Glossary of terms

Term	Definition
Active emanator	Products designed to emit the AI into the air by means of an energy source such as electricity or heat.
Active ingredient (AI)	Any formulant included in the composition of the spatial emanator product intended to impart a pesticidal effect or any synergist/adjuvant included to increase the exposure of the AI to the target vector or enhance the toxicity/effect of the AI to the target vector.
Artificial ageing	A process designed to simulate operational ageing.
Batch	1. A defined quantity of sub-material/finished product produced in a pre-defined manufacturing run. 2. A specific quantity or lot of a test item or reference item produced during a defined cycle of manufacture in such a way that it could be expected to be of a uniform character and should be designated as such.
Bioassay	Laboratory or semi-field test that uses live insect vectors as the test system.
Community protection	The potential impact of spatial emanator use in a community which reduces disease transmission rates across a community for those who use a spatial emanator or not.
Construction	Describes the assemblage of product component parts (if applicable) into the final form of the finished product.
Distribution	The process of transferring spatial emanator products to the user. Mass distribution campaigns, community-based distribution or sale in local commerce are various methods of distribution.
Dose	Refers to the total concentration of the AI in a single unit of the product
Efficacy	Product performance that characterizes how a product performs the intended function. Ability of a product to perform the claims made on the label.
Emanation	The release of AI(s) from a spatial emanator product, either through passive or active means.
Emanation device	The apparatus or equipment through which an active emanation-based product is used.

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Emanation rate	The rate at which an AI(s) is released into the air.
Endpoint	A measurable outcome that can be used in analyses to interpret the results of a study, for example, mosquito mortality.
Entomological efficacy	Effect of a product on the target vector species when using free-flying mosquitoes.
Formulant	Any substance, other than a technical grade AI, intentionally incorporated in a formulation.
Formulation	The combination of various ingredients designed to render the product useful and effective for the purpose claimed and for the envisaged mode of application.
Impregnated	May be used to refer to the treatment of a material with an AI to form the reservoir for either passive or active emanators
Intended effect	Any impact on either insect behaviour or characteristics induced by AIs in the air that results in a reduction in human-vector contact
Lot	Part or all of a consignment that may comprise part or all of one manufacturing batch.
Masterbatch	A formulated intermediate containing an AI or other formulants which is used in the formulation of the final product.
Method	A systematic procedure or technique to accomplish the collection and/or analysis of data.
Method validation	Process used to determine the suitability of a given method for its intended purpose.
Nominal quantity	The amount of an ingredient which is expected to be present in a typical sample of a product at the time the product is produced, expressed as mg/g, g/kg or a percentage by weight.
Operational ageing	The preparation of spatial emanator product samples in real-world conditions and use.
Passive emanator	Products designed to emit AIs into the air without a source of power or external energy.
Personal protection	The potential impact of a spatial emanator product, measured in efficacy studies as the reduction in blood-fed mosquitoes in the treatment arm relative to the control arm.
Preferred product characteristics (PPCs)	Communicates the desired product performance and the operational characteristics of the product that address an unmet public health need. PPCs are linked to the target product profile (TPP).

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Product	The formulated product (AI(s) and co-formulants) in the form in which it is packaged and sold.
Product testing	Targeted testing and analysis of production batches to ensure that the product aligns with the declared characteristics.
Protective efficacy	The protection elicited by the proposed spatial emanator product. Measured in efficacy studies as either the reduction in mosquito landings or the reduction in blood feeding for the proposed product relative to the control.
Quality assurance	A range of activities that enable laboratories to achieve and maintain high levels of accuracy and proficiency despite potential issues related to production methods, test methods, materials and personnel.
Quality control	Any process that aims to monitor and maintain production standards.
Quality management system (QMS)	A quality management system includes all policies, processes and procedures required to be followed in the production of a given product. A QMS plans, controls and monitors all elements that have the potential to impact the conduct of laboratory experiments/studies.
Raw data	Data collected directly from a primary source.
Reference item	(Control item) Any article used to provide a basis for comparison with the test item or to validate experimental procedures.
Reservoir	The total concentration of the AI in the product which enables prolonged emanation over the intended useful life of the product.
Sample preparation	Preparation of test items to investigate how spatial emanator products may change throughout the intended useful life of the product.
Semi-field study	Study conducted in simulated ‘natural' conditions that typically uses human volunteers/mosquito collectors and free-flying mosquitoes.
Spatial emanator	A class of products that are designed to emit AI(s) into the air with the intent of dispelling, disorientating and/or killing vectors.
Specification	Parameters and criteria defining the physical appearance and physical and chemical properties of a product.
Storage	The placement of finished products in a location prior to or after transport in advance of distribution or initiation of use.
Storage conditions	Location, containment type and environmental conditions at which a spatial emanator product is stored.
Storage stability	The ability for a product to maintain its characteristics and remain fit for purpose during storage.

Term	Definition
Study	A detailed investigation and analysis of a subject and situation designed to answer a particular question, for example, semi-field study.
Test system	The biological organism used for *in vivo* characterization of the bioavailability of the AI(s) of a product used in a study. In spatial emanator studies, test systems are used in free-flight room studies.
Toxicity	Inherent property of an agent to cause an adverse biological effect.
Untreated bednet	A bednet which has not been treated with insecticide and, therefore, offers personal protection from mosquito bites. May be used in semi-field efficacy studies for proposed spatial emanator products.
Useful life	The period over which a product can be used and expected to perform as it should.
Use pattern	A description of the intended use of the product, including but not limited to the space, for example, indoor/outdoor, in which the product is deployed, location of deployment within the space, number of products deployed and duration of intended useful life.
Weight of evidence	Method for decision-making in which multiple lines of evidence, often across disciplines, are integrated to determine the support for a scientific question. This approach avoids sole reliance on any one piece of information, line of evidence or indicator.