

What does COVID have to do with Agriculture? Everything

At the end of August 2021, the number of COVID-19 cases in the US continues to climb, though the pace of increase is lower than it was two weeks ago. US deaths due to this disease have now exceeded 637,000 and that number is increasing by nearly 9,000 per week. The percentage of people in the US who have received at least one dose of the vaccine is 52.

You might ask, “What does this have to do with agriculture policy?”

Our response is, “Everything.”

In an earlier article we made the humanitarian argument for eliminating COVID-19. This article makes the economic argument.

COVID-19 is disrupting supply chains around the world and sooner or later it will disrupt agricultural supply chains as well.

Disruptions on the production side of agriculture could come when a piece of farm machinery breaks down as one part quits working. Traditionally the solution was to send the spouse to town for the part. And, in the worst case scenario, the farmer would have to wait for the part to come in late that night or early the next morning.

Today it is not quite that simple. First, to reduce their capital costs, local machinery dealers have reduced the number of parts they hold in stock, depending more on an intermediate supplier. Second, today’s farm machinery may use components that come from a half-dozen or more countries. In today’s climate, if no one in the supply chain has the part, it is not inconceivable that it could take a month or more before the replacement part arrives from overseas. In the meantime, the farmer will have to struggle to find a temporary replacement for the broken machine—baling wire or a down-and-dirty weld probably won’t work.

And that is just on the production side of the equation. With COVID-19 creating shortages of transportation and port workers as well as a shortage of shipping containers, the marketing side could be disrupted as well. The farmer may have produced the product and the overseas customer may want it badly, but if there are shipping delays, both suffer.

In their New York Times article, “What an Adult Tricycle Says About the World’s Bottleneck Problems,” Jeanna Smialek and Madeleine Ngo write, “the future hinges in part on the virus. Nada Sanders, a professor of supply chain management at Northeastern University, predicted that the highly contagious Delta variant would most likely delay a return to normal until at least 2023. Given that many parts of the world still have large unvaccinated populations, hot spots across the globe could lead to more factory and port shutdowns, she said.

“‘There is no question that we’re going to continue to see stoppages,’ Dr. Sanders said” (<https://tinyurl.com/ay2rc8v5>).

While lean production and distribution processes are economically efficient, these processes are not very robust in the face of an event like the outbreak of COVID-19. One part of the production/distribution process breaks down, triggering a problem at the next level of the chain, and soon the problems cascade. The current logistics system has not been designed with redundancy and resilience in mind. It lacks the ability to handle multiple crises at the same time.

And yet we are living in a world that is constantly facing multiple crises: disease, extreme heat and drought, hurricanes, and flash floods, higher than normal temperatures... of which COVID-19 is on our minds in this column.

Read the newspaper, listen to the radio, or watch television and you will find people talking about the importance of increasing the vaccination rate in the US as a means of bringing the pandemic under in control.

But it is not as simple as that.

As we have seen COVID-19 mutates very quickly and new variants like the Delta variant are more infectious than the original. As the Delta variant becomes more widespread the spontaneous appearance of a more deadly variant is not beyond the realm of possibility. In fact, it is quite likely. And, if that new variant were both more deadly than Delta and at the same time resistant to the current set of COVID-19 vaccines, we could be back to the situation we were faced with in early months of the pandemic with a raging disease and no effective vaccine.

The surest way to reduce the probability of this situation is to make certain that as many people in the world as possible are vaccinated as quickly as possible. The quicker we can reduce the pool of people in the world who catch the disease, the lower our chances are of seeing a new more virulent version of COVID.

Over the past year we have worked to gear up the production of the vaccine to make sure that is available to everyone in the US and other developed countries have done the same for their populations. But that is not enough.

While the US has a population of 333 million people, the world population is 7.9 billion, some 24 times the US population.

In many developing countries the vaccination rates are below 10 percent and the development of a new more infections variant could quickly affect everyone on the planet.

From our perspective, the way forward is for the developed countries to band together and establish a COVID-19 eradication program modeled on the programs that eradicated smallpox and have come close to eradicating polio.

Such an effort with a disease like COVID-19 will require a significant investment on the part of the major developed countries of the world. Vaccine manufacturing capacity will have to be dramatically increased. Then it will take the development of the means to keep the vaccine in a viable condition under a wide range of climatic conditions. Vaccinators will have to be trained in every city, village, and country crossroad in the world.

This will be an expensive operation. But the cost to farmers and everyone else in the world of not doing it will be far greater.

Policy Pennings Column 1092

Originally published in MidAmerica Farmer Grower, Vol. 37, No. 338, September 03, 2021

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