

Call for communication - Session (S1-3) Agroecology and practices changes.



Les transitions écologiques
en transactions et actions

The report has been made for several years: the (eco)toxic treatments used in large quantities and frequently by farmers, winemakers and gardeners to produce foodstuffs, are the cause of degradation of soil fertility and health risks for producers, residents and consumers (Dumat et al., 2019). This is why agroecological transitions are organized on the side of producers, communities and citizens (gardeners and consumers) accompanied by associations. For example, viticulture traditionally uses a large number of treatments to prevent diseases of the vine; however, this sector is evolving as wine consumers are more and more interested in the quality of the product and the concept of terroir. They are also increasingly attached to the concept of living wine, organic, obtained in the simplest possible way and without degrading the environment. A better knowledge of soil life and a positive impact on the health of ecosystems and humans is gradually becoming a goal shared by farmers, professionals of chambers of agriculture, consumers and researchers. The accompaniment to the practices changes was particularly discussed during the training-research-development day, entitled "Viticulture : a vector of ecological transitions? (February 25, 2019, Toulouse INP-ENSAT-DNO, <https://reseau-agrville.com/viticulture-transition-ecological/>). At different scales, policies and regulations lead to changes to promote health and the environment. For example, in France since January, 2019, the use of pesticides is prohibited in private gardens. Many cities are engaged in actions aimed at increasing the quality of ecosystems and in particular promoting the soil life at the origin of ecosystem services: storage of water in groundwater, presence of a great biodiversity...

Many cities are engaged in actions aimed at increasing the quality of ecosystems and in particular promoting the soil life at the origin of ecosystem services: storage of water in groundwater, presence of a great biodiversity... For example, Calais et al. (2018) describe the dynamics of greening practices, supported by the Blagnac and Toulouse towns in the urban market gardening area of "Quinze sols". Cultivating edible plants or raising animals in the city involves the reduction of toxic treatments and the recycling of organic matter. This is why organic farming and agroecology are also increasingly known and developed practices. Between scientific results, activism and commercial communication, however, it is sometimes difficult to differentiate commonly used terms such as: "organic farming", "agroecology" and "permaculture". In addition the same word as organic farming can in detail consolidate different practices according to the applied standard (France or Europe, type of label). Definitions are proposed on the sites of the INRA (with the dictionary of agroecology), the French Association of Agronomy, the French network of permaculture, the association Earth & Humanism and the French association of agroforestry. Organic farming has been the first "mainstream" alternative to conventional agriculture, which stands out by the substitution of synthetic and commercial chemical inputs with inputs of natural origin and partly non-marketed (organic matter, fertilizer plants). Agroecology can be defined as a disciplinary set fed by the intersection of agronomic sciences, ecology applied to agroecosystems and human and social sciences (Tomich et al., 2011, Francis et al., 2003). Its ambition is to rethink the whole of food systems to favor transitions to systems that are positively evaluated from the point of view of sustainable development: ecologically sound, economically viable and socially just (Wezel & Jauneau, 2011). Cultivation, the use of mulch, integrated crop protection, and the absence of tillage are considered as "agroecological practices" (Agrisud International, 2010). In recent decades, agro-ecological practices have been developing around the world for several reasons such as: (i) responding to the demand of consu-

Calendrier :

- **22 Février 2021**
date limite de soumission
des résumés.
- **Fin mars 2021**
Réponses aux auteurs
(exposés, posters)
- **À partir du 1^{er} avril 2021**
Inscriptions en ligne

mers who are increasingly aware of the environment-health link, (ii) optimizing the expression of the terroir by reducing the chemical treatments (iii) take care of its health and the soil ecosystem for the community of farmers and gardeners.

To conclude the General discussions on Food in France (Egalim 2017), the Prime Minister has affirmed the importance of consumer confidence (Philippe, 2017). "Eat better, local, healthier and better know the composition of the food consumed" are objectives stated as priorities. The French Government is aiming for the target of 15% of agricultural area for organic farming by 2022, compared to 6% today. In this context, the management of soil organic matter that plays multiple roles is crucial. The development of practices and research related to soil life is also booming: better understanding the actions of wildlife and flora, reduce inputs, promote environmental education and health.

The expected contributions for sub-session S1-3 relate to the conditions for sustainable agricultural production. For example, the evaluation, promotion and optimization of ecosystem services, the agronomic valorization of organic matter or the issues of soil life; or, support for changes in practices of farmers, wine-makers or gardeners, and also management changes for non-agricultural sites: for example the creation of nature spaces for collective habitats or the taking into account of fertility Soils from industrial sites ...

The information on the Conference

(presentation, calls for papers, registration, etc.) is available on the website:

<https://transitions2021.sciencesconf.org/>

Students in PhD and Master 2 are invited to register on the conference website
(free registration subject to availability)

Guidelines for communication proposals (format and submission):

- The communication proposals for this session are to be sent by email to yvan.capowiez@inra.fr, magali.rault@univ-avignon.fr, christophe.mazzia@univ-avignon.fr, before February 22, 2021 with the purpose "T2021 Proposal".

- They will be examined by the scientific committee of S1-3 sub-session also composed of: Dr. Hedde M. (INRA); Dr. Brin A. (INP) and Dr. Quenea K. (Paris VI).

- Proposals for communication must comply with the following instructions: times new roman, font size 12, single spaced, 2.5 cm margins. They include a title in bold italic (times new roman 14), mention the author (s) with footnotes their status and their institutional attachment, indicate 5 key words. Proposals have a maximum of 600 words (including bibliographic references). You can indicate oral communication or Scientific Poster.



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