Human-animal conflicts and social dimension

European experiences with effectiveness of methods for controlling wild boar movement: how to reduce African swine fever spread and agricultural damage?

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In Europe, wild boar serves as the primary reservoir of African swine fever (ASF), which requires strategies to control disease transmission, including the separation of their populations. We evaluated the effectiveness of different methods for controlling wild boar movement through unpublished field experiences using an *ad hoc* questionnaire distributed to relevant professionals (e.g. veterinary authorities/veterinarians, wildlife managers, wildlife scientists) across Europe. Based on 69 relevant responses from 17 European countries, we gathered evidence on the effectiveness of fences (solid/mesh and electric), natural barriers, and other methods such as repellents/deterrents in affecting wild boar movement, primarily aimed at crop protection and ASF transmission risk reduction.

Questionnaire results showed that solid fences are a very effective tool for crop protection and forest protection (reasonably to completely effective: 85.7% and 90.0%, respectively), and less so for increasing road/railway safety or reducing wildlife-livestock interactions. However, regarding ASF control, solid fences were considered to be very or completely effective for virus control only in 35.7% of cases. Similarly, electric fences are very effective for crop and forest protection (reasonably to completely effective: 91% and 88%, respectively), and to a lesser extent for reducing wildlife-livestock interactions, ASF transmission, or increasing road/railway safety. These findings suggest that while certain types of barriers can reduce wild boar movements, their effectiveness is influenced by numerous factors such as fence characteristics and landscape features. Responses received from different European countries confirmed that, although fences are not fully impermeable, both solid and electric fences can be effective, mainly for crop protection, and to a lesser extent, for ASF control. However, field experiences indicate that successful ASF control not exclusively depends on a specific type of fence, but on the coordinated efforts of different stakeholders, including animal health authorities, local authorities, hunting associations, wildlife managers, farmers, landowners, and the general public.