronomic ploughing (15cm deep). Biomass is more even: change in species composition

- A. Caliginosa and Chlorotica respond positively to ploughing
- B. Giardi responds positively to reduced tillage
- C. (Very) reduced system is beneficial to anecics and so biomass

Data not consistent with data found at the beginning of the trial! => Why??

Josephine: results confusing because very strong relation with cover crop management.

Increase in superficial tillage soil C limited to top 5 cm

Vincent relations between earthworm functional groups and infiltration at different depths.

Analysis of relations between tillage effects on earthworms as affected by crop type + synthesis of all results in **spider diagram**.

MY PRESENTATION; SEE PAPER JOSEPHINE 2009?

MICHAEL LCA:

Soil Q impact parameters: Water erosion, Compaction, SOC change, Soil biodiversity impact.

Off site effects (landscape scale for example) at this point not specifically taken into account

Soil biodiversity indicator is the big new challenge: IMPACT ON SOIL BIOD. NOT SOIL BIOD PERSE.

See Gardi et al al 2013: soil biodiversity threats, incl mathematical equation.

⇒ Apply it to specific sites in SUSTAIN project

Threat of N load may be complicated (pos or neg effect on soil biod?)

Proposal for soil directive: how is soil biodiversity evaluated/defined? => more on functions. E.g nitrogen mineralization.

Josephine: Why do you want LCA approach at European scale.

Disseminatie: link up with ECAF?? www.ecaf.org

Ciro Gardi: European perspective.

EU soil directive, withdrawn. Now waiting for a new proposal that is more acceptable/digestible
Nice diagram on measures/instruments for environmental improvement

CA related policies in EU:

- (Greening of the) CAP
- Commitments for Kyoto protocol
- Biodiversity strategy
- Roadmap for resource efficiency

Environmental risk assessment & LCA to evaluate aims/benefits of CA

Slide with adoption rates ECAF websites (Derpsch 2006?).

See also SOCO report!

University Parma Conti, Gardi, study in Lombardia

Jorgios: Reporting for Kyoto commitments: before effects of land use had to be reported, but now also at agricultural practices level. So there is a demand for data to quantify the impacts on C sequestration for C accounting.

Tilman final seminar in June 2014.

Farmers interviews (160 in 11 countries, organic farmers)

Soil Carbon and GHG emissions

Weeds services and disservices

Nutrient N (NDICEA)

+

Prototyping (MASC model, env risk assessment model)

PEPITES

Effect of CA on soil ecosystem engineers, nematodes (microregulators) and decomposers. In France, Brazil (not large scale), Madagascar

See website

Including termites

Real direct seeding and cover crops.

Last diagram showing relation organism size vs management impact, in this case also showing the functional group effect for earthworms. Like Hendrix 1986 in Bioscience