



Grain hygiene

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Hygiene is an essential step in controlling pest and disease problems, including stored grain insects.

Storage problems are greatly reduced by thoroughly cleaning all equipment and storages where insects can breed.

► Why Clean?

A bag of infested grain may produce over a million insects during a year. These insects walk and fly to other stored grain where they start new infestations.

Successful insect control
in stored grain
depends on clean storages
and equipment

► Where?

Equipment and storages used to handle grain must be clean. This includes headers, augers, field bins, truck bins, silos and sheds. Grain residues containing insects are a common source of insects in newly harvested grain. cont'd

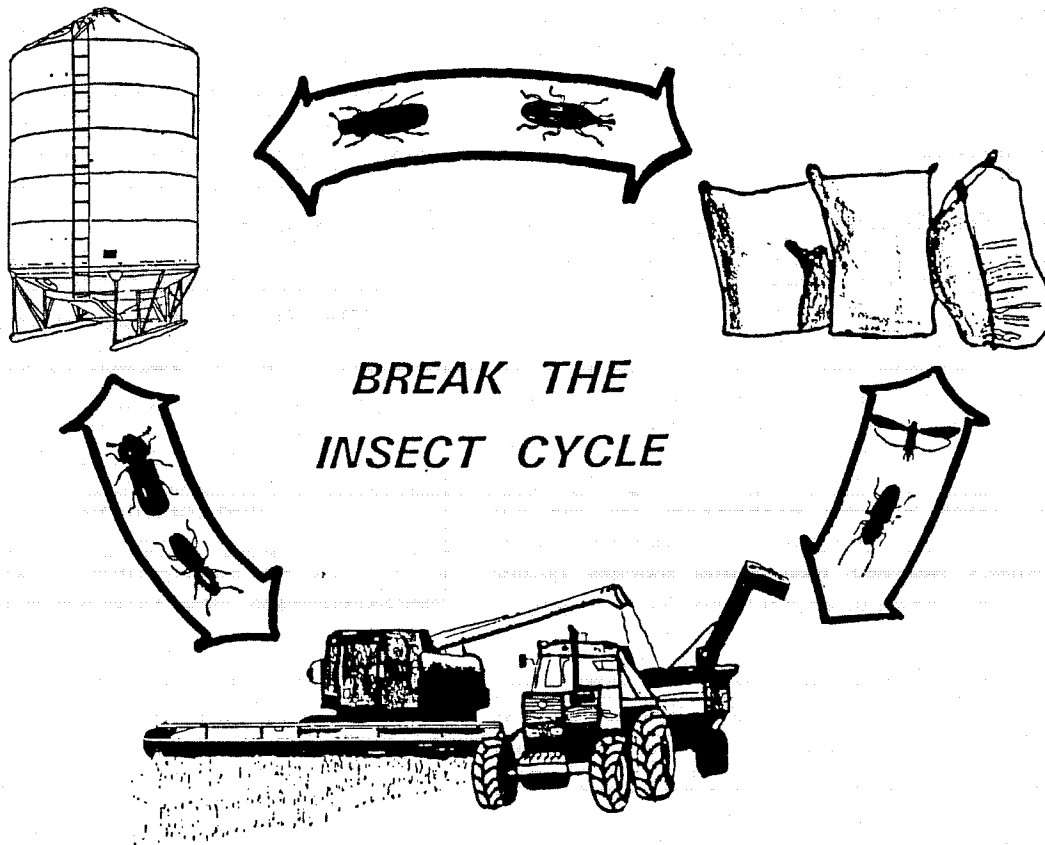


Figure 1 Sound grain hygiene prevents cross-infestation by insects

Other areas where grain or grain products are present must also be clean to prevent insects breeding then moving to grain storages. These include seed grain (especially old socks), feed mills, feed troughs, shed floors and used sacks.

► When?

All grain handling equipment must be cleaned before and after each harvest and whenever any major grain handling operation is completed.

► How?

The most important part of sound hygiene is making time to do the job - after that the rest is fairly easy. Most tasks only need common sense and simple equipment such as a broom, vacuum cleaner, air compressor, and shovel.

Harvester cleaning is challenging, particularly the first time. Fortunately the job becomes easier with each cleaning. Special equipment such as exhaust-powered air guns or compressed air lances and nozzles are useful. *GRAINSAFE* bulletin GS012 'Clean your harvester for quality grain' has more details on cleaning harvesters.

Grain and residues from cleaning should be buried, burned, or spread thinly on the ground away from buildings and storages.

► Inspection

Good hygiene includes regular inspection of seed and grain stocks. Early detection and control of insects prevents them building up in numbers and invading other storages.

Spend five minutes on each storage - fortnightly in summer and monthly in winter. Take samples of a few litres from all access points, using a grain probe/spear for the top surface, and sieve the grain. Infestations in silos are usually heaviest near outlet hatches (auger hoppers, bagging out chutes) and the top surface.

If you find more than five live insects per litre in grain for use on-farm then control is needed to prevent excessive damage and cross infestation. Grain for sale must be treated before delivery if any insects are found.

► Cost

The major cost of good hygiene is time. Most equipment needed for cleaning is already available on most farms. Special equipment for cleaning headers will cost a few hundred dollars.

► How good is hygiene?

Good hygiene reduces the number of insects that enter new grain stocks, but does not kill them or slow their rate of development.

Some farmers use sound hygiene as their only method of pest control in grain to be stored for one season. This often works well for seed or feed grain. But the standard of hygiene needed is very high, and users must be willing to accept some insects in the grain.

► Hygiene avoids chemical residues

Hygiene is an essential part of any program to store grain effectively.

Give particular attention to cleaning all grains, debris and dust from empty storages and machinery. This removes the source of many later infestations.

Treat clean silos with Dryacide® for extra protection against insects which may enter after filling. Registered chemical protectants can also be used, but Dryacide avoids the risk of chemical residues on grain.

The benefits of regular attention to grain hygiene include:

- fewer insects in stored grain
 - less dependence on chemicals
- and therefore . . .
- reliable markets for grain

Grain growers, and handlers must include sound hygiene practices in their pest control programs to safeguard their markets.