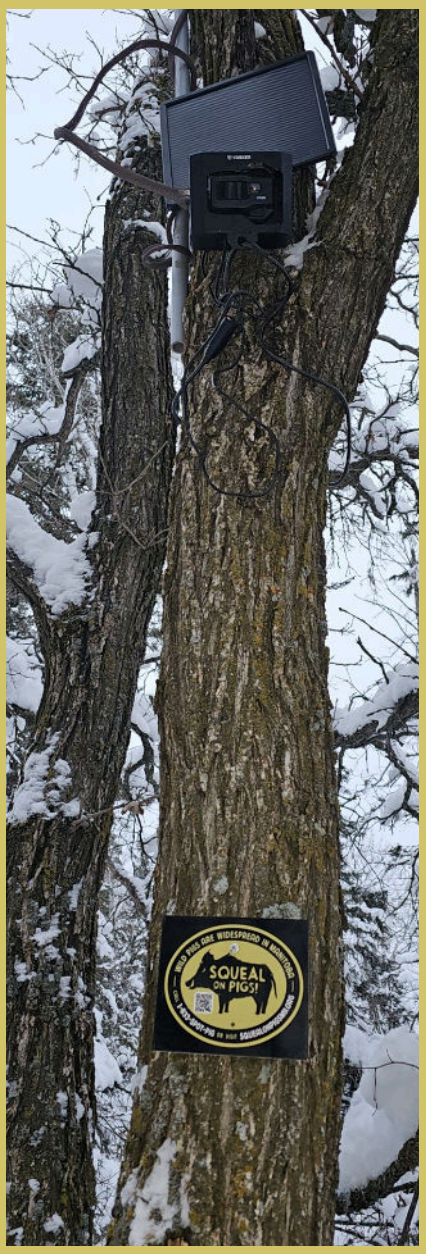
SQUEAL ON PIGS MANITOBA

PROGRAM UPDATE

2024




SQUEAL ON PIGS!
LOOK OUT FOR WILD PIGS
Wild pigs are WIDESPREAD in Manitoba
Learn more

Wild Pigs in Manitoba

Dr. Wayne Lees, Coordinator

What are wild pigs and why are we concerned?

Wild pigs include Eurasian wild boar, their hybrids, feral domestic pigs, and pet swine – any pigs that are consistently roaming at large with no known owner. The main concern is with Eurasian wild boar and their hybrids - pigs with long snouts and thick hair coats that withstand our cold climate conditions and breed in the wild.

Introduced as an alternative agricultural opportunity in the 1980s and 1990s, Eurasian wild boar and their hybrids escaped into the wild and have become one of the most significant invasive species on the Canadian prairies. They destroy natural ecosystems, displace other wildlife species, damage crops, carry diseases that threaten domestic swine, and put public safety at risk.

Why are wild pigs "an ecological train wreck"?

They are omnivorous and will eat anything. This includes ground nesting bird eggs, small marsh animals, acorns, forages and grain crops, as well as stored feeds. Their rooting behaviour removes grubs and insects that are food for other wildlife, and destroys planted crops, pastures and green spaces. Their wallowing behavior sullies waterways. When wild pigs move into an area, native species, such as deer, move out.

If left unchecked, their home ranges will expand. While most escaped domestic pigs stay close to their home of origin, Eurasian wild boar can travel over a wide territory looking for food, shelter, and breeding opportunities. There have been sporadic sightings throughout southern Manitoba, but the main area of concern is around Spruce Woods Provincial Park, southeast of Brandon, where we know there is an established breeding population.

They can be the vector for dozens of diseases. If exposed, wild pigs will contract and spread foreign animal diseases such as African Swine Fever and Foot-and-Mouth Disease, as well as other significant diseases for swine like Porcine Epidemic Diarrhea and Porcine Reproductive and Respiratory Syndrome, putting at risk Manitoba's domestic swine herd. Manitoba exports 90% of the pork it produces, and wild pigs pose a significant risk to Canada's proposals to international trading partners to recognize zoning as a disease mitigation strategy. From a zoonotic disease perspective, they can harbor infections like influenza and tuberculosis, among others, which can affect other species, including humans.

They are an invasive species and have no natural predators. Wild pigs congregate in groups called sounders, consisting of breeding and adolescent females and their offspring. Mature boars often travel long distances in search of females. There are no natural predators that will confront a sounder of females who will aggressively defend their young, using their tusks to inflict severe wounds on any animal or person that threatens them. Because they can be hostile when threatened, encounters with wild pigs present a significant risk to human safety.

What Are We Doing About It?

In 2021-22, Manitoba first launched Squeal on Pigs Manitoba, a campaign with the goal to first control, and then eventually eliminate invasive wild pigs from the province.

To do that, we needed to develop methodologies that will work in Manitoba for:

- Surveillance, to identify where wild pigs are in Manitoba, and
- Control and removal, to stop the increase in population where pigs are breeding, and to remove as many pigs as possible from the landscape.

Using a holistic One Health approach, linking animal health, environmental health and human health and safety, Squeal on Pigs Manitoba operates as a collaboration point between the swine sector, provincial departments of agriculture and natural resources, First Nations and Metis communities, non-governmental interest groups, environmental organizations, federal and provincial parks and the Canadian Food Inspection Agency.

Public awareness is raised through a wide-ranging public information campaign involving interviews and advertising in print and electronic media, extension presentations at conferences, fairs, agricultural and environmental events, and one-on-one discussions with landowners.

Within a few short years we have made significant advancements in better understanding the geographical extent of the issue, what factors influence the wild pig population, and how to modify our surveillance and removal techniques to function effectively under Manitoba's cold climate conditions.

Year in Review

Dr. Wayne Lees, Coordinator

Devon Baete, Field Operations Manager

2024 has been a pivotal year for the Squeal on Pigs program in Manitoba.

In March 2024, we completed our 2023-2024 funding agreement with the African Swine Fever Prevention and Preparedness program. Squeal on Pigs would like to acknowledge the support from the Government of Canada under the ASF program. Subsequently, we secured multi-year funding to March 2028 under the Sustainable Canadian Agricultural Partnership program, operated by the Governments of Canada and Manitoba, and in partnership with Manitoba Pork. This ongoing support allows us to plan for the longer term, increase operational capacity, and build on the work and lessons learned from previous years.

Field Operations

2024 was a building year for our operational capacity, allowing us to better respond to areas of concern. Although we receive sightings reports from around the province, most come from the Spruce Woods area in southwestern Manitoba, where wild pigs have established a breeding population.

We have been granted permission to work within Spruce Woods Provincial Park and now have two additional seasonal field technicians working in that area. This is a significant step forward to control this population. All our field technicians now have access to thermal imaging drones, which have proven to be a game-changer for detecting wild pigs in heavy crop cover or forested areas.

With a network of over 100 cell-enabled trail cameras spread across the province, we can monitor many sites efficiently. Having remote access to camera images enables our landowner partners to assist with monitoring surveillance sites and checking traps on their own lands without leaving human scent. This shared access also promotes timely communication with our field technicians whenever wild pigs are captured.

With an inventory of 30 traps, we are gaining valuable experience using two different types of traps under our province's climatic extremes. In addition to our original rigid corral panel traps, our field manager, Devon Baete, has been successfully trialing the placement of net traps, which work better in more remote, wooded areas. In 2024, 204 pigs were removed, up significantly from previous years.

To guide our field technicians, a set of standard operating procedures has been developed. Data such as age, sex, and body condition scores of captured pigs are recorded in our database for further population analyses, and spleen samples are collected for African Swine Fever surveillance.

Field Operations Key Data

204	100	30
Pigs removed	Trail Cameras	Traps in Inventory

Communications Outreach

Finding wild pigs has always been our biggest challenge. The Squeal on Pigs campaign has been one of the most important ways of enlisting public support to report sightings of wild pigs. In 2024, 140 sighting reports were received through our website (squealonpigsmb.org), our call-in hotline (1-833-SPOT-PIG), or landowner interviews.

To continue raising public awareness in 2024, we delivered in-person and video presentations for community and nature groups, producer organizations, Natural Resources personnel and Conservation Officers, gave interviews to radio, TV, magazine and newspaper reporters, and staffed information booths at community events, fairs, and agricultural meetings.

Squeal on Pigs We expanded our marketing efforts by creating Squeal on Pigs Manitoba profiles on Facebook and Instagram and running a radio contest, while maintaining our print and online presence. Online marketing efforts, focused on outdoorspeople and visitors to provincial parks, continue to yield positive results.

Communications Key Data

140	22	8.2M	+233%
Sighting Reports	Earned Media Interviews	Ad Impressions	Yr. over Yr. Increase in Website Traffic

Dr. Wayne Lees and Devon Baete were featured in a three-part video series in the Manitoba Cooperator, focused on the threat of wild pigs in Manitoba

First Canadian Wild Pig Summit

In April 2024, Squeal on Pigs Manitoba, Assiniboine College, and Animal Health Canada collaborated to organize the first Canadian Wild Pig Summit in Brandon. This event brought together participants from various organizations across the country, with presenters from Canada, the United States, and Germany sharing lessons learned and best practices related to wild pig control.

It became apparent that the wild pig situation in Canada is markedly different from other countries. While we can learn from experiences in other countries, our cold climate presents unique circumstances that act to limit wild pig population expansion. Limited feed availability, severe environmental conditions, a slower rate of growth, longer time to reach sexual maturity, and hazards from predation, natural attrition, and disease all have an impact.

We also discussed the challenges of maintaining equipment and conducting fieldwork under cold climate conditions. These lessons emphasized that surveillance and control methodologies and equipment must be adapted to our climatic setting.

The First Canadian Wild Pig Summit was held in the historic Dome Building in Brandon MB, and included stakeholders from across the country

Reporting

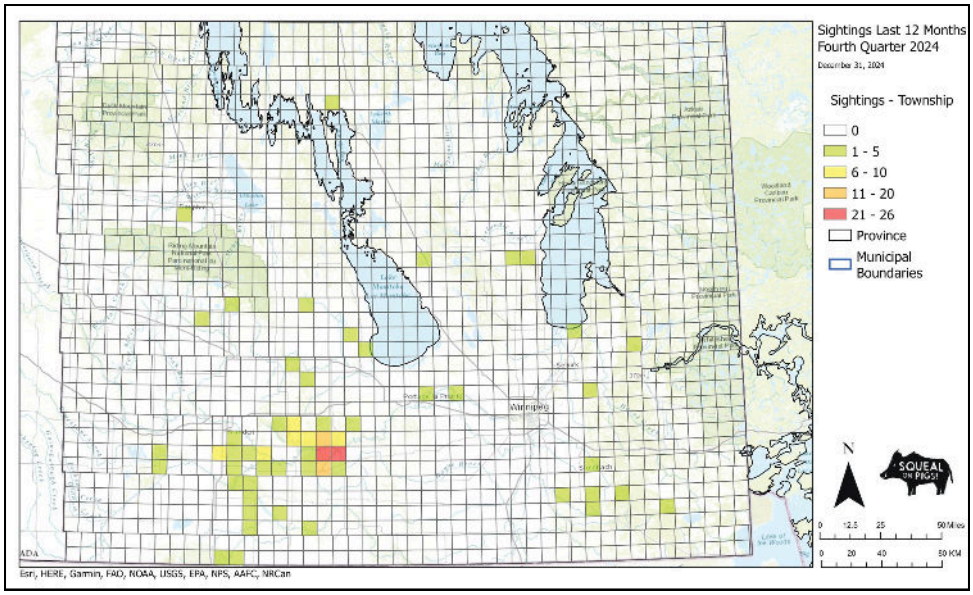
In addition to our public outreach materials, we continue to provide quarterly updates of sightings on our website (www.squealonpigsmb.org), where we map a rolling summary of where wild pigs have been reported within the last 12 months. This provides us with a reasonable estimate of current wild pig locations, so we can focus our attention where it will yield the best results.

We are also developing enhanced mapping capabilities to contribute to the Canadian Food Inspection Agency's (CFIA) and Manitoba's emergency response to a suspected foreign animal disease. To support our trade negotiations, we are participating in the national wild pig mapping project that arose from the Wild Pig Summit in Brandon. This project will be a significant step forward in creating an up-to-date national picture of the wild pig situation in Canada, contributing significantly to the national dossier on wild pig control used by the CFIA in our trade negotiations with Japan and other foreign countries.

Collaboration

The success of Squeal on Pigs Manitoba hinges on its collaborative, practical approach to wild pig control. We are not a government department but rather a common point of collaboration to bring together the many interest groups that have a stake in eliminating invasive wild pigs from the province. As such, we seek to coordinate field activities, applied field research, public awareness, and wild pig strategy and policy initiatives within the province.

Our partnerships include individual landowners, First Nations and Metis communities, non-government and government organizations within Manitoba, federal departments, academic institutions, and national animal health and environmental organizations. Moving forward, Squeal on Pigs Manitoba will seek additional collaborative opportunities to reach our common goal - to rid Manitoba of this invasive animal species.



Quarterly mapping data is published on the Squeal on Pigs website, presenting a rolling summary of the last 12 months of reporting

Preparing for a Foreign Animal Disease Outbreak

Wild pigs can carry and spread many diseases, including foreign animal diseases such as African Swine Fever (ASF). Controlling wild pigs is a key component of the prevention and planning efforts for ASF. We developed an information management and mapping system to track our reports of sightings, trap and camera placement, landowner interview notes, and removal success.

Through our surveillance and mapping system development, Squeal on Pigs Manitoba has significantly enhanced preparedness efforts, and we have field-tested the logistics required to scout a 5-10km zone surrounding a potential incursion site. These findings will be shared with producer groups and provincial and federal agencies to improve foreign animal disease response plans.

As part of Canada's ongoing CanSpot ASF surveillance program, 97 wild pig samples were submitted in 2024.

Applied Field Research

Environmental DNA Detection

Squeal on Pigs Manitoba is continuing to collaborate with researchers to advance our understanding of wild pigs and how best to control them. Partnering with Assiniboine College and BDX Diagnostics, a field and laboratory methodology was developed for detecting wild pig DNA in stream samples. By screening water samples, we can determine if wild pigs are, or are not likely to be in the area, so we can better focus our control efforts where they are most needed.

Evaluation of Scent Attractants

We have traditionally used feed as bait to attract wild pigs, but to expand our attractant repertoire we are working with Assiniboine College to evaluate the efficacy of different scent attractants. This work began in 2024 and will be extended into 2025.

Efficacy of Hunting vs. Trapping

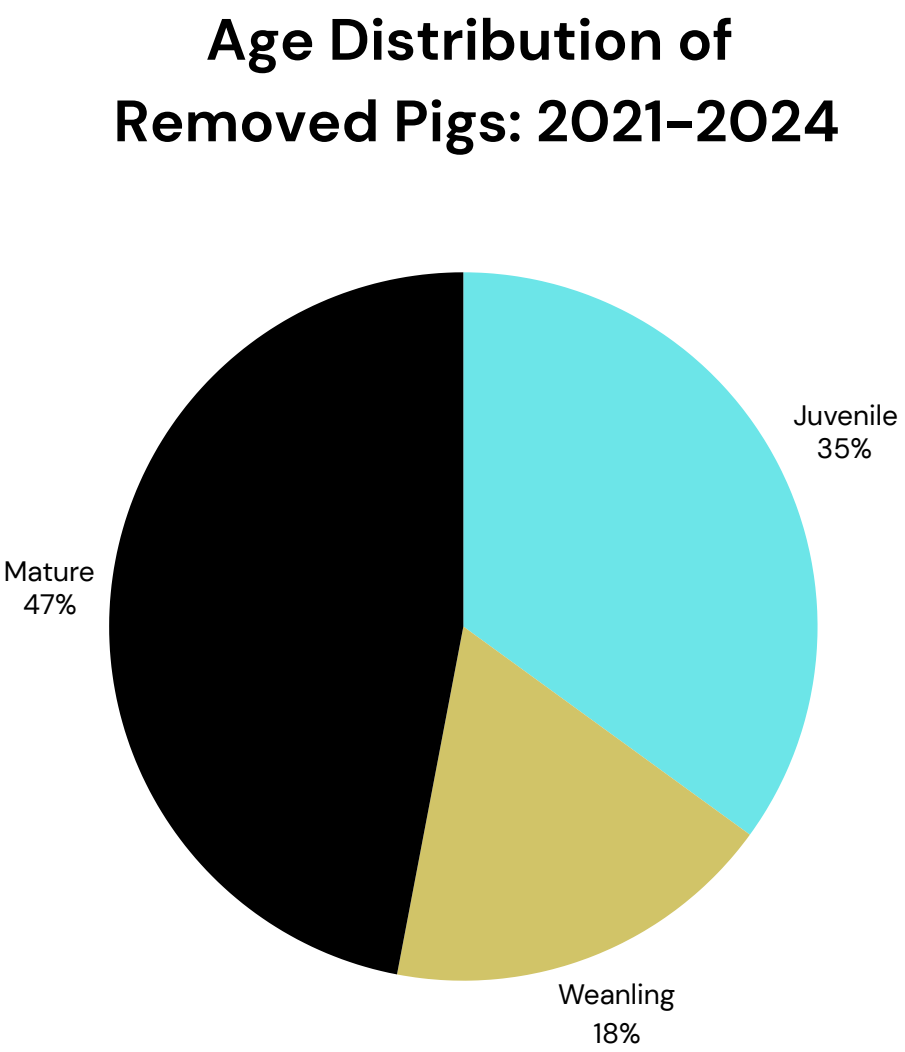
We observe that Canadian wild pigs on the prairies typically forage on native feeds (acorns and grubs), tend to be mobile within their home range, and stay in small groups. All these factors mean that control methods developed abroad must be adapted to our unique conditions.

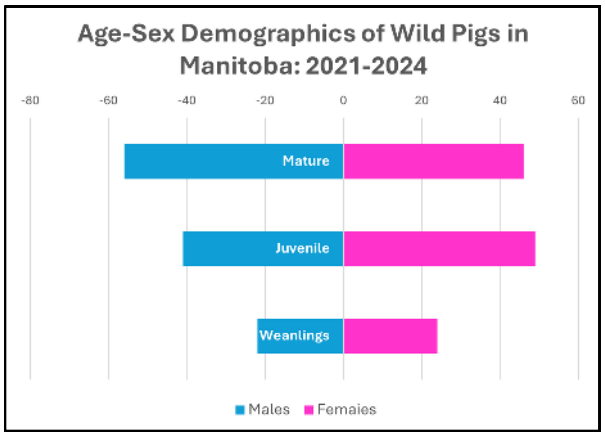
There has been much debate as to the efficacy of hunting as a control measure for wild pigs. Our field analysis supports the findings in other jurisdictions that recreational hunting is not effective in controlling wild pigs, and in fact, may disperse the population into new areas. Eurasian wild boar are nocturnal and will stay hidden during the day, even when bait is available. Those hunters who do occasionally see wild pigs are most likely to do so by chance while hunting other species.

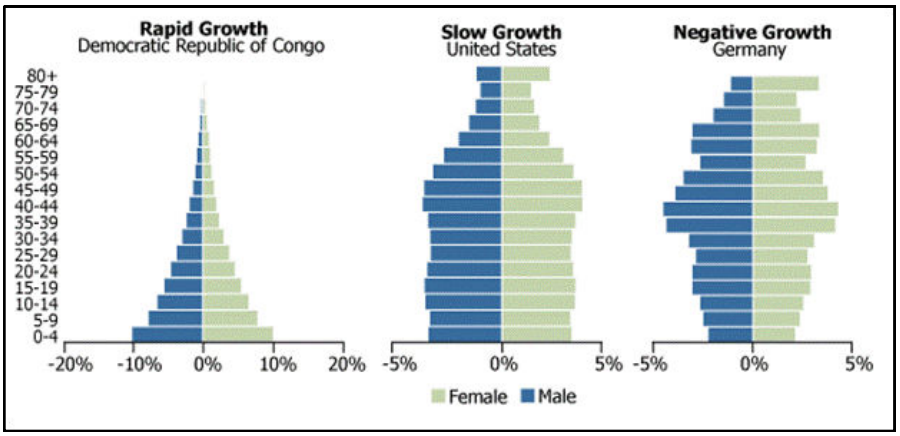
If they do encounter a sounder of pigs, hunters often remove only one or two, dispersing the rest. We have defined the first encounter removal rate as how many pigs are removed from a sounder of pigs when they are first encountered. The success rate of hunting is low; just 12.5% of the pigs are removed, on average. In contrast, our success rate with trapping is seven times higher; 82% of the pigs seen on camera are trapped the first time. Trapping has the added benefit of not frightening off and dispersing the pigs, allowing the remainder to be captured within a day or two.

New Insights into Wild Pig Demographics
Wild pig population expansion depends on their reproductive rate and survivability. From our wild pig data, we observed that the average litter size is between 5 and 6 piglets, not the 10-12 piglets per litter seen in domestic breeds. Whether young pigs will survive to breeding age depends on when they are born. Piglets born in the fall or winter will have a very difficult time surviving -30°C and deep snow.

By analyzing the data collected over the last three years, we can create a virtual, ongoing census of the population makeup. Looking at the age distribution, we discovered that the largest segment comprises mature animals, followed by juveniles and then weanlings/piglets. **This supports our working hypothesis that the birth rate, and hence the population growth rate, is much lower than initially assumed.**







United Nations, World Population Prospects, 2006

When we analyzed this further, breaking it down into age and sex classes, we made two significant observations:

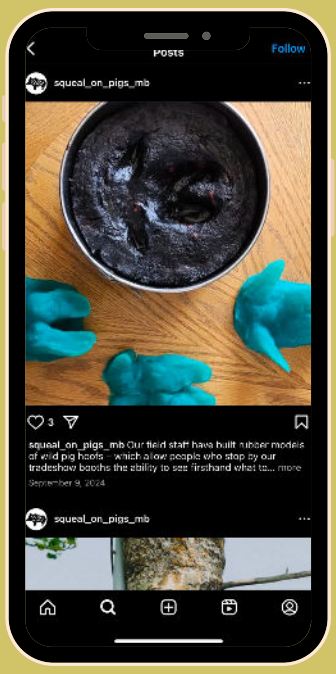
- If we compare the age and sex distribution, we see that there is an even distribution of males versus females across all age categories, suggesting that our trapping techniques don't seem to select for one sex over another.
- When we create a population demographic pyramid, we see a clear pattern that contradicts the notion that the population is exploding. If the wild pig population were rapidly exploding, we would expect this shape to be inverted, with large numbers of young pigs greatly outnumbering older age classes (for example, see the rapid human population growth in Congo versus negative growth in Germany).

Take Home Messages

As a result of our findings coupled with our field experiences, we have concluded that **the wild pig situation in Canada is very different from the wild pig problem in the United States, Australia, Asia, or Europe.**

The practical conclusion of these findings is that we do not expect to see the exponential explosion of wild pig populations that have been witnessed under warm climate conditions in the United States or Australia. Neither would we expect to see the homeostatic conditions of Eurasian wild boar populations as seen in their native Europe.

We can reasonably conclude that the population density of wild pigs in Manitoba is much lower than that reported in the United States. Our working estimate is that the provincial wild pig population probably numbers in the range from the high hundreds to low thousands. This gives us optimism that this invasive species can eventually be eliminated from the province. It will take perseverance and commitment, but it is achievable.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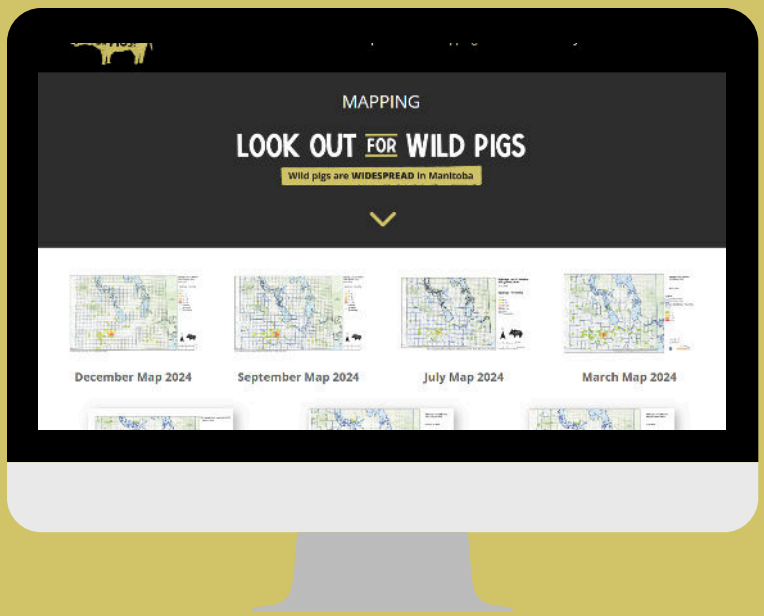
MAPPING
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Wild pigs are WIDESPREAD in Manitoba
December Map 2024
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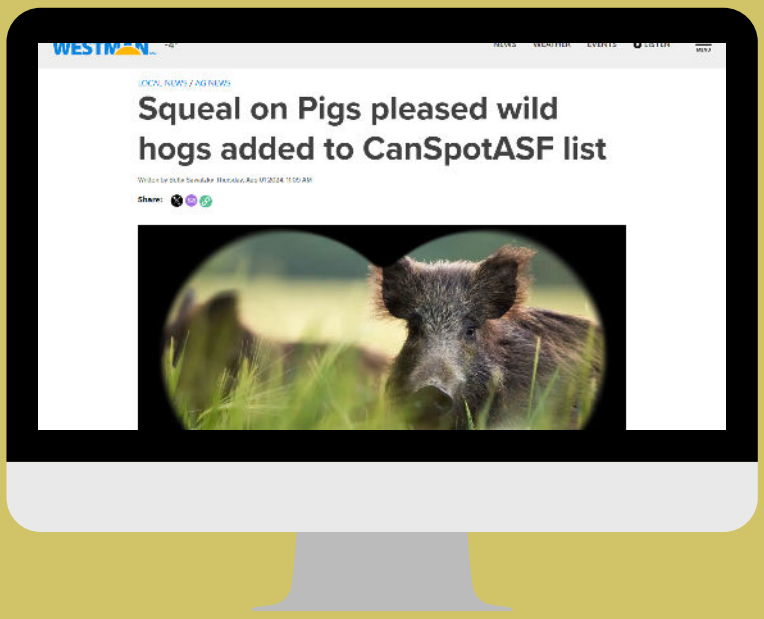
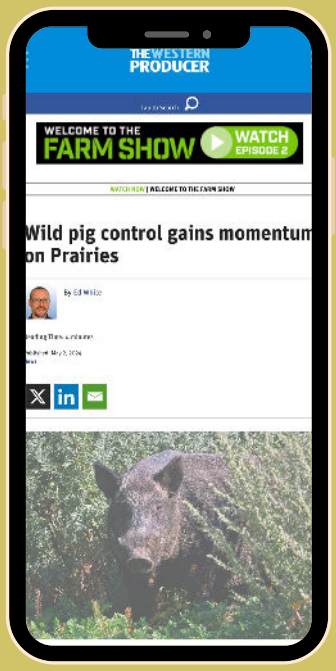
March Map 2024


Squeal on Pigs pleased wild hogs added to CanSpotASF list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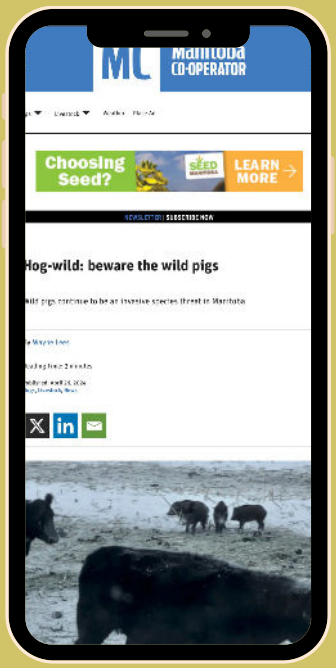
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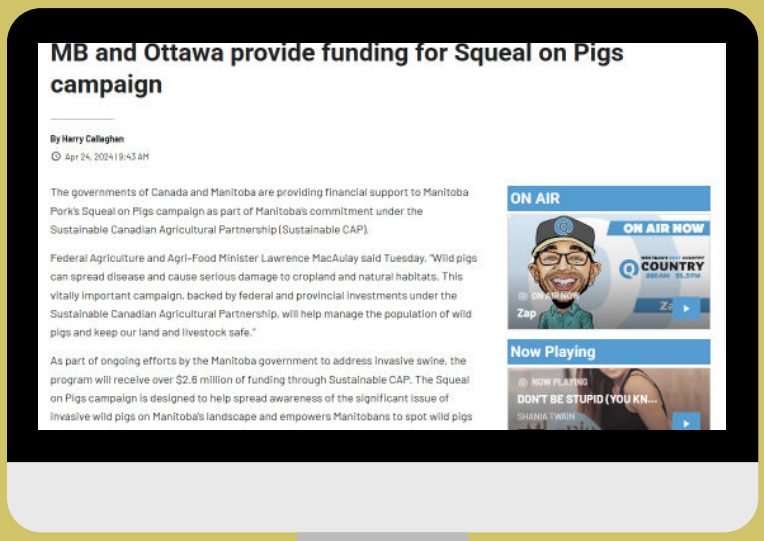
MB and Ottawa provide funding for Squeal on Pigs campaign
By Harry Callaghan
Apr 24, 2024 | 9:43 AM
The governments of Canada and Manitoba are providing financial support to Manitoba Pork's Squeal on Pigs campaign as part of Manitoba's commitment under the Sustainable Canadian Agricultural Partnership (Sustainable CAP).
Federal Agriculture and Agri-Food Minister Lawrence MacAulay said Tuesday, "Wild pigs can spread disease and cause serious damage to cropland and natural habitats. This vitally important campaign, backed by federal and provincial investments under the Sustainable Canadian Agricultural Partnership, will help manage the population of wild pigs and keep our land and livestock safe."
As part of ongoing efforts by the Manitoba government to address invasive swine, the program will receive over $2.6 million of funding through Sustainable CAP. The Squeal on Pigs campaign is designed to help spread awareness of the significant issue of invasive wild pigs on Manitoba's landscape and empowers Manitobans to spot wild pigs
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