

Glossary of terms and abbreviations used in the text – 21 April 2005

In black font is the definition according to the official website www.cabicompendium.org.

As in some cases scientific definitions are difficult to read we made following simplified descriptions in red (no rights can be claimed on the basis of this simplification).

Abiotic

Non-living: physical or chemical, e.g. abiotic stress: stress not caused by a pathogen but by physical or chemical factors.

Biotypes

- i. Entomology: An individual or a population that is distinguished from the rest of its species by criteria other than morphology, e.g. a difference in parasite ability, behaviour, host etc.
- ii. A group of organisms occurring in nature and assumed to be genetically almost identical (Johannsen, 1903 quoted by C. D. Darlington and K. Mather, The elements of genetics, 1949, London, Allen & Unwin); a population of genetically identical individuals (E. C. Stakman & J. G. Harrar, Principles of plant pathology, 1957, New York, Ronald Press Co. (BSPP))
- iii. 'A sub-division of a species, subspecies or serotype which may be distinguished from other subdivisions of the species by the possession of some special or usefully diagnostic physiological character' (Bact. Code, Rec. 8a (ii) Annot.). (BSPP)
- iv. A sub-division of a physiologic race; a sub-race. (BSPP)

Culture

- i. A general term for a growth of a micro-organism in vitro or in vivo. Its use in the sense of isolate (II) or strain should be avoided.
- ii. To cultivate a micro-organism, usually in vitro in a prepared medium and in the absence of other micro-organisms, but the term can be applied also to the maintenance of an obligate parasite on/in its host. (BSPP)

Environmental factors

Influence of surroundings, including water, air and soil and their interrelationship, as well as all relationships between them and any living organisms.

Host

- i. An organism harbouring a parasite (BMS). A living organism harbouring another organism or virus dependent on it for existence (APS). The individuals of a species which are capable of harbouring a parasite, even though a particular individual or population of that species may not at the time be parasitized, can also be described as hosts; however, in these circumstances it is preferable to refer to the organism as a potential host. The term is used commonly in preference to suscept (q.v.) to denote an organism harbouring a pathogen. Nevertheless, it must be stated that the conceptual parallel of 'host and parasite' is 'suscept and pathogen'. (BSPP)
- ii. The plant on which a pest feeds, i.e. the food- or hostplant.

Isolate

A single pure culture made by direct isolation from fresh material and any subcultures made from it (W. B. Brierley Annals of Applied Biology 18: 420-434, 1931). The first culture of the series may be distinguished as the primary isolate. (BSPP)

Pathogen synonyms: Disease agent, Pathogenic agent

- i. An organism or virus able to cause disease in a particular host or range of hosts.
- ii. The term can be applied to genera, species and sub-specific taxa of fungi, bacteria, etc., and to strains etc. of viruses. It indicates a general disposition within the taxon, but does not preclude the possibility that a particular race, strain, isolate etc. may be unable to cause disease in a given host; such an exception can be distinguished as a non-virulent (or avirulent) race, strain or isolate of the pathogen, distinct from others of high, intermediate or low virulence in respect of the same host. Similarly, the use of the term is not precluded if a particular host does not become diseased because it is tolerant of the pathogen. (BSPP)

Race

- i. Individuals of the same species or variety that differ in their ability to produce disease in a given host, or that differ in their reaction to insecticides or fungicides.
- ii. A genetically, and as a rule geographically, distinct mating group within a species (C. D. Darlington & K. Mather, The elements of genetics, 1949, London, Allen & Unwin). Often used as an alternative term for a subspecies or geographical form.

Strain

- i. A group of similar isolates (W. B. Brierley, Annals of Applied Biology 18: 420-434, 1931).
- ii. The descendants of a single isolation in pure culture (Bact. Code, Rec. 8a (i)).
- iii. A culture of bacteria which corresponds to a cultivated variety (cultivar) of higher plants in having some special economic significance (Bact. Code, Rec. 8a (i)).
- iv. Biological strain, see physiologic race (= biological race).
- v. Plant viruses: (a) 'a virus that is serologically or immunologically related to the type strain of a virus or to other demonstrable strains' (Terminology Committee of the Canadian Phytopathological Society; see also B. Kassanis, European Potato Journal 4: 13-24, 1961. (b) A group of viruses having most of its antigens in common with that of another group (strain) (Kassanis, 1961); cf. serotype. (BSPP)
- vi. A subdivision of a variety.