

Lesser grain weevil on maize

Sitophilus oryzae Rice weevil



S. oryzae (lesser grain weevil or rice weevil); adults in rice grains (James Litsinger)



Adult weevil (NBAIR)

Prevention	Monitoring	Direct Control	Direct Control	Restrictions
<ul style="list-style-type: none"> Use of modern structures such as improved granaries and mini silos building them well isolated, ventilated and with the least possible windows and cracks Early harvesting reduces the attack in the field Good store hygiene plays an important role in limiting infestation: <ul style="list-style-type: none"> Before storing new grains, remove infested residues from the previous harvest, sweep floors and inspect walls for holes and cracks to amend Use of new or clean and dry empty bags/sacks before filling with maize kernels and seal carefully No planting of maize or other cereals near storage area, keep store surroundings clean Make sure that the bags are stored on pallets at a sufficient distance from the ground, away from the walls and avoid touching the roof. Maintain the store at a temperature below 10 °C by ventilating and cooling Dry maize grains in the sun to achieve 13% of moisture content Apply a thin layer of ash to cover the grain in store to protect them against weevil attacks 	<ul style="list-style-type: none"> Inspect once a week the stored grains in bags and sacks for weevils or damaged grains Regularly inspect the floors and walls of the store for signs of weevils <ul style="list-style-type: none"> The adults are small (2.5 to 4.0 mm long), brown weevils with a long, narrow snout Females lay eggs inside the grain and the larva feeds inside the grain causing irregular holes, weight loss, fungal growth and quality loss As soon as weevils are detected, take action to control them 	<ul style="list-style-type: none"> Frequent inspection of maize while in storage and re-drying and retreating if infested Apply neem seed powder into grain storage at 20g/kg or maize. Alternatively, finely spray the maize grains with neem oil or neem leaf extract. Spray the grain in shade and wait for the grains to dry well and put them back into storage. Mix 1 kg of diatomite powder (diatomaceous earths) per bag of grain Coating of wood ash, edible oils (e.g. groundnut oil) or inert clay to prevent further development of the weevils Sun dry bags of infected maize grains for 48 hours using either tarpaulin sheets or drying floors Sieve infested grains and dry again in the sun to kill the remaining eggs and adults 	<ul style="list-style-type: none"> Treat the grain soon after harvesting. Make sure it is dry before storing. Use personal protective equipment when handling and applying pesticides, follow the label recommendations. Apply pirimiphos-Methyl 1.6% + Permethrin (40/60 cis/trans) 0.3% (e.g. ACTELLIC SUPER Dusting powder) 	<ul style="list-style-type: none"> Both WHO class II. Moderately hazardous. Apply directly to grains or bags. Mix thoroughly 50g for every 90kg bag using a shovel. Sprinkle some powder on the outside of the bag to reduce infestation. Allow 45 days from treatment to consumption.

Kenya

CREATED/UPDATED: July 2017

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