

- antibiosis** - The phenomenon whereby a natural organic substance secreted by one organism has an injurious effect on normal growth and *development* of another organism when the two organisms are associated.
- antibiotic** - One of many natural organic substances (or their synthetic analogues), secreted by plants or micro-organisms, that is toxic or detrimental to the growth of other *species*.
- anticodon** - A *nucleotide triplet* of *tRNA* which codes for an *amino acid* and aligns at the *ribosomes* with a complementary nucleotide triplet (*codon*) of *mRNA*. See genetic code.
- antipodal nuclei** - Three of the eight *haploid* nuclei which result from mitotic divisions of the *megaspore*. They are situated opposite the micropylar end of the developing *embryo sac*.
- apical meristem** - An area of actively dividing *cells* at the tip of a stem, branch or root; precursor of the primary tissues of the root or shoot.
- apogamy** - A type of *apomixis* in which *seed* is produced without *fertilization*, by the *development* of embryos formed from *haploid* nuclei other than ova; typically from two fused *embryo sac cells*.
- apomictic** - Reproducing asexually, but producing *seeds* from an unfertilized ovum or from a somatic *cell* associated with an ovum.
- apomixis** - A substitution for *sexual reproduction*, by a type of asexual reproduction. Various types exist, namely, diploid- and *haploid* apomixis, apogamy, apospory, nucellar embryony and *parthenogenesis*. See amphimixis.
- apospory** - A type of *apomixis* in which a *gametophyte* develops from a *diploid egg* in an *embryo sac* developed directly from a somatic *cell*.
- archegonium** - The female sex organ of liverworts, mosses, ferns and related plants, and of most gymnosperms. It is the organ corresponding to the *pistil* of angiosperms.

primary leaf - One of the first pair of leaves to emerge above the *cotyledon* during the *development* of a *seedling*. Primary leaves are often morphologically distinct from subsequent leaves.

primary root - The root which develops from the *radicle* of an *embryo*.

primitive cultivars - Crop forms grown under traditional agricultural systems, which have not undergone much improvement and which, in many cases, have developed from landraces selected by farmers (non-scientific *breeding*). They are often associated with a specific region or ethnic/tribal group and identifiable by vernacular names.

priming - The treating of *seeds* with an osmotic solution (e.g. polyethylene glycol) which allows controlled hydration. The seed embryos develop to the point of *germination* and are then dried. This treatment results in more uniform and rapid germination of certain vegetable crop seeds.

primordium - Any group of embryonic *cells* which give rise to an organ or adult part.

probe - A radioactively labelled and defined *nucleic acid* sequence, which can be used, by molecular *hybridization* techniques, to identify specific, complementary nucleic acid sequences. See Southern blot; northern blot; blot.

progenitor - The original, ancestral or parental *cell*, individual or *species*.

progeny - Offspring.

progeny selection - The *selection* of individuals whose genotypic evaluation was based on the performance of their *progeny*.

progeny test - A method of evaluating the *genotype* of a parent by analyzing the performance of its *progeny*, grown under controlled conditions.

prokaryote - A unicellular organism, such as a bacterium or blue green alga, in which there is no discrete *nucleus* in a nuclear