LILY LEAF BEETLE, *LILIOCERIS LILII*
COLEOPTERA: CHRYSOMELIDAE

The lily leaf beetle is an exotic pest that was introduced to Connecticut around 1995. It was found in the early 1990’s in the Boston area. Most likely this insect arrived in the United States from Europe in a shipment of
lily bulbs. Both adults and larvae do serious
damage to lily plants.

Description
The 6 – 10 mm (1/4 to 3/8") long adult
beetle has brilliant red wingcovers with
black legs, head, antennae and body. Adults
have a defense mechanism of squeaking
when they are lightly squeezed.

Gelatinous eggs, laid in a single row, are
orange to red. A dark head develops as the
eggs mature.

Larvae are red-orange and sac-like but
appear darker because of the feces they
usually carry on their backs. The head is
black.

The 12mm long (½") pupa, which is rarely
seen because it is in the soil, is bright
orange.

Life Cycle
Adults overwinter in protected areas around
the garden. Beetles emerge over a few
weeks in April and begin feeding. Mating
takes place in May and June. Females can
lay up to 450 eggs each over a period of
several weeks from June into July.

Gelatinous eggs are laid only on true lily.
Rows of eggs are found near the underside
midrib on leaves. Depending on
temperature, eggs hatch in seven to ten days.
Larvae tend to feed gregariously on the
underside of foliage. Often larvae will feed
from the tip of the leaf inward. After
feeding for two to three weeks in July and
August, mature larvae drop to the soil,
burrow down and pupate. Pupae are a bright
orange color and do not feed. New, bright
red adults emerge 15 – 20 days later and
feed on foliage until cold weather.

There is one generation per year. However,
adults may live for two years. Adults
appearing in the spring will be those that
emerged the previous August and second
year adults. Thus adults may be present
from April through October and it can seem
that there is more than one generation per
year.

Hosts and Damage
Leaves of all true lilies: Asiatic, Oriental,
tiger lilies and hybrids are eaten first. As
the population grows, buds, flowers and
stems are also eaten. Populations can build
so quickly that entire plantings seem to
disappear overnight. Adults also will feed
on Fritillaria, Polygonatum, Solanum,
Smilax, Nicotiana and other plants but are
not able to complete their life cycle on these
hosts. They do not feed on daylilies.

Management
Handpicking larvae and adults, while
wearing gloves, can be effective in a small
planting. Azadirachtin, which is among the
compounds registered for use against this
pest in Connecticut, will control small larvae
and repel adults. Multiple applications are
necessary as eggs hatch over a period of
weeks. Permethrin may be used against
larvae and adults. Imidacloprid, applied as a
systemic to be taken up by the roots, may
provide season-long control. Consult the
label for dosage rates and safety precautions.
Follow all label directions.

Two parasites are being researched for
biological control.

Mention of a product is for informational
purposes only. It is not an endorsement by
the Connecticut Agricultural Experiment
Station.