Point vs. Nonpoint Source Pollution

The other day, I saw used motor oil spilled on the street and down the storm drain, jugs discarded in the dumpster. Not only is this illegal, but it also has the potential to contaminate millions of gallons of water. Perfectly on trend with our KNOW YOUR WATER project with K-State 105, here are some facts about point and nonpoint pollution and why we SHOULDN'T dump used motor oil down the drain or throw it in the dumpster to be taken to the landfill.

What is the difference between point and nonpoint source pollution? Point source pollution can be directly traced back to the source, i.e. pouring fertilizer directly into a stream or pond. Nonpoint source pollution is much harder to trace. It can come many ways, like runoff from a field that was recently sprayed eventually ending up in a stream, or from livestock, wildlife, or pet waste.

What can we do about nonpoint sources of pollution? Reducing runoff from fields is one solution. This can be achieved by planting cover crops, reducing tillage, and timing pesticide or fertilizer application with the weather. Understanding soil infiltration rates and how they are affected by soil temperature and types is important when timing fertilizer and pesticide applications. Another solution is to restrict livestock access to streams and ponds during peak flow periods. While this isn't always possible, being able to recognize when the riparian areas are most vulnerable is a good start.

In the case of the motor oil in the dumpster, that is a nonpoint source of pollution. Not only is improperly disposing of used motor oil illegal, but oil also has some unique properties that make it hard to mitigate. Oil sticks to everything. It clogs pipes, but it also clogs soil horizons. When the water eventually ends up back as surface or groundwater, the oil in the water affects the soil. This, in turn, affects potential plant growth and eventually, drinking water.

By developing these Best Management Practices (BMPs) to fit your operation or household, you will be doing your part to improve water quality in Northwest Kansas!

This project has received funding from K-State 105, Kansas State University's economic growth and advancement initiative for all 105 counties in Kansas. Learn more at k-state.edu/105.