

Crane Fly Solutions

There are more than 1,000 species of crane flies native to North America, but only two types – the European crane fly (ECF) (*Tipula paludosa*) and the common crane fly (*Tipula oleracea*) – cause damage to golf courses, sports fields and lawns in the United States, particularly in the Northeast and Pacific Northwest. So, it is important to work with an extension agent for identification, understanding life cycle biology, and solutions for control.



European crane fly larvae
Source: Adam Garr, Syngenta



Adult European crane fly
Source: Dr. Daniel Peck



Adult common crane fly

SYMPTOMS AND ACTIVITY

Crane fly larvae, sometimes called “leatherjackets”, cause damage by feeding on roots, shoots and stems of turfgrass plants. They prefer wet or moist soils and tend to be localized near large bodies of water, but that is not required for them to be present.

Damage may first be seen in areas of thin turf in the spring after thaw or even during drought stress, and can resemble “ball marks” on a golf course or black cutworm damage. The first observable symptom is thinning turf, expressed as yellowing spots and bare patches, but activity may also be indicated by animal digging activity as raccoons, skunks and opossums forage for mature crane fly larvae.



European crane fly damage
Source: Dr. Daniel Peck

INNOVATIVE SOLUTIONS FOR CRANE FLY CONTROL

If left untreated, crane flies can heavily damage turf. Once larvae develop into fourth and final instars, insecticide treatments are not as effective, so it is critical to apply preventively and target newly hatched larvae. Traditional insecticide application timing for white grub control typically does not overlap crane fly larvae emergence, so a separate application is required for optimum control.

Table 1

Life cycles of the European crane fly (one generation per year) compared to the common crane fly (two generations per year).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
EUROPEAN CRANE FLY												
Larvae												
Pupae												
Adults												
Eggs												
COMMON CRANE FLY												
Larvae												
Pupae												
Adults												
Eggs												

PREVENTIVE CONTROL

For both European crane fly and common crane fly, preventive applications are best made in late fall at the time of egg-laying or when larvae are smaller and still active at the soil surface. However, if you use Acelepryn® insecticide, a mid-summer application is ideal because it takes time to move into the plant.

Preventive control recommendations:

- Mid-summer – early-fall application timing (early July – September)
 - Acelepryn insecticide at 8 -16 fl. oz./A (higher rate for later dates)
- Fall application timing (August – October) – this application targets both the common and European species
 - Provaunt® WDG insecticide at 18 oz./A
 - OR**
 - Meridian® 25WG insecticide at 17 oz./A (apply at egg lay for optimum control)

CURATIVE CONTROL

Curative applications can be made in the spring once feeding damage is detected, but successful control at this time is more difficult.

Curative control option:

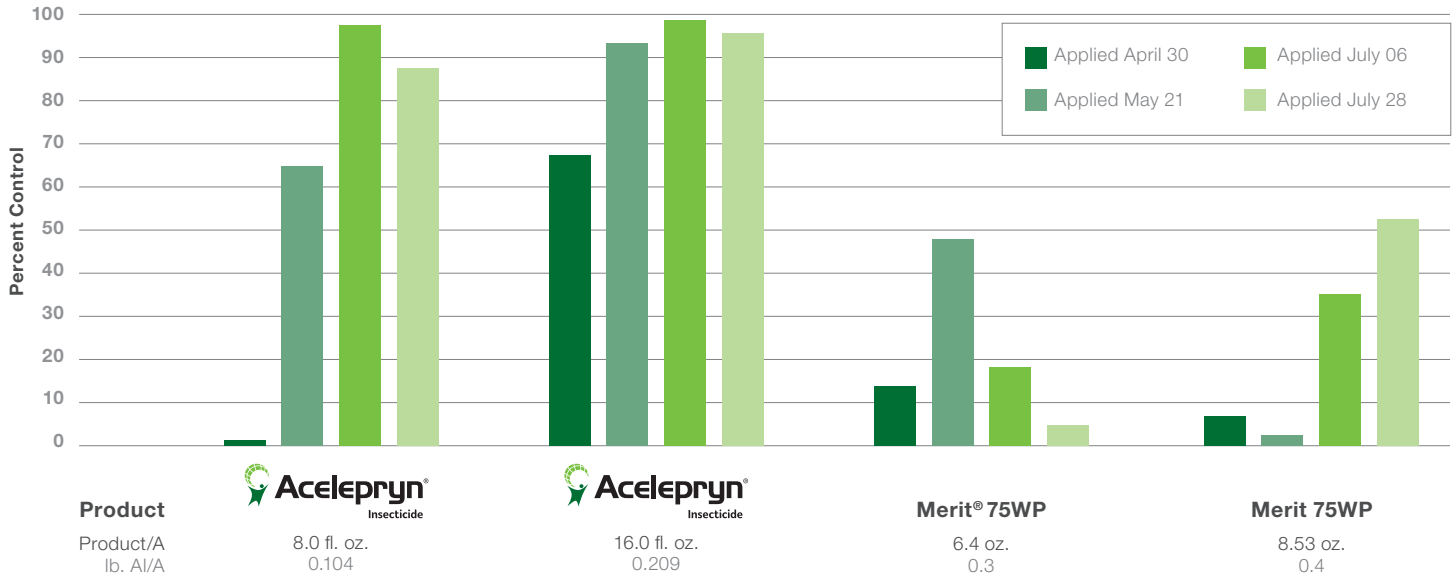
- Spring application timing (April – May)
 - Provaunt WDG at 18 oz./A

EUROPEAN CRANE FLY CONTROL TRIALS

European Crane Fly Trial

New York – 2009

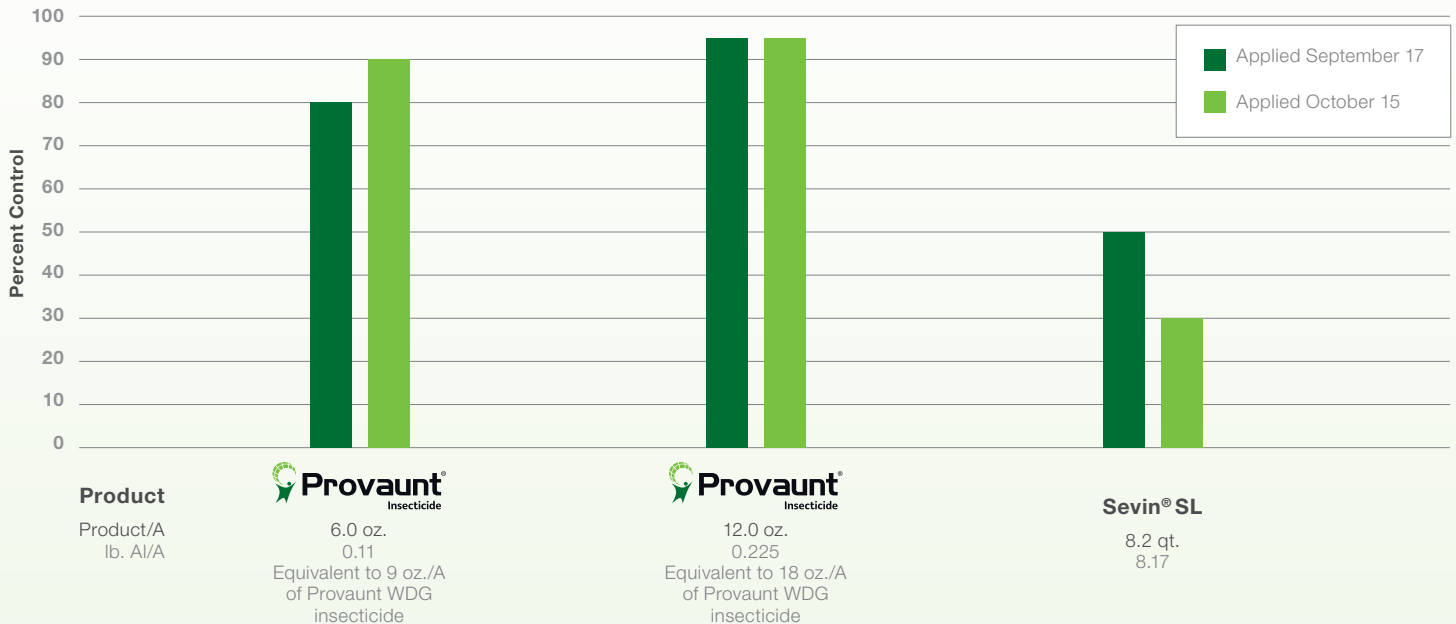
Source: Dr. Daniel Peck, Cornell University



European Crane Fly Trial

New York – Fall 2007

Source: Dr. Daniel Peck, Cornell University



Performance assessments are based upon results or analysis of public information, field observations and/or internal Syngenta evaluations. Trials reflect treatment rates commonly recommended in the marketplace.

For more information about how Provaunt WDG, Meridian and Acelepryn insecticides can help control crane flies, **contact your local Syngenta territory manager.**



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