**Sharing a (Tractor) Cab has Become More Complicated**

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 My grandfather once told me that “it was a lot easier to spread manure than it was to clean it up.” Over the years the truth of his comment appeared to apply to our personal lives and politics as well. During the current COVID-19 pandemic, it also seems to be especially relevant. As we have so clearly found, it’s a lot easier to spread a virus than it is to clean it up.

 The issue, as it applies to farmers, was raised in a recent conversation with a farmer from South Dakota who asked about the risk of having three guys operate the same tractor while expediting planting. He was concerned about the risk of disease transmission from one operator to the next under the cloud of COVID-19. I asked if there were any confirmed cases in his area; he was unaware of any. Were any of his employees feeling poorly, had a temperature, or exhibited symptoms of respiratory ailments such as chronic cough or runny nose? Again, the response was negative.

 My response, while trying to keep it evidence-based and respecting a little anxiety I sensed in his voice, was that he was more likely to acquire a bad case of food poisoning from ordering on the self-serve kiosk at his local fast food restaurant than he was the coronavirus from sharing the cab of his tractor with his employees.

 After hanging up, I gave considerable thought to the risk of having multiple operators of self-propelled farm equipment and trucks during a time when the use of hand sanitizer, social distancing, maintaining personal spaces, and wearing respiratory protection has become paramount. Transitioning from not wanting to waste a cheese curl or french fry that accidentally fell on the floor of the combine cab while eating on the go, to attempting to sanitize the steering wheel between equipment operators will not be easy. It’s one thing for a farmer to acknowledge, shortly after marriage, that tracking barnyard residue into the kitchen can approach the level of a capital offense: but, it is quite something else to keep the tractor or truck cab neat, and tidy, or sanitary. Simply taking off one’s shoes before entering or staying out of the mud are not realistic options.

 The following are some points to consider in light of trying to adopt practices to mitigate the impact of the coronavirus.

1. Through the advances of engineering and ergonomics, and the demands for operator comfort, the open platforms on tractors and combines have been transformed into environmentally controlled spaces that keep the operator warm in winter, cool in summer, protected from excessive noise and dust, and secure in the event of an overturn. They were not, however, intended to protect the operator from tiny microorganisms that float in the air and cling to surfaces.
2. Even with the windows closed and the air conditioner operating, the air filtration systems of modern operator stations on tractors and combines are no match for the coronavirus. It’s like trying to keep flies out of the house with chicken wire over the open windows. Furthermore, because air conditioners are incredibly expensive to repair and contribute nothing to improved crop yields, it is not uncommon to find them not in use and the cab windows open to keep the operator cool.
3. The surfaces on the interior of a combine or tractor cab have absolutely no similarity to an easily disinfected composite kitchen counter or the floor of an intensive care unit. Cab surfaces are highly irregular, with inaccessible crevices, often porous, especially the seating and head liners, incorporate numerous moving parts, and are constantly exposed to outside contaminants every time the doors or windows are opened. Disinfecting the cab between operators is simply not possible.
4. Every time the operator enters the cab, he or she transports into the space a new batch of potentially unhealthy material, including agricultural chemicals, bacteria, and viruses from external sources including livestock and their waste, soil, or petting the farm dog. The floor of a cab, often a water proof drip pan, can hold a nasty soup of biohazards on a rainy day that remain alive and flourishing for a long time. (I’ve actually seen corn and beans sprouting in the greenhouse environment on the floor of a tractor cab.)
5. Spraying a can, or two, of a disinfectant like Lysol® can help mask the odor and kill a lot of bacteria and viruses, but it does little for those bugs being carried in and out on the operator multiple times a day. The residual effects of most across-the-counter disinfectants are just too limited.
6. Suggesting that the tractor operator spend the day wearing a suitable N-95 respirator fails both the practical and the “stupid” tests. Healthcare professionals need to be extremely careful making recommendations that they wouldn’t follow themselves or know nothing about. To demand that an operator wear a soggy face mask for 6-8 hours is not only unreasonable, but hazardous to their health.

A few suggestions to consider that might contribute to reducing the risk of disease transmission include:

1. Reduce the risk by not allowing equipment operators who show up sick to work or be exposed to other workers. Send them home to get well. Encourage self-reporting of illness.
2. Consider assigning equipment to individuals for regular use, or at least keep them in the same family. Maybe that’s why we call computers “personal”.
3. As often as possible clean out the cab and vacuum all surfaces. Avoid storing unnecessary tools, equipment parts, or food in the cab that become a breeding ground for a lot of bad stuff.
4. Place a container of disinfectant wipes in each cab or vehicle for the operator to use to wipe down the steering wheel, controls, and other surfaces at the beginning of each day or shift. Consider providing “one-time-use” steering wheel covers such as those used in automobile service centers that can be discarded and replaced between operators.
NOTE: Dr. Steve Hawkins, Director of the Purdue Agricultural Centers, and his staff have recognized possible issues with GPS and machine control touch screens and the use of disinfectants. Purdue farm personnel have been provided the following guidance: “*Before disinfecting a touch screen on a tablet or any of the screens installed in equipment that control the tractor, sprayer, or combine or the add-on GPS and machine controller touch screens, please read the operators manuals. Some chemicals will render these screen inoperable. Touch screens that can be damaged by disinfectants can be covered with food grade, clear plastic wrap. Be sure not to cover any vents on the screens as they may overheat. Between operators using this equipment and during the wipe down of touch points, remove the clear plastic wrap (such as plastic cling wrap) over the touch screens. The next operator will install a new piece of clear plastic wrap.”*
5. Encourage everyone to wash their hands frequently during the day and to keep their hands away from their face, eyes, nose, and mouth. Having a bottle of hand sanitizer in each cab would also be good.
6. The next time you drop part of your lunch on the floor of the cab, leave it, write it off, and sweep it out later. In the case of tractor cabs, the “3-second rule” doesn’t apply.