

Introduction to Cactus and Succulent Plants

by Larry Homan

Succulent (plant) Succulence (plant adaptation)

A plant adapted to drought-prone climates or periodic arid conditions (water deprivation) and characterized by fleshy water-storing tissues (stems, roots, or leaves) that act as internal reservoirs sustaining life when external water is not available or periodically insufficient. Succulents have also adapted plant systems that maintain metabolism with minimal exchange of water with the environment. Most growers exclude from the group clearly succulent plants such as many orchids and bromeliads simply because most succulent collectors do not grow them. It is often said with some accuracy that all cactus are succulents but not all succulents are cactus. Succulent plants come from many plant families.

Cactus

Cacti make up the family Cactaceae and are mostly spiny succulents. Cacti are succulent xerophytes that have adapted the three main plant parts to survive in low moisture conditions.

Xerophytic (adaptation) Xerophyte (plant)

A xerophyte is a plant adapted for life to a xeric (or dry) environment with a limited supply of water but does not need to be a succulent. They are often described as drought escaping, enduring, or resisting. All succulents are basically xerophytes but not all xerophytes are succulents.

Caudiciforms (appearance) Caudex (plant part)

The terms are derived from the Latin word caudex meaning tree. This is a nontechnical term used to describe a plant which has a thickened root or stem, often of a large bottle or round form. A "true" caudiciform should have a water storage rather than a food storage organ in the fattened portion. Collectors often include any plant that has a fat lower portion that they find attractive enough to cultivate. Commonly plants with primarily thickened lower stems are called pachycaul (pachycaudal) plants. This term is even more vaguely defined and applied.

Names

Most plants have one or more common names. These names usually do not uniquely describe the plant. The **Latin binomial** is a more exacting two part name, the genus followed by the species epithet.

Common name: Fishhook Cactus

Latin binomial: Ferocactus [genus] wislizenii [species]