# Lawn Grub Information Sheet

## Army Worm

Lawn Armyworm (Spodoptera maurita) are a major pest during summer and autumn, causing severe damage to turf grass surfaces where they attack leaves, stems and seed heads. Infestations in turf gradually extend outwards from gardens or higher cut turf areas as these plants are used as egg laying sites. Severe damage is predominantly caused by the later instar stages and as populations increase, the larger armyworms tend to move in groups into unaffected turf grass areas, hence the name 'Armyworm'. Armyworms characteristically have stripes or triangular patterns along their smooth body, differing from that of the sod webworms, which can also cause damage, but usually less than Army Worms.

Armyworms are the larvae of moths of the family Noctuidae. The female moth may lay more than 1000 eggs, sporadically in clusters within 4 to 10 days, pending on temperature. The newly hatched armyworms stay together feeding on the same plant until it is devoured. The larvae are usually most active in the evening or at night, except in overcast weather conditions. During the day they hide under the safety of the lower grass leaves. By flooding the area with water it will force them to the surface.

An Armyworm will undergo 6 to 9 instar stages before it is fully developed. This will take 21- 35 days and at a mature instar stage the insect will reach 3-4 cm in length. When fully fed, the Armyworm will work its way into the soil profile where it pupates. 10-14 days later the moths emerge. There may be 2 or 3 generations of Armyworm during the summer and autumn period.

There are several options for lawn Armyworm control. For commercial operators Chlorpyrifos 500, Bistar, and Lepidex are useful options in controlling these pests. For a less toxic method, Yates Nature's Way Caterpillar Killer contains Dipel (Bacillus thuringiensis), a naturally occurring bacteria. Other products include Yates Baythroid, and the hose clip on Brunnings Lawn Grub Destroyer. Searles Lawn Grub Killer is a granular product that is easy to apply.  For most effective control, application should be made late in the afternoon.  As a preventative you can fertilise your lawn with 'Scotts Lawn Builder + Grub and Insect Control' in early to late summer.

## African Black Beetle

African Black Beetle (Heteronychus arator) is a scarab species causing most damage to turf grass in September to February, although smaller to moderate populations rarely cause major damage to a lawn, and actually have minor aeration benefits for the lawn. In large populations however, they can cause damage. The adult female beetle can lay up to 80 eggs that hatch in 2-5 weeks, depending on temperature. The larvae develop through 3 stages, each stage deeper in the soil profile feeding on grass roots. The adult provides little damage to turf grass.

The first instar stage larvae feed on decaying matter near the soil surface. However as they go through they feed exclusively on grass roots. The fully grown larvae (3rd Instar) are about 25mm long, creamy white in colour, curled up with 3 pairs of legs. They cause extensive damage when present in high numbers.

When the larvae are fully grown they build an oval chamber, empty the hind gut and become a pre-pupae. After about a week the pre-pupae develop into pupae. The pupae develop into adult

beetles after 1-3 months and emerge after rain or irrigation.

Weather patterns affect the number of Black Beetle and can affect the potential for turf damage. After 2 successive dry spring and summer periods, the number of black beetles can reach plague proportions in the second year. During plague seasons on warm, humid nights in spring the beetles emerge and swarm to find new feeding and breeding sites. At these times green succulent intensively maintained turf is attractive to beetles as they search for lush food. The beetles are sometimes attracted to lights.

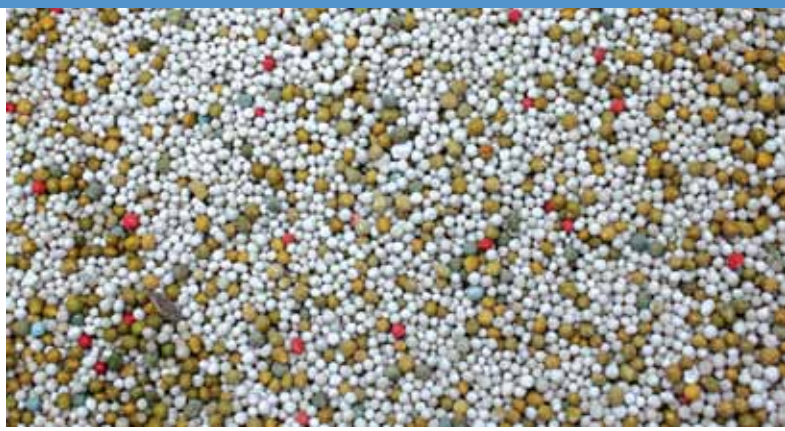
Application of pesticides is best carried out at the first sign of activity in September/October.

For the Commercial contractor. Meridian, Merit, Chlorpyrifos 500, Pennside will provide control of larvae. Baythroid and Chlorpyrifos will effectively control adults.

For the home owner, many of the chemicals that kill Army Worm will also control Black Beetle at various stages. Try Yates Baythroid for when you see the Beetles at the adult stage, and in Mid spring (October) to mid-summer use Searles Lawn Grub Killer which contains Chlorpyrifos for the larvae stage or Yates Confidor which contains Imidacloprid.

## After Lawn Grub Damage in General

Fertilise well with a good slow release type fertiliser. Use the higher rate recommended on the label. If the lawn is not fully recovered in 6 weeks, fertilise again.



## Fungus and Diseases

In summer it is common to get fungus and other turf diseases. Grey leaf spot is often bad on Buffalo turf, and on Kikuyu turf untreatable diseases like Kikuyu yellows disease can occur. A healthy lawn is less likely to be badly damaged by these types of problems, and will better recover. If damage does occur, water and fertilise well, preferably with a fertiliser not too high in nitrogen. For problems like Grey leaf spot, a fungicide can be applied to help the recovery process. Mowing a little longer in summer can also reduce disease pressure.

Dry spots in a lawn can look like disease patches, but it is often patches of soil that have become hydrophobic. Use a wetting agent on your lawn to eliminate this as a cause. If your lawn has problems that you are unable to solve, it is worth contacting a lawn consultant or lawn care professional for advice.