

Hello Trees Resource Sheet

What to look for outdoors in Summer

Honeydew on lime leaves



We are looking for a lime tree, a common lime, sometimes called a European lime. Have a magnifying glass in your pocket to use later.



Look for a tree that is taller than it is wide and covered with pale-green flecks and tiny bunches of flowers. Now, check the shape of its leaves.



Lime tree, and lime tree leaves and flowers



Lime-tree leaf

They should look like this.

Now that you are close, you can see that the pale-green 'flecks' look like narrow leaves. They are called 'bracts'.

For more about them, see 'Lime bracts' - and for more about the flowers see 'Lime flowers' - both on the Resources page of the [Hello Trees](http://www.hellotrees.co.uk) website.

'Never park your car under a lime tree', people say.



Why do you think that could be?

Feel the leaves. Are they sticky?

Very! The leaves are very sticky!



Did you feel the top of the leaf with your forefinger and rest your thumb underneath? Turn the leaf over and have a look at the side that your thumb is resting on.

I am sure you will find tiny little pale green creatures crawling round your thumb!

These are lime-tree aphids.



Lime-tree aphids



The scientific name for lime-tree aphids is *Eucallipterus tiliae*.

(We say: You-kuh-*lip*-tuh-russ *till*-ee-eye)



What do you think they are doing here on the underside of lime-tree leaves?

Do you think they have anything to do with the stickiness on the top of the leaves?



Three clues: 1. leaf veins carry sugary sap.

2: sugar syrups are sticky.

3. lime-tree aphids have sharp mouth pieces.



Aphid mouth pieces are called stylets.



Yes, the aphids stick their stylets into the leaf veins and suck up the sugary sap.

The sugary sap is too sugary for the aphids and they poo out the extra sugar!

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Aphid poo is called 'honeydew'. An unusually attractive name for poo!



But why do you think the honeydew is all on the tops of the leaves when the aphids are on the underside of the leaves?

The answer is that the aphids are careful to poo away from their feeding site so that they do not get stuck in their own sticky poo.

They poo over the edge of their leaf on to the leaves or ground below. Or on to your car!



Lime tree aphid and a ladybird

Who wants sticky stuff all over everything under lime trees?
No one does!

Can't we get rid of the aphids?

Ladybirds like to eat lime-tree aphids.

See from the photo how much bigger ladybirds are than aphids.

Ladybirds can gobble up loads of aphids but not enough to make a noticeable difference.



With your magnifying glass have a close look at where the aphids are on the leaf.



We are told that the stylets of young aphids are not strong enough to penetrate the thicker veins of the leaf where there is most sap.



On your lime leaf, are smaller aphids nearer the edges of the leaf and bigger aphids nearer the centre?



Scientists have found that aphids like to be near each other. They stroke each other with their antennae.



On your lime leaf are your aphides snuggled together for easy stroking?



The composition of sugar in honeydew is similar as that in nectar. We are told that in some European countries, honeydew is a valuable resource for honey bees.



On your lime leaf, are there any bees feeding on the honeydew?



Lime-tree aphids are very odd creatures. To find out more them see 'Lime-tree aphids' on the Resources page of the [Hello Trees](http://www.hellotrees.co.uk) website.

For more things to do outdoors, and more about lime trees - what came before and what comes next - see 'Lionel Lime' in the [Hello Trees](http://www.hellotrees.co.uk) shop.