

## Road Safety During Planting Season

The most impressive feat of mechanical engineering I have ever observed occurred as a result of astonishing negligence and poor decision-making.

A few Springs ago, we were working to keep up with the rapidly growing wheat crop. Rains in earlier weeks were interspersed with a few dry days; periods just long enough to let you think that the ground might be dry enough to fertilize. But of course, yet another rain would come along and dash any plans of industriousness. The wheat loved this human-frustrating weather pattern.

All grass crops, including wheat, grow at a rate best described by a sigmoid curve. At the midpoint of its lifespan, the crop's rate of growth becomes exponential, only to flatten off as it enters its reproductive stage. During this rapid vegetative growth, the plant is metabolizing at breakneck pace, thereby requiring a vast supply of nutrients. Generally, it is best to have these nutrients on hand before entering this stage. Human, this is where you come in: farmers apply nutrients right before this stage so that the crop is never left wanting. Put simply, fertilizer timing is critical.

With manic weather, however, we were behind the curve. No doubt, we were late getting on the fields, leaving a few ruts, and only cursing the gods a little.

I was behind the sprayer that evening in the pick-up truck that would take both myself and the farmer back home for some rest once we moved to the next farm before another long day of spraying and god-cursing. A yellow-pink dusk rendered the dark green countryside a Monet painting that reflected off the hood of the truck—a sight to behold. Despite the picturesque display, I concentrated on the task at hand: ensuring that traffic behind me would not try to pass me nor the sprayer in-front on a narrow country road.

Of particular concern was the gaunt bridge ahead; it pinched the road as it crossed a small creek, leaving room for two subcompacts to pass only moderately comfortably. Thankfully, I had done my job well. As we approached the bridge, no-one from behind dared to pass the caravan of hazards, flashing yellow equipment lights and Slow Moving Vehicle signs.

Not so on the front side. Across the other side of the bridge was a landscape-body 5500-series truck, whose driver was likely enduring the same (if not more) level of exhaustion the sprayer driver and I felt. At this point, I'm sure you see what's coming next.

The most impressive feat of mechanical engineering I have ever seen occurred as the sprayer—unloaded weight of 22,800 lbs now loaded with more than 800 gallons of liquid fertilizer, 80 gallons of diesel fuel, 17 gallons of hydraulic fluid—met the landscape truck crossing the bridge.

The sprayer's hydraulic wheel motors roared in agony as pressure flooded the system as the operator jerked back hard on the joystick in the cab to stop the behemoth. The massive diesel engine roared as it tried to offset the newfound resistance in the hydraulic system. Smoke poured from all four of the 72" tall tires as the machine screeched to a halt. As the machine recovered and the blue smoke gave way, the landscaper crossed the bridge and passed us by without as much courtesy as a flash of the headlights to say, "My bad".

I do not want to witness any more of these impressive displays of engineering prowess.

This Spring, please take care to drive carefully and respectfully of others. Farm equipment will be using roads, often outside of business hours, after a long day of work. Heed the flashing lights, SMV signs, large turning radiuses, otherwise unconventional destinations, and sheer size of these monstrous and marvelous pieces of equipment.

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