

PHYTO EXPLO<sup>®</sup> FUMIGATION. THE RESULTS OF IN TRANSIT  
GRAIN FUMIGATION EXPERIMENT IN THE HOLDS OF A  
TANKER/BUNKER

B. VACQUER, G. ZAKLADNOY, E. BELOBROV, Y. MORDKOVITCH,  
J. ROGERSON and B. KUGLER  
*Desinsectisation Moderne, 34 RUE DU CONTRAT SOCIAL, 76000 ROUEN,  
France*

An experiment on corn (maize) grain fumigation with phosphine (dosage 0.6 and 0.8 ppm), including degassing was conducted on board the tanker vessel "Marshal Grechko" during a voyage from New Orleans (U.S.A.) to Novorossiisk (Russia) using the PHYTO EXPLO<sup>®</sup> fumigation equipment.

Prior to the introduction of phosphine into the grain, the "prefumigation" stage was carried out which consisted of the detection of existing spots of gas leakage from the holds and the sealing of these spots.

When the C x T value had reached 25 g PH<sub>3</sub>/m<sup>3</sup> (16 days after the beginning of the voyage), the degassing stage was started by opening ventilation shafts and lids of man way holes. After 4-5 days (lids open for 24-26 hrs) over 99% of the phosphine had been evacuated from the intergrain space. During the voyage no phosphine was ever recorded in the living and working premises of the vessel during the fumigation exposure and degassing process.