

Aphid sampling protocol

As part of a [resistance monitoring programme](#), Rothamsted Research requires live aphid samples, especially those that unexpectedly survive treatment with insecticides. Although any aphid species can be submitted, the researchers focus on some species/situations more than others, to reflect samples received and the need to detect new resistance issues emerging in the UK aphid population.

Current focus

- Peach–potato aphid (prior to spraying populations). Typically, most samples come from oilseed rape crops in and around East Anglia. However, to help establish the spread of insecticide resistance in UK, samples are required from other regions
- Potato aphid, currant–lettuce aphid, grain aphid, bird–cherry oat aphid or rose–grain aphid (only where control failures have been experienced)
- Various species (especially samples collected from protected crops)

How to collect and package live aphid samples

Along a transect in the crop (avoid sampling aphids from one plant), collect plant material carrying aphids. About 50–60 aphids is optimum.

Where possible, crush mummified aphids (see example, right) and avoid gathering natural enemies – ladybirds, hover flies, lacewings and parasitoids.

Put all plant material and aphids in a container (such as a margarine tub or cardboard box with a few small holes) with some dry tissue paper.

With each sample container, include the following information: your name / your contact details / date sampled / crop sampled / location sampled (farm name, town, county) / insecticides used (products, rates and application dates).



A mummified aphid (© Jon Oakley)

How to post live samples

Put all sample containers in a crush-proof box.

Label the package: HANDLE WITH CARE. Post the package first class or next-day courier to: FAO: Steve Foster/Martin Williamson BCCP Department, Centenary Building, Rothamsted Research, Harpenden, Herts AL5 2 JQ.

Ideally, samples should arrive at Rothamsted Research on Monday–Thursday. Samples can be stored in the fridge prior to dispatch.

If possible, inform Rothamsted Research that the samples are on the way:

- stephen.foster@rothamsted.ac.uk
- 01582 763133 ext 2356

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