

# MASONBEES UK

## GUARDIAN NEWSLETTER

....AUTUMN 2016....



### THE SEASON SO FAR...

Sadly, weather conditions at the start of the season were far from ideal for Mason bees.

Spring began with more night frosts than we had over the winter of 2015/16. In March, fruit growers were predicting some of the earliest blossoms ever to be recorded yet in April the growing season was up to a fortnight behind.

Throughout May, the UK experienced almost perfect conditions for Mason bee reproduction – but unfortunately by this point some of our Guardians were still experiencing little or no bee activity at all.

This has obviously been very disheartening for those affected. We aim to ensure that we give the bees the best possible chance of emerging and surviving whatever the weather, but sadly we can't give guarantees as sometimes Nature has It's own ideas.

However, due to the adverse climate conditions and other problems with couriers and cocoons we faced this year, we have decided issue **new cocoons to all existing participants in 2017**, removing any qualification requirement for this year.

We hope that with a fresh stock of bees, those who haven't experienced any activity in 2016 will try the process again next year. In 2017 we aim to have *all* of Guardians working together successfully using our Nesting Tubes to create homes for bees across the country.

### LIGHT AT THE END OF THE... TUBE?

Despite these complications, reports show your bees have triumphed in the vast majority of cases. Now is the time, if you have not already done so, to **bring all of your Nesting Tubes indoors** and check to see if any are occupied.

If the end of a tube is capped with mud then it's highly likely you have Red Mason bee cocoons inside! If you can't see any mud caps, don't be deterred - Nesting Tubes that have not been capped may still contain bees.

When checking for cocoons, remove the tubes from the Tube Holder and hold them up to a light source. If there is any obstruction of the light passing through the Nesting Tube at all, it could be occupied with cocoons.

### OCCUPIED TUBES

If you have an occupied Nesting Tube, remove the inner tube from the outer tube. You can do this by hand or using needle-nose pliers if you find the inner tube is a little stiff and won't separate from the outer. Always pull out from the capped end, if the tube has one – this is false wall so breaking it should not affect the cocoons inside.

Once removed, occupied inner tubes should be sent to the address below. We will process the cocoons and care for them over winter.

**MASONBEES UK**  
**FREEPOST RFTX – CCET – YREH**  
**5 MELROSE DRIVE**  
**SHREWBURY, SY2 6QS**

Tubes should be placed in a padded envelope or box, along with your name and address. Please include your surname and postcode on the outside of the package before sending.



## RE-USING TUBES

There is good evidence emerging from field trials suggesting that outer tubes which have been used before, (with their inner tube replaced), seem to attract nesting bees more readily than using brand new Nesting Tubes. We speculate that this could be due to a pheromone effect from the previous generation, but require further research before we can say for sure. This discovery is great news for us at MasonBeesUK as re-use is a major element in our tube's design.

## LEAFCUTTER COCOONS

If you find some of your tubes sealed with leaves rather than mud, they are likely to be



filled with Leafcutter bee cocoons...

Guardians should keep these cocoons and maintain their local population, as unfortunately we are not able to process Leafcutters at this time.

You can safely store Leafcutter cocoons in the tubes without the need to remove them. Store all occupied tubes in a breathable sealed container at ambient temperature, ideally in a garage/shed, until May/June when they can simply be reintroduced into your garden and allowed to emerge.

Please see [masonbees.co.uk](http://masonbees.co.uk) for additional guidance on caring for Leafcutter cocoons.

## RESEARCH FINDINGS

MasonBeesUK have been conducting a weight survey for a number of years on the cocoons we collect. For the last two years, we have expanded our survey to account for physical size as well. We can now directly relate cocoon size/weight to survival rate and also levels of emergence.

We established quite early in our research that the smallest, lightest cocoons, (< 0.05 g / 5.6mm) tend to show poor emergence and low survival rates on release. The largest cocoons show much better emergence /survival rates and are almost always female.

Only cocoons weighing >0.08g are retained and distributed to our Guardians. Emergence of these bees is usually around 95%, which in 2016 has fallen to around 90%. This is beneath our expectations, but still proving effective enough to maintaining a population.

## 'COLOSSAL' TUBES?

One area we examined more closely this season was the length of our Nesting Tubes. Researchers have been performing trials with even longer Nesting Tubes than our current 'Giant' size. These 'Colossal' tubes have not only been inhabited successfully, in some cases it seems that the bees might even have a preference for them over shorter tubes.

## APPLYING OUR RESEARCH

We are consistently striving to improve our handling of the bees and cocoons while they're in our care. This year, working Professor Keith Walters at Harper Adams University we will trial new incubation methods and storage procedures during pupation and through the winter months

We will update information on our website to include all the latest techniques, so make sure you visit [masonbees.co.uk](http://masonbees.co.uk) over the coming months for most up-to-date guidance on caring for our solitary bees.