

# Hello Trees Resource Sheet

## What to look for outdoors in Summer

### Lime-tree aphids

This Resource sheet follows on from 'Lime-tree honeydew'. See [Hello Trees, Resources](#).



Do the aphids on your common-lime leaf have markings on them?  
True lime-tree aphids, *Eucallipterus tiliae*, have two rows of black spots down their abdomen.

New-born lime-tree aphids do not have the black-spot markings.



Newly hatched and new-born females are called '**nymphs**'. Good name?



*Lime-tree aphid in summer (magnified)*

The markings are clear in summer when the aphids are mature.



*Lime-tree aphid with folded wings (magnified)*

The markings are even more clear when the aphids have developed wings, which themselves have a fine black line along the outside edge.



Do any of your aphids have wings?  
We expect the aphids to have wings only in the autumn when they are ready to mate.



Keep an eye on your lime tree and see when the aphids develop wings.

! The lime-tree aphids that we see in summer are all females.

!! As they mature, baby aphids develop inside the female aphids you are looking at.  
And inside those baby aphids are baby aphids.

!!! This means that a female lime-tree aphid gives birth to her own grandchildren.



The aphids remind me of Russian dolls where one doll fits inside the other and then another and another:



Remember that there are only females about at this stage. There has been no mating between a male and female.



This kind of reproduction is called '**asexual**'.

All the offspring are **clones** of the female that gives birth to them.

Being clones, means they have the same genes as each other.

!!!! Only in autumn do lime-tree aphids grow wings and some of them turn into males.  
You couldn't make it up!



When males and females mate, the females produce eggs which they lay on the lime-tree stems. Phew! Back to normal.

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Female aphids lay their eggs one at a time each in a lenticel on a 2-year-old twig.



**Lenticels** are on the surface of tree roots and stems. They are pores through which the tree breathes.



Each aphid egg is sealed into its lenticel by a covering of grey wax. The eggs lie dormant through the winter insulated from the cold by their thick casing – and by the wax.



In the Spring, the eggs hatch and baby female aphids come out – but not until the lime leaves have expanded and are making sugary sap.

And so the aphid life-cycle goes on.



On your lime leaves, is there a black coating on top of some of the honeydew?



What do you think the black coating could be?



Clue: the honeydew is sugary food.

Can you think of something else that feeds on sugars?



No, not you!



This one may be new to you. The answer is 'a kind of yeast'. Yeasts feed on sugar. As the yeast feeds on sugar it creates gas that makes bread light and airy - and gingerbeer fizzy. Yeast is found on the skins of grapes and on lots of other fruits.

The black mould that feeds on honeydew is a yeast-like organism.

It will only harm the tree if there is so much of it that it blocks the sunlight from the leaves.



But don't sit on a bench under a lime tree in late Summer!



And, after rain, do be careful not to slip on the slimy black stuff!

For more images of lime-tree aphids see [Eucallipterus tiliae](#).



It is fun to record what you saw and did today. Share it with us on the Hello Trees [Facebook](#) page.



For more about lime trees, what came before and what comes next, see Hello Trees book Lionel Lime at [Hello Trees](#) Shop. For more about Lime flowers, Lime bracts and Lime-tree honeydew, see [Hello Trees](#) Resources.