

Measuring the Social Acceptability of Participants for Two Manure Spreading Techniques, With and Without an Information Session

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In agriculture, relationships between farmers and the rural residents are sometimes problematic. Particularly during manure spreading periods, numerous complaints are made by rural residents due to the odours caused by the swine production. To facilitate a better social acceptability of spreading activities, farmers have to invest substantial amount of money in specific technologies. However, there is not enough information to know which strategies (spreading technology compared with information sessions) could have the biggest impact on the social acceptability. The goal of this study was to measure the impact of two manure spreading techniques and of an information session on the social acceptability of participants. To realize this study, two groups of similar subjects were formed. One of the groups received an information session about the swine production when the other was observed as a control group. Both groups were then exposed to the same two spreading techniques: incorporation and surface application. The social acceptability of all participants was measured using a questionnaire. To determine the ambient air quality at the participants level and near the spreading operation, electronic analyzers were used to measure the gas concentration and dynamic olfactometry was used to measure the odour concentration. Weather conditions (temperature, relative humidity, wind speed and direction) and the NH_3 and H_2S concentrations were measured on the experimental site before, during and after the experiment. A preliminary analysis of the results demonstrates that the social acceptability of the participants during the incorporation of the manure was better than during surface application. Furthermore, the participants involved in the information session had a higher social acceptability than the control groups for both spreading techniques. The air quality data are in agreement with those results, incorporation generated lower odour and gas concentrations than the surface application spreading. These results demonstrate that informing the population, as using a manure incorporation technique, is a tool that agricultural producers can use to improve relationships with their neighbours.