

LESSER GRAIN BORER

BUG FREE

GRAINS

Stored Product Solutions

SCIENTIFIC NAME:

Rhyzopertha dominica

DESCRIPTION:

Voracious feeders, 1/8" long, brown/black cylindrical bodies; head not visible from above; strong flier capable of rapidly spreading infestations; c-shaped white larva has small dark head, three pairs of small legs.

LIFE CYCLE:

Variable based on temperature, minimum 25 days.

FEEDING HABITS:

Adults and larvae bore into grain kernels, feed on whole grain or dust.

Look out for fragmented kernels, powdery residue, or a sweet musty odor, as well as damaged grain with "shot hole" appearance.



GRANARY WEEVIL



SCIENTIFIC NAME:

Sitophilus granarius

DESCRIPTION:

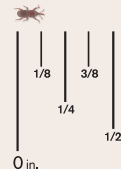
Cylindrical, shiny red-brown to black body, about 1/13" - 1/8" long; long head with distinct snout; ridged wing-covers, thorax marked with oval pits; flightless; cold tolerant.

LIFE CYCLE:

Minimum 28 days.

FEEDING HABITS:

Adults feed on whole and broken kernels; larvae grow from eggs deposited inside kernels.



Look out for damaged grain with "shot hole" appearance.

RICE WEEVIL



SCIENTIFIC NAME:

Sitophilus oryzae

DESCRIPTION:

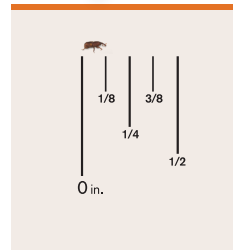
Small snout beetle about 3/32" - 1/8" long; dull red-brown to black; 4 light red to yellow markings; functional wings; densely-pitted thorax; not cold tolerant.

LIFE CYCLE:

Minimum 28 days.

FEEDING HABITS:

Adults feed on whole and broken kernels, can also infest grain in field; larvae grow from eggs deposited inside kernels.



Look out for damaged grain with "shot hole" appearance.

SAWTOOTHED GRAIN BEETLE



SCIENTIFIC NAME:

Oryzaephilus surinamensis

DESCRIPTION:

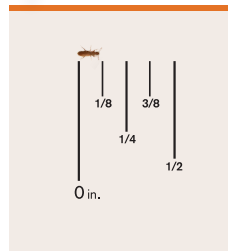
Brown flattened body 1/10" - 1/8" long; distinctive saw-tooth projections on sides of thorax; flightless; running legs much like cockroaches.

LIFE CYCLE:

Minimum 28 days.

FEEDING HABITS:

Secondary pests of oats, wheat, barley, animal feed; adults and larvae feed on grain dust, larvae prefer germ.



Look out for overheating of grain;
visible population build-up.

CONFUSED FLOUR BEETLE

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SCIENTIFIC NAME:

Tribolium confusum

DESCRIPTION:

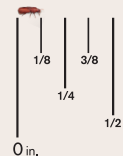
Reddish-brown body 1/8" long; antennae gradually expand toward end; flightless.

LIFE CYCLE:

Minimum 42 days; can live 18 months.

FEEDING HABITS:

Primarily feed on grain dust, broken kernels and the milled grains in flour and cereal.



Look out for foul odor and taste, shed skins and fecal matter.

RED FLOUR BEETLE



SCIENTIFIC NAME:

Tribolium castaneum

DESCRIPTION:

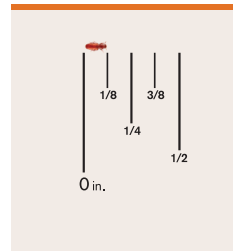
Reddish-brown body 1/8" long; last three segments of antennae as distinct club.

LIFE CYCLE:

Egg to adult within 30 days; adults can live up to 18 months.

FEEDING HABITS:

Generally classified as a scavenger, immature stages feed on broken or damaged grains. A common pest in mills and warehouses that store milled/bagged grain products.



Look out for food with pungent odor, foul taste and potentially a pink coloration.

INDIAN MEAL MOTH



SCIENTIFIC NAME:

Plodia interpunctella

DESCRIPTION:

Small brownish moth, about 3/8" long, 1/2" - 3/4" wing span; distinctive rusty brown or bronze wing tips; larvae are off-white with brown heads, about 2/3" long.

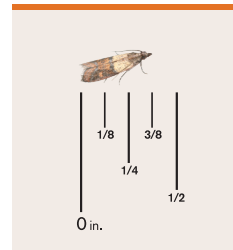
LIFE CYCLE:

Minimum 42 days; adult moths do not feed, typically die within a week after laying eggs.

FEEDING HABITS:

Larvae are generally top feeders, 4 to 6 inches from some type of surface; found in many types of pantry foods as well as processing and storage facilities.

Look out for dense webbing that binds to food fragments; adults present flying in vicinity of grain bin, larvae climbing up walls inside bins.



WHAT YOU NEED TO KNOW TO CONTROL STORED GRAIN INSECTS



CONTROL TIPS:

- Clean empty bins and treat with Diacon® IGR *PLUS**
- Treat received grain with Diacon® IGR, Diacon® IGR *PLUS* or Gravista™ Insecticide
- Aerate grain to help control moisture and temperature
- Monitor grain during entire storage period

***FOR WEEVILS:** Clean and treat empty bins with a tank mix of Diacon® IGR *PLUS* and PBO-8* Synergist or with Gravista™ Insecticide.
(Fumigate received grain likely to be infested with weevils during the growing period, particularly corn.)

APPLICATION TIPS WHEN TREATING GRAIN IN STREAM:

- On belts or at transitions – 2 or more nozzles are recommended
- During auger or conveyor cup application – fewer nozzles may be used
- Position nozzles for full coverage of grain stream
- Calibrate protectant flow rate and check often to help ensure proper application
- Use automated switches to turn chemical pumps on and off



PRODUCT SUMMARY



A dry insect growth regulator that's easy to apply and is ideal for on-farm applications where water is scarce.

Available in 40 lb. box



A liquid insecticide for the control of adult insects.

Available in 1 gallon



A versatile liquid insect growth regulator that stops the insect life cycle in the larval stage.

Available in 1 liter, 1 gallon and 2.5 gallons



A liquid insecticide synergized with Piperonyl Butoxide for infestations and rescue treatments.

Available in 1 gallon



A liquid combination of an insecticide and insect growth regulator for control from larva to adult.

Available in 1 quart and 2.5 gallons

PRODUCT SUMMARY



A combination of insect growth regulator, insecticide and synergist ideal for the control of weevils.

Available in 1 gallon



A synergist that is a perfect tank-mix partner to improve insecticide performance.

Available in 1 gallon and 1 quart



A concentrated pyrethrum insecticide with a high ratio of active ingredients to synergist for the flushing and rapid knockdown of adult insects.

Available in 1 gallon and 1 quart



A fogging and space spray, containing a long-lasting IGR and a broad-spectrum insecticide with synergist, that is ideal for mills, food handling establishments, and warehouses.

Available in 1 gallon



Always read and follow label directions. Centynal, Diacon, Pyronyl, InseLux, Gravista and PBO-8 are trademarks of Wellmark International. ©2021 Wellmark International. AG 21-011

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