

# LP BULLETIN

Friday 09 November 2007

## Bulletin 552 - 11/07 - Ineffective fumigation of wheat - USA

**A Club correspondent in Durban, South Africa, warns that shipments of wheat arriving from the USA are infested with rust red grain beetles.**

All the ships concerned were checked and passed fit for loading by the National Cargo Bureau (NCB) and the United States Department of Agriculture (USDA). These authorities have issued certificates stating that the holds were found to be clean, dry, free of insect infestation and suitable to store or carry the grain cargo. On completion of loading, the cargoes are being fumigated with Aluminium Phosphide tablets. Whilst Aluminium Phosphide is an effective fumigant, it is only effective provided the application method being utilised is suitable.

Fumigation certificates issued at the load ports state that 33 grams of fumigant per 1000 cubic feet of hold space is being applied using the 'trench' method. Whilst the correct amount of fumigant is being applied, on these occasions the fumigant tablets appear to have simply been scattered across the top of the stow in each hold.

Although the sprinkling of tablets over the surface of cargo whilst in stow is the usual method of fumigation, this method appears to be ineffective with shipments of wheat. In stow, wheat has a high density and it is believed that this is preventing fumigant gas from penetrating through the cargo down to the tank top.

On arrival at South Africa, infested shipments are being rejected until the cargo has been re-fumigated. Re-fumigation takes place on board the ship and is costly because the crew have to be placed ashore in hotels; emergency services put on standby; and extra security provided to the ship.

The vessels are being re-fumigated at Durban with Methyl Bromide Gas for a period of 36 - 48 hours using what is referred to as the 'J' system of fumigation. This method uses pipes, which are inserted into the cargo, right down to the tank top. This method allows the gas to be circulated throughout the cargo and eliminate the infestation.

Another method often used to fumigate cargoes is known as the 'probing' method. This involves pushing metal probes deep into the stow to a depth of two to three metres. Phostoxin pellets are dropped to the bottom of the probe and into the cargo before the probe is removed. Whilst this is certainly a cheaper method of carrying out the fumigation, it does not have the same effectiveness as the 'J' system because the fumigant is only able to penetrate to the depth that the probe is inserted.

A further method involves putting the tablets into the cargo at various stages of loading in order to disperse the tablets evenly throughout the hold, thereby fumigating the entire cargo. This in theory is a good and inexpensive method but can create a dangerous working atmosphere if loading is stopped for a period of time.

Visit the Carefully to Carry section of the Loss Prevention area of the Club website for a detailed article on fumigation. [http://www.ukpandi.com/ukpandi/infopool.nsf/HTML/LP\\_Init\\_Care2Carry](http://www.ukpandi.com/ukpandi/infopool.nsf/HTML/LP_Init_Care2Carry)

Source of information: Michael Heads of P&I Associates (Pty) Ltd  
Durban, South Africa  
Tel: +27 31 368 5050  
Email: [reida@pandi.co.za](mailto:reida@pandi.co.za)