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Theme 1: Innovation, knowledge and learning processes

Workshop 1.5 Pathways towards sustainability in the agricultural knowledge and innovation system: The role of farmers' experiments and innovations

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Experiments in animal farming practice: the case of decreasing the use of antimicrobials in livestock (France)

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Many farmers are engaged in activities that can be considered as experiments, but until recently few of their practices were studied. This paper offers a first characterization of experiments by dairy, pig and poultry farmers working in organic, labelled or conventional systems. Data (40 interviews) were collected during an interdisciplinary research project on antibiotic use in livestock farming in France. First, we discuss the literature. In line with D.A. Schön's "reflective practitioner model", we agree that farmers mainly carry out informal experiments. Second, we provide an overview of the experimental process (type of farmer's experiment (FE), period, topics, targets and length) and the outcomes (efficiency, transfer, possible impact on antimicrobials use, renewal), drawing on farmers' subjective valuation and qualitative interview data. We find that farmers carry out multiple tests, mainly with alternative medicines. There is a clear tendency of transferring positive tests for a given pathology to one another. Third, we present seven portraits of farmers to shed light on complementary dimensions of experiments: the appeal of novelty, the role of vets and technicians, and the role of farmers groups and training. Finally, we argue that much can be learned from ethnographic investigation in order to grasp what farmers are experiencing when they endeavour to solve animal health problems.