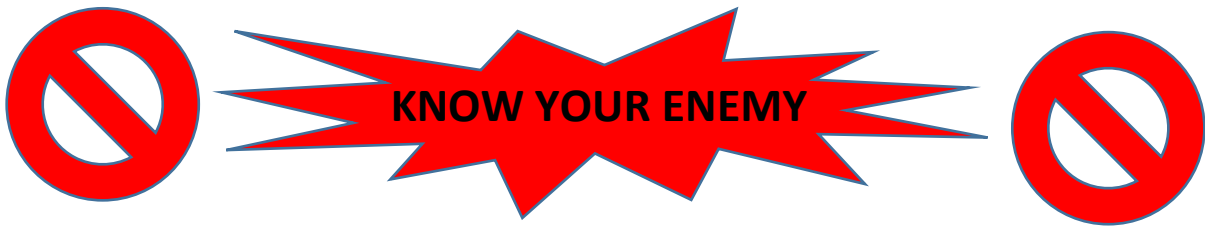


AFRICAN BLACK BEETLE AND THEIR CURL GRUBS

By Gary Wotton

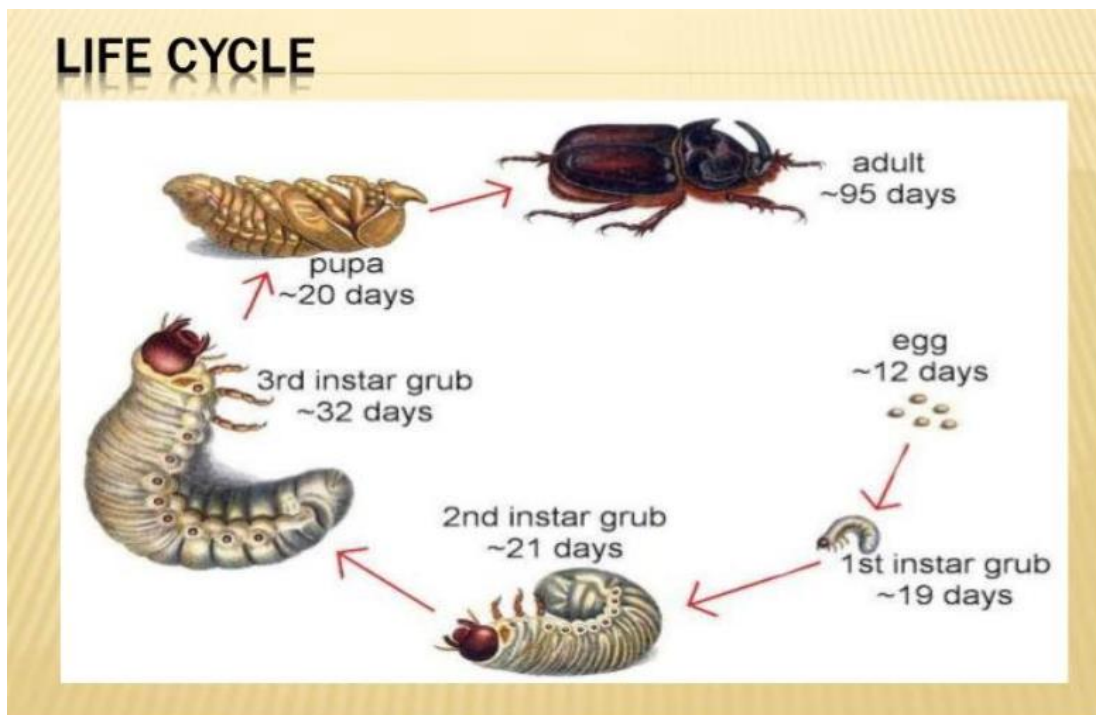


Introduction

If we are to identify, control, deter and terminate this horrendous rose pest, we must know its life cycle along with its physical appearance during each phase of that life cycle. Most importantly we must know how to manage this undesirable and destructive pest during each phase of its life cycle.

Symptoms of Attack and Infestations

The first symptoms of a Curl Grub attack and infestation is likely to commence through early spring. The effected rose will start to show signs of stress and mistreatment. Stressed roses are also more susceptible to Black Spot. The beetle likes to attack in the warmer climates and they are a warm and dry weather adversary.



Adult African Black Beetle:

The African black beetle, AKA the cockchafer beetle and is the adult of the Curl Grub and will atypically become active during Spring. The adult is a scarab type beetle and is less damaging to your roses. It is simply a delivery method for the eggs of the problematic Curl

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Grub. It feeds and burrows just under the surface of the soil to lay their eggs, often in the potted roses, as the soil mix in the pots is softer and easier for laying eggs.

Larvae of the White Curl Grub

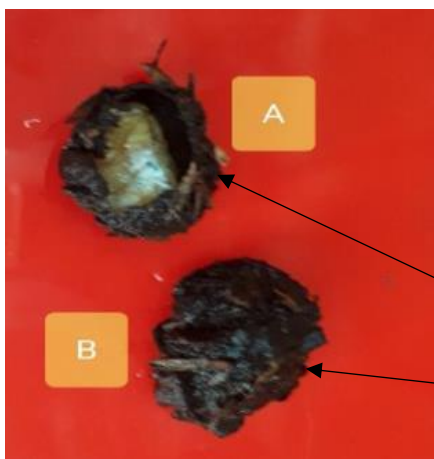
In the summer, the larvae of African Black Beetle, the white Curl Grub has three pairs of legs during the destructive juvenile stage and will grow to about 25 – 30mm in length. It is often confused with the Australian ‘witchetty grub’. The Curl Grubs hatch from their eggs within approximately 12 days and live under the soil. Curl Grubs change their diet during the varying stages of their growth. In their earliest phase, grubs feed on decaying organic matter.



Once they become a bit bigger, the grubs will feed on the roots of your prized roses. They tend to cause the most damage to the roses in their later stages of development as this is the time when they are feeding in readiness for hibernation.

Pupa

Over winter the larvae start to mature and pupate. They move up to about 20cm from the surface of the soil. After approximately 20 days the pupa emerges as the adult beetle. The life cycle is complete within a year.



Note: *During this phase the grubs can readily be seen in their cocoons, normally made from the surrounding mulch, although they attempt to camouflage themselves as best they can into the environment of the mulch you have used.*

A shows the pupating grub within the cocoon.

B shows the complete cocoon

Proven Control Measures

Monitoring for grubs and the adult beetles should start from early spring (if not earlier) and continue through to late summer. Even though the grubs are hard to detect visually at this stage, it is the period when the adult beetles are most active.

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Note: *Opinions are held that the beetles are attracted to light and dry soil, so avoid garden lighting and keep everything (pots and gardens) well-watered.*

Organic Control Measures

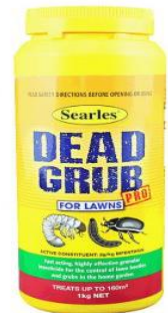
Apply eco-neem to potted plants as a soil drench using a watering can. Target application time is between early spring to end of summer when the eggs are hatching and the larvae are near the surface of the soil.

Ensure thorough coverage of treated areas. Pots can be immersed in water which should make grubs crawl to the surface as they prefer dry conditions. The duration of the soaking is important – pots should be soaked for a period of at least 15mins to ensure saturation and the water level when soaking should be above the top of the pot, to be most effective.

The following can also be added to the water to eradicate the dormant Pupa at the same time. Adding a few drops of tea tree oil, or a molasses mixture to the water can be effective in controlling the grubs. Small pots can be easily immersed in a container of the selected solution, whilst larger pots would require a soil drench using a watering can.

Chemical Control Measures

Sprinkle Searles Dead Grub Pro granules over the affected area. For best results, start applying in early spring before the beetle lays its eggs. This product is a broad-spectrum insecticide that can be used to control African black beetle and a variety of other grubs and beetles in garden situations.



Other products such as Yates Baythroid or Sharp Shooter Complete Lawn



Grub and Beetle Killer for control of scarab beetle, curl grubs, African Black Beetle larvae and cockchafer beetle. If treating potted roses, a mix of biodegradable detergent could also be used in the watering can or other dispenser.



Note: *The use of biodegradable detergent should only be used for the treatment of potted roses. Ensure*

that the Biodegradable detergent you select does not contain chemicals such as fragrances, bleaches, sodium or boron as these, if used repeatedly can harm soil microbiota and increase alkalinity. Don't be tempted to use this method on the garden beds.

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Frequency of Application

As the adult beetle continues to lay their eggs over the summer period and the grubs pupate as the weather warms up, the treatment should be conducted every three months. The application of fine mulch to the tops of your exposed pots should also be considered at this stage to reduce the chance of reinfestation. Prevention is the best form of attack.

Non-Invasive Preventative Measures

Applying a fine mulch to the tops of your exposed pots will deter the adult beetle from laying eggs throughout the Spring. Lucerne chaff applied to the top of the potted roses will have the added advantage of breaking down to impart useful nutrients into the potting medium. Some other advantages of the use of Lucerne chaff are:

- Lucerne chaff contains high levels of protein
- It provides many important minerals, including potassium, calcium, iron and folic acid
- suppresses weeds
- conserves moisture
- keeps the soil cool in summer and warm in winter
- stimulates healthy root growth.

Other mulches can also be useful in preventing the African black beetle from laying their eggs, but do not provide all of the advantages of the Lucerne Chaff, mentioned above.

Happy Hunting