Soil erosion costs reach beyond farm

FIELD FODDER

BY RICHARD HALOPKA

THE 2017 GROWING season was one with many challenges. With talk of El Niño and climate change as a backdrop, there was a storm brewing. Mild winter temperatures, then high rainfall followed by snowfall, prevented soils from freezing, which allowed water to infiltrate the soil profile. This is good in a normal year, but in a year like 2017 with record rainfall, the stage was set for soil erosion. The intense excessive rain this spring combined with saturated subsols led to runoff of soil sediments and visibly eroded fields.

From the USDA soil portal, the cost of soil erosion is estimated at $44.39 billion in the U.S. This value includes lost productivity, along with sedimentation and eutrophication of water reservoirs. Lost farm income is estimated at $100 million per year as a result of soil erosion in the U.S. IMPACT IN STATE

What is the cost of soil erosion in Wisconsin?

University of Wisconsin-Madison soil scientist Francisco Arriaga estimates the nutrients present in 1 ton of an optimum soil are 2 pounds of nitrogen, 9 pounds of phosphorus and 31 pounds of potassium. The fertilizer value of these nutrients would total $12.80 per ton.

If the average allowable soil loss is 4 to 5 tons per acre, that value is $51 to $64 per acre just in lost nutrients — not including lost future productivity.