

Assessing biosecurity knowledge and practices among Illinois swine producers

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INTRODUCTION

- There is a growing risk to the health and productivity of the Illinois and US swine population from foreign (e.g., African swine fever) and endemic (e.g., porcine reproductive and respiratory syndrome) animal diseases.
- Effective on-farm biosecurity practices play a pivotal role in preventing these high-consequence pathogens from affecting swine farms.
- There is a gap in existing literature on biosecurity knowledge, awareness, and practices of Illinois swine producers.
- Additional research is warranted to identify these knowledge gaps and to assess Illinois swine producers' preparedness for a potential foreign animal disease outbreak.

OBJECTIVES

- To assess the biosecurity-related knowledge, perception, and attitudes of Illinois swine producers.
- To evaluate the current biosecurity practices implemented by Illinois swine producers on their hog farms and to assess their preparedness for a potential foreign animal disease outbreak.
- To identify the knowledge gaps among swine producers regarding infection control and biosecurity practices implemented on their hog farms for designing a tailored educational program to address these gaps.

METHODS

- An online survey was designed using QualtricsSM software.
- The survey link was sent via email through Illinois Pork Producers Association to 406 swine producers on July, 4th 2021.
- A reminder email was sent 15 days after the initial launch.
- The survey was kept active for one month.



RESULTS

- A total of 17 responses were received of which 13 were complete responses, 3 were partially complete and 1 did not consent to participate in the survey.
- All the respondents were male with a mean age of 56.56 years.
- 13 of the 16 producers had hog farming experience in the range of 26-50 years.
- The 13 complete respondents represented a total of 84 hog farms from 9 different counties across Illinois.

Farm Types	Farm Numbers
Farrow to wean farm	9
Wean-to-finish farm	67
Farrow to finish farm	8
Total	84

Table 1. Hog farm types and numbers owned by the 13 hog producers from 9 different counties across Illinois.

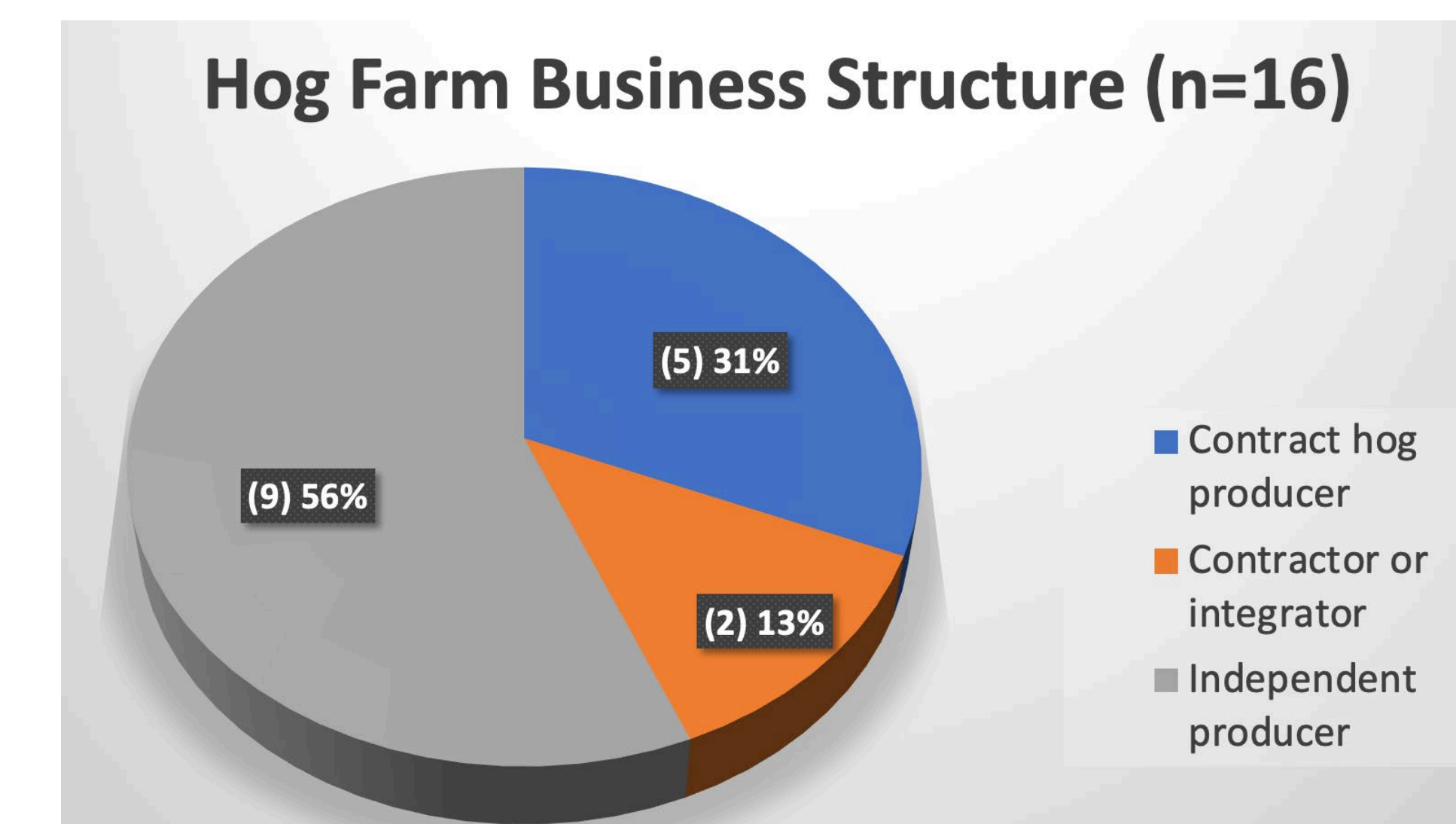


Fig.1. The types of Illinois hog producers' business structure.

Biosecurity Facilities on Hog Farms (n=13)

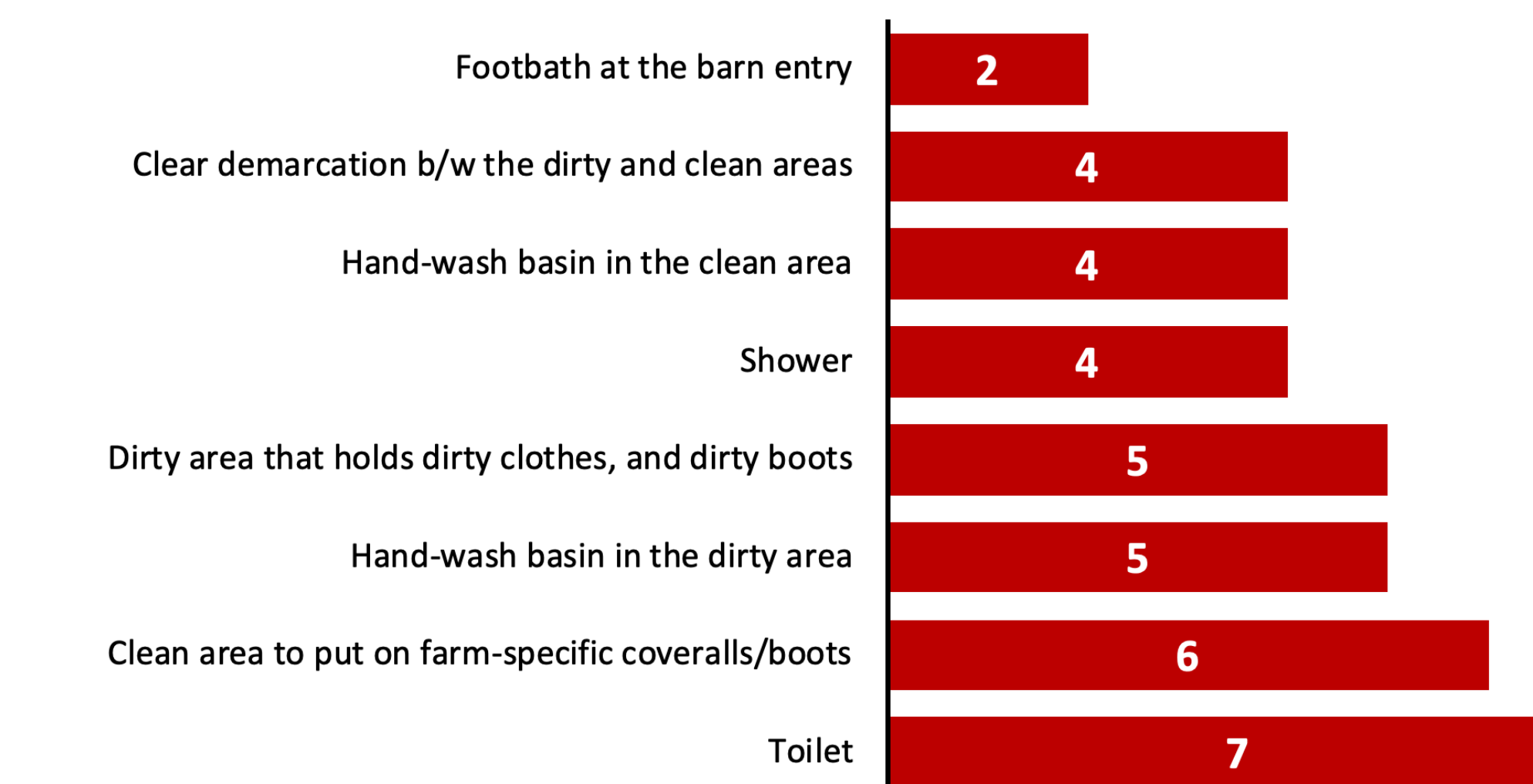


Fig.2. Facilities available at Illinois hog farms to improve biosecurity.

Biosecurity Structures Present on Hog Farms (n=13)



Fig.3. Biosecurity related structures present on Illinois hog farms.

Biosecurity Practices at Hog Farms (n=13)

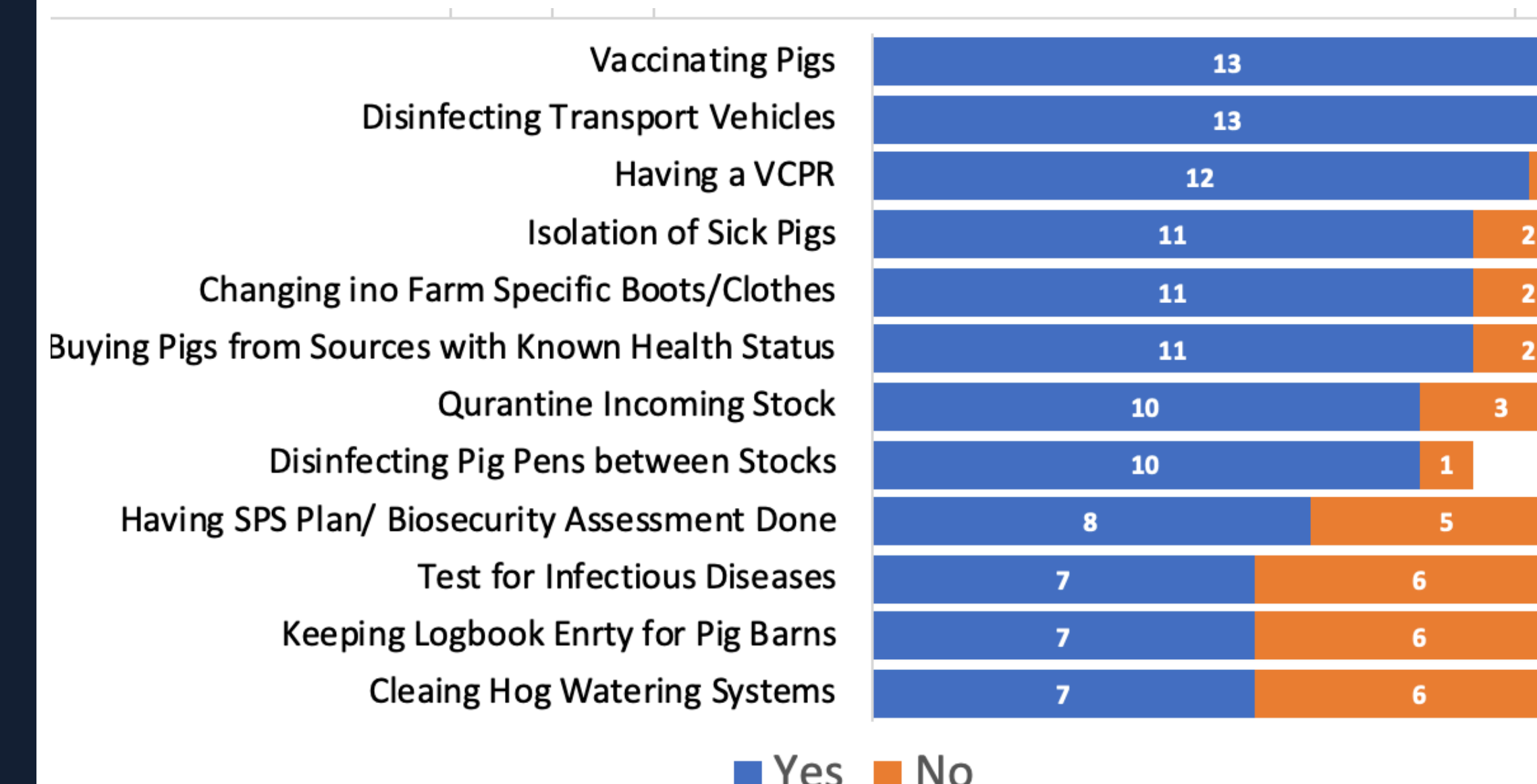


Fig.4. Distribution of biosecurity practices followed on Illinois hog farms.

Pest control & Animal Exclusion Practices at Hog Farms (n=13)

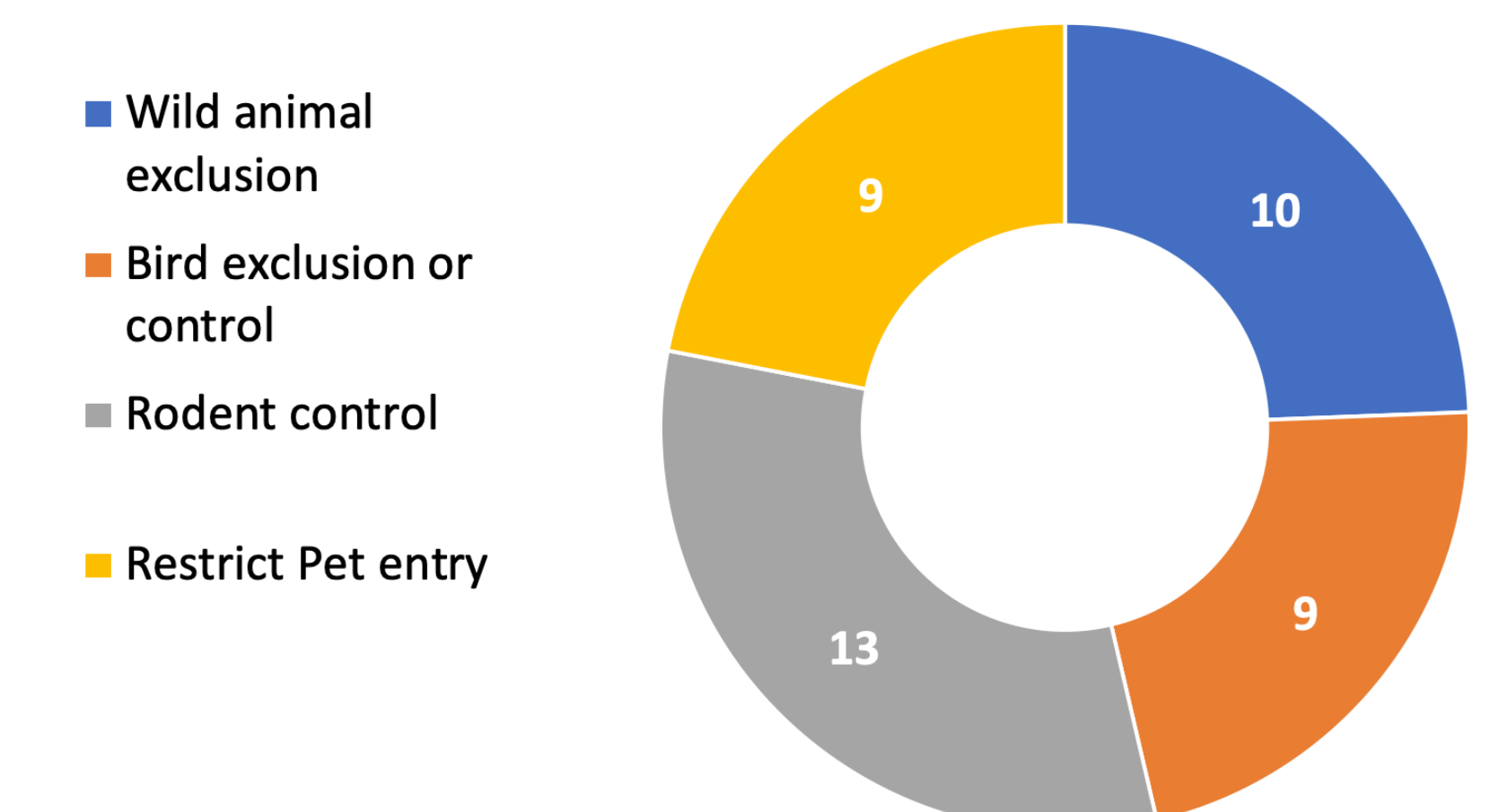


Fig. 5. Distribution of pest control and animal exclusion practices used at Illinois hog farms included in the survey.

CONCLUSION

- Most of the hog farms had biosecurity plans, pig loading and unloading areas, bought pigs from known sources, quarantined incoming stock, and disinfected transport vehicles.
- Animal health management practices, including vaccinating pigs, isolating sick animals, having a veterinarian-client-patient relationship were followed by most of the respondents.
- Only a few farms had truck wash units, a cleaning and disinfection station, and a footbath at the barn entry.
- Only about half of the responders had logbook entries for hog barns, tested pigs for infectious diseases, and cleaned hog drinking water systems.

LIMITATIONS

- The low response rate limits the representativeness of the survey, and our results cannot be generalized to the whole Illinois hog farmer population.

NEXT STEPS

- Future studies should combine more than one survey administration method (i.e., face-to-face interviews and mail surveys) to increase the response rate.

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