Web Based Phosphine Gas Monitoring with Active Sensor Validation Minimizes Phosphine Resistance in Stored Grains

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The recent emergence of high level resistance to phosphine fumigations in stored grain pests is a serious concern among major grain growing countries. Phosphine gas is widely used to protect stored commodity from insect damage. After decades of use and misuse, evidence of insect resistance to phosphine is showing up in many parts of the world. It is believed that ineffective fumigations from low gas concentrations are the driving force that contributes to phosphine resistance. Recent studies have shown that phosphine resistance has increased in both frequency and strength of resistance. Continued use of phosphine as an effective fumigant requires accurate phosphine concentration levels be recorded for a correct CxT value.

Spectros Instruments' Phosphine Monitors are integrated infrared gas sensor platforms for the collection of phosphine fumigation data and remote display. Single zone and multi sample position monitors provide unmatched stability to changes in temperature; barometric pressure, relative humidity, interference gases and other challenges. Options include Wi-Fi,3G cellular, satellite, ethernet,4-20 communications. Phosphine fumigation data is presented locally and available for display on the internet via any secure web browser. Real-time monitor diagnosis of onboard sensors and data display affords fumigation validation with the Report Monitor Control and Reporting System.

Phosphine Fumigation Data will be presented and benefits discussed.