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FOCUS: THE GEOGRAPHIES OF CRIME AND POLICING IN THE GLOBAL COUNTRYSIDE

Farmers, Victimization, and Animal Rights Activism in Sweden

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Conflicts between animal production and animal rights activism are becoming more common in a number of countries, including Sweden. Although most animal rights advocates would not consider committing a crime, there have been numerous accounts in which farmers have been victimized because they are animal producers. This study investigates the extent and characteristics of crimes committed against animal farmers and their families. The analysis is based on answers from a survey of 3,815 animal farmers in Sweden in 2020. Cross-table analysis, logistic regression models, and geographical information systems (GIS) underlie the methodology of the study. One in eight respondents declared being exposed to crimes because they are animal producers (from thefts, trespassing, sabotage, and threats to physical violence, most face-to-face but also online), but 60 percent of the victims never report to the police. Among nonvictims, half of the respondents knew someone who had been a victim of crime. Findings indicate that farmers' victimization for theft or robbery show different motivations than those that are directed at them because they work with animal production. These findings highlight the importance of incorporating farmers' safety needs into sustainable rural development policies. **Key Words: animal production, crime, crime reporting, ecoterrorism, policing, threats, trespassing.**

> We want to destroy you … you f***ing disgrace!

Messages like this one exemplify the types of threats animal farmers might be exposed to in rural Sweden. These messages are reported to be signed by different groups of "animal rights activists," whose aims include forcing farmers to close their businesses. In this particular case, threats happened from the summer of 2018 to the end of 2019—a process in which the farmer and his family were subjected to systematic persecution, which greatly affected their lives (Berglund 2020). Crimes like these are not often reported to the police in Sweden, so it is not surprising that there exists little systematic knowledge about the nature of these crimes, their frequency, and their geography. Although most animal rights advocates would not consider personally attacking farmers, there have been numerous accounts in Sweden of farmers in fear because they are experiencing threats like the one just quoted (Swedish Radio 2014; Leander 2018; Bergström 2019; Swedish Police 2020). Conflicts between animal production and animal rights activism are becoming more common in Sweden but also elsewhere (Carson, LaFree, and Dugan 2012; Monaghan 2013; Katz and McPherson 2020).

The study that follows draws on empirical work based on answers to a survey of 3,815 animal farmers in Sweden in 2020 to give a general perspective of farmers' victimization with a particular focus on crimes related to animal rights activists. Although novel in its perspective, this study's objectives are exploratory, drawing on theoretical and empirical evidence to better understand victimization of farmers working with animal production. Animal farmers are enterprises holding different types of animals (e.g., cows, beef cattle, sheep, goats, fish, rabbits,

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and poultry) for production of food and derivates (e.g., fur, skin, and medical products) directed to commercialization of products for all types of consumption. Their holdings are often located in rural areas or in the urban fringe or periurban areas. As individuals they can be exposed to crimes against persons, their family, and rural property, such as theft, robbery, and violence that takes place on the property or elsewhere. Such crimes could also include fraud or environmental crimes using the Internet or social media.

In this study, we inquire about the extent and characteristics of victimization from harassment, threats, attacks, and intrusion of property committed face-to-face or from threats experienced by farmers and their families. We investigate the relationship between their experiences with crime victimization, crime reporting, crime prevention practices, and perceptions of the police to discuss what is needed to tackle the problem. The motivations and the contexts in which these crimes are committed vary widely, so this study draws on several established criminological situational theories to inform our understanding of crimes against animal production.

Although these crimes are often associated with actions taken by particular crime-prone groups of animal rights activists (for a review, see Ceccato, Abraham, and Lundqvist 2021), this study does not focus on those who commit these crimes but rather on the victims: the animal farmers, their families and personnel, and their property. This article is focused on the victims of criminal acts caused by individuals who are reported to be linked to animal rights activism.

In Sweden, groups that contain crime-prone animal rights activists have in the past decade been caught committing these offenses, and a share of them have been prosecuted and charged with low-penalty crimes, such as physical damage and trespassing (Ceccato, Abraham, and Lundqvist 2021). More recently, Swedish police have approached these crimes as a special case of violent extremism (Swedish Police 2020), which implies tougher penalties against offenders. Although there is a lack of knowledge about who these groups are, they are believed to be composed of individuals belonging to groups born from social movements with different goals, some seeking an end to the status of animals as property and others advocating for an end to animal use in research, food, clothing, and entertainment. They are often also linked to veganism or to extreme acts of ecoterrorism, from trespassing to violent attacks against animal farmers, their families, and property. In the next section, we discuss the relationship between humans and animals as a background to discuss the types of crimes that take place in farms and possible reasons why particular farmers are targeted more often than others.

Theoretical Background: Crimes against Animal Farmers

We draw from three theoretical strands of research to offer an interpretation of the victimization patterns of farmers working with animal production in Sweden: ideas around human–animal relationships and animal geographies, farm crime and situational crime conditions and prevention, and policing and public reassurance.

Human–Animal Relationship

To understand the victimization of animal farmers, it is necessary to reflect on the relationship between humans and animals and how it has evolved over time. Such a relationship has been under scrutiny, with humans often wielding an oppressive and dominating power over animals (Philo and Wilbert 2000). Anderson (1997) described how the relationship and debate surrounding it has varied over time, where certain groups, including farmers, have gone against the official notions of animal mastery. Anderson continued by noting that animal domestication has drawn on multiple moralities: from care and control to mastery and paternalism. Depending on the deemed qualities of the animal (intelligent, good company, edible, useful or considered vermin, etc.), domestication has led to expressions of affection toward individual animals and massive exploitation of a whole species. There are hierarchical differences in the spectrum of exploration of animals that are at the core of why certain animals are chosen to be "saved" and others are not.

Critical animal studies acknowledge that the transformation of agriculture into agribusiness and farming into factory farming has led to a crisis of animal exploitation and abuse as well as environmental damage (Yarwood and Evans 2000; Best et al. 2007). The growth of acknowledgment of animal rights has led to some animals benefiting from improved living conditions through organic farming (Yarwood and Evans 2000). In Sweden, the welfare of farm animals has often been cited as being of a high standard, and regulations are stricter than in most countries (Swedish Board of Agriculture 2021), but criticism has also been warranted on occasion (e.g., the so-called Pig Scandal; Efendic 2009), especially in combination with other types of crimes, such as cases of illegal commercialization of endangered animal species and plants (Korsell and Hagstedt 2008), often with limited punishment (Korsell 2001; Stassen and Ceccato 2020).

Animal farming can at different levels still be viewed as unsustainable or unethical, especially from the perspective of animal rights advocates, which could serve as a motivation as well as a personal justification of more illicit and aggressive actions. When individuals trespass on, break into, or vandalize a property or threaten farmers to defend the welfare of animals, they might argue that their actions, although

illegal, are justified "for the greater good" (Sykes and Matza 1957). This theoretical construct, although insightful, fails to fully explain why a particular farmer (or property) is more likely to be targeted than others, however. We turn now to an overview of the nature of crimes taking place on farms and, in particular, to animal farms as a crime target.

Farm Crimes

Crimes against animal farmers are one of many types of crime taking place on farms. In the North American context, Donnermeyer, Barclay, and Mears (2011, 193) defined two broad categories of crimes taking place on farms: "ordinary crimes," such as the theft of livestock, machinery, and farm supplies; vandalism; rubbish dumping; and damage from trespassers and hunters, and "extraordinary crimes" based on their potential impacts, such as organized drug production of marijuana and methamphetamines. In Australia, the spectrum varies from property crimes and theft—from livestock to machinery on a large scale—to conflict between neighbors and environmental crimes (Barclay and Donnermeyer 2002; Barclay et al. 2007; Barclay and Bartel 2015). In addition to these crimes, hate crime has been suggested in the UK rural context (e.g., Garland and Chakraborti 2006; Jones 2010). In Sweden, these "extraordinary" offenses might also include crimes against nature, such as dumping waste in the forest or illegal hunting, or crimes with motivations other than profit or neglect, such as the theft of certain chemicals (e.g., fertilizers) to be used in the preparation of drugs or explosives (Ceccato 2016). Trespassing, vandalism, and burglary on animal farms can be included in this crime spectrum. There are also cases of threats and harassment against farmers and their families, as well as animal maltreatment (Leander 2018; Bergström 2019).

Animal Farmers as Criminal Target

Individual characteristics of farmers and their properties as well as their situational and social contexts, including crime prevention and policing practices they have in place, are argued to be more appropriate to explain whether or not farmers are exposed to crimes. The international literature is populated by examples of how situational factors play a role in crime commission (Barclay et al. 2001; Ceccato and Dolmen 2011). The geographical location of a farm is the most obvious example. Evidence shows that farms encompassing difficult terrain were most likely to suffer trespassing, poaching, and livestock theft, as reported by Barclay et al. (2001). Previous studies by Barclay and Donnermeyer (2007) and Mears, Scott, and Bhati (2007) provide evidence that if a farm is in close proximity to main routes or urban centers, the result is an increased likelihood of becoming a victim of crime (Ceccato and Uittenbogaard 2013). Donnermeyer, Barclay, and Mears (2011) suggested that farms tend to experience higher rates of theft when equipment and machinery are stored at isolated locations, where there are few people and some distance to the main operations. Jacobs (1961) coined the term "eyes on street," stressing that design has a role to play in defining opportunities for surveillance and therefore crime occurrence; in a farm, this would indicate the position of the farmers' residence in relation to animal housing, where the operations occur. We can hypothesize that farms that are relatively more remote yet accessible from urban areas would be more likely to be vulnerable to animal rights protests or trespassing.

Farms that impose clear markers between what is public and private property might run less risk of receiving trespassers, for instance. This is achieved by having target-hardening measures, such as fences, road barriers, strong illumination in particular places, closed-circuit television (CCTV) cameras, or guards, but can also be reinforced by light design separating public and private spheres, by green alleys, or by concealing or removing "targets" (e.g., high-value goods). These principles lend themselves to various initiatives known as "situational crime prevention" (Clarke 1995). This is the umbrella term for a range of strategies that are used to reduce the opportunities to commit crime.

Policing and Public Reassurance

The possibility that accessibility to a police station can positively contribute to public reassurance—that is, that the level of access to police services affects public confidence in the police (Wakefield and Fleming 2009)—is a crucial idea that helps explain why certain farms or areas are less affected by criminal acts than others. Conversely, infrequent or absent police presence could also impede identifying and convicting offenders. This can be linked to the common underreporting of crime among some farmers, with surveys showing that the difficulty of convicting offenders leads to the perception of reporting crime as a waste of time (Barclay and Donnermeyer 2007). In addition, police work is threatened by long distances and dismantling of police stations (Stassen and Ceccato 2021). Therefore, places where a police presence is lacking (or where farmers have little or no contact with it) most likely run a higher risk of being exposed to crimes than those places where farmers feel that the police have enough resources and are there for them. Differences in policing practices and easy exit routes across the national border might explain why farmers in southern Sweden are often more exposed to theft than farmers elsewhere in the country (Lantbrukarnas riksförbund 2012).

Research Questions

We surveyed animal farmers to cast light on the following research questions.

1. How commonly do animal farmers declare being victimized by crimes directed at or related to their animal production? What is the nature of the victimization? How wide-ranging is the incidence of crime among types of farmers and their geographic location? How common is reporting of these incidents to the police?
2. Who is most likely to be affected by crimes directed at their animal production? Does size, type of activity, location of the farm, and business openness or publicness affect their victimization? Is there any evidence that crimes directed at their animal production differ from other unrelated crimes that farms, farmers, and their families are exposed to?
3. How do animal farmers assess police presence and resources, and how do these factors affect their victimization and public reassurance? Are those more affected investing in crime prevention measures?

The Case Study

There is no agreement on exactly how many animal-producing enterprises ("farming companies") exist in Sweden. One estimate indicates 17,800 enterprises, out of which approximately 8,600 are full-time farmers—broken down into different types, sometimes with different animals; for example, around 3,300 milk producers and 1,000 pig farms (Swedish Board of Agriculture 2019; SCB, Statistics Sweden 2019). These farming properties are located in twenty-one counties and 290 municipalities, and 112 of these municipalities are classified as urban areas, 156 as accessible rural, and 22 as remote rural. Figure 1 illustrates the geography of animal farmers in Sweden by type and totals.

Data and Methods

In close cooperation with a research reference group, the questions for the survey were developed. The questionnaire was composed of a total of fifty-eight questions in eight parts. A first set of background questions (age, location, type of animal production, employees, enterprise, personal publicity) was followed by questions about crime prevention measures; activism, theft, and harassment; general negative debate about animal production; animal welfare inspections; support from society, police, and socially; general crime victimization; and finally a mental well-being scale (Stewart-Brown et al. 2009).

After the questions were approved by the Swedish Ethical Review Authority (Dnr 2020–01323), we obtained e-mail addresses for the animal-producing enterprises for a total of about 9,800 addresses from what is called the Farm Register from Statistics Sweden. The survey was distributed to these animal farmers using the survey software Netigate (Netigate, AB, Stockholm). The survey could also be accessed through an Internet link, and the different animal-producing organizations distributed the link to their members. Data collection took place between June and September 2020, with four reminders during that period. A total of 5,479 farmers (56 percent) submitted their answers, but 17 percent of the original sample were excluded because they did not press the final button ("Submit Your Answers") and thus did not finish the survey. For ethical reasons, we decided to exclude these questionnaires from the analysis, resulting in 3,815 answers, equivalent to 39 percent of the original sample. We deem that our study's findings can be generalized for the total population of farmers but might not be representative for specific types of animal farmers or municipalities. Due to the way the survey was delivered, it is not possible to report the precise response rates by groups of animal farmers. We can, however, estimate that at least half of Sweden's milk producers received the survey with certainty, a third of the pig producers, and all mink producers (using direct e-mail addresses). Table 1 shows estimated response rate as a proportion of Sweden's total number of milk, pig, and mink fur producers.

Analyses of the data were carried out in the statistical software package SPSS (IBM SPSS Statistics for Windows, Version 25.0, Armonk, NY). Descriptive statistics were used to characterize the data (cross-tables and chi-square test). The 5 percent level of significance was considered, and in the case of a statistically significant result, the probability value (p value) is provided. Binary logistic regression was used to further explore the relationships between victimization, type of animal production, situational factors such as location and "publicness" of the activity, policing, and crime prevention practices, after controlling for age and gender of respondents. First, two questions in the questionnaire that had response options related to the victimization of animal farmers were identified as dependent variables of two models. Experience of victimization was used as the dependent variable (no = 0, yes = 1). In this study, victimization is defined in two ways, based on two different questions from the survey:

- Victimization due to being an animal farmer, based on the question, "Has your business operation ever been exposed to

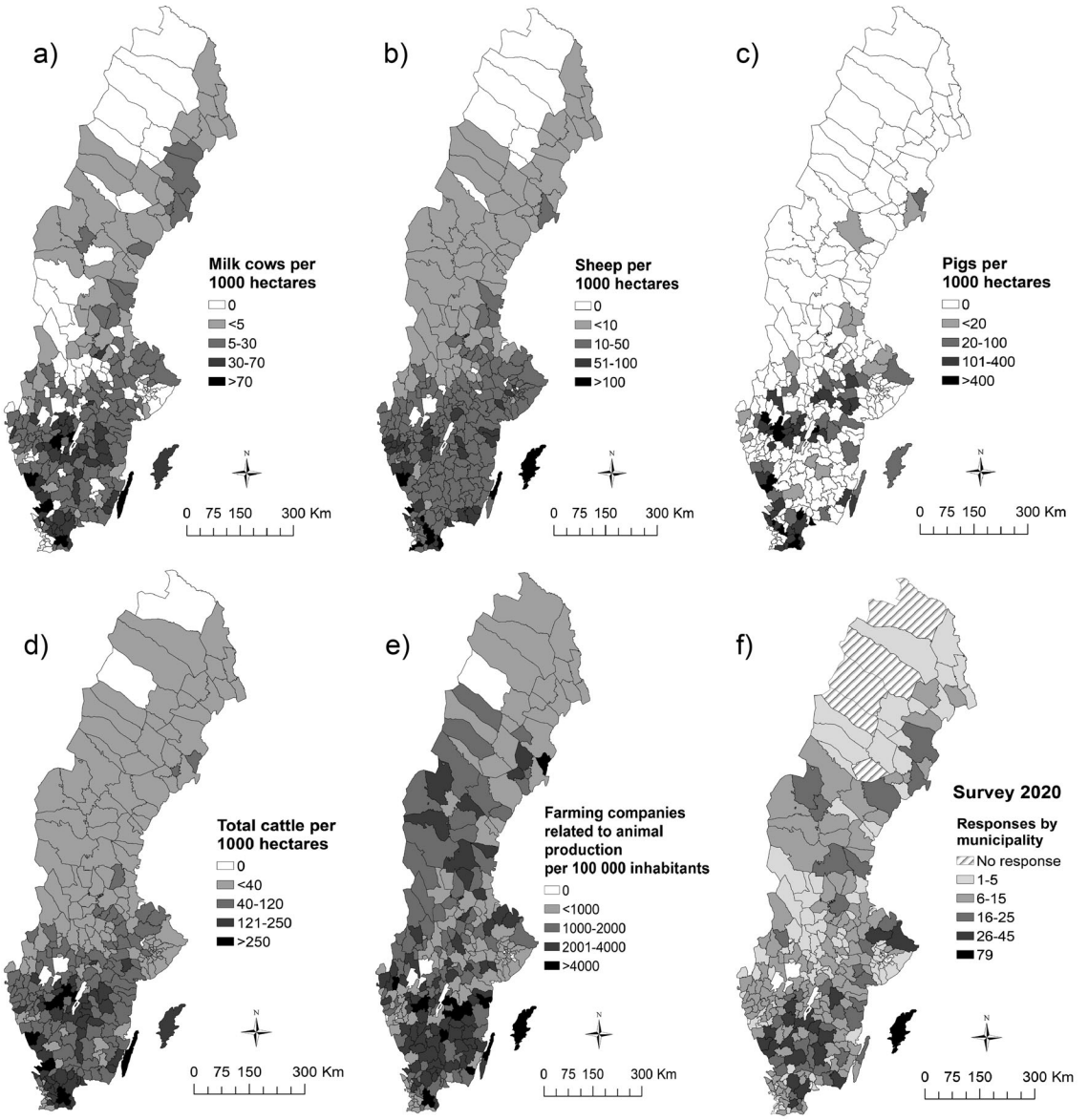

Figure 1 *Animal farmers by type and by municipality, 2016. (A) Milk cows. (B) Sheep. (C) Pigs. (D) Cattle. (E) Total farming companies related to animal production. Data from The Swedish Board of Agriculture. (f) Survey responses per municipality, 2020. Note that N = 2,791 answers reported municipalities.*

Table 1 *Estimated response rate as a proportion of Sweden's total number of milk, pig, and mink fur producers*

Animal production	Count	Received the survey	Response rate (%)	Response rate for Sweden (%)
Milk	3,300	1,600	34	16
Pig	1,100	200	67	18
Mink fur	36	33	36	33

protests, harassment, trespassing, vandalism, release of animals, personal attacks in media, or similar due to you being an animal producer?"

- Other, overall victimization separate from the above, based on the question, "Have you personally or someone else in your family ever been exposed to any form of crime such as theft, robbery, or violence? This is regarding crimes that have not been brought up previously [in the questionnaire] and are separate from your

business operation." Although the first form is the main interest of the study, the second form is important and was included for comparison and as an additional indicator of farmer victimization.

Furthermore, although the survey included questions on mental well-being, debates surrounding animal production, and other areas worthy of research, the scope of this study in particular is focused on victimization, the farmer–police relationship, and crime prevention practices. For a discussion on the impact of victimization and fear on farmers, family, and well-being, see Ceccato et al. (2021).

Results and Discussion

Incidence and Patterns of Farmers' Victimization

Of those who answered the survey ($N = 3{,}815$), one in eight farmers declared being exposed to crimes because they are animal producers; more specifically, around 610 animal farmers (16.2 percent) answered "yes" to the question, "Has your business operation ever been exposed to protests, harassment, trespassing, vandalism, release of animals, personal attacks in media, or similar due to you being an animal producer?" This figure is much higher than that found by Johansson (2018) for all types of farmers in Sweden in 2018 (one in fifty). Among those who have been victimized, 81.7 percent knew someone who had been victimized by a crime related to animal rights activism, whereas for those who have not been victimized, this share was only 33.8 percent, $\chi^2(1) = 458{,}337$, $p < 0.001$. This indicates that there is a concentration in the pattern of victimization among victims and their close social network. Note that the percentage of animal farmers who declare being victimized by other types of crimes (unrelated to animal activism) was around 20.8 percent in this sample. Furthermore, although detailed information cannot be ascertained regarding how often or sustained the attacks against farmers are, 21 percent of respondents who declared being victimized due to their animal production had experienced such victimization more than once (before the year 2017 and after the year 2017).

The Nature of Farmers' Victimization

Findings show that there is a wide range of offenses committed against animal farmers, from traditional farm crimes such as theft and burglary to those linked to their activity as animal farmers, such as release of animals, violence, and threats and harassment against them, their family members, or employees, both face-to-face as well as over the Internet. Some of these offenses can take different shapes as described in the following comments:

> Dairy cows and heifers released on three occasions at night from the barn.

> Intrusion into pig stables where it was filmed … the films were then spread online. Occurred at night during Christmas.

> We had an employee being attacked.

> We discovered burglaries afterwards, we have therefore installed alarms.

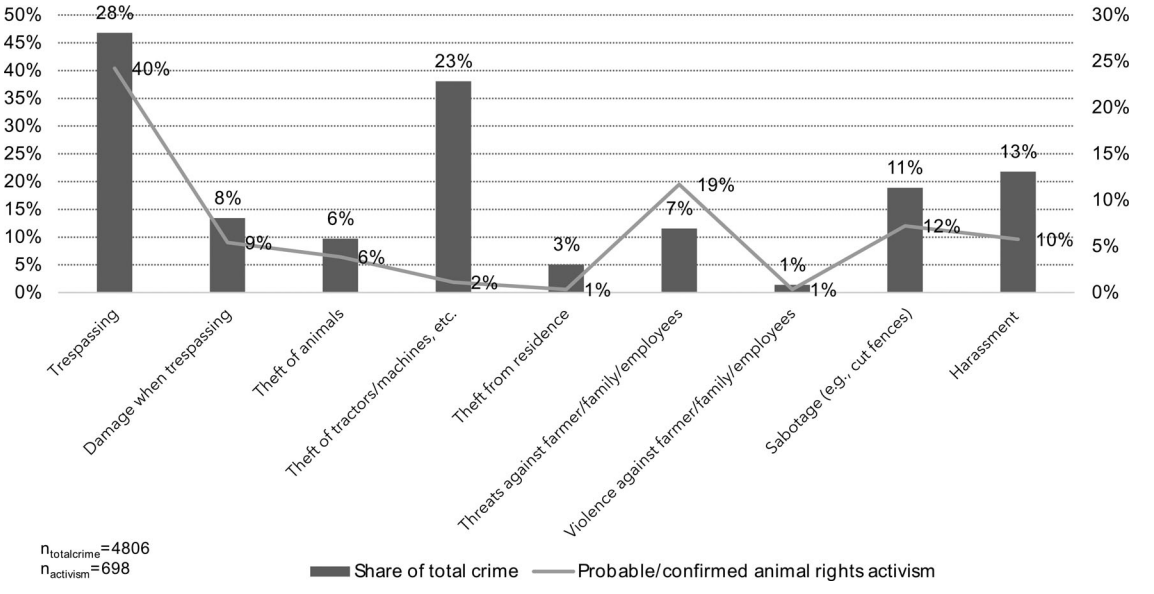

Figure 2 *Crimes by type of offenses (right axis) and by type of suspect (left axis).*

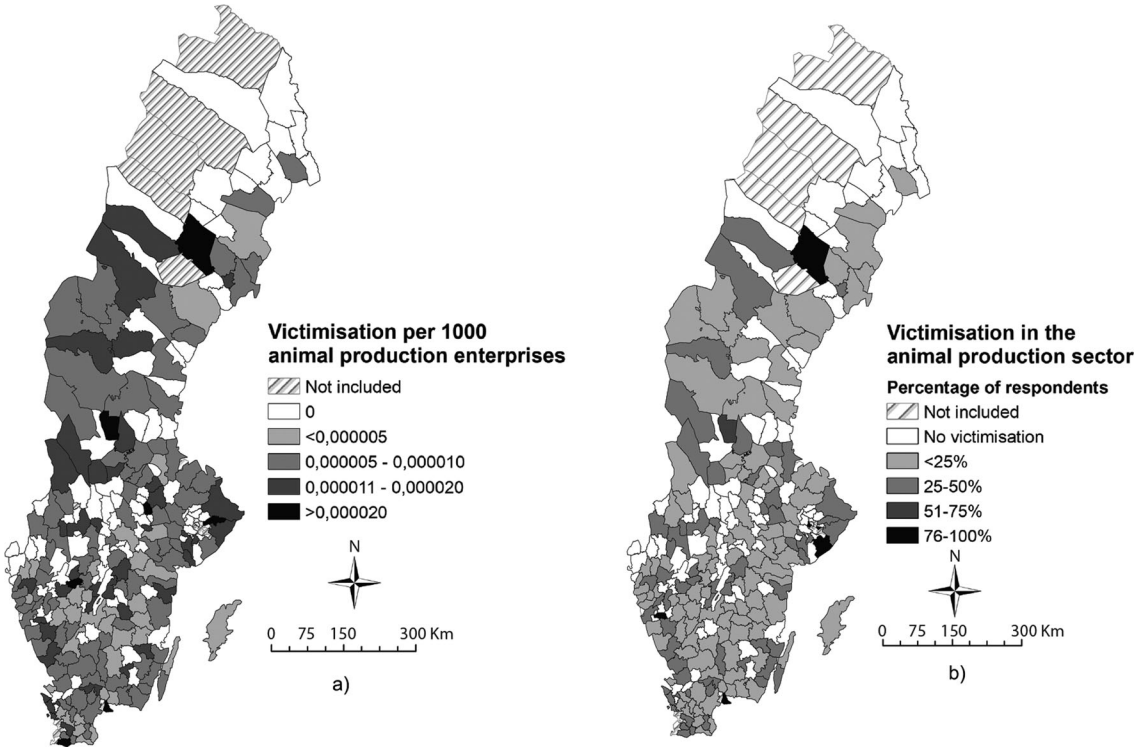

Figure 3 *Harassment and crimes against animal farmers, 2020, N = 2,791 answers reported by municipality. (A) Rates per 1,000 animal production enterprises. (B) Percentage of respondents (Question: Has your business/farm ever been exposed to any type of protest, harassment, intrusion, graffiti, animal release, personal media attack, or the like because you are an animal producer?).*

> We got phone calls mostly at night. Threats and reports that we are murderers, etc. To all family members ALSO the children!
>
> Thefts of diesel, hand-held machines etc.
>
> After "outed" them on social media by animal rights activists, I discovered that someone had been in the bullpen during the night.

Thefts and trespassing are the most common crimes committed against animal farmers (Figure 2), especially thefts of tractors, animals, and residences. Whereas trespassing is highly associated with criminal animal rights activists, thefts are not. Farmers are also victims of harassment, sabotage, and threats (because they are animal farmers); these offenses are more often associated with criminal animal rights activism, in particular threats against farmers, their families, and their employees.

All mink producers who answered the survey declared being victimized (by being exposed to harassment, trespassing, vandalism, release of animals, and personal attacks in media or the like, specifically because they are animal producers) at least once in their lives. Farmers related to cattle production (i.e., milk and beef production) make up close to half (45.5 percent) of those who had been targeted this way. Note that these proportions by animal type must be analyzed with caution, because we did not have a stratified sample. Nevertheless, newspaper articles, for instance, confirm how mink producers for decades have been targeted by attacks more often than milk and egg producers have (Ceccato, Abraham, and Lundqvist 2021).

Figure 3 shows the geography of victimization rates per 1,000 animal production enterprises and percentage of responses. Apart from a few clusters of relatively high victimization in the central eastern part of the country, the overall pattern is difficult to ascertain. Note that these maps are illustrative, because the number of answers might not be representative for the amount of animal farmers per municipality.

Underreporting, Confidence in the Police, and Public Reassurance

Crimes against farmers are highly underreported: Only 25 percent of those who answered the survey declared reporting it, almost 65 percent declared they did not report crimes to the police, and 10 percent said "not always." Figure 4A shows willingness to report crime by type of farm (crime target). For instance, 68 percent of sheep and goat farmers never

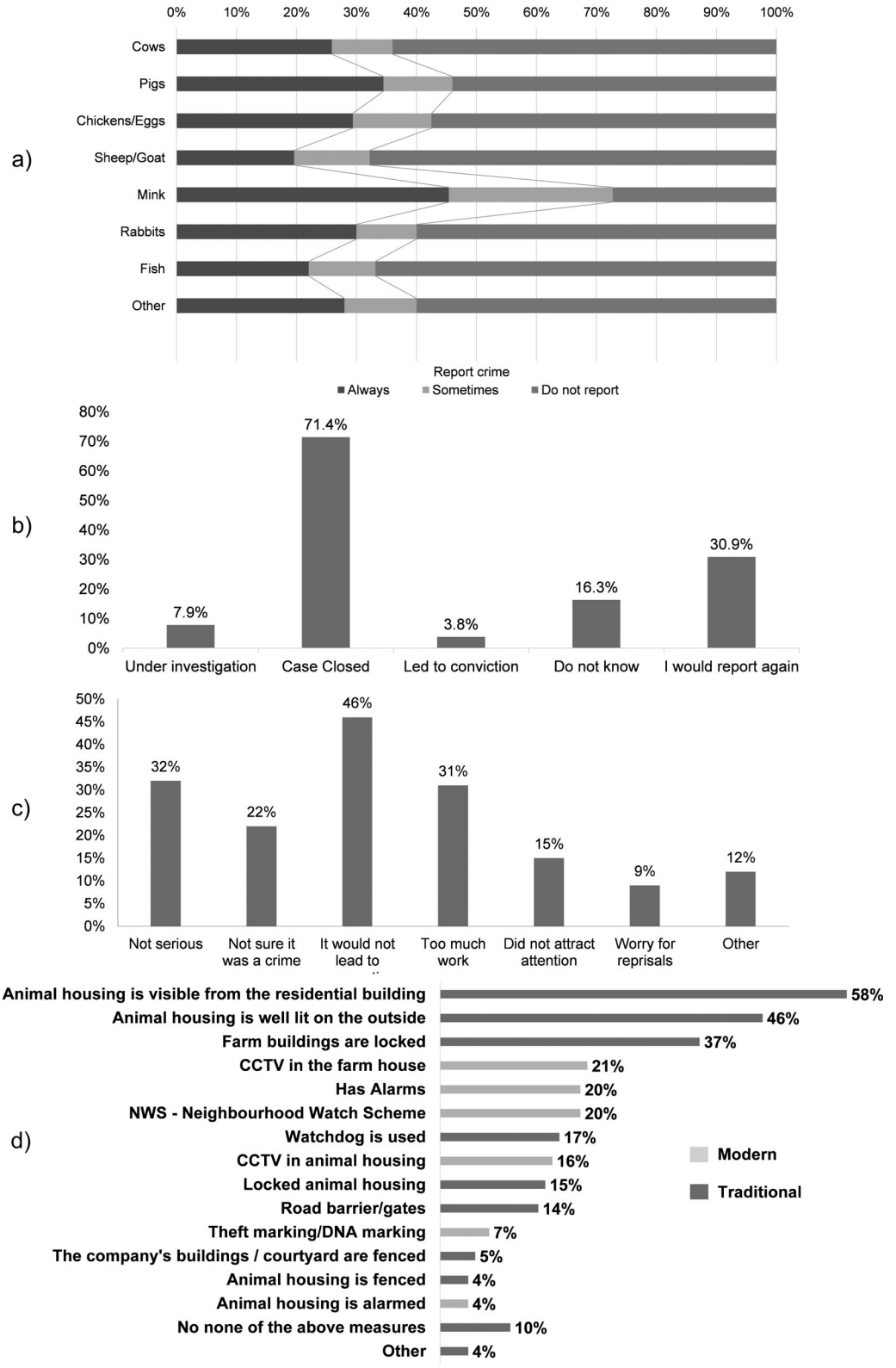

Figure 4 *(A) Crime reporting practices by type of animal farmer, percentage of respondents in 2020 (%). (B) What happened after reporting to the police. (C) Reason why the crime was not reported to the police. (D) Adoption of crime prevention measures by animal farmers: traditional and modern and by type of animal farm (modern measures).*

report crime to the police, whereas among mink producers only 27 percent of farmers do not report. Moreover, a significant relationship was observed between being victimized for being an animal producer and how often one reports to the police, $\chi^2(2) = 81{,}247$, $p < 0.001$; more concretely, more than half (52.7 percent) of those targeted stated that they do not report to the police at all. Interestingly, when asked whether they thought it was important to report all crimes, 76.7 percent said that they agreed fully but only 49.1 percent of them declared actually reporting. Figure 4C indicates the reasons why farmers do not report crimes to the police. The normalization of the problem is expressed in the fact that animal farmers believed that the problem was not serious or that reporting a crime would not lead to anything. Many stated that the cases are often closed after being reported or investigated (Figure 4B), so reporting the crime would be a waste of time. These findings echo previous results by Johansson (2018).

As for confidence in the police and public reassurance, there are indications that being targeted by threats and other crimes due to them being animal producers affected their perception of and relationship with the police. For example, 74.2 percent of those who reported being victims of animal activism did not agree that they can count on the police if they need to (based on the statement "You can trust the police to come when you need them"), compared with 66.2 percent of those who had not been victimized. Similarly, when asked whether they thought that the police took their cases seriously, nearly 60 percent of those who were victims did not agree with that statement, compared with 48 percent of those who were not victims. Others prefer to take their personal and business security into their own hands. Next we turn to discuss animal farmers' adoption of crime prevention measures.

Farmers' Agency and Crime Prevention Measures

Farmers who indicated that they have been exposed to crime because they are animal producers tend to adopt crime prevention measures more often, $\chi^2(1) = 50{,}123$, $p < 0.001$, perhaps as a reaction to previous or possibly future potential threats. More specifically, 18.0 percent of those who have taken some form of crime prevention measures (Figure 4D) have also been targeted by animal activism. The percentage was much smaller (5.2 percent) among those who were not crime victims. Overall, when asked about the adoption of crime prevention measures, 86.8 percent of animal farmers stated that they had one or more types of crime prevention methods on their farm. Figure 4D illustrates the adoption of crime prevention measures according to those who answered the survey. Crime prevention measures were split into two categories: traditional measures, such as fencing and locks, and modern measures, characterized here by the installation of alarms, CCTV cameras, and the like. Note that the large majority (78.7 percent) declare they have in place one or more traditional types of crime prevention (e.g., guard dogs), whereas 42.1 percent stated that they have adopted modern prevention measures (e.g., security alarms, CCTV, DNA marking). Among the latter farmers, 36.4 percent had implemented both traditional and modern measures.

The adoption of these crime prevention measures seems to vary greatly by type of farmer, from 91.7 percent among mink producers to 32.4 percent among farmers with rabbits. Despite this, these percentages can only be an indication of the real adoption rates and must be carefully considered as a reference, because the sample of farmers was not stratified by type. Figure 5 illustrates crime underreporting, levels of confidence in the local police, and adoption of modern crime prevention among the respondents.

Modeling Victimization of Animal Farmers

Table 2 shows the results for two logistic regression models for animal farmers' victimization after controlling for gender and age of respondents. Our focus is on Model 1, which indicates whether animal farmers are likely to be exposed to criminal acts of animal rights activists. Note that Model 2 is used here as a reference to the analysis of the first model (criminal acts of animal rights activists) and is about farmers' overall crime victimization (robbery, violence), offenses that are unrelated to animal production and might take place elsewhere than on their own farms. The intention here is to assess whether there is any evidence that crimes directed at their animal production differ from other unrelated crimes that farms, farmers, and their families are exposed to. Seven covariates turned out to be significant in Model 1, and in Model 2 four covariates were significant; only one variable was the same for both models (some contact with the police). As expected, Model 2 is weaker, and this mismatch between the models indicates that farmers' overall crime victimization has different motivations and situational dynamics than those crimes that are directed at farmers with animal production, with clear implications for policy. From here on, we focus on discussing the results of Model 1 only.

Larger properties—that is, those with employees—are two-and-a-half times more likely than smaller properties to declare being harassed or victimized because they are animal producers (this is indicated in Table 2 by the variable Size [have employees]). In particular, the likelihood that farmers with pigs and other animals (including mink) tend to be exposed to this type of victimization or harassment is higher than for other types of animal farmers. Note, however, that these findings can only be an indication

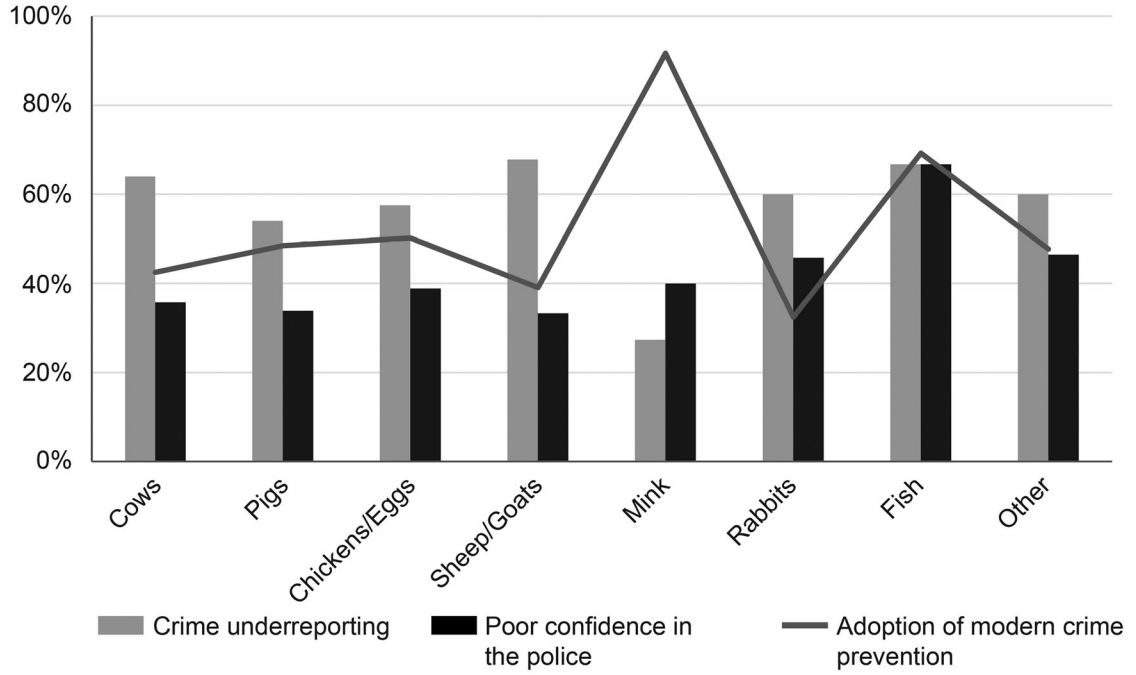

Figure 5 *Underreporting of crime to the police, poor confidence in the local police, and adoption of modern crime prevention measures, by type of animal farmers, (%) in 2020. Note that there is an overrepresentation of some groups of farmers (e.g., cow farmers). Therefore, conclusions by group should be carefully drawn from these results.*

Table 2 *Animal farmers' victimization: Crimes against animal production and overall crime victimization*

	Harassment and crimes against farmer as animal producer[a]		Overall crime victimization[b]	
	OR	**95% CI**	**OR**	**95% CI**
Respondent characteristics				
Gender (male)	1.038	[0.757, 1.422]	1.077	[0.817, 1.419]
Age (younger)	0.825	[0.555, 1.255]	0.995	[0.834, 1.186]
Type of animal farm				
Chicken farm/eggs (yes)	1.089	[0.615, 1.931]	1.112	[0.655, 1.888]
Cow/milk farm (yes)	0.825	[0.555, 1.225]	0.685**	[0.470, 0.997]
Pig farm (yes)	1.749*	[0.978, 3.127]	0.790	[0.430, 1.452]
Sheep/lamb/goat farm (yes)	1.100	[0.789, 1.534]	1.001	[0.759, 1.319]
Rabbit farm (yes)	1.520	[0.485, 4.767]	0.700**	[0.224, 2.454]
Fish farm (yes)	0.789	[0.099, 6.035]	2.584	[0.465, 14.349]
Other animal farms, including mink (yes)	1.239**	[1.024, 1.500]	1.123	[0.943, 1.337]
Situational factors				
Residence is on the farm (yes)	1.293	[0.824, 2.030]	1.660**	[1.123, 2.454]
Size (have employees)	2.466***	[1.751, 3.474]	1.140	[0.828, 1.571]
Type of municipality (rural)	1.679*	[0.915, 3.083]	0.791	[0.430, 1.455]
"Open farm" (yes)	1.084	[0.746, 1.574]	0.952	[0.660, 1.375]
Site on the Internet (yes)	1.507**	[1.103, 2.058]	1.033	[0.774, 1.379]
Policing and CP				
Modern CP gadgets (yes)	1.689***	[1.277, 2.364]	0.883	[0.692, 1.126]
Contact with police (yes)	3.136***	[2.364, 4.060]	3.033***	[2.343, 3.926]
Local police have resources (yes)	1.079	[0.857, 1.358]	0.702	[0.562, 1.126]
Diagnostics				
Cox and Snell R^2	0.120		0.066	
Nagelkerke R^2	0.199		0.099	

Note: OR = odds ratio; CI = confidence interval; CP = crime prevention.
[a]$N = 1{,}664$.
[b]$N = 1{,}657$.
*Significant at the 0.05 level.
**Significant at the 0.01 level.
***Significant at the 0.001 level.

of differences in victimization by animal type and must be carefully taken into account because the sample of farmers is not stratified by type of animal.

In addition, findings show that the likelihood of becoming victimized increases if the farm is located in a more remote location than those that are more centrally located. It is worth noting, however, that remoteness and isolation can discourage crime reporting, making crime "invisible," which in turn affects police resources and priorities. Moreover, despite the fact that there are indications that most animal farmers exercise natural surveillance, because almost all reside in the same place as the animal operation, this variable turned out not to be significant in the model.

Having activities related to the local community, such as having an open farm or receiving children for visits, was not associated with a higher likelihood of being victimized by protests, harassment, trespassing, vandalism, or other types of crime. Being visible on the Internet (e.g., having a Web site), however, does increase the chances of being more exposed to these types of nuisances and crime.

Although crimes against farmers are underreported, both modeling and descriptive results show that those who are more likely to be victimized have three times more contact with the police than those who are not victimized. A similar pattern was found among those who adopted crime prevention technologies or adhered to farm watch schemes. This group is 1.7 times more likely to be victimized than those who are not targeted by crime. These findings do not allow us to know the direction of this relationship, however. Those who report more frequently are most likely those who are more victimized and decide to take precautionary measures after being victimized.

Conclusions

The nature and incidence of crimes committed against animal producers, their property, family, and personnel were investigated based on answers from a survey of 3,815 animal farmers in Sweden carried out in 2020. The novelty of this study has been to identify factors that help explain the victimization of animal producers in Sweden. The results showcase a range of characteristics that can be linked to crimes against Swedish animal farmers. Furthermore, additional insight is given to the relationship between Swedish farmers and the police and the dynamic of those victimized, as well as their crime prevention practices. Crimes against farmers are underreported, which makes their victimization an "invisible" problem to the police and to society in general. One in eight respondents declared being exposed to crimes because they are animal producers, ranging from thefts, trespassing, and sabotage to threats and physical violence, mostly face-to-face but also online. Among nonvictims, half of them knew someone who had been a victim of crime. Our findings show indications that farmers' overall crime victimization has different motivations and situational dynamics than those crimes that are directed at farmers with animal production. This result is important, because the fact they are different types of crimes helps us advocate for the inclusion of animal farmers' specific safety demands when implementing rural development policies.

Harassment and crime against animal farmers have become normalized phenomena. Most farmers recognize that reporting crimes to the police is important, but half of those who were victimized have not reported the offense to the police, an indication of normalization of the problem and of low public reassurance because the low level of access to police services affects public confidence in the police. Animal farmers believed that the problem was not serious or reporting it would not lead to anything or would be a waste of time. Although those who have been victimized more often have had contact with the police, they show weak confidence in police capacity to ensure their safety. Two thirds of those who have been victimized did not agree that they can trust the police to "come when you need them," which led them to adopt one or multiple measures of crime prevention on their own, from CCTV cameras and alarms to traditional ways of preventing crime, such as locks and dogs. As such, with the perception of crimes not severe enough to report and the criminal justice system not being efficient enough to handle the problem, crimes against farmers are both made invisible to the police and the rest of society and normalized for the farmers themselves.

Situational characteristics of the farms help partially explain patterns of animal farmers' victimization after individual characteristics of the farmers and respondents are controlled for. Results indicate that larger farms (those with employees) tend victimized more than farmers with smaller properties. This is perhaps not surprising, because in accordance with theories of situational crime theories, larger farms offer more crime opportunities due to more cover and larger area to supervise. Victimized farmers also tend to take precautionary measures more often; for instance, adopting modern crime prevention measures and being in contact with the local police. There is weak but significant evidence that victimization varies geographically (with remote municipalities more exposed than more accessible areas) and by type of crime. Whereas farmers with pigs and other animals, including mink, are more exposed to crimes against animal production, milk and rabbit farmers tend to be more exposed to overall crime. This could be linked to previous research

on differing forms of treatment and exploitations of different types of animals by farmers, which in turn could cause different extents and forms of victimization against different farmers (i.e., more frequent attacks against the fur and food industries, which are more controversial than milk and wool production). Finally, farm activities open to the general public, allowing visitors to visit the private property of farms, do not increase the likelihood of victimization. Making the farm visible remotely, however, through an Internet site or by making comments about animal production available to the public on social media, does increase the likelihood of crime against animal production (but not of overall crime). Crimes directed at animal production differ from other crimes (robbery, theft, and other unrelated crimes). This finding has implications for research on crime victimization of farmers. It also helps us advocate for the inclusion of the safety needs of animal farmers as a problem on its own that demands attention when implementing rural development policies.

There are indications that the societal perception of animal production is linked to hostility against animal farmers. The practice of exploiting animals for food and other products remains a controversial subject, acknowledgments of animal rights have increased (Yarwood and Evans 2000), and some animal farmers have come under heavier scrutiny from the public. As the findings of this study show, more controversial farming operations such as mink farms (i.e., the fur industry) and pig farms (see "Pig Scandal," Efendic 2009) had been victimized due to their animal production at a higher rate than others. Offenders might use mink farmers as a target to justify their actions through neutralization techniques (Sykes and Matza 1957), because the victims themselves are portrayed as exploiters or oppressors of animals and, as such, "deserve what's coming to them." Hostility against farmers as such can be more easily justified, especially through neutralization techniques if there is a perception of lax regulation or lack of consequences for misconduct by farmers. Additionally, farmers with Internet visibility seem to be targeted to a greater extent than those without it. This could also indicate that offenders are to a lesser extent based locally and, by extension, have a greater disconnect from farming communities and the victims, further facilitating the personal justification of targeting these farms. We acknowledge, however, that the results do not allow us to infer much about the offenders and their motivations, and we note that such inference was never part of the goal of this study.

A limitation of this study is that it does not reveal the impact of these crimes on the perceived safety of farmers or on their lives in general, their families, and their property or on their personnel (but see, e.g., Ceccato et al. 2021). Future research should also devote time to obtain an in-depth understanding of patterns of fear and anxieties, as well as mental health and psychological impacts that these farmers experience due to victimization. Another limitation of this study is theoretical. Because of the multiple scales of motivations that lead to victimization, it has been a challenge to untangle individual and situational risk factors, because these crimes are often not directed at a particular individual only but also at the enterprise: the operation and activities, the property itself, including animals, the owners, employees, and families. Note that there are animal farmers who are more targeted as a group (e.g., mink farmers) than others. In addition, there is a variation within particular types of animal production that might be dependent on the size of the enterprise, the number of employees, and the visibility of the businesses on the Internet—factors that interact with each other and affect the way we tailor suggestions for crime prevention. Despite these limitations, this study makes a contribution to an increasing literature on animal farmers' victimization as a result of political motivations, which had been so far lacking in the international literature. ■

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