Glossary

agronomists – specialists in soil and crop sciences

- **amendment** any material, such as peat moss, processed bark, and sand, added to a growing medium to improve its ability to support plant growth
- auxiliary bud the bud that forms in the angle that the leaf makes with the main stem
- **bagasse -** the plant residue from sugarcane left after the juice has been extracted; used as a nonwood fiber

**binomial nomenclature** – a two-part name

botanists - scientists who study plants

- **bulb** any underground stem consisting of layers of fleshy scales that overlap each other
- **capillary action** the movement of water through a growing medium because of the adhesion of water molecules to the medium
- **cation-exchange capacity** the ability of the growing medium to attract and hold nutrients
- **cellular respiration** the controlled breaking down of glucose that releases energy for plant growth, absorption, translocation, and other metabolic processes
- **coldframe** an unheated outdoor growing structure covered with a transparent glazing material
- complete fertilizer a fertilizer containing nitrogen, phosphorus, and potassium
- **condensation** moisture colder than air that is on leaves
- **corm** a specialized stem that is a solid, fleshy, scale-covered enlargement
- creeper stems vines that grow on the ground without additional support
- **cultivar** a subcategory within a species that is developed by botanists and agronomists, (not occurring in the wild); usually capitalized and written with single quotation marks or it precedes the species' name and is abbreviated as 'cv'
- **cuttings** a method of vegetative propagation in which plant pieces are "cut" from the parent plant and rooted to form new plants
- day-neutral plant a species that flowers regardless of the light/dark ratio

**dolomitic limestone** – limestone with a high magnesium content

dormancy – the resting stage of seeds

enzymes – large, complex proteins that activate chemical reactions within cells

epigeous germination – growing aboveground

evapotranspiration – the combined loss of moisture from evaporation and transpiration

**fertigation** – applying fertilizer through an irrigation system

**floriculture** – a specialty of horticulture that deals with producing, cultivating, and managing ornamental plants and flowers

fungicide – chemical pesticide directed at fungi

**growing medium** – a material used for growing plants; may contain peat moss, sand, perlite, soil, or other ingredients (plural: growing media)

herbicide – a chemical pesticide directed at weeds

- **horticulture** the cultivation, processing, and sale of fruits, nuts, vegetable, ornamental plants, and flowers
- **hotbed** an outdoor growing structure similar to a coldframe but heated by a source besides the sun

hydroponics – growing plants in a nutrient solution, not soil

hypogeus germination – growing underground

**imperfect flower** – flower that contains male or female parts, not both

**incomplete flower** – flower missing one or more of the main parts of the flower: sepals, petals, stamens, or pistils

**infiltration** – the rate of water absorption into the roots through the pores

infrared – wavelengths longer than red light

insecticide – chemical pesticide directed at insects

**internodes** – parts of the stem or other plant parts that are located between two nodes (regions of the stem where one or more leaves are attached)

landscape horticulture – raising ornamentals for outside use

- **layering** a vegetative method of propagating plants by rooting a new plant while the stem is still attached to the parent plant
- leaching washing important nutrients from the soil
- long-day plant a species that flowers only in a day length of critical duration
- **macronutrient** one of six essential elements needed in relatively large amounts for plant growth: nitrogen, phosphorus, potassium, calcium, magnesium, and sulfur

meristem tissue - tissues that actively divide to form new growth

- **micronutrient** one of eight essential nutrients needed in tiny quantities for plant growth: iron, copper, zinc, boron, molybdenum, chlorine, manganese, and cobalt
- nematodes tiny round worms that attack plant roots
- nodes swollen areas at the joints of stems where buds and leaves originate
- **osmosis** the movement of water across a semipermeable membrane from a higher concentration to a lower concentration
- **ozones** compounds found above the Earth's surface that filter out harmful ultraviolet rays
- **pasteurization** a process that kills harmful organisms and preserves beneficial organisms
- **perfect flower** a flower that has both male and female parts
- permeability the ability to transport water into the plant
- pesticide a chemical used to control an undesirable organism
- petiole the stem of a leaf
- **pH** a measurement of the level of alkalinity/acidity
- **phloem** part of the vascular system that transports carbohydrates from the photosynthesizing cells to the rest of the plant

photoperiod – the light/dark ratio in a day

photoperiodism – the influence of day length vs. night length on plant growth

- **photosynthesis** process by which green, living plants convert carbon dioxide and water to simple sugar in the presence of light
- phototropism a plant's bending toward the source of light
- phytotoxic poisonous to plants
- **pinching** removing the terminal bud of a plant to promote branching
- plumule first shoot of a developing plant; also known as the coleoptile
- porosity the pore space (tiny openings) between solid particles
- propagation plant reproduction by sexual or vegetative methods
- **propagation bed** a special location within the greenhouse that is used to allow cuttings to root
- quality of light the spectrum of color (wavelength) that is measured in nanometers
- **rhizome** an underground stem that produces roots on the lower surface and extends leaves and flowering shoots above the ground
- **scarification** scratching or modifying the seed coat in order to increase water absorption
- scion unrooted, upper part of plant used for grafting
- **seed dormancy** resting stage of the seed that prevents the seed from germinating until environmental conditions are favorable
- seed germination a process in which a seed changes into a developing seedling
- short-day plant a species that flowers only in a daily dark period of critical duration
- stolon a stem that grows horizontally above the soil surface
- stomata specialized pores in the epidermis of the leaf used to exchange gas
- **stratification** a rest period for seeds before germination can occur; seeds are placed in moist growing medium at 32-50°F for a certain period of time
- succulents plants with thick, fleshy leaves that store water, e.g., cacti and jade plants

taxonomy – the science of identifying, naming, and classifying plants

topography – the shape of the land, e.g., hilly, flat, steep, rocky

- **translocation** the movement of minerals, water, carbohydrates, and other materials within the vascular system of a plant
- **transpiration** the loss of water by evaporation primarily from the leaf surface through specialized pores called "stomata"
- tuber a short, thick underground stem that serves primarily as a food storage area
- ultraviolet wavelengths shorter than violet light
- **vascular system** the system that moves carbohydrates, water, and minerals throughout the plant; includes xylem and phloem cells
- viability the ability of seeds to germinate
- water-holding capacity the ability of a growing medium to retain water
- **xeromorphic foliage** leaves adapted for plants that grow in arid conditions
- **xylem** part of the vascular system that transports water and minerals upward from the roots to the photosynthesizing cells