

## Could Farmers and Farm Employees Have Resistance or Immunity to COVID-19?

*By Greg Blonde, UW-Madison Extension Agriculture Agent for Waupaca County, WI*

We know how important public health workers and first responders are in the battle against COVID-19. But did you know farmers, farm workers and other Ag professionals that service and support farms, food distribution and sales are also part of this essential line of defense? Without these other crucial providers our store shelves, refrigerators, freezers and pantries go empty. That's why it's so important to encourage and support farmers, farm families, farm employees and others who support farm operations (i.e. Veterinarians, milk haulers, livestock marketers, etc.) to follow the CDC guidelines and stay healthy.

One way UW-Madison Extension can help is by providing accurate, timely information through our dedicated website. Research based resources for farmers, employees and farm family members are all available online at: <https://fyi.extension.wisc.edu/covid19/category/topics/farming/>.

Another way Extension is helping is by fact-checking rumors, like the one about farmers, farm employees and others who work closely with dairy and beef cattle. Any truth that they might be more resistance or even immune to COVID-19 because of their long time exposure to the broader family of coronavirus's like the one that causes scours in pre-weaned calves, or the one that causes winter dysentery in some confined dairy cows, or the one some think is associated with certain pneumonias in cattle? FALSE, NOT TRUE, don't let anyone convince you otherwise. There is no known resistance for any human to COVID-19, including farmers, their families or their employees.

Dr. Christopher Olsen, DVM PhD and Director of Graduate/Professional and Capstone Certificates in Global Health, Office of Global Health, Department of Academic Affairs, School of Medicine and Public Health at UW-Madison says, "The virus SARS CoV2 that causes COVID-19 disease is only distantly related to common bovine coronaviruses. While not impossible for there to be some level of cross-recognition of this new virus by antibodies to bovine coronavirus (they are in the same overall subsection of the coronavirus family), I would expect it to be very limited.

Dr. Tom Freidrich, Professor in the School of Veterinary Medicine at UW-Madison and Head of Virology at the National Primate Research Center in Wisconsin where they study the source of viruses and how they make us sick adds, "because bovine coronavirus's don't appear to infect human cells, it's unlikely exposure to these viruses would stimulate much of any immune response in people". He adds "bovine coronaviruses are not particularly closely related genetically to the COVID-19 virus, so even if people with exposure to cattle could have some immunity to bovine coronaviruses, I don't think it would give much protection against COVID-19. Furthermore, Dr. Freidrcih says while human coronavirus infections are quite common and most of us likely have some immunity to human coronaviruses that cause the common cold, this does not appear to protect people against COVID-19. Overall he says, "I strongly recommend everyone assume they are susceptible to COVID-19. There's not only an individual risk of developing severe disease if you get it, but it's very contagious and would be easy to pass on to others once you're infected."

Farmers are strongly encouraged to take these steps to minimize the impact COVID-19 on their business, their employees and reduce the chance of spreading COVID-19 to their family.

First, require that sick employees to stay home, emphasize respiratory etiquette, and hand hygiene by all employees and provide special attention to workers at high risk (older workers and those with underlying health conditions). Farm workers who arrive at work feeling ill or become sick at work should be isolated from other employees and sent home immediately.

Perform routine cleaning including all frequently touched surfaces. Take extra precautions in employee breakrooms, rest rooms, and other areas where farm employees meet. Wipe down surfaces like countertops, light switches, food prep areas, commonly used equipment, time clocks, tool handles, steering wheels, and doorknobs.

Encourage employees to wash their hands with soap and warm water for at least 20 seconds and provide hand sanitizer that contains at least 60% alcohol.

Place posters that encourage employees to stay home when sick, show proper cough/sneeze etiquette and hand hygiene at farm building entrances and other locations where they are likely to be seen.

Provide accurate information and instructions from trusted sources like WI Department of Health Services (WDHS). Their fact sheets are available on-line in English, Chinese, Spanish and Hmong.

Employees who are well but who have a sick family member at home with COVID-19 should notify their supervisor and refer to CDC guidelines on how to conduct a risk assessment of their own health.

If an employee is confirmed to have COVID-19, employers should inform fellow employees of their possible exposure to COVID-19, but maintain health record confidentiality and refer to CDC guidance on how to conduct a risk assessment of their health.

Discourage all travel and encourage "social distancing" or physical separation as a best practice to protect your family and farm employees.

The good news, according to Dr. Gregg Hanzlicek, Kansas State University Veterinary Diagnostic Lab Director, we don't need to worry about farm products carrying COVID-19. He notes, "milk, eggs, beef pork...whatever the source of your protein, people do not have to worry because those products don't carry COVID-19."