

Definitions of Food Groups - Appendix A

Aquatic Plants:

An aquatic plant is a plant that grows partly or wholly in water, whether rooted in the mud, or floating without anchorage. Plants that require constantly moist conditions without standing water can also be included in this group. For the purpose of this contest only examples from the following genera will be considered.

Algae: various genera

American lotus-*Nelumbo lutea*

Arrowhead/duck potato-*Sagittaria spp*

Big duckweed-*Spirodela spp*

Bladderworts-*Utricularia spp*

Bulrushes-*Scirpus spp*

Burreeds-*Sparganium spp*

Cattails-*Typha spp*

Coontail-*Ceratophyllum spp*

Cordgrass-*Spartina spp*

Duckweed-*Lemna spp*

Floating hearts-*Nymphoides spp*

Naiads-*Najas spp*

Pondweed-*Potamogeton spp*

Reshes- *Juncus spp*

Sedges –*Carex spp*

Smaratweed- *Polygonum spp*

Spikerush- *Eleocharis spp*

Waterlily- *Nymphaea spp*

Watermeals- *Wolffia spp*

Watermilfoil- *Myriophyllum spp*

Waterprimrose-*Ludwigia spp*

Waterweed- *Elodea spp*.

Bark: The tough outer covering of the woody stems and roots of trees, shrubs, and other woody plants.

Birds: May be represented by feathers, bones, skulls, feet or any part that distinguishes the class.

Buds: A small protuberance on a stem or branch, sometimes enclosed in protective scales and containing an undeveloped shoot, leaf, or flower. The bud may be represented on the branch or stem, or removed from the branch or stem.

Carrion: This is defined as stinking, rotting flesh. To be considered in this group the item must have a definite odor of decomposition, be presented in a plastic bag, or have the words this stinks on the display. A dry bone, a dry skin, or other body part does not represent carrion, but will represent other food groups. Maggots are a natural

sequella to decomposition and may be present on the carrion. They should not be considered in grouping the specimen as carrion.

Centipedes & Millipedes: elongated arthropods having many body segments Millipedes have pairs of legs.

Crayfish: small freshwater decapod crustacean that resembles a lobster. Regionally they have many names including crawdads, and crawdaddys.

Earthworms: terrestrial worm that burrows into and helps aerate soil; often surfaces when the ground is cool or wet; used as bait by anglers

Eggs: Only the eggs of vertebrate species (mammals, birds, reptiles, amphibians, fish) are considered in this category. Invertebrate eggs (insect and spider) will represent the group of the adult invertebrate.

Ferns: Fern are flowerless, seedless vascular plants having roots, stems, and fronds and reproducing by spores. Ferns may be represented by a picture, the whole plant or a part of the plant that defines it.

Fish: A fish is a poikilothermic (cold-blooded) water-dwelling vertebrate with gills.

Forbs: A more common term for them is "weed". A forb is a non-wooded, broad leaved plant other than grass, especially one growing in a field, prairie, or meadow. A scientific definition would be "herbaceous plant other than those in the Gramineae (true grasses), Cyperaceae (sedges), and Juncaceae (rushes) families, ie., any nongrass-like plant having little or no woody material. They may be represented on the contest by a single leaf or by the entire plant including the flower.

Frogs & Salamanders: This food group may be represented by the organism in any life stage except the egg.

Fruit & Berries: The display must include the soft, fleshy, pulp-covered seed.

Fungi: A kingdom of plantlike spore-forming organisms that grow in irregular masses without roots, stems, leaves, and that lack chlorophyll.

Grains: Are to be the cereal grains and include only wheat, oats, rye, barley, rice and corn. These may be represented on the test by only the seed,

the seed head, or by the entire plant including the seed head.

Grass: The leaves of the grasses are usually tall and thin with a mid rib and parallel veins. In most species the leaf forms a collar around the stem, although in some species this is modified. The grasses may be represented by the entire plant including the seed head, or by a single leaf or group of leaves.

Hard Mast: This food group includes the nuts from walnut, hickory, oak, beech, pecan, almond and the common hazel. They may be shown with the husk or without.

Insects: small invertebrate (*without a backbone*) animals, except for spiders, centipedes and millipedes, that are more or less obviously segmented

Leaves & Twigs: For the purpose of this contest this food group will always be represented by a leaf and associated woody material (twig). This is to avoid confusion with the food group forbs.

Lichens: A fungus, usually of the class Ascomycetes, that grows symbiotically with algae, resulting in a composite organism that characteristically forms a crust-like or branching growth on rocks or tree trunks. Lichens may be shown with a rock or branch or without.

Lizards: Lizards are reptiles of the order Squamata, which they share with the snakes (Ophidians). They are usually four-legged, with external ear openings and movable eyelids

Mammals: Any mammal regardless of size fits in this category. This group may be represented by a photograph, a live animal, a museum mount specimen or by any part of the mammal that is representative of the class mammals: such as teeth, hair.

Mussels: These are the freshwater mollusks found throughout the U.S. in streams with good water quality. The group may be represented by the whole organism, or by just a single shell or group of shells.

Nectar from Flowers: This food group will be represented by the flower with no other plant parts present.

Scorpions: arachnid of warm dry regions having a long segmented tail ending in a venomous sting

Seeds: A fertilized ovule containing an embryo which forms a new plant upon germination.

Snails: Snail applies to most members of the molluscan class Gastropoda that have coiled shells.

Snakes: Snakes are cold blooded legless reptiles closely related to lizards, which share the order Squamata.

Spiders: arachnid that usually has silk-spinning organs at the back end of the body; they spin silk to make cocoons for eggs or traps for prey

Tubers: Will be represented by either the nutlet of the yellow nut sedges (chufa) or by potato.

Turtle and Tortoise: Turtles are reptiles of the order Testudinata, most of whose body is shielded by a special bony shell developed from their ribs. The term turtle is usually used for the aquatic species, aquatic fresh-water turtles also being referred to as terrapins. The term is also used (esp. North America) to refer to all members of the order, including tortoises, which are predominantly land based.

Glossary

aerate: to supply or expose water with air to increase dissolved oxygen and release harmful gases.

annual: when referring to plants, those that complete their life cycle from seed to mature seed-bearing plant in one growing season.

arid: dry, receives little precipitation.

broadleaf: a plant with wide blade leaves, such as an oak or cottonwood. Seeds are born from flowering parts in contrast to conifers which bear seeds in cones.

browse: to eat

butte: a hill that rises abruptly from the surroundings. The sides are steeply sloped or with cliffs, and the top is nearly flat.

cacti: plants adapted to dry conditions. Often store water in leaves and other parts of the plant. Usually have small leaves and thorns.

canopy cover: the amount of ground covered by the branches, leaves, and stems of plants. Can specify as herbaceous, shrub, tree, or all canopy cover. Expressed as a percentage.

coastal plain: large, nearly level areas of land near ocean shores.

conifer: usually refers to needleleaf trees that bear their seeds in cones. Spruces, pines, and firs are examples.

cover: vegetation and other land features that provide areas for wildlife to hide, sleep, feed, and reproduce.

decadent: declining in health and/or productivity.

deciduous: plants that annually shed their leaves. Usually trees and shrubs.

decomposition: the natural break-down and decay of dead plant and animal material

defecating: elimination of solid body waste by animals

detrimental: having harmful effects.

dominant: the plant or animal species that is the most noticeable and common in an area. Often are a controlling force in the community where they occur.

drought: the lack of normal precipitation for an extended period of time. A long period with little or no rain.

endangered species: a species that is in danger of becoming extinct.

environment: the surroundings that affect the growth and development of an organism. The surroundings of an organism, including other plants and animals, climate, and location.

ecosystem: the plant community along with the animal community together with soil, air, water, and sunlight

evergreen: plants that do not lose all their leaves at

one time. Usually conifer trees, but also some broadleaf trees such as live oak.

excavate: to make a cavity or hole. To hollow out.

exclusion: keeping something out of an area.

fertile: rich in material needed to support plant growth.

fingerling: a small fish, especially up to one year of age

fluctuate: to vary, or rise and fall irregularly.

forage: n. refers to the vegetation eaten by animals; v. to search for food

forb: low growing herbaceous plants, both annuals and perennials. Can be shown with a flower as part of a plant. Sometimes referred to as weeds.

glean: to gather food in a systematic manner with a minimum of waste and unnecessary effort.

ground litter: layer of the forest floor consisting of decaying organic matter such as leaves, branches, and dead plants.

hardwood: deciduous or broadleaf trees.

herbaceous: all grasses and forbs having soft rather than woody stems, including flowers, plants called weeds, and the nonwoody parts of trees (e.g., leaves)

herbicide: chemicals used to control the growth of or kill undesired plants.

insecticide: chemicals used to control insects.

invertebrate: animals lacking a backbone. Some examples are insects, spiders, mollusks, and crustaceans.

irrigate: to supply cropland, parks, yards, etc., with water through the use of diversions, ditches, and pipes.

legume: plants that bear seeds in a pod. Typically have characteristics that allow them to improve the fertility of the soil. Some examples are alfalfa, clover, soybeans, and peas.

native: plant and animal species that have not been brought in from other countries; living or growing naturally in a particular region

nutrients: chemicals required for plants and animals to grow and exist.

omnivore - feeding on both animal and plant substance

perennial: a plant that lives for several years. Having a life span of more than two years.

phytoplankton: microscopic floating and suspended aquatic plants. Are the first step of the food chain in many aquatic systems.

plateau: an elevated, relatively level expanse of land. Sometimes called tableland.

regenerate: to replace lost or damaged parts with new tissue.

rejuvenate: to stimulate and return to youthful health and vigor.

riparian: on or near the bank of water areas. The land area that is influenced by the adjacent water.

savannah – grassland with scattered trees maintained by both fire and grazing

scarifies: when fire causes the hard, protective coating on some seed varieties to split open, allow the seed to begin growing (e.g. table mountain pine requires hot fire to open its pine cones)

secluded: removed or screened from view of other areas and disturbances.

sedge: grass-like plant with long narrow leaves, stems are round. Many species like wet areas.

seed bank: a reserve of seeds waiting to be released.

senescent: the growth stage in a plant or plant part (like a leaf) from full maturity to death; old age

slash: the residue left on the ground after trees are harvested.

softwood: usually refers to coniferous trees. Some deciduous trees such as aspen also have relatively soft wood.

stagnant: sluggish, not producing to potential.

stocking rate - amount of land allotted to each animal for the entire grazeable portion of the year

subclimax: a stage in succession that is short of the climax stage, but further development is inhibited by some factor(s) other than climate.

succulent: having thick fleshy leaves that conserve moisture.

terrain: the character or topography of the land.

thatch build-up: the accumulation of dead plant material, such as leaves, twigs, bark, and grass on the ground

transitional: the process of changing from one form to another.

woody: plants that have hard, bark-like material present; trees and shrubs; of or containing wood or wood fibers

zooplankton: microscopic animals that float/swim in water. Consume phytoplankton and are an important part of the aquatic food chain.