

# Fact Sheet

## EGC Liquid and Granules

### Use of EGC for the suppression of Leatherjackets in managed amenity turf

#### The Pest

Craneflies are an abundant species on grassland throughout the UK. **Leatherjackets** are the larvae of the crane fly (common European crane fly (*Tipula paludosa*), Marsh crane fly (*Tipula oleracea*) and are a common pest of agricultural crops and grassland including managed amenity turf. There are over 300 species of crane fly in the UK alone.

Leatherjackets are the second most widespread pest problem in golf courses throughout Europe (Mann,R. STRI Bingley Report 2112/1 February 2004)

#### Lifecycle – Craneflies

- Adults emerge in July-October with eggs laid in the soil in August and September having mated soon after emergence
- Female craneflies lay up to 300 eggs usually in small groups or singly. The Leatherjacket larvae emerge after 2 weeks and feed on the roots burrowing more deeply as temperatures fall
- The larva pass through 3 instar stages feeding heavily on roots in the spring before pupating in May-June
- The marsh crane fly (*Tipula oleracea*) can produce a second generation emerging in April to June with eggs laid in May-June.
- Damage to amenity turf is caused by grubs feeding heavily on the roots and to birds and mammals ripping up the turf to feed on the grubs. Typically, this results in large areas of dead turf and bare ground

#### The Problem

Amenity grass and particularly golf courses and sports grounds are permanent grass and are particularly vulnerable to attacks from leatherjackets.

Leatherjackets weaken the plants root system and destabilizes the turf. Secondary damage from birds and mammals feeding on the grubs results in bare patches and the need to re-seed or re-turf.


In sports turf the damage is not only unsightly but can lead to accidents as the turf degrades and gradually dies. The economic losses due to leatherjackets in amenity grass has not been quantified but loss of prestige and income can be substantial for golf courses, football and rugby pitches, racecourses and for turf producers.

When turf damage reaches a level where it interferes with play or causes a change of venue for a sporting event then losses can be huge. The cost of relaying turf is conservatively estimated in excess of £60,000 per hectare.

USE PLANT PROTECTION PRODUCTS SAFELY. ALWAYS READ THE LABEL AND PRODUCT INFORMATION BEFORE USE. For further information with regard to the warning phrases and symbols for this product please refer to the product label.

EGC Liquid contains 999g/l garlic extract MAPP 17852

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## Options for control/suppression

EGC Liquid and Granules is the only registered soil applied nematicide available in the UK/RoI. When used as a nematicide it is possible that there will be an impact on leatherjackets given that the vulnerable egg and L1/L2 stages are active at the time of application (eg Autumn timing).

An IPM programme integrating the use of EGC and entomopathogenic nematodes that attack leatherjackets may result in longer term control. Timing of the application of the different products is critical, with EGC being applied first followed by the other treatment(s).

Careful consideration of the pest stage of growth is important as is the presence of sufficient moisture both pre and post application.

## The Benefits of EGC Liquid and Granules

- EGC has a registration for the control of nematodes on managed amenity turf
- EGC applied to amenity turf when the adults are flying may cause a behavior modification in gravid females that results in a reduction in egg laying in treated areas.
- EGC is active on both insect eggs and newly emerged larvae.
- No re-entry period following treatment (beyond allowing treated grass to dry when using the liquid). This means that amenity grass open to the public and presents no hazards to the users.
- No known insect resistance due to it's complex mode of action.

**Recommendations for use are the same as for nematode control and are permitted by CRD as the use pattern falls within that of the existing registration(s)**

<b>EGC Liquid</b>	<b>EGC Granules</b>
Maximum Individual Dose = 20 litres/ha	Maximum individual dose = 240kg/ha
Maximum Total Dosage per crop = 120 litres/ha	Maximum total dose = 240kg/ha
Maximum Number of Applications = 6	Maximum number of applications = 2
Application at 7 and 14 day intervals with not more than 3 applications in any treatment sequence	<b>Apply 3 – 5ml of irrigation within 3 days</b>
<b>If ground is dry irrigate prior to application. Always apply 5 – 10ml immediately post application</b>	

**The timing of the application should be to coincide with the presence of adults and young larvae otherwise efficacy may be compromised**

**This use is at the users own risk as there is limited efficacy data and as such the 'extension of use', is at all times done at the user's choosing, and the commercial risk is entirely theirs.**

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