Agronomy Information and Tips

Winds carry soil in the Missouri river bottom where flood left the soil surface bare!

Wind erosion is moving soil in the Missouri river bottom. Several dust storms have occurred with strong winds. Low areas are being filled with soil along with drainage ditches, brushy areas and anything that traps soil.

Wind erosion is influenced by the direction and speed of the wind, residues left on the soil surface, size of clods or smooth soil surface, field length and soil surface moisture. The best method of controlling wind erosion is to leave residues in place. Weeds, crop stalks, anything should be left in place. Use chemical control for controlling weeds before planting. Use no-till planting and keep the remaining crop residues on the soil surface.

Research indicates a 30% vegetative cover will reduce wind erosion by 70%. Standing residues slow wind speed compared to those laying flat on the soil surface.

Establishing cover crops or cover strips would be ideal. Small grains can be seeded even winter wheat. Any cover crop that can be planted early to hold soil and be planted into should be considered. Keep in mind planting depth and relationship with soil moisture.

Crop residues can be spread but would require 3 to 4 tons of corn residue per acre to hold soil. Crop residues should be anchored at right angles to prevailing wind with a disk blades set straight.

Emergency tillage should be used as a last option. Till at right angles to prevailing wind to increase surface roughness. Chisels are commonly used in Kansas and Nebraska to roughen the soil surface. Research has shown 2-inch chisel operated at 3 to 6-inches deep will make sufficient clods to the soil surface but this depends on the soil texture. Low speeds produce the most resistant clods but higher speeds like 5 to 7 mph produce the greatest surface roughness.

Tilling strips across fields can reduce wind erosion. Strips should be narrow as possible and 50% of the field should be emergency tilled. If erosion continues, till the areas left.
Also, wider chisel spacing can be used when you are tilling the complete field. Space between the wide chisel spikes can be tilled later if the soil continues to erode. Also, if you are using tillage, start on the upwind location where soil is blowing.

Loose sandy soils do not have the ability to make clods. A lister made be needed to create surface roughness. Start at 4 to 5 inches deep and if you have to repeat, set the implement deeper.

References:
“Emergency Wind Erosion Control” KSU MF-2206
“Emergency Wind Erosion Control on Flood Affected Land” KSU MF-1151
“Prevention and Control of Damage from Wind Erosion in Cotton” MU G4271

Cover Crop Trials at Graves Chapple
Over-seeded winter grains of wheat and rye are growing despite the dry fall weather. The stands are limited but cover crops are providing valuable cover to reduce wind erosion. Growers should examine cover crop stands carefully and maintain stands until time to plant. Tillage radish success was limited because of dry conditions when overseeded.

If you would like to be added to our electronic mailing list, please contact Charmaine Flint, Holt County Secretary at 660-446-3724.