

K-Obiol® – Leading the Way in Scientifically Proven Grain Protection

Across the world, post-harvest insect infestations continue to threaten food security, reduce farmer incomes, and disrupt vital supply chains. With global markets often requiring longer periods of grain storage, and the warming climate accelerating pest activity, the need for proven, long-term grain protection solutions has never been more urgent, or more complex.

That's why the science behind grain protection products matters: It's the key to reliable post-harvest pest control.

K-Obiol®, backed by Envu's commitment to rigorous testing and consistently verified results, has earned a global reputation that's endured for years. Trusted by customers for its efficacy and reliability, it's the first-choice solution for all-round, long-term, stored grain pest control.

The legacy of K-Obiol®— Why history matters

K-Obiol® has been at the forefront of the evolving grain protection market for decades; with an established and trusted reputation for quality that other products just can't match. Dr Stefan Endepols, Envu's Biologist, who's worked in stored grain protection for over 40 years, explains why K-Obiol® has consistently demonstrated such long-lasting success.

"K-Obiol® is one of the most popular and most successful options for protecting grain from infestations of stored grain insects," he says. It's actually a well-established product, developed in the 1990s, based on the highly effective active ingredient deltamethrin, in combination with the Piperonyl Butoxide (PBO) synergist, which plays a crucial role in increasing the potency of pyrethroids and allows low doses of deltamethrin to be well below the Codex MRLs (maximum limits for pesticide residues) established by the WHO and FAO.

"Deltamethrin is a very stable compound, which makes K-Obiol® long lasting to protect grains up to 12 months. It can protect grain for more than half a year, or even up to 12 months; against most, or even all insect pests that infest grain when stored in silos, or at the farm."

A formulation for every need

Every grain protection challenge is unique, which is why Envu offers two K-Obiol® formulations - K-Obiol® EC25 and K-Obiol® ULV6, both are effective against grain-infesting insects, and provide protection against stored product insects for up to 12 months protection.

K-Obiol® EC25 is an emulsifiable concentrate for dilution in water that can be applied to the fabric of the building prior to the introduction of grain; or used as an admixture for application directly to grain as it's taken into storage.

K-Obiol® ULV6 is a ready to use formulation applied directly to the grain by means of automatic or semi-automatic pumps. This convenient option reduces the risk of application errors, has no concentrate to expose to operators, and allows consistent load rates to be maintained.

Best practice and smart protection

K-Obiol® delivers the best results when combined with thorough grain store preparation to ensure optimal storage conditions and the greatest efficiency from any treatments that need to be applied.

Stefan says, “It’s recommended to store grain under optimum conditions — that’s low temperature, low humidity, and starting with a clean store and clean grain. It’s important that these conditions are created before any grain treatment is done, in particular any acute treatment because an infestation has developed.”

Here’s our top tips for grain store preparation:

Start Early: Begin preparation well ahead of harvest to allow sufficient time for thorough cleaning and pest monitoring. To minimise the risk of infestations, grain stores should be cleaned and prepared at least 6-8 weeks before harvest.

Thorough Cleaning: Clean all parts of the store, especially ledges and corners. Remove old dust, debris, and any residual grain that can provide food and shelter for pests. Remember to dispose of all sweepings and debris far away from the grain store to prevent re-infestation.

Don’t Store Equipment Inside: Ensure all grain handling equipment is also cleaned and pest-free before use. Remove cleaning tools from the store as these can provide harbourage for pests that can crawl out and return to new grain.

Inspect and Repair Buildings: Check for and fix any cracks, holes, or damaged parts of the building to make them weather and vermin-proof.

Monitor Regularly: Place insect monitoring traps every few metres to detect any early signs of pest activity, and inspect the grain carefully at frequent intervals.

Respond Promptly: If pests are detected, act quickly with appropriate control measures like K-Obiol® which can be applied up to two months before harvest for extended protection.

Stefan explains, “K-Obiol® will protect the grain for a long period, while also treating any very low infestations in the grain. It will prevent small insect problems developing further and protect the whole grain batch from a more serious infestation.”