

## Panel session: Introducing the invisible into agricultural knowledge systems

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**Abstract:** *Up till now, even alternative agricultural systems – such as organic, permaculture and agroecology -do not recognize the invisible, non-material practices of indigenous communities worldwide. The Western mindset focuses only on the material, which has a basis in the science of particles, and in so doing it ignores the epistemologies of both the South and of the North in pre-industrial times. This phenomena is at odds with the recognition within farming systems research of recognizing and valuing indigenous knowledge. With the increasing understanding of the behaviour of matter at a quantum level, this session aims to introduce the concept of quantum agriculture research, which is the systematic study of the structure and behaviour of the non-material world through observation, communication and experiment. Quantum Agriculture is not a farming system in itself, but superimposes a non-material dimension to existing sustainable farming systems. In fact quantum-based approaches are already used in agriculture and are already under investigation, examples including the impact of ultrasound on seed germination, and the use of homeopathy for livestock health. This session proposes the following format:*

1. General overview of quantum agriculture including contextualisation in the history of science
2. Open sharing and discussion on participants' practical experiences of such phenomena in the field
3. Focussed discussion on the development of research methodologies and methods appropriate for quantum agricultural research
4. Drawing to a close: discussion on how to get involved in this research, and next steps.

**Keywords:** *indigenous, knowledge, quantum, agriculture, methodologies*