



STANDARD OPERATING PROCEDURE

Data Quality Task Force

Issued: XX/YY/ZZ

First Edition: This edition replaces all previous editions of the Standard Operating Procedure (SOP)

TITLE: Preparation of sugar-soaked cotton wool for feeding adult mosquitoes in holding cages or during transportation between the laboratory and field

INTRODUCTION:

The purpose of this SOP is to provide instructions on the appropriate method for preparing 'sugar soaked cotton wool' for feeding live adult mosquitoes. The following method helps reduce the risk of providing excess liquid to adult mosquitoes, which can increase control mortality by causing distention of the abdomen due to over feeding.

AUTHOR: Graham Small

Signature:.....

Date:.....

AUTHORISED BY:

Signature:.....

Date:.....

DISTRIBUTION: (Places where copies of SOPs are to be displayed)



Equipment & Materials

- Clean glass/plastic bottle (e.g. 1 Litre, with a screw cap top)
- Sugar source for feeding to mosquitoes [high fructose corn syrup (HFCS), is recommended, but granulated sugar or honey may also be used].
- Measuring cylinder (approx. 200ml) or balance and weighing dish (depending upon whether using liquid 'sugar source' or crystalline sugar).
- Clean paper towel
- Distilled water
- Cotton wool (natural cotton, new cotton wool balls are preferred)
- Laboratory grade disposable gloves (latex or nitrile)
- Marker pen

1. Preparation

For preparation of 1 litre of 10% sugar solution:

- 1.1 Measure/weigh either 100g or 100ml of sugar source (+/- 10%) using either the measuring cylinder or balance (depending upon whether using liquid 'sugar source' or crystalline sugar).
- 1.2 Transfer the sugar source to the clean bottle.
- 1.3 Make up to 1 litre using distilled water (it may be necessary to use some of the clean distilled water to remove all of the sugar source from the measuring cylinder/weighing dish).
- 1.4 Screw the lid onto the bottle and shake so as to ensure the sugar source is completely mixed/dissolved into the water.
- 1.5 Label and date the bottle as appropriate.
- 1.6 Store in a standard laboratory refrigerator.
- 1.7 Prior to use, remove from the refrigerator and allow to stand at room temperature for 10-15 minutes.



2. Method

- 2.1. Put on a new pair of laboratory gloves.
- 2.2. Take a handful of cotton wool balls (or rough square of cotton wool approximately 3 cm x 3 cm) and hold them palm upwards in one hand over a sink.
- 2.3. Pour the 10% sugar solution over the cotton wool balls until they are all soaked with the solution.
- 2.4. Squeeze the soaked cotton wool balls to remove all excess liquid.
- 2.5. Place the cotton wool balls onto a sheet of paper towel.
- 2.6. Roll up the paper towel so that the cotton wool balls are held within it.
- 2.7. Squeeze the paper towel with the cotton wool balls to remove further liquid.
- 2.8. Unroll the paper towel.
- 2.9. The cotton wool balls should be damp with sugar solution.
- 2.10. Wrap these cotton wool balls in a fresh piece of paper towel until required for use.