

Fall Crops And Intersections Pose Line of Sight Problems

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A recent major collision involving a young female driver of an all-terrain vehicle (ATV) is a reminder of the dangers posed when farm crops are placed too close to intersecting roadways and cause potential visibility issues.

Although the exact circumstances of the collision have not been released, a 16-year-old girl was riding her ATV southbound on the 11th line of East Zorra Township earlier this week when she entered the intersection with Cassel Side Road. This location is about half way between Woodstock (to the south) and Stratford (to the north) , in Southern Ontario. It was reported that an eastbound car collided with the ATV resulting in critical injuries to the young girl.

While the factors that may have caused this collision are unknown, the conditions of the site present some concerns and this scenario is common in the fall throughout Southern Ontario.

Corn is a very popular crop in these rural parts. And very often farmers' fields are planted near the edges of rural intersections. For those roadways that are well-travelled the planting of such tall crops becomes known as drivers may complain or roadway inspectors may note that the crops may cause a visibility issue. However even that possibility is not guaranteed as many drivers simply do not think of following through to contact a farmer or a municipality when their line of sight is dangerously obstructed.

Similarly, with the apparent deterioration in inspection procedures of roadway inspectors, proper inspections of line of sight problems are also carried out less frequently. This is particularly true with a fast-growing crop like corn which can grow to become a visibility hazard very quickly. Roadway inspectors who should be looking at the positioning of the edge of a crop instead of whether or not there is a particular hazard at that time often do not make the connection that a hazard may develop in the near future. Even so, many inspectors do not have the proper technical training to understand what governs a genuine line of sight issue as these inspectors are not familiar with, or sometimes have not even read a technical manual on the issue.

Unfortunately, in many instances the general labourer who started out as the hole-digger or the person at the back of the truck who patches the road pot-holes, gains experience and is then elevated to replace a road inspector who may have retired. Suddenly this person, with minimal technical training who has been given instructions by the retiree, is given the responsibility of determining whether a visibility obstruction exists. This would seem simple enough because this person believes that a "drive through" from the driver's seat of his/her municipal, high suspension pick-up truck will reveal whether any obstructions exist. Not realizing that the eye level of the driver of a

sports-type passenger car may have their eyes at approximately 110 centimetres above the ground versus an eye height of 150 centimetres or more in a high suspension pick-up truck. While that 40 centimetre height difference would appear to be rather small to the un-informed it actually makes a huge difference when attempting to look at objects over longer distances.

The site of the ATV collision is an example of what can happen when corn and a poor understanding of visibility issues are combined at an intersection. Below is a view of the subject intersection, looking south along the 11th Line as you approach the intersection with Cassel Side Road which travels east/west (left/right in this view).



The photo above is the view that would have been available to a driver travelling southward in same direction as the young ATV rider. An eastbound vehicle would have been travelling from right to left in this view and you can see the crop of mature corn that is soon to be harvested. The issue of concern is how close the edge of the corn is to the right-of-way of the road. Let's get a little bit closer (south) as shown in the photo at the top of the following page. And then as we get closer, we show another view (bottom of the page) showing the view toward the east around the corn crop.



Now, these are the views that might be available to our road inspector who is sitting in his/her large pick-up truck because these photos were taken with me standing up. If you

look closely at the last photo it would appear that you can see a considerable distance along Cassel Side Road above the crop. But the view of a passenger car driver would be similar to the scenario where I would kneel down on one knee when taking the photo. You can imagine what would happen to this view if I had taken the photo from that lowered position.

Similarly, looking from the eastbound driver's perspective, the view below is taken from about 25 metres west of the intersection and standing on the north road edge, and looking generally northeast toward the intersection. If you look closely at the edge of the corn crop you will just be able to see the front end of a southbound SUV. Remember, I am standing, not kneeling down to a passenger car driver's position.



I have heard many comments in the past in similar situations that go something like this: "Well the guy deserves what he got because he never stopped for the stop sign, you cannot do anything when someone disobeys a stop sign and is not paying attention". Well not really, actually there is a great deal that could be done.

In our knowledgeable and civilized society we believe that roadway design and maintenance should have some built in safeguards so that, when we make a mistake we do not automatically pay for it with our lives. In terms of visibility at intersections we try to give the drivers an opportunity to avoid a collision by setting back obstacles that

obstruct our line of sight so that when someone does miss seeing a stop sign a collision can still be avoided through braking and steering by either or both drivers. I will not go into the details but a visibility triangle must be ensured so that the driver on the main road has about a 3 second opportunity to see the offending vehicle. Such a limited time is often enough so that the driver on the main road can apply braking and delay their entrance into the intersection and thereby allow the offending vehicle to pass ahead. Of course there is no guarantee of success since the offending driver might also apply his/her brake and a collision might still occur. But the altered collision would still be at a lower speed and the collision severity might be reduced. So the comment that "nothing can be done" is simply an uninformed comment.

The problem at many low volume rural intersections like this is that there is not enough inspection and understanding to be able to recognize a hazard before it becomes one. The crop at this site have been planted for numerous years without anyone recognizing the danger. The number of vehicles passing through the intersection would be very limited. Even when someone disregarded the stop sign and passed through without stopping, the chances that another vehicle would be entering the intersection at that same moment would be remote.

We often blame the farmer who planted the crop but in my opinion that is often unfair. We live in an ever more complicated world where the average person cannot reasonably be expected to be up to understanding all the complications of our world. Increasingly we must rely on specialists to solve our computer problems, fix our plumbing, do our taxes and a whole slew of other matters. Visibility issues on public roads may appear to be simple things to the uninformed but they are not. And they become deadly when we do not appreciate their complexity.