



K-Obiol[®] EC



Benefits of K-Obiol[®] EC

- ☑ Can be used in any type of storage sealed or unsealed
- ☑ Suitable for all cereal grains, including malting barley, rice, sorghum and maize
- ☑ A different mode of action
- ☑ No withholding period
- ☑ Can be used on all farm and grain storage sites
- ☑ Should be used when silos are not gas tight/sealed

**For more information on K-Obiol contact
Bayer on 1800 804 479 or visit
www.environmentalscience.bayer.com.au**



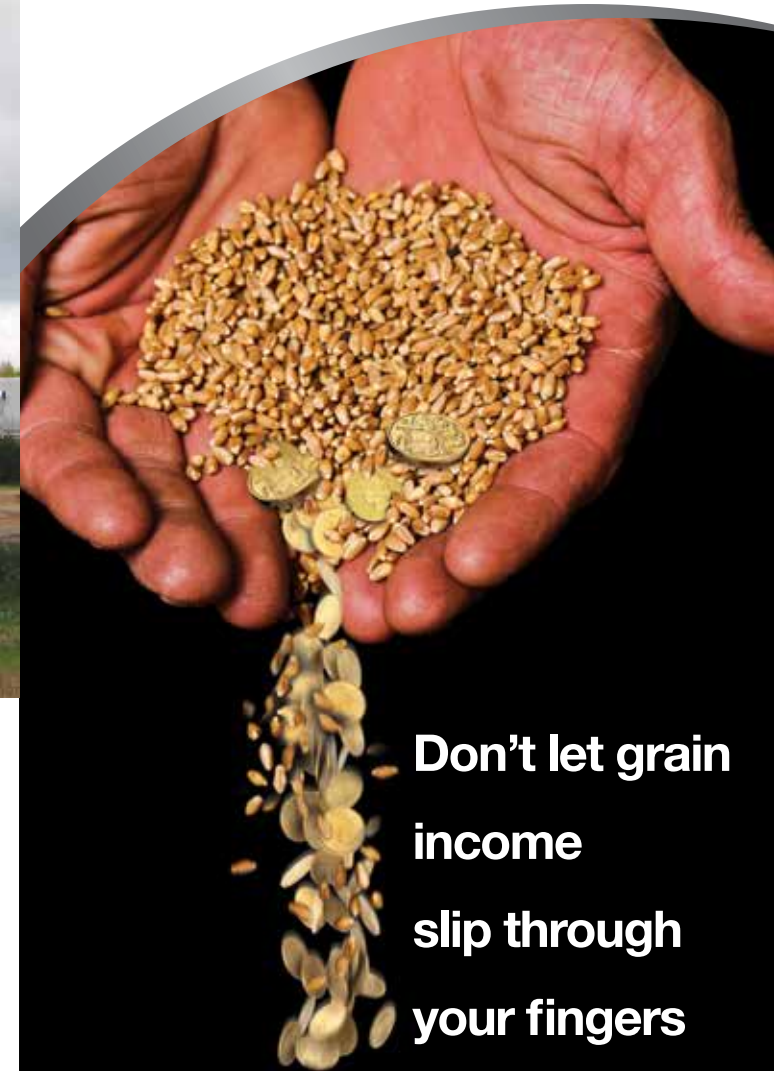
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K-Obiol[®] EC



**Don't let grain
income
slip through
your fingers**

**K-Obiol[®] EC grain protectant
for use on-farm**



K-Obiol® EC: Change your chemistry and protect your grain income

K-Obiol EC Combi (“K-Obiol”) is a synergised grain protectant for use on uninfested grain including cereal grains, malting barley, sorghum, rice and maize.

It can be used on any type of storage, sealed or unsealed. It is suitable for use by grain growers and grain accumulators. K-Obiol is a liquid and must be evenly applied as a dilution to the grain as it is fed into the storage. It is not suitable for oil seeds or pulses and not recommended for eradicating pests when they have infested grain.

The active constituent is deltamethrin. Piperonyl butoxide is added as a synergist; meaning it increases the effectiveness of the deltamethrin.

Deltamethrin has a different mode of action to the common grain protectants which have been in use until now. This means there is less risk of insect resistance and so a greater chance your grain will not become infested during storage. This is explained in the chart opposite.

Protectants, such as K-Obiol, are most commonly used when a fumigant cannot be used. Fumigants require a sealed storage to retain the fumigant in contact with the grain over a minimum period of time for effectiveness. When the storage is not sealed a protectant is the only option.



> Good Practices

To ensure your grain can be sold in the best possible condition there are several steps you should take.

Grain silos, headers, augers and all grain handling equipment should be cleaned out so there are no pockets of grain where insects can be harboured.



There may be some insect species that can develop resistance to K-Obiol and so we recommend for best results it is used with an organophosphate mixing partner. The chart below has more information.

Finally it is a good idea to rotate grain protectants so products with different modes of action are used in successive years.

> K-Obiol Training

K-Obiol is a single use product, it cannot be applied more than once to a parcel of grain. If this were done the level of deltamethrin may exceed acceptable levels. For this reason Bayer has introduced a Product Stewardship Program. A major part of this program is that only farmers who have completed training are able to buy K-Obiol. The training includes information on safety, correct application of K-Obiol and the responsibility for farmers to advise the buyer of their grain that it has been treated with K-Obiol.

Training is free and done on a Bayer website. It will take 40-60 minutes. We will collect information* so our retail distributors can identify you. This will be by name, location and NGR number. Other personal information such as address or mobile will not be available to them or others who may access the website.

For access to the training go to www.environmentalscience.bayer.com.au/K-Obiol/Training

GRAIN PROTECTANTS USE AND EFFECTIVENESS 2017														
Insecticide Group	Brand Name	Full Rate Litres / 100 Litres	Full Rate PPM	WHP	End Use Market (Domestic)				Target Pest					
					Malt Barley	Milling Wheat	Feed	Wheat - Starch / Gluten	Lesser Grain Borer	Rice / Granary Weevil	Flour Beetle	Saw-toothed Grain Beetle	Flat Grain Beetle	Moths
Organophosphate Group 1B	Fenitrothion 1000	1.2 L	12 ppm	90 days	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓
	Reldan®	2 L	10 ppm	1 day	✗	✓	✓	✓	✗	✓	✓	✓	✓	✓
	Actellic®	0.45 L	4 ppm	1 day	✗	✓	✓	✗	✗	✓	✓	✓	✓	✓
Insect Growth Regulator Group 7A	Rizacon®	0.2 L	0.6 ppm	1 day	✓	✓	✓	✓	Resistance in most areas	✗	✓	✓	✓	✓
Synthetic Pyrethroid Group 3A	K-Obiol®	2.0 L	1 ppm	Nil	✓	✓	✓	✓	✓	Some resistance	Potential for resistance	✓	✓	✓
IGR Group 7A & Spinosad Group 5	Conserve Plus®	1.0 L	Spinosad 1 ppm Methoprene 1 ppm	Nil	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓
Fumigants#	Phosphine		1.5 g/m ³	3 days	✓	✓	✓	✓	Increasing resistance	✓	✓	✓	Strong resistance NSW/QLD	✓
	Profume®			1 day	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

* For best results K-Obiol and Conserve Plus must be used with an Organophosphate
Fumigants are strictly not grain protectants and must be used in gas tight silos. Included here for comparison.
Before applying any treatment, ensure you check the treatment is suitable for the intended market for the grain.