

The Effect of Potash Mine Dust on the Yield of Wheat
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It is necessary to know how much dust can fall on the soil before the yield of wheat is reduced.

Two growth chamber experiments have been carried out using non-saline A horizons. Dust was applied at rates equivalent to 0, 1/4, 1/2, 1, 5 and 10 ton per acre. The second test had the 1/4 and 10 ton rates eliminated, and 2 and 3 ton rates added. The tests were at two moisture levels. The results of both years were similar. At high moisture level there was no reduction in yield until more than 2 ton per acre was applied. The reduction came between 1 and 2 ton per acre at low moisture content. The salt reduced water use and crop height.

Two field trials have also been established, one on a Yorkton loam with a slightly saline sub-soil, the other on a relatively salt-free Elstow loam. The salt dust was applied at rates equivalent to 0, 1/2, 1, 2, 3 and 5 ton per acre in strips 20 feet by 300 feet. There was no reduction in yield with any of the rates. Snow melt and 1 inch of rainfall moved some of the salts into the soil, but maximum effects of the applied salt were not received as the plant roots would be below much of the salt. With leaching, rates higher than 2 ton per acre, may do some permanent damage to soil such as the Yorkton loam.