Department for Environment, Food and Rural Affairs

Guidance on the application of Plant Protection Products for phytosanitary treatment of oak processionary moth

# Purpose

This guidance applies to suppliers of large oak trees of any species (girth at 1.2m above the root collar of >8cm) that are based in the OPM Buffer Zone in England and want to move these trees within this Buffer Zone. No large oak trees may be moved within 10km of the edge of the buffer zone.

It provides details on the application of phytosanitary treatments required to move large oak trees under The Plant Health (Oak Processionary Moth) (England) Regulations 2023 that will come into force later this year. This guidance applies to the application of Plant Protection Products to large oak trees at sites of ornamental plant production. The treatments are being recommended as a means of reducing the risk of trees infested with OPM being moved to non-infested areas. This guidance is for the preventative treatment of trees, trees which are known to be infested must not be chemically sprayed in order to be moved. Local Plant Health inspectors should be notified of any large oak trees known to be infested.

# Application of Plant Protection Products

Registration is required for Professional Users of Plant Protection Products (PPPs) under the Official Control (Plant Protection Products) Regulations - [Register as a user](https://www.gov.uk/government/publications/professional-plant-protection-products-ppps-register-as-a-user)

All chemical treatments should be applied in line with the [Code of Practice for Using Plant Protection Products](https://www.hse.gov.uk/pesticides/using-pesticides/codes-of-practice/code-of-practice-for-using-plant-protection-products.htm), product labels and relevant Extensions of Authorisation for Minor Use. All products must be currently approved for the intended use and situation. Records of all plant protection treatments must be kept.

There are two options for phytosanitary treatments, products containing either *Bacillus thuringiensis* var *kurstaki* or products containing deltamethrin. Professional pesticide products can only be applied by people holding the relevant City & Guilds pesticide application certificates.

Products containing *Bacillius thuringiensis* var *kurstaki* are the preferred method of treatment due to reduced risk of non-target impacts.

## Application of products containing *Bacillus thuringiensis* var *kurstaki*

Examples: Dipel DF

Effective growth stage: young caterpillars, indicative L1-L3 instar. See guidance on instars and growth stages of OPM in the [Forest Research OPM Manual](https://www.forestresearch.gov.uk/tools-and-resources/fthr/pest-and-disease-resources/oak-processionary-moth-thaumetopoea-processionea/opm-manual-4-biology-and-life-cycle/).

Application:

* A good level of coverage must be achieved, including the very top of the tree canopy.
* First treatment must be applied as soon as possible following BBCH11 phenological growth stage of the *Quercus* species correlating to leaf unfurling/emergence and egg hatch. Public guidance on BBCH scale for broadleaf trees is available [here](http://adlib.everysite.co.uk/adlib/defra/content.aspx?id=000HK277ZW.0AALOXV1HM62ZAC#:~:text=The%20BBCH%2Dscale%20allows%20the,the%20stage%20of%20plant%20development.).
* Two applications are required with a 7 – 10 day gap between first and second application.

## Application of products containing deltamethrin

Examples: Decis forte

Effective growth stage: young to older caterpillars (L1-L6) and ideal for later instar growth phases.

Application:

* A good level of coverage must be achieved, including the very top of the tree canopy.
* Treatment must be applied as soon as possible following BBCH11 phenological growth stage of the *Quercus* species correlating to leaf unfurling/emergence. Public guidance on BBCH scale for broadleaf trees is available [here](http://adlib.everysite.co.uk/adlib/defra/content.aspx?id=000HK277ZW.0AALOXV1HM62ZAC#:~:text=The%20BBCH%2Dscale%20allows%20the,the%20stage%20of%20plant%20development.).
* No follow up spray required.

Restrictions:

* Products containing deltamethrin are NOT authorised or approved for use on forestry trees or hedgerows.

**Annex 1 provides an indicative timeline of growth stages and application. This must be used as an indicative guide only as exact dates of growth stages for both OPM and *Quercus* species will vary dependent on local climatic conditions.**

17 April 2023

**Last updated 07 June 2023**

 Updated to reflect changes to authorised use of DiPel DF (*Bacillus thuringiensis*).

### Annex 1

***Bacillus thuringiensis* var. *kurstaki* (BT)** window of effectiveness.

**deltamethrin** window of effectiveness.

**Note:** This is an indicative timeline, exact dates will change year on year depending on climatic conditions and will also vary dependent on geographic location.

For further information visit: [OPM Manual - 4. Biology and life cycle - Forest Research](https://www.forestresearch.gov.uk/tools-and-resources/fthr/pest-and-disease-resources/oak-processionary-moth-thaumetopoea-processionea/opm-manual-4-biology-and-life-cycle/)

Adult Moths

Pupae

Larval instars L4 to L6

Larval instars L1 to L3

Eggs

March

May

June

July

April

August

**OPM First Flight**

**OPM Egg hatch**

***Quercus* budburst**